# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT





# Faculty Expertise

# **DEPARTMENTS**

**Architecture and Planning Bioscience and Engineering Chemical Engineering** Chemistry **Civil Engineering Computer Science and Engineering Electrical Engineering Department Electronics and Communication Engineering Mathematics Management Studies Materials Science and Engineering Mechanical Engineering Department Physics Humanities, Arts and Social Sciences** 

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT





# Faculty Expertise Department of Architecture And Planning

# LIST OF FACULTY

- >Dr. P.P.Anilkumar
- **▶Dr. Naseer M A**
- > Dr. Kasthurba A. K.
- >Dr. Chithra K
- > Dr. Mohammed Firoz C
- >Dr. Shyni Anilkumar
- >Dr. Bimal P
- >Dr. Anjana Bhagyanathan
- >Dr. Amritha P K
- >Dr. Deepthi Bendi
- >Dr. Sanil Kumar
- >Ar. Ritesh Ranjan

- **▶Dr. Susanta Banerjee**
- >Dr. Jayasree T K
- > Dr. Kiruthiga K
- >Ar. Kiriti Sahoo
- >Ar. Samiksha Srichandan
- >Ar. Abhishek Kumar
- >Dr. A. Manoj
- >Ar.Kuladeep Kumar Sadevi
- >Ar. Vivek Kumar Chenna



## **Department: Architecture and Planning**



Name: Dr. P.Anilkumar

Qualification: Ph.D., (IIT Madras)

Designation : Professor

Contact Number : 0495 2286903, 0495 2800785

Email : ppa@nitc.ac.in

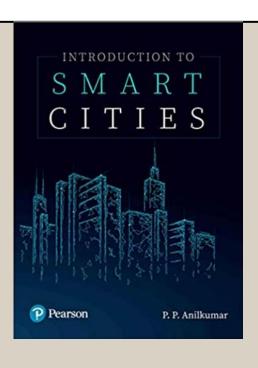
Website address : ttps://nitc.ac.in/department/department-of-architecture-and-planning/faculty-and-staff/faculty/97bf5b23-1daa-485f-a621-e8cdfc666326

Google Scholar ID :a9rVnbEAAAAJ

Scopus ID :22984362600

Orcid ID :0000-0002-2255-2688

- Sustainable Cities and Urban development
- Smart city planning
- Environmental Planning
- Urban Infrastructure development issues
- Urbanization and sprawl management
- Urban open space planning
- Landuse impacts on the Urban environment
- Coastal cities and their specific issues
- Currently guiding PhD scholars in various urban planning and architecture domains such as sustainable building concepts, urban sprawl, open space planning in smart cities and smart city governance





# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Architecture and Planning**



Name : Dr. Naseer M A

Qualification: Ph.D., (IIT Kharagpur)

Designation :Professor

Contact Number : 9188700657

Email : naseer@nitc.ac.in

Website address : https://nitc.ac.in/department/

department-of-architecture and-planning/faculty-and-staff/

faculty/0f200800-e22b472d-833f-3fab4ff8f738

Google Scholar ID :y6mLXQcAAAAJ

Scopus ID :36841846000

Orcid ID :0000-0003-2968-4381

# Area of Research:

- Transportation Planning
- Remote Sensing and GIS Application in Urban Planning
- Building Science
- Thermal Performance of Buildings

### **Current Research Areas:**

- Walkability in Urban Area
- Land value in Urban Area
- Port-based Containerized Goods Transportation
- Thermal Comfort Study of Kerala Traditional buildings
- Thermal performance of building roofs

### Important External Consultancy undertaken:

- Tribal Hamlet Development at Attappadi, Palakkad, Kerala
- Administrative Block for University of Calicut
- Commercial building for Koyilandy Municipality
- Acoustical and Interior design for Municipal Town Hall at Koyilandy



# **Department: Architecture and Planning**

Name: Dr. Kasthurba A. K.

Qualification: Ph.D., (IIT Madras)

Designation :Professor

Contact Number :9946006309

Email : kasthurba@nitc.ac.in

Website address

https://nitc.ac.in/department/department-ofarchitecture-and-planning/faculty-and-staff/

faculty/0b819059-4598-486a-87c4-7cabc3407eb7

Google Scholar ID :

Scopus ID : 6506926192

Orcid ID :0000-0001-6160-4068

- Urban Renewal and conservation
- Heritage management and Tourism
- Architectural conservation
- Energy-efficient building
- Green Architecture
- Sustainable constructions
- Environmental-friendly design approaches



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# Department: Architecture and Planning

Name: Dr. Chithra K

Qualification: Ph.D., (NIT Calicut)

Designation : Associate Professor

Contact Number : 9633716494

Email : chithrak@nitc.ac.in

Website address

https://nitc.ac.in/department/department-of-architecture-and-planning/faculty-and-staff/faculty/b0b268f4-d5d3-4b84-b01d-

af35122d60dd

Google Scholar ID : SNfc0IYAAAAJ&hl

Scopus ID : 57216709345

Orcid ID :0000-0002-6562-3415

Area of Research:

Sustainability assessment system development

Impact assessment studies

Green building rating system development

Architectural Design Pedagogy

Shape grammer studies

Sustainable urban landuse planning

 Currently guiding PhD students in various urban planning and architecture domains such as urban open space studies, energy management, ecosystem
 services, shape grammar, universal design, and Architectural Pedagogy etc



# **Department: Architecture and Planning**



Name : Dr. Mohammed Firoz C

Qualification: Ph.D., (IIT Kharagpur)

Designation : Associate Professor

Contact Number : 9895254353

Email : firoz@nitc.ac.in

Website address :

https://nitc.ac.in/department/department-of-

architecture-and-planning/faculty-and-staff/faculty

/c9cd1bb0-67a4-4edb-8af3-3027e36ff650

Google Scholar ID : 88vOQ\_EAAAAJ&hl

Scopus ID : 57208471201

Orcid ID :0000-0001-5742-8989

Vidhwan 98094

# Area of Research:

- Sustainable development of cities and settlements,
- Climate Risk assessment and resilience of Cities,
- Peri Urban studies,
- Quality of life and Livability in urban areas,
- Socio economic development of Cities.
- Urban Design

Currently guiding PhD students in various domains of Urban and Regional planning ,Urban Design, Social and Economic development of Cities, Environmental Management etc



## **Department: Architecture and Planning**

Name : Dr. Shyni Anilkumar

Qualification: Ph.D., (IIT Kharagpur)

Designation :Assistant Professor

Contact Number :9349593048

Email :shyni@nitc.ac.in

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architecture-and-planning/faculty-and-

staff/faculty/80932d08-54b0-4799-9e39-24dda463bbbc

Google Scholar ID :211A91oAAAAJ

Scopus ID :57221685680

Orcid ID :0000-0001-6233-4522

- Housing and Habitat Planning
- Disaster Management
- Post Disaster Housing Reconstruction
- Climate Resilient Development
- Climate Vulnerability and Risk Assessment
- WaSH Infrastructure Planning
- Tribal Development



# **Department: Architecture and Planning**



Name: Dr. Bimal P

Qualification: Ph.D., (NIT Calicut)

Designation :Assistant Professor

Contact Number : 88910 00580

Email :bimalp@nitc.ac.in

Website address

https://nitc.ac.in/department/department-of-

architecture-and-planning/faculty-and-

staff/faculty/0a499682-3acc-42a7-9db5-a40dd34a2f5f

Google Scholar ID :sJuBCK4AAAAJ

Scopus ID :57194384545

Orcid ID :0000-0002-9997-2859

- Urban modelling
- GIS applications
- Smart city
- Building automation
- Parametric design
- Architectural visualization



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Architecture and Planning**

Name : Dr. Anjana Bhagyanathan

Qualification: Ph.D., (NIT Calicut)

Designation :Assistant Professor

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https://nitc.ac.in/department/department-of-

architecture-and-planning/faculty-and-

staff/faculty/0a4d0970-dac3-4b34-951b-8cab0aa0aa09

Google Scholar ID :YiAGmGgAAAAJ&hl

Scopus ID :57201067585

Orcid ID :0000-0002-2596-7619

- GIS applications in Ecological Planning and watershed management
- Landscape perception and ecological design
- Traditional ecological knowledge and conservation with special reference to sacred groves
- Spatial mapping of societal attitudes towards the environment
- Urban growth patterns with reference to landscape ecology
- Ecosystem and human impact assessment



### **Department: Architecture and Planning**

Name : Dr. Amritha P K

Qualification: Ph.D., (NIT Calicut)

Designation :Assistant Professor

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Email : amrithapk@nitc.ac.in

Website address

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architecture-and-planning/faculty-and-

staff/faculty/8f6af5df-d820-4bde-89f0-41face575ecc

Google Scholar ID : XbVe9VwAAAAJ

Scopus ID : 57190862491

Orcid ID : 0000-0002-2503-7120

- Landscape Architecture
- Landscape Urbanism
- Landscape conservation and restoration
- Environmental Planning
- Sustainable waste management
- Currently guiding PhD students in various landscape, urban planning and architecture domains such as Green infrastructure planning, Solid waste management, Universal design, urban open space studies, Energy efficiency, Indian knowledge systems and Architectural Pedagogy etc.



### **Department: Architecture and Planning**

Manchester)

Name: Dr. Deepthi Bendi

Qualification: Ph.D.,

(University of Salford, UK)

Designation :Assistant Professor

Contact Number :9966077589

Email :deepthib@nitc.ac.in

Website address

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architecture-and-planning/faculty-and-

staff/faculty/cb9b5a0a-7666-4669-b26a-d26a60c62800

Google Scholar ID :XVJ3PHIAAAAJ

Scopus ID :55189548200

Orcid ID :0000-0002-46196-789

- Off-Site Construction/prefabrication
- Modern Methods of Construction and Operational efficiency
- Construction Waste Management
- Education and Sustainable Development Goals
- Design Thinking



# **Department: Architecture and Planning**

Name : Sanil Kumar

Qualification: Ph.D., (IIT Roorkee)

Designation : Assistant Professor

Contact Number :8368108675/8439742643

Email :sanil@nitc.ac.in

Website address:

https://nitc.ac.in/department/department-ofarchitecture-and-planning/faculty-andstaff/faculty/page/2

Google Scholar ID :rzjSjxkAAAAJ&hl

Scopus ID :

Orcid ID :0000-0002-1781-4946

Area of Research:

Wetland Management

Wetland Planning

Integrated Planning

Architectural Pedagogy

Urban Energy Modeling

 Currently researching subjects related to Wetland Management, Remote Sensing Applications, Architectural Pedagogy and Research Methods. Guiding PhDs on the subject of Urban Energy Modeling, Wetland Management, Urban Resilience, and Transit-Oriented Development.

idwan ID



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Architecture and Planning**

Name: Ar. Ritesh Ranjan

Qualification: B. Arch. (NIT Trichy)

M. Urban Planning (BIT Mesra)

Designation : Assistant Professor

Contact Number : 8797540945

Email : ritesh@nitc.ac.in

Website address

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<u>architecture-and-planning/faculty-and-</u>

staff/faculty/757b66a0-1589-449b-abe0-3e4b2ab0e7f1

Google Scholar ID :

Scopus ID :

Orcid ID :

- Liveability
- Rural Development
- Artificial Intelligence and Urban Governance
- Climate Change
- Sustainable Urbanism, Leisure, and Place making
- Currently guiding M Plan students in various urban planning such as AI in Urban Governance, Sponge Cities, Water Positive Campus etc.



### **Department: Architecture and Planning**



Name: Dr. Susanta Banerjee

Qualification: Ph.D., (IIT Dhanbad)

Designation : Assistant Professor

Contact Number : 9523010008

Email : susanta@nitc.ac.in

Website address

https://nitc.ac.in/department/department-of-

architecture-and-planning/faculty-and-

staff/faculty/090c7ca2-849e-4130-addc-e74e974ac20e

Google Scholar ID : hQaVdGgAAAAJ&hl

Scopus ID : <u>57224145823</u>

Orcid ID :0000-0001-8239-0898

- Masonry Structure
- Earthquake Engineering
- Structural Dynamics
- Concrete Structure



## **Department: Architecture and Planning**



Name: Dr. Jayasree T K

Qualification: Ph.D.(NIT Tiruchirappalli)

Designation : Assistant Professor

Contact Number : 8547515797

Email : jayasreetk@nitc.ac.in

Website address

https://nitc.ac.in/department/department-of-

architecture-and-planning/faculty-and-

staff/faculty/f45bde97-b706-4521-83d7-7fec248c6547

Google Scholar ID : tuSdmO4AAAAJ

Scopus ID : 57221523105

Orcid ID : 0000-0003-3518-202X

- Sustainable Architecture
- Climate responsive design and Energy Efficiency
- Thermal Comfort in built environments
- Natural Ventilation
- Computational Fluid Dynamics for ventilation and comfort
- Smart buildings and Building Simulation
- Green buildings and rating systems
- Professional certifications:
  - IGBC Accredited Professional
  - GRIHA Certified Professional
  - ASSOCHAM GEM Certified Professional.



### **Department: Architecture and Planning**



Name: Dr. Kiruthiga K

Qualification: Ph.D., (NITT)

Designation : Assistant Professor

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Email : kiruthigak@nitc.ac.in

Website address :

https://nitc.ac.in/department/department-of-

architecture-and-planning/faculty-and-

staff/faculty/fb0212fc-3890-43c1-9a52-bd47820da1f1

Google Scholar ID : eYv0W2QAAAAJ&hl

Scopus ID : 57192694948

Orcid ID : 0000-0003-4957-207X

- Urban Heritage and Conservation
- Architectural Heritage
- Historic temple towns
- Urban Heritage Management
- Outdoor Thermal Environment
- Energy Retrofitting in historic buildings



### **Department: Architecture and Planning**

Name: Ar. Kiriti Sahoo

Qualification: B. Arch. (NIT Trichy)

M.Arch. (University of Arizona, USA)

Designation :Assistant Professor

Contact Number :9916459169

Email : kiritisahoo@nitc.ac.in

Website address :

https://nitc.ac.in/department/department-of-architecture-and-planning/faculty-and-staff/faculty/0e828751-85f8-

4e17-8fef-824b121f39dd

Google Scholar ID : SAaglfYAAAAJ

Scopus ID :

Orcid ID :

- Natural Ventilation Design and Thermal Comfort
- Green building design and certification
- Performance Simulation of Passive Design



# **Department: Architecture and Planning**



Name: Samiksha Srichandan

Qualification: M.Arch (SPA Delhi)

Designation :Assistant Professor

Contact Number :9891758530

Email :samikshas@nitc.ac.in

Website address :

https://nitc.ac.in/department/department-of-

architecture-and-planning/faculty-and-

staff/faculty/33ef6ace-7d7c-49bb-9588-672f0286960f

Google Scholar ID :

Scopus ID : 57418278400

Orcid ID : 0000-0002-1946-7618

- Cultural Heritage Conservation
- Traditional Knowledge Systems and Sustainable Practices
- Historical Networks and Cultural Routes.



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

# **Department: Architecture and Planning**

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

Name: Abhishek Kumar

Qualification: M.U.R.P. (NIT Patna)

Ph.D. - IIT Roorkee (pursuing)

Designation : Assistant Professor

Contact Number : 9546382011

Email : abhishekkumar@nitc.ac.in

Website address

https://nitc.ac.in/department/department-of-

architecture-and-planning/faculty-and-

staff/faculty/7e8ff070-3da7-4b21-821b-13a56b360e05

Google Scholar ID : u6CG3zYAAAAJ

Scopus ID

Orcid ID :0000-0003-2930-9135

Area of Research:

Heritage Planning and Management

Urban Planning and Conservation

Cultural Heritage and Built Environment

Heritage Interpretation and Research

Sustainable Cities and Indigenous Communities

Heritage Inclusive Sustainable Planning and Development

Urban Renewal, Heritage Precinct Regeneration

Cultural and Heritage Tourism

Architectural Heritage and Documentation



### **Department: Architecture and Planning**

Name: Dr. A. Manoj

Qualification: Ph.D., (NITK)

Designation : Assistant Professor

Contact Number : 9481756900

Email : amanojprabhu@nitc.ac.in

Website address

https://nitc.ac.in/department/department-of-

architecture-and-planning/faculty-and-

staff/faculty/313c1c2b-c1d1-4284-bbd7-c29a643367f8

Google Scholar ID : nDzbjA0AAAJ

Scopus ID : 57322509300

Orcid ID : 0000-0002-4915-1219

- POD and Math Modelling
- Computational Mechanics
- Reinforced Concrete Structures
- Pushover Analysis
- Structural Dynamics
- Bio Concrete
- Advanced oxidation process



### **Department: Architecture and Planning**

Name: Kuladeep Kumar Sadevi

Qualification: M. Plan, B. Arch

Designation : Assistant Professor

Contact Number : 9014110448

Email : kuladeepks@nitc.ac.in

Website address

https://nitc.ac.in/department/department-of-

architecture-and-planning/faculty-and-

staff/faculty/50f0b54c-8131-4396-9d63-9d013359d1bb

Scopus ID : 57218224730

Orcid ID :0000-0001-8752-4031

- Energy Efficiency in Buildings
- Green Building Certification and Analysis
- Passive Solar Design in Architecture
- Thermal Performance of Building Envelopes
- Urban Sustainability and Planning
- Carbon Emission Reduction Strategies for Buildings and Urban Environments



### **Department: Architecture and Planning**

Name: Vivek Kumar Chenna

Qualification: M. Tech, B. Arch

Designation : Assistant Professor

Contact Number : 9891138909

Email : vivekkumarchenna@nitc.ac.in

Website address :

- Construction Management
- Artificial Intelligence in Architecture Design
- Building Science
- Passive Solar Design in Architecture
- Thermal Performance of Building Envelopes

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT





# Faculty Expertise Department of Bioscience And Engineering

# LIST OF FACULTY

> Dr. Rathinasamy K

Dr. Ilanila I. P.

> Dr. Md. Anaul Kabir

> Dr. Indumathi Sathisaran

> Dr. Rajanikant G. K.

> Dr. K. Gopal Shankar

> Dr. A. Santhiagu

> Dr. K. Rajasekhara Reddy

> Dr. Suchithra.T.V

> Dr. Ravindra Kumar

> <u>Dr. Baiju G Nair</u>

> Dr. Saket Chandra

> Dr. Suresh PS

> Dr. Shabina Ashraf

> Dr. Cecil Antony

> Dr. Tom Skaria



## **Department: Bioscience and Engineering**

: Dr. Rathinasamy K Name

Qualification: Ph.D., (IIT BOMBAY)

Designation : Professor

**Contact Number** : 0495-2285455

: rathin@nitc.ac.in Email

Website address : www.nitc.ac.in

Google Scholar ID : J-YDWvkAAAAJ

Scopus ID 8562189900

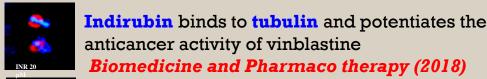
Orcid ID :0000-0001-9685-135X Identification and characterization of drugs targeting mammalian and bacterial cell division proteins

Area of Research: Anticancer drug research, Cytoskeleton, Biophysics

Anticancer potential of the natural products obtained from

plants



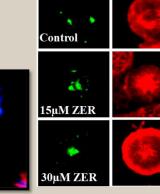












Biomedicine and Pharmaco therapy (2018)

Microtubule









Curcumin binds to Eg5 and induces monopolar spindles.

Int J Biol Macromol. (2018)

**Zerumbone** isolated from *Zingiber* zerumbet inhibited cell proliferation through tubulin binding. Cell Proliferation 2019



# **Department: Bioscience and Engineering**



Name : Dr. Md. Anaul Kabir

Qualification : PhD (IIT Bombay)

Post doc : University of

Rochester( NY, USA)

Designation : Professor

Contact No. : 9745009051

Email : anaulk@nitc.ac.in

website : https://nitc.ac.in/schools/school-

of-biotechnology/faculty-and-staff/faculty/34057a11-

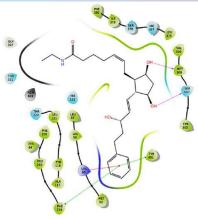
9559-4e30-9892-c2f606e76cd1

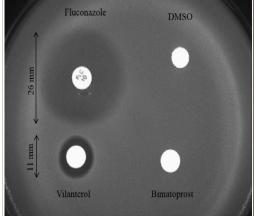
Orchid ID: 00000 00003 0042 7795

### Area of Research

# Domain of Research: Molecular Biology

- Yeast Genetics: Molecular Genetics of Saccharomyces cerevisea and Candida Albicans
- Genetic Engineering
- Gene Regulation
- Protein Folding
- Antifungal Studies
- Functional Genomics









# **Department: Bioscience and Engineering**

Name: Dr. Rajanikant G. K.

Qualification: Ph.D., (MAHE, Manipal,India)

Designation : Professor

Contact Number : +91 495 228 5452 (Off),

+91 949 520 4863 (Mob)

Email : rajanikant@nitc.ac.in

Website address :

https://nitc.ac.in/schools/school-of-biotechnology/faculty-and-

staff/faculty/196f1a9c-5ae4-4da2-b266-1c7ce35565e8

Google Scholar:

https://scholar.google.co.in/citations?user=vOpT0GgAAAAJ&hl=en

Scopus ID : N/A

ORCID ID : 0000-0001-9754-997X

# Area of Research:

- Computational Drug Design
- Network pharmacology
- Cerebral ischemia



Number of PhDs & Post-doctoral Scholars

(2018 onwards)

# Citation Indices

Citations	-	3281
h-index	-	31
i10- index	-	61

	Submitted	Awarded	Ongoing
PhDs	1	10	7
PDFs	-	1	1

# Patents, Conference Abstracts (2018 onwards)

Patents (Accepted)	-	01
Patents (Submitted)	-	11
Conference Abstracts	-	06

# Publications, Books & Book Chapters (2018 onwards)

Publications	-	33
Books	ı	01
Book Chapters	1	09



### **Department: Bioscience and Engineering**

Area of Research: Bioprocess technology coupled with molecular biology



Name : Dr. A. SANTHIAGU

Qualification: Ph.D., (BHU, Varanasi)

Designation : Professor

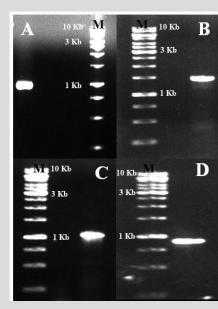
Contact Number : 0495-2285454

Email : asanthiagu@nitc.ac.in

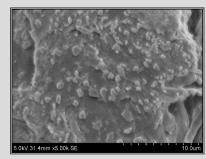
Website address : <u>National Institute of Technology</u>

(nitc.ac.in)

- i. Identification and screening of novel microorganisms for the bioproduction of valuable therapeutic products
- i. Strain improvement through genetic manipulation of industrially useful microorganisms.



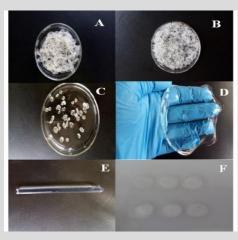
PCR products of Gel Q,B K and L



SEM image of Gellan gum



Ethanol resistant strain



Different structures of recombinant Gellan gum



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ഒടക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

## **Department: Bioscience and Engineering**



Name : Suchithra.T.V

Qualification: Ph.D.,

(University of Calicut)

Designation : Professor

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Email :drsuchithratv@nitc.ac.in

Website address : https://nitc.ac.in/schools/schoolof-biotechnology/faculty-and-staff/faculty/eed7a6ba-

74d3-4719-9b62-a065a2c655c2

Google Scholar ID : OR8HuA4AAAJ

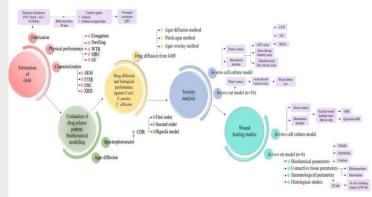
Scopus ID :6504257366

Orcid ID :0000-0001-5274-937X

# Area of Research: Microbiology and Bioprospecting

- Various products mainly from Microbes:
  - Bioprospecting: Bioplastic, Bioadhesives, Bioleather, Biopigments,
     Biocement, Bioactive compound production, burn wound care bioinspired ydrogel,
     Artificial flavours
  - Bioremediation: Plant and Bacterial MFC,PAH degradation, Aromatic Hydrocarbon,and dye degradation







# **Department: Bioscience and Engineering**

Name: Dr. Baiju G Nair

Qualification: Dr.Eng Tokyo, Japan

Designation : Associate Professor

Contact Number : 7034011575

Email :bgnair@nitc.ac.in

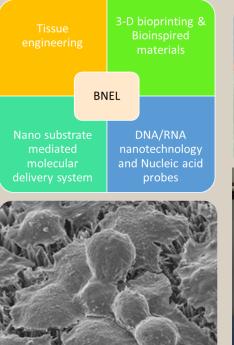
Website address : <u>NIT Calicut (irins.org)</u>

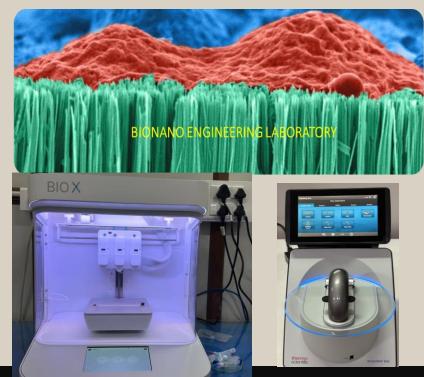
Google Scholar ID :BI00JwcAAAAJ&hl=en

Scopus ID :

Orcid ID :0000-0002-1616-8807

- Tissue engineering and regenerative medicine.
- 3-D Bioprinting and bioinspired materials
- Small molecules and stem cell technology
- Lab on chips and organ





### **Department: Bioscience and Engineering**



Name : Dr . Suresh PS

Qualification: Ph.D., (IISc, Bengaluru)

Postdoc- Medical College of Wisconsin, USA Wexner Medical Centre, OSU, USA

Designation : Associate Professor

Contact Number : 8861939598

Email : sureshps@nitc.ac.in

Website address : https://nitc.ac.in/schools/school-

of-biotechnology/faculty-and-

staff/faculty/b3ac86ec-ebb9-4d25-

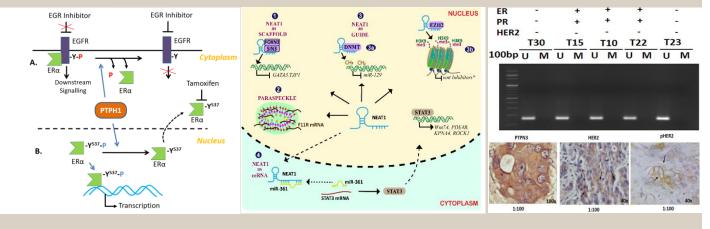
b909-bc9d005e57e0

Scopus ID : 35312514900

Orcid ID :0000-0002-6126-2974

### **Area of Research:**

- Molecular Oncology, Cancer cell signaling, Epigenetics
- Non-coding RNAs in health and disease, Signal transduction Biomolecular interaction
   Breast cancer signaling/epigenetics



Key Research Publications (Total Impact factor= 336.67 JCR Clarivate, 60 publications)

Nature Medicine, 2010; Journal of Biological chemistry, 2012; Molecular Cancer therapeutics, 2012; Journal of Cellular Physiology, 2019; Journal of Steroid Biochemistry and Molecular Biology, 2021; Journal of Molecular Structure, 2022

Funding support (Past & Present): DBT, DST-SERB, UGC, JSPS, I-STEM, DST-FIST, UGC SAP, DST PURSE, NIT Calicut (Completed projects-5) > 2 Crore INR



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ഒെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Bioscience and Engineering**



Name: Dr. Cecil Antony

Qualification: Ph.D.,

(University of Delhi)

Designation : Assistant Professor

Contact Number :+91 7708877621

Email :cecil@nitc.ac.in

Website address : <a href="https://nitc.ac.in/schools/school-">https://nitc.ac.in/schools/school-</a>

of-biotechnology/faculty-and-staff/faculty/233dd0d6-

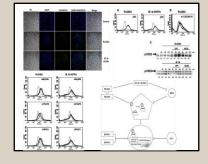
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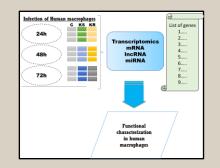
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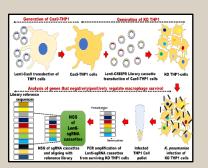
Scopus ID :36236806700

Orcid ID :0000-0001-7622-4586

- My lab is studying the host-pathogen interaction to elucidate the suppressor responses induced by microbial pathogens. my lab is also interested in isolating high-affinity peptides/antibodies against microbial antigens by harnessing combinatorial peptide/antibody libraries.
- We exploit whole-genome CRISPR libraries to identify host genes that modulate protective immunity against microbial infections.









# **Department: Bioscience and Engineering**



Name: Dr. Ilanila I. P.

Qualification: Ph.D.,

(Indian Institute Science)

Designation : Assistant Professor – Grade II

Contact Number : 9972299536

Email : ilanila@nitc.ac.in

Website address : https://nitc.ac.in/schools/school-

of-biotechnology/faculty-and-staff/faculty/e7a05452-

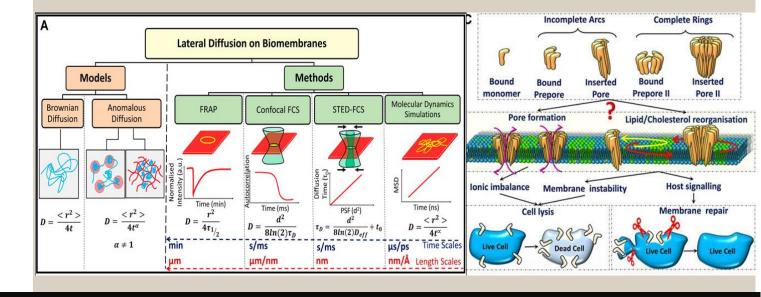
26cf-498a-a2fe-e66406a99c42

Google Scholar ID : IevNfNsAAAAJ&hl=en

Scopus ID : 57226266771

Orcid ID : 0000-0002-1920-0200

- My area of expertise lies in molecular biophysical characterization of lipidprotein interactions.
- Extracting the changes on model and live cell membrane dynamics and surface properties upon interaction with external molecules.
- Some of the techniques used for elucidating the biophysical properties include Confocal-FCS, STED-FCS, FRAP, FRET, AFM.





### **Department: Bioscience and Engineering**

#### Area of Research:



Name : Dr. Indumathi Sathisaran

Qualification: Ph.D.,

(Indian Institute of Technology Gandhinagar)

Designation : Assistant Professor (Grade II)

Contact Number : +91-9585583690

Email : indumathis@nitc.ac.in

Website address : https://nitc.ac.in/schools/school-of-

biotechnology/faculty-and-staff/faculty/4553d54a-3420-4540-8d55-

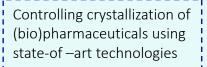
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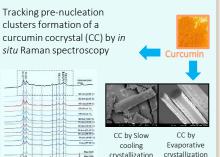
Google Scholar ID :

https://scholar.google.com/citations?user=TSwc-SIAAAAJ&hl=en

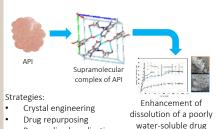
Scopus ID : 57194763062

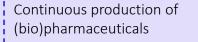
ORCID ID : 0000-0002-2505-4596





Strategies for enhancing physicochemical properties of Active Pharmaceutical Ingredients (APIs)







Nanoformulation

3D Printing

Drug delivery systems



Biomimetic 3D disease models as therapeutic screening tools

Personalized medication



Cell invasion from 3D models of Triple Negative Breast Cancer (TNBC) cells prepared by hanging drop culture method



3D bioprinted TNBC cell construct prepar using an extrusion-based bioprinter

Biomimetic materials for environmental applications



Controlled release urea (CRU)

Minimization of soil pollution



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്നോളജി കാലിക്കറ്റ്

# राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name : Dr. K. Gopal Shankar

Qualification: Ph.D., (University of Bologna, Italy)

Designation : Assistant Professor I

Contact Number : 8122424981

Email : gopalshankar@nitc.ac.in

Website address

https://nitc.ac.in/schools/school-of-biotechnology

/faculty-and-staff/faculty/3187d2c0-f714-42c6-b12e-b3759dc2dd97

Google Scholar

https://scholar.google.com/citations?user=sxaWV8sAAAAJ&hl=

en&oi=ao

Scopus ID : 57192102008

ORCID ID : 0000-0003-0608-4658

### **Department: Bioscience and Engineering**

Area of Research:

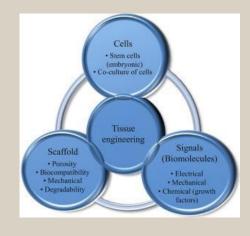
Biomaterials for organ/tissue repair

3D bioprinting for regenerative

Medicine

Bioinspired scaffolds for tissue

**Engineering applications** 





Printing of complex human tissue structures



### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Bioscience and Engineering**

Name: Dr. K. Rajasekhara Reddy

Qualification: Ph.D. Biochemistry

University of Houston

Designation : Assistant Professor

Contact Number : +919000946070

Email : rajasekharareddy@nitc.ac.in

Website address : https://nitc.ac.in/schools/school-of-

biotechnology/faculty-and-staff/faculty/3540698e-ac08-480c-aeb2-

793f9d7536ae

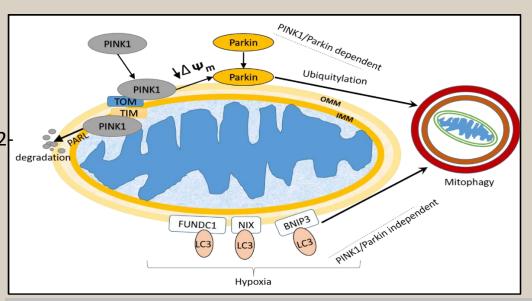
Google Scholar ID : 3ya\_rVAAAAAJ

Scopus ID : 56321464400

Orcid ID : 0000-0003-4710-7094

#### Area of Research:

- Cancer signaling, Cancer metabolism.
- Characterization of Mitophagy mechanisms in cancer cells
- Study the protein- protein interactions involved in TMEMs in cancer
- Exploring the Molecular Mechanisms of Medicinal Plants in Anticancer Therapy



Molecular mechanims involved mitophagy of Cancer cells



### **Department: Bioscience and Engineering**



Name : Dr. Ravindra Kumar

Qualification: Ph.D., (Institute of Life

Sciences Bhubaneswar)

PostDoc : University of Illinois Chicago

USA

Designation : Assistant Professor

Contact Number : +91-9556213211

Email : ravindra@nitc.ac.in

Website address: <a href="https://www.linkedin.com/in/ravindra-">https://www.linkedin.com/in/ravindra-</a>

kumar-phd-nitc/

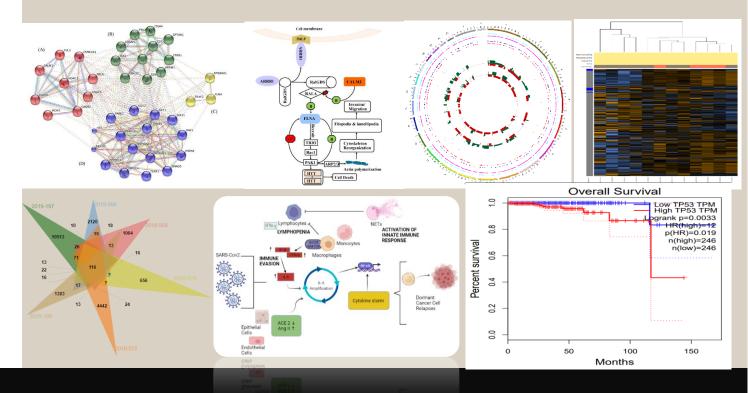
Scholar ID: hz-6EOEAAAJ

Scopus ID : <u>57206755131</u>

Orcid ID : 0000-0001-5577-9048

#### Area of Research:

 My Research Area is broadly Computational Biology and system biology. It is focused on functional genomics, network biology, NGS data analysis to understand the cancer biology. My Lab is also working to improve and development new methods, tools for high throughput data analysis and Computer aided drug designing and discovery using AI and ML.





### **Department: Bioscience and Engineering**



Name : Dr. Saket Chandra

Qualification: Ph.D., (BIT Mesra)

Designation: Assistant Professor (Gr. II)

Contact Number :

Email: saketchandra@nitc.ac.in

Website address:

https://nitc.ac.in/schools/school-of-biotechnology/faculty-and-staff/faculty/79c6c986-1fc5-4d96-94f5-fcd301e2658a

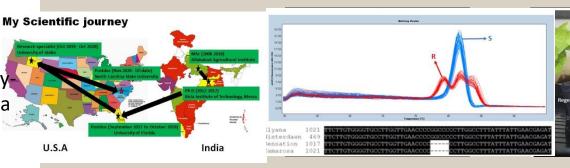
Google Scholar ID: nU20KG8AAAAJ

Scopus ID: 56647435100

Orcid ID: 0000-0001-5201-5106

#### Area of Research:

- My research area revolves around genomics and biotechnology of plants especially,
- a) Plant-Pathogen interaction and herbicide resistance
- b) Conventional molecular genetics
- c) Bioinformatics (Next-generation sequencing analysis)



Marker development

Genome editing



### **Department: Bioscience and Engineering**

Name: Shabina Ashraf

Qualification: B. Tech, (NIT,Rourkela)

Ph.D., IIT Delhi,

Marie Curie Postdoctoral Fellow at Univ. Rennes, France.

Designation: Assistant Professor

Contact Number: +91-8019611035

Email: shabinaashraf@nitc.ac.in

Website address :

Google Scholar ID: qLM0j9sAAAAJ

Scopus ID: 57193831220

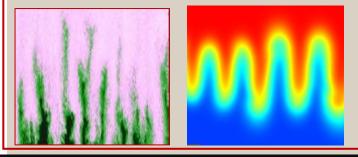
ORCID ID: 0000-0002-8063-5166

Area of Research:

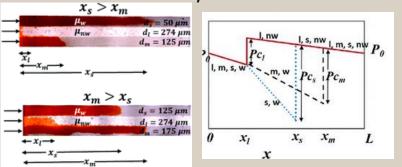
Investigating flow through porous media using in-house experimental setups



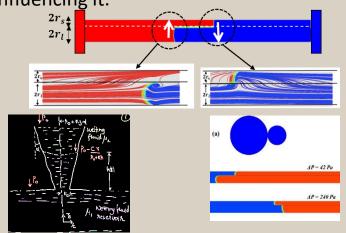
Investigating Rayleigh-Taylor instabilities for  $CO_2$  trapping in subsurface saline aquifers



state-of-art dynamic imaging techniques combined with an extensive image analysis to understand the flow dynamics



Addressing phenomenon of imbibition at micro and macro scales, and the factors influencing it.





### **Department: Bioscience and Engineering**



Name : Dr. TOM SKARIA

Qualification: Ph.D., (University of

Zurich, Switzerland)

Designation : Assistant Professor (Grade I)

Contact Number : 04952285473

Email : tomskaria@nitc.ac.in

Website address : https://nitc.ac.in/schools/school-

of-biotechnology/faculty-and-staff/faculty/4a42d14e-

775e-46ae-bf92-27bc51fe9005

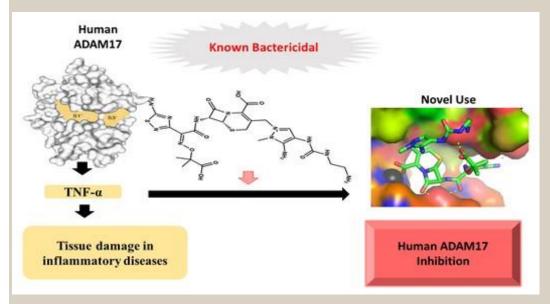
Google Scholar ID : 52YAPXUAAAAJ

Scopus ID : 57189461299

Orcid ID : 0000-0002-6822-9325

#### Area of Research:

- Immunology, Inflammation, Cytokine Signaling, Vascular Drug Targets
- Identification of novel mediators of immune response with potent inflammatory activity



 Therapeutic targeting of inflammatory signaling pathway components

 Dissect the downstream signaling pathway of the novel inflammatory mediators in PBMNC and vascular endothelial cells

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT





# Faculty Expertise Department of Chemical Engineering

# LIST OF FACULTY

- > Dr. Shiny Joseph
- Dr. Sivasubramanian V
- > Dr. Lity Alen Varghese
- > Dr. Aparna. K
- > Dr. Malladi V Pavan Kumar
- > Dr. S. Bhuvaneshwari
- > Dr. Haribabu. K
- > Dr.Panneerselvam Ranganathan
- > Dr. Vineesh Ravi
- > Dr. Chandra Shekar B
- > Dr. Noel Jacob Kaleekkal
- > Dr. Sudev Das
- Dr. Vakamalla Tejaswi Sreeram Kumar Reddy

- Dr. Susmita Das
- Dr. Dhanya Ram V
- Dr.Fathima Fasmin
- Dr. Swapna Reddy
- > Dr. Praveen Kumar G
- Dr. Yogesh Kumar
- Dr. Subhasis Mandal
- > Dr. Aniruddha Sanyal
- Dr. Shivanand Kumar Veesam
- Dr. Ahammed Sherief KY
- > Dr. Ranjith P.M
- > Dr. Debashish Panda
- Dr. Bharathi Ganesan R
- > Dr. Ashish Soren



## നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Chemical Engineering**



Name : Dr. Shiny Joseph

Qualification: Ph.D., (IIT Madras)

Designation : Professor

Contact Number : 0495-2285404 Email : shiny@nitc.ac.in

Website address

https://nitc.ac.in/department/chemical-

engineering/faculty-and-staff/faculty/c0cfb9b3-b332-45c5-

83b2-e90cb38a7aa1

Google Scholar :

Scopus ID : <u>55247158000</u>

Orcid ID : 0000-0002-2253-7090

- Membrane applications: direct methanol fuel cell, dairy effluent treatment, chromium removal from wastewater and water purification;
- Fuel cell Performance of passive alkaline direct methanol fuel cell



### **Department: Chemical Engineering**



Name: Dr. V . Sivasubramanian

Qualification: Ph.D.,

( A.C.College of Tech., Anna

University – Chennai)

Designation : Professor and Former Head

Contact Number : 9074842967

Email : siva@nitc.ac.in

Website address:

https://nitc.ac.in/department/chemical-engineering/faculty-and-staff/faculty/4c70bb07-40fe-4c2d-8beb-

00e14a34b29c

Google Scholar ID: https://scholar.google.com/

citations?user=0-LYWmMAAAAJ

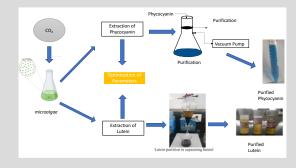
Scopus ID: https://www.scopus.com/authid/

detail.uri?authorId=14029117900

Orcid ID : https://orcid.org/0000-0002-7883-8124

#### Area of Research:

- Write two to three points about your area of expertise/Current area of work.
- 1.The main research area focuses on combination of Advanced Oxidation Process and Bioremediation for heavy metal removal from waste water. Application of microbes for heavy metal removal in Bioremediation whereas visible light active photocatalysts where used for cadmium reduction in photocatalysis.
- 2.Microalgae are known for their abundance of vitamins, lipids, and a wide array of other essential biomolecules, making them a highly valuable resource. The current focus of research revolves around two key areas: carbon dioxide sequestration and the extraction of bioproducts from microalgae. By fine-tuning of various parameters and employing advanced techniques, the aim is to enhance the efficiency and productivity of microalgae-based systems, thereby contributing to sustainable and eco-friendly solutions in areas such as biofuel production, pharmaceuticals, nutraceuticals, and other applications.



#### **Advanced Oxidation Processes**

- Advanced oxidation processes (AOPs) are used to oxidized organic compound that are not degrade in biological or secondary stage of water treatment.
- In oxidation process, It may not be necessary to oxidize a given compound or group of compound completely.
- Partial oxidation is sufficient to render specific compound more amenable to subsequent biological treatment or to reduce their toxicity.



### **Department: Chemical Engineering**



Name : Lity Alen Varghese

Qualification: Ph.D., (CUSAT)

Designation : Professor

Contact Number : 9446929637 (M) 2285403 (O)

Email : lityalen@nitc.ac.in

Website address :

https://nitc.ac.in/department/chemicalengineering/faculty-and-staff/faculty/fb82981e-4e91-

4777-ac73-27a2067c031e

Google Scholar ID :

https://scholar.google.com/citations?view\_op=list\_works

&hl=en&hl=en&user=nKAM5agAAAAJScopus ID

Orcid ID : https://orcid.org/0000-0001-

9399-2106

- Thermoset resins for structural applications
- Phenolic resin –intercalated graphite for EMI shielding applications
- Removal of chromium dye and other anionic pollutants from industrial effluents
- Ternary polymer blends for automotive applications
- Conducting polymers
- Polymer nanocomposites for energy harvesting



### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Chemical Engineering**



Name : Dr.Aparna.K

Qualification: Ph.D., (IIT Madras)

Designation :Associate Professor

Contact Number : 04952285404

Email : aparnak@nitc.ac.in

Website address

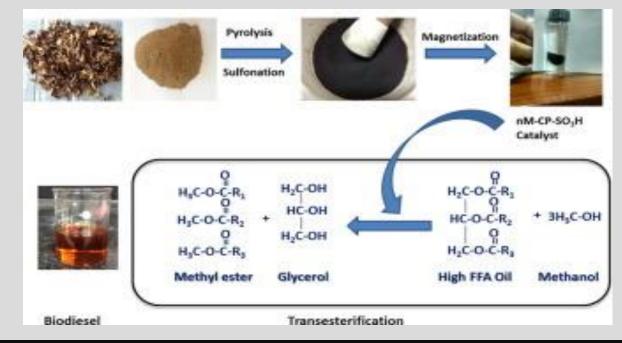
Google Scholar : <u>Dr. Aparna K - Google</u>

Scopus ID

Orcid ID : (https://orcid.org/0000-

0002-0043-7355)

- Biomass conversion to produce bioethanol
- Biodiesel production from non edible oils using biochar as catalysts
- Photocatalytic degradation of dyes.
- Modeling, simulation and optimization of parameters for chemical process plants





### **Department: Chemical Engineering**



Name: Malladi V Pavan Kumar Qualification: Ph.D., (IIT Kanpur)

Designation :Associate Professor

Contact Number :9746920959

Email :malladi@nitc.ac.in

Website address :

Google Scholar ID :

Scopus ID

Orcid ID :0000-0001-9845-4382

#### Area of Research:

- Process Modelling, Simulation and Control
  - Design versus Controllability
  - Reactive Distillation
  - · Internal Heat Integration
  - Decentralized control Schemes
  - Fluid catalytic Cracking
- Biomass valorization and Water Treatment
  - Activated carbons synthesis and characterization
  - Waste Biomass to useful products
  - Dye and pesticide removal by adsorption
  - · Adsorption from aqueous media





Journal of Polymers and the Environment (2022) 30:5274–5289 https://doi.org/10.1007/s10924-022-02597-w

ORIGINAL PAPER

Adsorption of Methylene Blue, Methyl Orange, and Crystal Violet on Microporous Coconut Shell Activated Carbon and Its Composite with Chitosan: Isotherms and Kinetics

Abdul Samad Kamdod1 · Malladi V Pavan Kumar100



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Chemical Engineering**

#### Area of Research:



Name : Dr. S.Bhuvaneshwari

Qualification: Ph.D., (NITC)

Designation : Associate Professor

Contact Number : +91 8891499076

Email : sbuvana@nitc.ac.in

Website address

https://nitc.irins.org/profile/98102

Google Scholar ID :

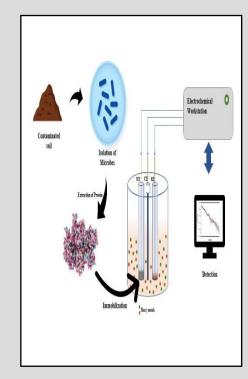
https://scholar.google.com/citations?user=kikfTPgAAAAJ

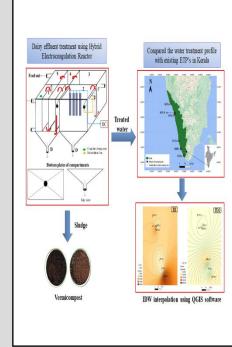
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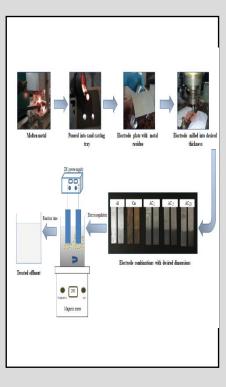
Scopus ID : 57212386034

Orcid ID : 0000-0002-1090-3356

- Wastewater treatment
- Separation processes
- Electrochemical sensors









### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Chemical Engineering**



Name : Dr. Haribabu K

Qualification: Ph.D., (NIT Calicut)

Designation : Associate Professor

Contact Number :9495224777

Email :haribhabu@nitc.ac.in

Website address :nitc.ac.in/department/chemical-

engineering//faculty-and-staff/faculty/b03c6912-70a0-404c-

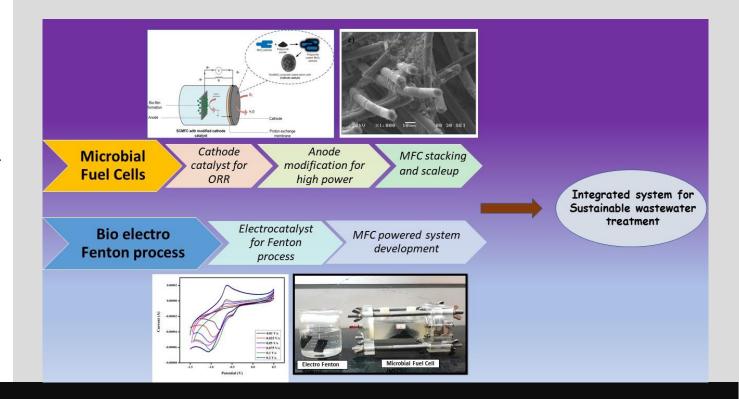
a97b-81df3a871d46

Google Scholar ID :UyDKKj4AAAAJ&hl

Scopus ID :50161588500

Orcid ID :0000-0002-4225-7168

- Bio electrochemical systems for concurrent waste water treatment and energy generation
- Development of advanced materials for energy storage applications
- Advanced oxidation coupled systems for treatment of recalcitrant pollutants
- Design and development of system architecture for MFC scale up





### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### Department: Chemical Engineering



Name: Dr Panneerselvam Ranganathan Qualification: Ph.D., (CSIR-National Institute National Institute for Interdisciplinary Science & Technology, Trivandrum and CUSAT, Cochin)

Designation : Associate Professor

Contact Number :+91 8138829477

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https://sites.google.com/view/pranganathan/

Google Scholar ID

https://scholar.google.com/citations?user=br-

<u>OE6EAAAAJ&hl=en</u>

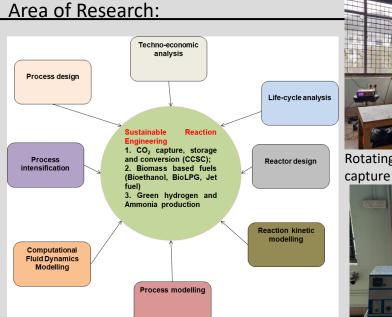
Scopus ID :

https://www.scopus.com/authid/detail.uri?authorId=3698

4080000

Orcid ID :

http://orcid.org/0000-0001-6083-0418





Rotating packed bed for  $CO_2$   $CO_2$  conversion to olefins



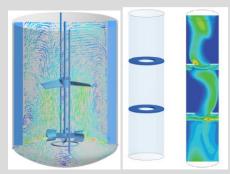


Temperature controller

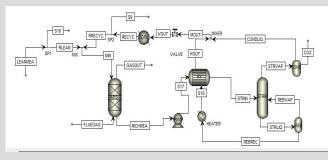
**Modelling tolls:** 

Aspen Plus; ANSYS Fluent/ CFX; COMSOL; Matlab; Life Cycle Analysis tool: GREET

Computational facility: High computing Workstation



High pressure hydrothermal thermal liquefaction (HTL) reactor for biofuel production



Agitated vessel Oscillatory baffled reactor

Process simulation using Aspen Plus



### **Department: Chemical Engineering**



Name : Dr. Vineesh Ravi

Qualification: Ph.D., (NIT Calicut)

Designation :Assistant Professor

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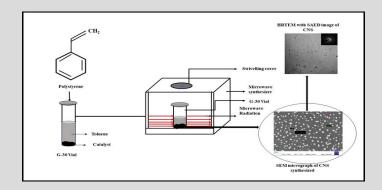
Website address:https://nitc.ac.in/department/chemical-engineering/faculty-and-staff/faculty/d57c210a-3354-

4a4d-828d-c49892337650

Orcid ID :https://orcid.org/0000-0002-

3943-2957

- Fuel cell modeling and simulation
- Fuel cell catalysis
- Plastic to Carbon nanomaterials and fuel





### **Department: Chemical Engineering**



Name: Dr. Chandra Shekar Besta Vakamalla

Qualification: Ph.D., (IIT Madras)

Designation : Assistant Professor (Grade-I)

Contact Number : 9490511583

Email : schandra@nitc.ac.in

Website address :

https://sites.google.com/view/csbesta

Google Scholar

:https://scholar.google.com/citations?user=IIpVAasAAAAJ

&hl=en

Scopus ID : 56070956500

Orcid ID : 0000-0002-3898-424X

- → Design of Classical and advance controllers for chemical process systems.
- → Automated controller design, tuning, and performance monitoring.
- → Design of centralized, and decentralized control system for stable and unstable linear and nonlinear process.
- → Design and control of reactive distillation column.
- → Internet of things, Image processing, Big Data and Machine Learning in process Industry.
- → Nonlinear systems and Analysis.
- → Design and analysis of biological systems.
- → Intensified systems and control.
- → Computer Vision.



## നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name : Noel Jacob Kaleekkal Qualification: Ph.D.,(Anna University)

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https://nitc.ac.in/department/chemical-engineering/faculty-and-staff/faculty/47481d61-0ae0-4ff9-88b3-f1be849bed29

Google Scholar ID

https://scholar.google.co.in/citations?hl=en&user=e3rsM7sA

AAAJ

Scopus ID :56507443000

ORCID ID : 0000-0002-3845-7845

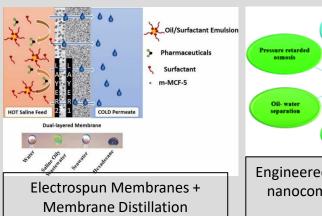
INAE Young Engineer Award 2022 (Chemical Engineering)

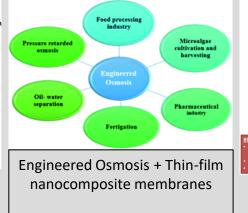
**KSCSTE Young Scientist Award 2022** 

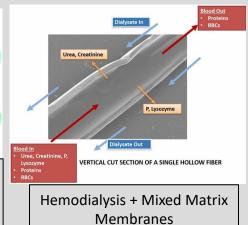
### **Department: Chemical Engineering**

### Area of Research: Membrane Technology

- 1. Functionalized Membrane Development- Using surface modification, nanomaterials, etc. to improve the structure, function, and performance of the membrane for desalination and water recovery from challenging feeds.
- 2. Validation and Process Integration of the membranes- Lab-scale membrane testing, Zero-liquid Discharge, Integration with Renewable Energy.
- 3. Transport Models and Machine Learning- Understand the transport phenomena (Heat, Mass, and Fluid) in membrane processes. Employing data-driven models to predict membrane performance.







Funding Received: SERB-SRG, DST-EWO, SPARC, KSCSTE

Facility Available: Membrane Fabrication- flat-sheet casting, electrospinning. Membrane

Testing Systems- UF/NF, RO, FO/PRO, MD, PV., Photocatalytic reactor

Membrane Characterization



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Chemical Engineering**



Name : Sudev Das

Qualification: Ph.D., (NIT-Agartala)

Designation: Assistant Professor (Grade-I)

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engineering/faculty-and-staff/faculty/c04ff8f2-58f1-494a-

a778-12d25558b3e4

Google Scholar ID

https://scholar.google.com/citations?user=KDv8TJ8AAAAJ&

hl=en&authuser=1

Scopus ID : 55605762097

Orcid ID : 0000-0001-9774-4150

- Develop micro/nanoscale surfaces for high heat flux applications, electronic cooling, nuclear reactor, etc.
- Solar energy-assisted pool boiling on micro/nanoporous surfaces for highquality steam generation.
- Develop microencapsulated phase change material with filler material for thermal energy storage
- Scalable micro/nano-fabrication, advanced characterization, state-of-the-art experimentation, and unique model prediction capabilities to enable mechanistic insights into complex fluid and thermal transport processes.



### **Department: Chemical Engineering**



Name: Teja Reddy Vakamalla

Qualification: Ph.D., (IIT Hyderabad)

Designation : Assistant Professor (Grade-I)

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Website address : https://vakamalla.wixsite.com/teja

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https://scholar.google.co.in/citations?user=a08S9n0AAAAJ

&hl=en

Scopus ID : 56415098800

Orcid ID : 0000-0002-3212-3318

- On developing comprehensive Computational Fluid Dynamic (CFD) and Discrete Element (DEM) Models for accurate predictions in hydrocyclones, dense medium cyclones, fluidized beds, vertical pipe flows and mixing tanks etc.
- Validating the numerical model predictions against in-house experimental measurements through laser, tomography and optical fibre probe techniques.
- Virtual modification of the design parameters to improve the performance.
- Fabrication and testing of novel designs



### **Department: Chemical Engineering**



Name : Dr. Susmita Das

Qualification : Ph.D., (IIT Kanpur)

Designation :Assistant Professor

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Email :susmitadas@nitc.ac.in

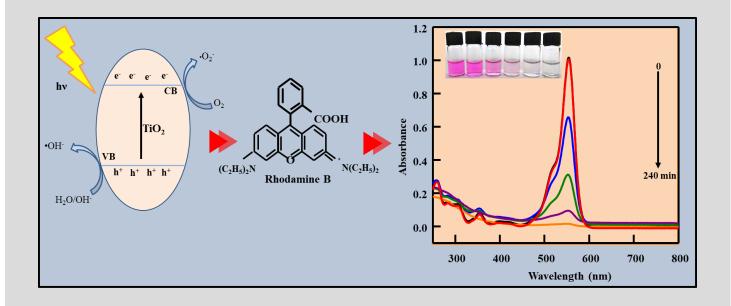
Website address :https://nitc.ac.in/department/

chemical-engineering/faculty-and-staff/faculty

Google Scholar ID :8ZevK4AAAAAJ Scopus ID :57198673964

Orcid ID :0000-0001-8147-941X

- Microfluidic Photocatalysis
- Waste water treatment
- Fracture of soft solid





### **Department: Chemical Engineering**

Name : Dhanya Ram V

Qualification: Ph.D., (IIT Madras)

Designation : Assistant Professor

Contact Number : 9447229598,04952285464

Email : dhanyaram@nitc.ac.in

Website address : www.nitc.ac.in

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https://scholar.google.com/citations?user=Ajkkw0UAAAAJ

&hl=en&authuser=1

Scopus ID : 56382787800

Orcid ID : 0000-0002-9525-8674

- Process Control
- Identification and Control of Multivariable systems.
- Modelling and Simulation
- Process Optimization
- Reaction Calorimetry



### **Department: Chemical Engineering**

Name : Fathima Fasmin

Qualification: Ph.D. (IIT-M)

Designation : Assistant Professor

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:

Website address

Google Scholar ID : <u>Fathima Fasmin - Google Scholar</u>

Scopus ID

Orcid ID : 0000-0002-8353-1661

- Metal air batteries
- CO<sub>2</sub> electro-reduction
- Use a graphical representation describing your research(one or two images), if interested.



### **Department: Chemical Engineering**

Name : Dr. P Swapna Reddy

Qualification: Ph.D., (IIT Bombay)

Designation : Assistant Professor

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ac60-264d14bf3cda:

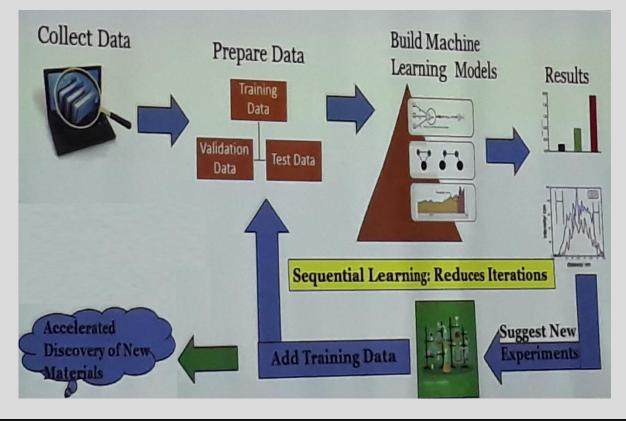
Google Scholar ID

https://scholar.google.com/citations?user=KCOw

BFwAAAAJ&hl=en&oi=ao:

Scopus ID :NA

- Online monitoring and Advanced control of Nonlinear process
- Smart manufacturing of Continuous Crystallization process for Pharmaceutical compounds





### **Department: Chemical Engineering**

#### Area of Research:



Name : Praveen Kumar G

Qualification: Ph.D., (IIT Bombay)

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Google Scholar ID : <u>Praveen Ghodke - Google Scholar</u>

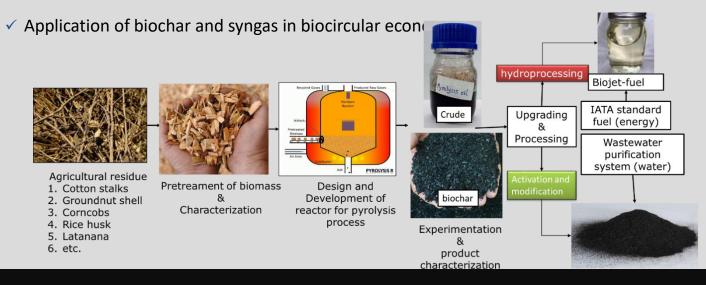
Scopus ID :56825873200

Orcid ID :0000-0003-3427-7481

• The two major thrust areas are energy security and environmental protection in the current scenario. With this motivation, harness plastic/biomass waste energy sources for the automobile industry, aviation industry, and electricity generation while also providing a clean environment.

#### Objectives of current studies

- ✓ Hydroprocessing of crude bio-fuels to produce jet-fuels (hydrodeoxygentation treatment).
- ✓ Kinetic studies and reaction mechanism of the conversion technologies.





## നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Chemical Engineering**

Name : Dr. M. Yogesh Kumar

Qualification: Ph.D., (McGill Univ.)

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engineering/faculty-and-staff/faculty/e7d04635-e53c-4f4b-

a751-5c9c7faf1545

Google Scholar ID :

https://scholar.google.com/citations?user=OlxqLSkAAAAJ&hl=en

Scopus ID : 35076331600

Orcid ID : https://orcid.org/0000-0002-3890-

2208

- I am an academic with research interests across the field of Chemical Engineering & Biotechnology with a focus on Process Modeling and Simulation, Material science, Bioprocess Technology, Environmental and Sustainability Engineering.
- Through research work focusing on computational investigation of biological and biomimetic materials and processes (@McGill University), structural and functional soft matter (@McGill University and University of Southampton) and energy conversion systems (@IIT Madras funded by BHEL) and experimental work on process design for treatment of effluent from stainless steel pickling plant at NFC, Hyderabad (@Sri Venkateswara College of Engg funded by BRNS), I have explored applications of chemical engineering to emerging technologies and gained an interdisciplinary, multi-scale perspective of chemical engineering.
- Currently I am focusing on Synthesis, characterization and process design for manufacturing of biocement/ bioconcrete and Carbon sequestration using Mineralized Cellulose Materials. I am keen on developing sustainable processes and materials for energy and environmental applications to support the global decarbonization efforts to mitigate global warming and climate change.

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Chemical Engineering**



Name : Subhasis Mandal, PhD

Qualification: Ph.D., (Institute)IIT KGP

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Google Scholar ID:

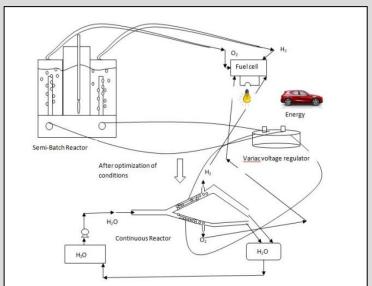
scholar.google.com/citations?user=mNKwrxAAAAAJ&hl=en

Scopus ID :57203282409

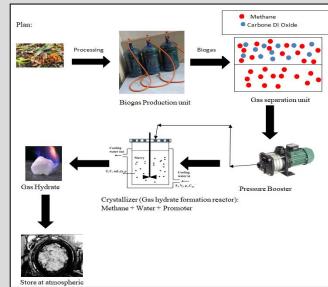
Orcid ID :0000-0002-1683-8700

#### Area of Research:

- Hydrogen Production from non- fossil source
- Energy storage by Hydrate based technology
- Bio-Chemical Engineering
- Graphical representation of my research



Schematic diagram of water splitting hydrogen production process through semi-batch reactor and continuous reactor



Schematic diagram of Bio gas Production separation and storage of biogas in the form of gas hydrate.

# अन्नन्म ഇलेल्लीठ्रुड्डॅ छाळॅ ६८८क्काब्ब्बी कार्थीक्कठ्ठॅ य प्रौद्योगिकी संस्थान कालीकट

### TIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name : Dr. Aniruddha Sany

Qualification: Ph.D., (IIT Roorkee),

Postdoc (IIT Bombay)

Designation :Assistant Professor

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Email :aniruddha@nitc.ac.in

Website address : linkedin.com/in/aniruddha-sanyal-4578266b

Google Scholar ID :HMrDCOEAAAAJ

Scopus ID :35620751300

Orcid ID :0000-0002-1682-2397

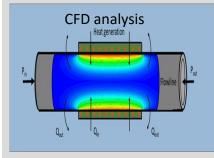
### **Department: Chemical Engineering**

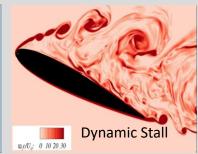
#### Area of Research:

- Currently working in numerical and experimental area on rheology of complex fluids.
- Worked on flow assurance in waxy crude oil pipeline on the interest of saving energy consumption.
- Area of interest: Non-Newtonian Flow, Convection Heat Transfer, Multiphase Flow, Rheology and Fluid-structure interactions.

Experimental Skills: Rheometer (Anton Par, ARES)

Coding & Softwares: FORTRAN, C++, Python, ANSYS, ICEM, OpenFoam, Tecplot, ParaView, MATLAB









## നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name : Dr. Shivanand Kumar Veesam

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Email : Shivanand@nitc.Ac.In

Website Address :

Google Scholar ID : Qyixoamaaaaj

Scopus ID : 55201892000

Orcid ID : 0000-0003-4671-9646

#### Area of Research:

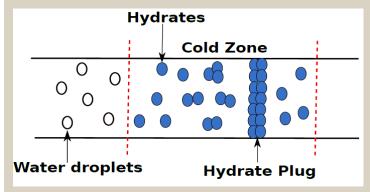
THERMODYNAMIC MODELLING OF GAS HYDRA

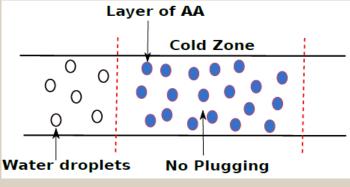
FLOW ASSURANCE

TRANSPORT PROPERTIES OF COMPLEX FLUIDS

FORCE FIELD DEVELOPMENT OF METAL OXIDE

- CRYSTAL NUCLEATION AND POLYMORPHISM
- MOLECULAR SIMULATIONS (MD/MC)
- MACHINE LEARNINGZ







### **Department: Chemical Engineering**



Name: Ahammed Sherief K Y

Qualification: Ph.D., (Monash University, Australia)

Designation : Assistant Professor Grade - II

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Email : sherief@nitc.ac.in

Website address :

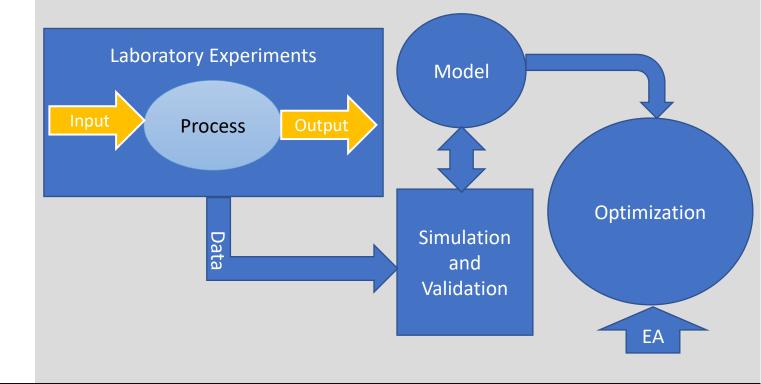
Google Scholar ID : ASK Youseph

Scopus ID : 57188804939

Orcid ID : 0000-0003-3102-1325

### Area of Research: Modeling, Simulation and Optimization

- Gene regulatory network inference
- Evolutionary algorithms (EA)
- Bioprocess optimization





### **Department: Chemical Engineering**



Name : Ranjith P M

Qualification: Ph.D., (IIT Madras)

Designation : Assistant Professor

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Website address :https://pmranjith10.wixsite.com/website

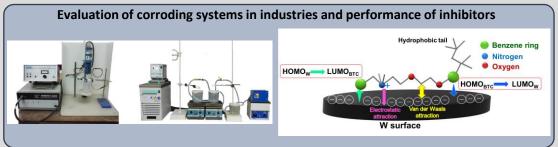
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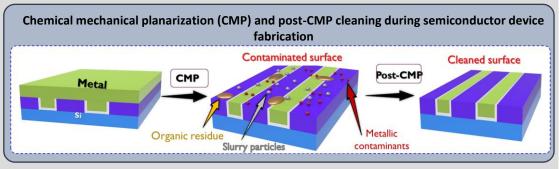
Scopus ID : 57212260450

Orcid ID : 0000-0001-5284-1360

- Modelling the Mechanism of Electrochemical Reactions.
- Corrosion evaluation under industrial operation conditions.
- Chemical mechanical planarization (CMP) and post-CMP cleaning during semiconductor device fabrication.









### **Department: Chemical Engineering**



Name : Dr. Debashish Panda

Qualification: Ph.D., (IIT Delhi)

Designation : Assistant Professor G-II

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4226-99aa-91fbe31a07f2

Google Scholar ID : rThU6eYAAAAJ&hl

Scopus ID :57201495897

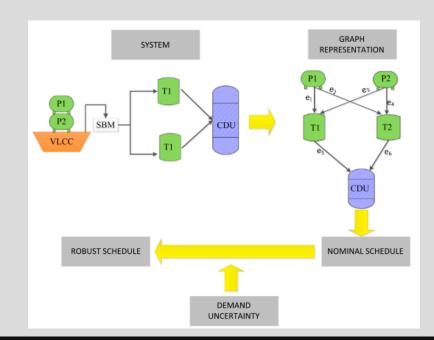
ORCID ID :0000-0001-8556-382X

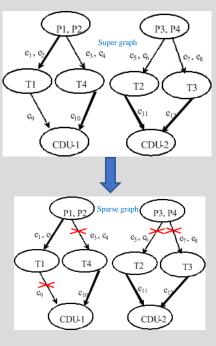
#### Area of Research:

- Planning and scheduling of crude oil refinery
- Optimization of a refinery under uncertain conditions in both upstream and downstream

• Development of optimization method for an integrated

refinery







Name : Bharathi Ganesan R

Qualification : Ph.D., (IIT Madras)

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### r.bharathiganesan@nitc.ac.in

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Google Scholar ID : mt1DDuMAAAAJ

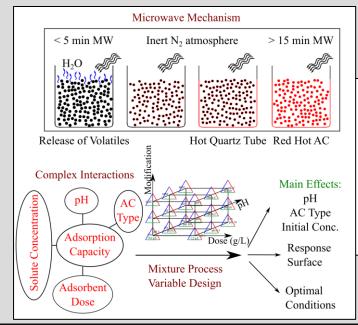
Scopus ID : 57212208619

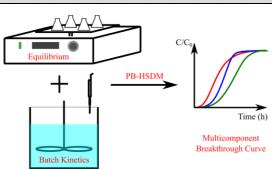
ORCID ID : 0000-0002-3435-7097

### **Department: Chemical Engineering**

Area of Research: Separation Processes

- Acid modified activated carbon
- Mathematical modelling of multicomponent adsorption







Name : Ashish Soren

Qualification: Ph.D., IIT Bombay

Designation : Assistant Professor Grade - II

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(nitc.ac.in)

Google Scholar ID : 9jMTks8AAAAJ

Scopus ID : 57202788075

ORCID ID :

### **Department: Chemical Engineering**

- · Spatial optimization under uncertainty
- Multi-stage design for infrastructure development
- Techno-economic analysis

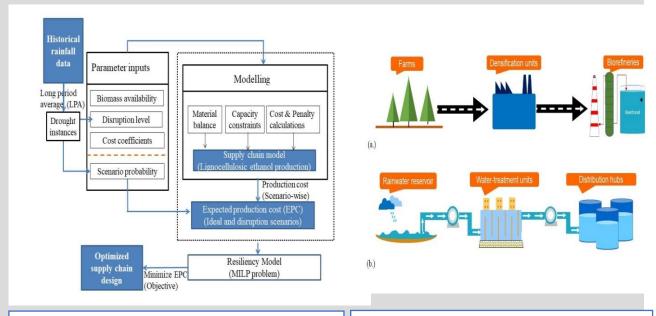


Figure 1: Optimization framework for resilient supply chain for biomass based system under uncertainty to biomass supply

Figure 2: Examples of potential application of the framework (a.) Bioethanol production (b.) Water distribution network

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT





# Faculty Expertise Department of Chemistry

# LIST OF FACULTY

- > Dr. A. Sujith
- > Dr.G. Unnikrishnan
- > Dr. Lakshmi C
- > Dr. Lisa Sreejith
- > Dr. Parameswaran Pattiyil
- > Dr. Suni Vasudevan
- > Dr. Anuj A Vargeese
- > Dr. Chinna Ayya Swamy P
- > Dr. Janardhan Banothu
- > Dr. Mausumi Chattopadhyaya

- > Dr. Mini Mol Menamparambath
- > Dr. M. Sankaralingam
- ▶ Dr. Raju Dey



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Chemistry**



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Google Scholar ID :

https://scholar.google.co.in/citations?user=V9t7UOoAAAAJ

&hl=en

Scopus ID

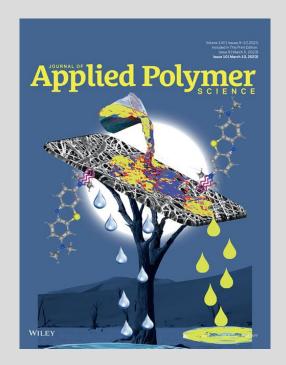
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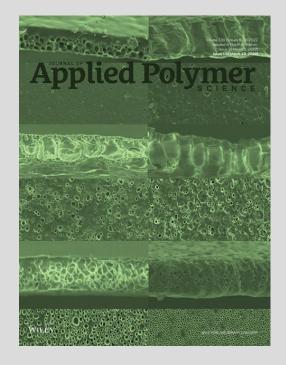
10400

Orcid ID :

https://orcid.org/0000-0003-3278-5343

- Polymer Biocomposites: Development and characterization of plastic systems with enhanced biodegradability
- Nanofibrous Membranes: for water purification, microparticle separation, sensing
- Plastic food packaging: Development of ecofriendly packaging systems
- Nanobioanalysis: Bioanalysis using metal nanoparticles and Raman Spectroscopy







## **Department: Chemistry**



Name: Dr.G. Unnikrishnan

Qualification: Ph.D., (M. G.

Designation :Professor

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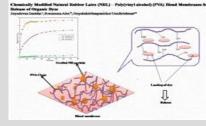
Website address : nitc.ac.in (chemistry department)

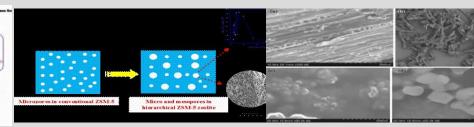
Google Scholar ID :

Scopus ID :

Orcid ID :0rcid.org/0000-0001-6257-7217

- Polymer Technology
- Biomacromolecules
- Catalysis
- Lubricants







## NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

Name : Dr. Lakshmi C.

Qualification: Ph.D., (IICT, Hyderabad)

Designation : Professor

Contact Number : 9746407767

Email : lakshmic@nitc.ac.in

Website address :

Google Scholar ID :

Scopus ID :

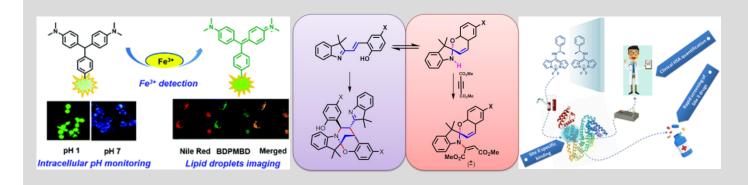
Orcid ID : 0000-0002-0553-7590

### **Department: Chemistry**

#### Area of Research:

Organic and Bio-Organic Chemistry, Physical Organic Chemistry

- Synthesis and Photophysical Studies and Applications of Organic Fluorophores
- Organic synthesis
- Molecular Self-Assembly





## NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name : Dr. Lisa Sreejith

Qualification: M.Sc, M.Phil,Ph.D(AMU)

Designation : Professor

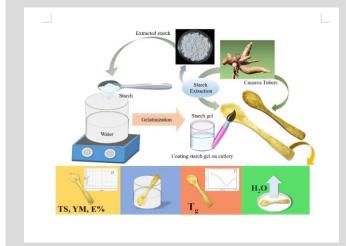
Email : lisa@nitc.ac.in

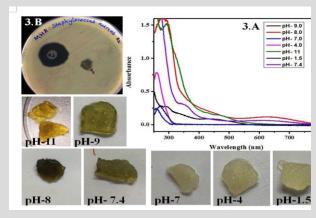
Contact number : 9447203130

#### **Department: Chemistry**

- -Targetted drug delivery
- Plastic Waste management
- Environmental solutions









#### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name : Dr. Parameswaran Pattiyil

Qualification: Ph.D. (University of

Designation : Professor

Contact Number : 0091-495-228-5304

Email : param@nitc.ac.in

Website :

https://pgroupnitc.wixsite.com/nitccomputational

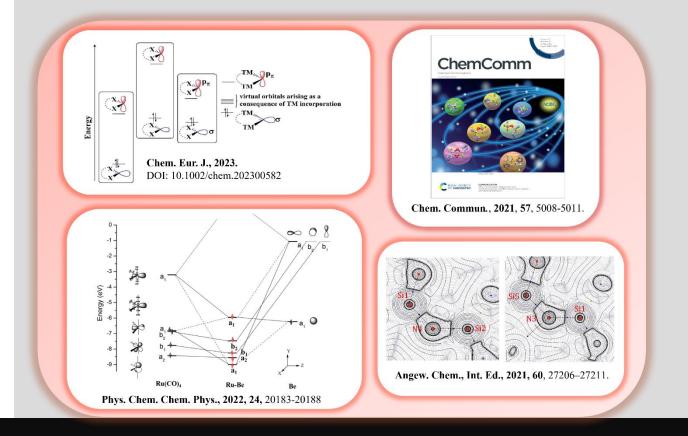
Google Scholar ID : Parameswaran Pattiyil

Scopus ID : 26644357600

Orcid ID : 0000-0003-2065-2463

### **Department: Chemistry**

- Theoretical and Computational Chemistry
- Heuristic Bonding Models using First Principle Calculations
- Designing Catalysts and Rule Breaking Molecules





#### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Chemistry**



Name: Dr. Suni Vasudevan

Qualification: Ph.D., (CUSAT)

Designation : Associate Professor and HOD

Contact Number :0495 2285305

Email :suniv@nitc.ac.in

Website address : National Institute of Technology

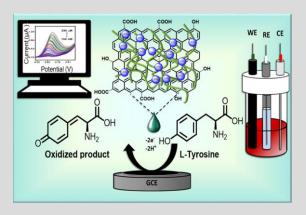
(nitc.ac.in)

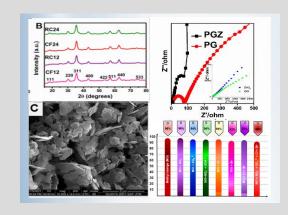
Google Scholar ID: Suni Vasudevan - Google Scholar

Scopus ID :

Orcid ID :

- Metal oxide-conducting polymer nanocomposites for biomolecule sensing applications and environmental remediation.
- Doped metal ferrites and their nanocomposites for energy and environmental applications.
- Bioactive materials for biomedical applications







#### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT





Name : Dr. Anuj A Vargeese

Qualification: Ph.D., (University of Pune)

Designation :Assistant Professor

Contact Number :0495-228-5327

Email :aav- at – nit.ac.in

Website address

https://nitc.ac.in/department/chemistry/faculty-and-staff/faculty/eb17e269-38a0-4902-a294-d282893ccb82

Google Scholar ID

https://scholar.google.com/citations?user=zpTasYwAAAAJ&

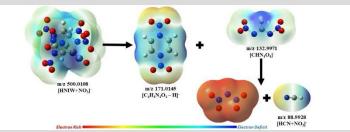
hl=en&oi=ao

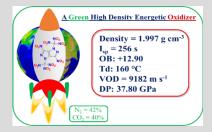
Scopus ID :24170231000

Orcid ID : 0000-0003-2438-2472

- Dr. Anuj works on the development of materials for energetic applications.
   Major research interests include synthesis and applications of energetic
   nanomaterials, synthesis and applications of green oxidizers, development of
   green propellants and understanding the kinetics and mechanism of energetic
   material decomposition.
  - Development of Energetic Nanomaterials and Nanocatalysts
  - Development of Energetic Oxidizers
  - Development of Thermoelectric Generators (TEGs)
  - Kinetics and Mechanism of Energetic Materials Decomposition
  - Combustion Chemistry of Solid propellants
  - Life time prediction and Hazardous assessment of Energetic Materials









#### **Department: Chemistry**

Name : Dr. Chinna Ayya Swamy P

Qualification: Ph.D., (IISc, Bangalore)

Designation : Assistant Professor

Contact Number :75588484568

Email :swamy@nitc.ac.in

Website address

https://swamychinnichem.wixsite.com/mysite

Google Scholar ID

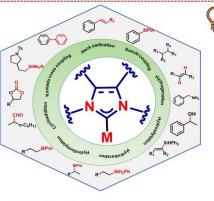
:https://scholar.google.co.in/citations?user=V7ikevIAAA/

J&hl=en

Scopus ID :

Orcid ID :0000-0001-7875-9517

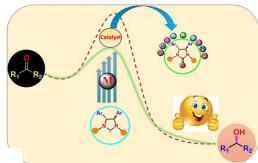
#### Area of Research:



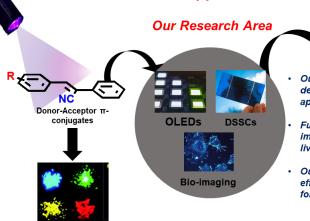
- ✓ A wide substrate tolerance
- ✓ Air and moisture stability of complexes
- ✓ Good transformations at moderate reaction conditions

#### Organometallics and Catalysis

- Design of various homogenous metal-ligand complexes for hydrofunctionalisation reactions
- Tuning the steric and electronic properties, determine the influence on Catalytical functions
- Efficient catalyst with a high turn over frequency, excellent conversion and selectivity is the final goal







**Emission in Solid State** 

- Our area of research focuses on the design of excellent emitters for their application in OLEDs, DSSCs etc.
- Further, suitable functionalization are imparted to our designs to achieve live cell targeting and bio-imaging
- Our targeted design relies on the efficient Donor-Acceptor conjugates for tuned optical properties



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Chemistry**



Name : Dr. Janardhan Banothu

Qualification: M.Sc., Ph.D. (National Institute of Technology Warangal)

Designation : Assistant Professor

Contact Number : 8111938615 (Mobile)

0495-228-5324 (Office)

Email : janardhan@nitc.ac.in

Website address :

https://nitc.ac.in/department/chemistry/faculty-and-staff/faculty/7cc11302-aa6f-41f1-baa6-d781397afe36

Google Scholar ID : mYNpoSQAAAAJ

Scopus ID : 55313638600

Orcid ID : https://orcid.org/0000-0002-2449-

1647

- Synthesis of New Heterocyclic Molecules and Their Biological Applications
- Design and Development of Heterocyclic Small Molecules as Toll-Like Receptor(TLR) Agonists
- Design and Development of Eco-Friendly Methods for the Synthesis of Biologically Potent Molecules.



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Chemistry**

Name: Dr. Mausumi Chattopadhyaya

Qualification: Ph.D., (University of Calcutta,

West Bengal, India)

Designation :Assistant Professor

Contact Number :9433710271

Email :mausumi@nitc.ac.in

Website address :

https://scholar.google.co.in/citations?user=UpEhaWkAAAAJ

&hl=en

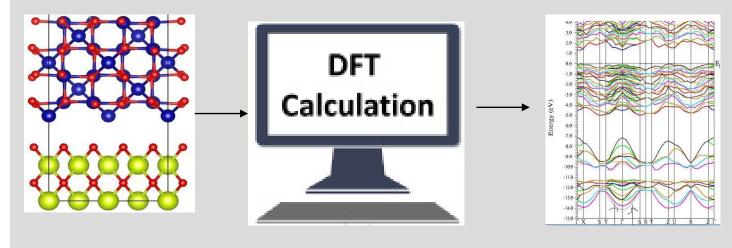
Google Scholar ID :

Scopus ID :

Orcid ID :https://orcid.org/0000-0002-0278-

0472

- Theoretical and computational chemistry
- Modeling and simulations using density functional theory with multiple device applications





#### **Department: Chemistry**



Name: Dr. Mini Mol Menamparambath

Qualification: Ph.D., (Sungkyunkwan

University, South Korea)

Designation : Assistant Professor

Contact Number : 0495-228-5303

Email : minimol@nitc.ac.in

Website address :

https://nitc.ac.in/department/chemistry

Google Scholar ID : xAXnhV0AAAAJ

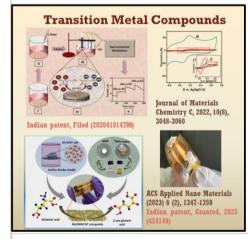
Scopus ID : 46461701100

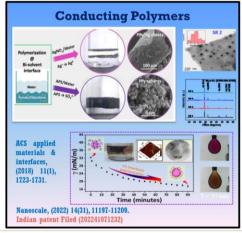
Orcid ID : 000-0001-6845-0815

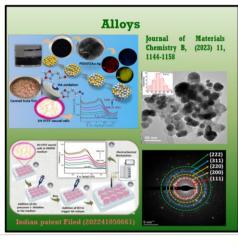
#### Area of Research:

- Structural and Multi-Functional Properties Tuning of Nanomaterials
- Synthesis of Nanomaterial Composites for Applications Ranging from Point-of Care Diagnostics to Sustainable Energy Technologies

Interface Assisted Synthesis of Nanomaterials for Point-of-Care Diagnostics





















#### **Department: Chemistry**



Name : Dr. M. Sankaralingam

Qualification : PhD (Bharathidasan

University)

Designation :Assistant Professor

Contact Number :04952285325,+91-9003586778

Email :msankaralingam@nitc.ac.in

Website Address

:https://nitc.ac.in/department/chemistry/faculty-and-

staff/faculty/page/2

Google Scholar ID :

https://scholar.google.com/citations?hl=en&user=TeGUWQ

YAAAAJ

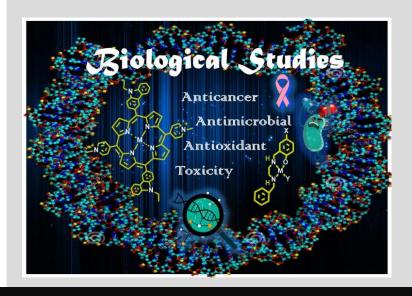
Scopus ID: 37031969400

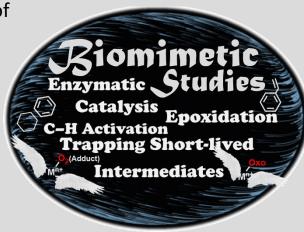
Orcid ID : 0000-0003-1128-6887

Area of Research: Bioinspired and Biomimetic Inorganic Chemistry

✓ Understanding the structure-function activity of metalloenzymes using biomimetic/bioinspired complexes

- ✓ Design and synthesis of earth-abundant transition metal catalysts for clean energy, organic transformations, and health sciences
- ✓ Identifying the short-lived intermediates in stoichiometric and catalytic reactions









#### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name : Raju Dey

Qualification: Ph.D., (Indian

Association for the Cultivation of Science,

Jadavpur, Kolkata)

Designation :Assistant Professor

Contact Number :7558035591

Email :rajudey@nitc.ac.in

Website address :

https://rajudeychem.wixsite.com/raju-dey

Google Scholar ID :<u>a4tuApYAAAAJ</u>

Scopus ID :24066639500.

Orcid ID :0000-0001-6271-8518

### **Department: Chemistry**

- Dr Raju Dey has expertise in Organic Synthesis, Heterogeneous and Nano-Catalysis
- Currently working in the area of Acceptorless Dehydrogenation and Hydrogen Borrowing Reaction

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT





# Faculty Expertise Department of Civil Engineering

# LIST OF FACULTY

>	Dr. T. M. Madhavan Pillai	>	Dr. Sathish Kumar D.	>	Dr. Anand K. V.	>	Dr. Resmi S. R.
	Dr. J. Sudhakumar	>	Dr. Agilan V.	>	Dr. Kondalraj R.		Dr. Rohan Bhasker
	Dr. M. V. L. R. Anjaneyulu	>	Dr. Ajeesh S. S.		Dr. M. Abdul Akbar		Dr. S K Pramada
	Dr. N. Sankar	> 1	Dr. Anantha Singh T. S.		Dr. M. Sivakumar		
	Dr. S. Chandrakaran	>	Dr. Anil Kumar		DI. W. Sivakuillai		Dr. Sanjay Singh
>	Dr. Santosh G. Thampi	>	Dr. Anil Kumar Dash		Dr. Madhavan K.		Dr. Seethalakshmi P
>	Dr. Sajith A. S.	<b>&gt;</b> ]	Dr. Anjana Bhasi		Dr. Mini Remanan		Dr. Sharan Kumar
>	Dr. K. Krishnamurthy		Dr. Arunkumar R.		Dr. Muhamed Safeer P. K.		Goudar
	Dr. Mohammed Ameen	>	Dr. Aswathy E. V.		Dr. Munavar Fairooz C.		Dr. Sudha Das Khan
	Dr. Praveen Nagarajan	> 1	Dr. B Radhika		Dr. Nishant Mukund Pawar		Dr. Vikas Poonia
	Dr. Chithra N. R.	> ]	Dr. Bhaskar S		Dr. Prateek Negi		Dr. Yogeshwar V.
	Dr. George K. Varghese	>	Dr. Ganaraj K.				Navandar
	Dr. Harikrishna M.	> 1	Dr. Gaurav Misuriya.				Navanuar
	Dr. K. Ranga Swamy		Dr. Hillol Chakravarth	V	Ms. Reesha Bharath K.		
>	Dr. Robin Davis P.		Dr. Jayachandran K.		Dr. Renjitha Mary Varghese		



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Civil Engineering**



Name: Dr. T. M. Madhavan Pillai

Qualification: Ph.D., (IIT Madrash)

Designation :Professor (HAG) & Head

Contact Number :0495-2286216,09446384023

Email :mpillai@nitc.ac.in

Website address :https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/36455624-5d03-46f1-

a08d-09d799ad2644

Google Scholar ID :

Scopus ID :

Orcid ID :

- Structural Analysis & Design
- Structural Reliability
- Random vibration
- Seismic Analysis & Design
- Structural Health Monitoring



#### **Department: Civil Engineering**

ا ا

Name: Dr. J. Sudhakumar

Qualification: Ph.D., (IIT Madras)

Area of Research:

Designation :Professor (HAG)

**Contact Number** 

(Mob)

:0495-2286222, 91-94472 18789

Email :skumar@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/e6fc6b53-917b-457d-

adca-401530047887

Google Scholar ID :

Scopus ID :

Orcid ID



### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### Department: Civil Engineering



Name : Dr. M. V. L. R. Anjaneyulu

Qualification: Ph.D., (University of

Calicut)

Designation : Professor (HAG)

Contact Number :0495-2286219

Email :mvlr@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/a49f4c70-c878-4a73-

a63e-0fd3a753a94c

Google Scholar ID : nmF\_OokAAAAJ

Scopus ID :

Orcid ID : 0000-0001-8107-4455

- Design of at grade intersections, multi-level parking facilities, isolated and coordinated signals, grade separated intersection, area traffic control and management, NMT facilities
- Highway capacity and LoS studies
- Preparation of corridor improvement plans, urban mobility plans,
   Detailed Project Reports (DPRs) for transport projects and Scrutiny
- Bus route network design, scheduling,
- Multimodal passenger terminal design
- Black spot analysis and remediation, Road safety audit, Safety analysis
   Modelling
- Freight demand modelling and forecasting, Routing of urban freight vehicles, Design of logistics hub
- Design of circulation plan on landside of airports, ports and railway terminals
- GIS Applications



#### **Department: Civil Engineering**

Name: Dr. N. Sankar

Qualification: Ph.D., (IIT Madrash)

Designation :Professor (HAG)

Contact Number :0495-2286210,9188445605

Email :sankar@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/c75d95ed-18f1-4e48-

951b-afd9b9db7290

Google Scholar ID :

Scopus ID :

Orcid ID :

- Soil-Structure Interaction
- Computer Applications in Geotechnical Engineering
- Expert System Applications in Geotechnical Engineering



### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### Department: Civil Engineering



Name : Dr. S. Chandrakaran

Qualification: Ph.D., (IISc Bangalore)

Designation : Professor (HAG)

Contact Number : 0495-2286209

Email :chandra@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/db787a29-f5fe-40e6-

9682-bb92147d57ba

Google Scholar ID :

Scopus ID :

Orcid ID :

- Ground Improvement
- Soil Behaviour
- Environmental Geotechniques
- Machine Foundations
- Landslide Mitigation



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Civil Engineering**

Name : Dr. Santosh G. Thampi

Qualification: Ph.D., (IISc, Bangalore)

Designation : Professor (HAG)

Contact Number : 0495-2286221,

Email : santosh@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/f2594734-8c1a-4300-

aa2f-e5d6fc5d74f4

Google Scholar ID : 5qXSDBIAAAAJ

Scopus ID : 24484909900

Orcid ID : 0000-0003-0638-0887

- Pipe and Channel Flows
- Hydraulic Structures
- Hydrologic Processes and Modelling
- Water Quality Modelling
- Water and Wastewater Treatment
- Application of Remote Sensing and Geographical Information Systems in Natural Resources Management
- Economics of Water Resources Systems
- Water Resources Systems Analysis & Management
- Coastal Processes and Hydrodynamics



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Civil Engineering**

Name : Dr. Sajith A. S.

Qualification: Ph.D., (NIT Calicut)

Designation : Professor

Contact Number : 04952286211,9947311812

Email : sajithas@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/01da9db3-4322-4f5a-

b0f2-11769eb01926

Google Scholar ID : PiiCvWAAAAAJ&hl

Scopus ID :

Orcid ID : <u>0000-0003-2595-4161</u>

- Area of research : Structural control, Earthquake Engineering
- Consultancy experience; Design, scrutiny, structural evaluation.



#### **Department: Civil Engineering**



Name : Dr. K. Krishnamurthy

Qualification: Ph.D., (IIT Madras)

Designation :Professor

Contact Number :0495-2286208,9567382944

Email :kk@nitc.ac.in

Website address : https://nitc.ac.in/department/civil-

engineering/faculty-and-staff/faculty/61ae1e69-be6a-

4b36-a9b9-e18353bfae42

Google Scholar ID :

Scopus ID :

Orcid ID :

- Traffic Flow Operations and Management
- Road Safety under Mixed Flow
- Accident Analysis
- Transportation Economics and Appraisal
- Non-motorized Transportation
- Environmental Impact Assessment of Transport Projects



#### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Civil Engineering**



Name : Dr. Mohammed Ameen

Qualification: Ph.D., (IISc Bangalore)

Post-doctoral fellowship: Biomed Eng

Dept, Johns Hopkins

University, Baltimore, USA

Designation :Professor

Contact Number :(+91) 495 228 6214,(+91) 495 228

7577

Email :ameen@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/191b16a2-d7ef-4262-

8d9c-22641f95128c

Google Scholar ID :

Scopus ID :

Orcid ID

- Computational Structural Mechanics
- Finite Element Method
- Boundary Element Method



#### **Department: Civil Engineering**

## NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name : Dr. Praveen Nagarajan

Qualification: Ph.D., (NIT Calicut)

Designation :Professor

Contact Number :0495-2286220

Email :praveen@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/660212c9-4eac-4e46-

ba52-b318ee359264

Google Scholar ID :

Scopus ID :

Orcid ID : 0000-0002-3411-8352

- Design and conditional assessment of concrete and steel structures
- Reinforced and Prestressed Concrete
- Bridge Engineering
- Structural Reliability



#### **Department: Civil Engineering**



Name: Dr. Chithra N. R.

Qualification: Ph.D., (NIT Calicut)

Designation :Associate Professor

Contact Number :04952286228

Email :chithranr@nitc.ac.in

Website address : https://nitc.ac.in/department/civil-

engineering/faculty-and-staff/faculty/1cbd23a7-e240-

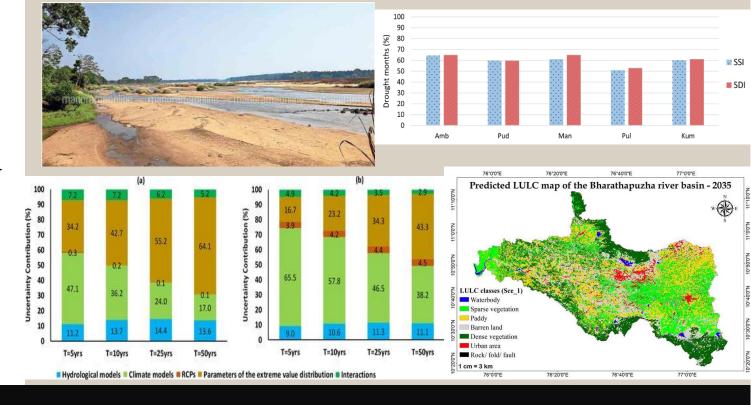
4451-9cb6-ae177f0b2428

Google Scholar ID :fHh0-c4AAAAJ

Scopus ID :57195451678

Orcid ID :0000-0003-2555-0263

- Watershed Modelling
- Climate change impact assessment in hydrology
- Modelling and analysis of hydrological extremes (flood and drought)





### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

Department: Civil Engineering



Name: Dr. George K. Varghese

Qualification: Ph.D., (IIT Delhi)

Designation : Associate Professor

Contact Number : 9744341214

Email : gkv@nitc.ac.in

Website address : https://nitc.ac.in/department/civil-

engineering/faculty-and-staff/faculty

Google Scholar ID :

https://scholar.google.co.in/citations?user=rpL3kuwAAAAJ

&hl=en

Scopus ID :55343645300

Orcid ID : <u>0000-0002-5327-2697</u>

Area of Research:

 Environmental Forensics, Environmental Risk Assessment, Environmental Impact Assessment, Environmental Law and Policy



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### Department: Civil Engineering

Name: Dr. Harikrishna M.

Qualification: Ph.D., (IIT Roorkee)

Designation : Associate Professor

Contact Number : +91-2286223

Email : harikrishna@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/93db8c55-6b9f-479a-

846b-8a1741d74765

Google Scholar ID : Ee2gu9QAAAAJ

Scopus ID :

Orcid ID : 0000-0002-5102-6898

- Travel behaviour modelling
- Capacity and Level of Service Estimation of Transport Facilitie
- Road Safety Studies.
- Preparation of corridor improvement plans, urban mobility plans, Detailed
   Project Reports (DPRs) for transport projects and Scrutiny



#### **Department: Civil Engineering**



Name: Dr. K. Ranga Swamy

Qualification: Ph.D., (IIT Madras)

Designation : Associate Professor

Contact Number : 9846162955

Email : ranga@nitc.ac.in

Website address : nitc.ac.in

Google Scholar ID :Hanze9IAAAAJ&hl=en&oi=ao:

Scopus ID : 36457218500

Orcid ID :0000-0003-2257-5801

- Soil investigations / Ground improvement / Dynamics of soils and foundations / Landslide modelling / slope stability
- Expertise with MASW, and Seismic cross hole field testing
- Familiar with static and cyclic triaxial testing, and bender element









#### **Department: Civil Engineering**

Name: Dr. Robin Davis P.

Qualification: Ph.D., (Institute)

Designation : Associate Professor

Contact Number :04952286201

Email :robin@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/7779c7b1-2f46-4b41-

8279-12d0843fd5ed

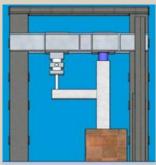
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Scopus ID :57208560710

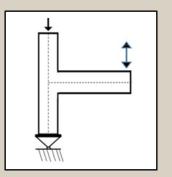
Orcid ID :0000-0001-6281-5393

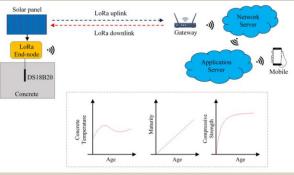
- Risk Analysis of Structures for Various Natural Hazards, Earthquake, Flood etc.
- Machine Learning Applications in Structural Engineering
- Condition Assessment and Repair of Structures













NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Civil Engineering**

Name: Dr. Sathish Kumar D.

Qualification: Ph.D., (IIT Roorkee)

Designation :Associate Professor

Contact Number :+91 9400 601 641

Email :sathish@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/740a357c-675a-40c0-

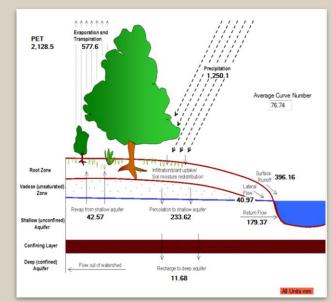
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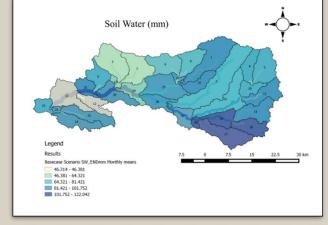
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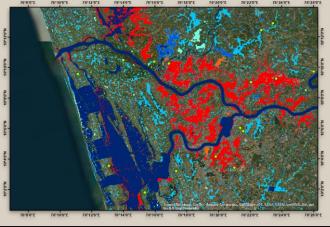
Scopus ID : 55774829800

Orcid ID : 0000-0002-1432-4343

- Urban Flood Modelling
- Flood Forecasting
- Drought Studies









#### **Department: Civil Engineering**

Name :

: Dr. Agilan V.

Qualification: Ph.D., (Institute)

Designation : Assistant Professor

Contact Number : +91 495 228 6251

Email : agilan@nitc.ac.in

Website address

https://sites.google.com/nitc.ac.in/agilan/home

Google Scholar ID : RUxEYh4AAAAJ

Scopus ID : 56766214600

Orcid ID : 0000-0002-4791-2627

- Non-stationary behaviour of hydro-climatic extremes: Detection and Modelling
- Climate change impacts on hydrology
- Air pollution
- Remote Sensing: Satellite Altimetry; LULC modelling



#### **Department: Civil Engineering**



Name : Dr. Ajeesh S. S.

Qualification: Ph.D., (IIT Madras)

Designation : Assistant Professor

Contact Number : 9952046179

Email : ajeeshss@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/f4fafb3c-48b2-4cff-

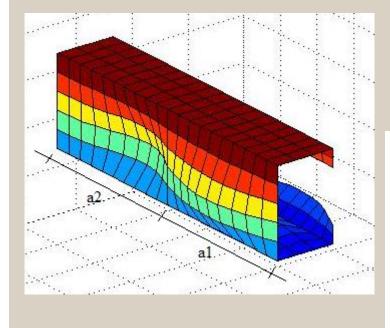
9277-fc149f6c7692

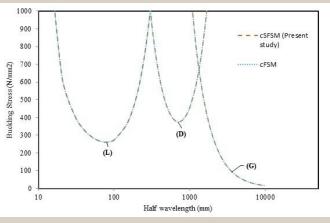
Google Scholar ID : fJI3EcgAAAAJ

Scopus ID : 57189692880

Orcid ID : 0000-0002-9707-3833

- Computational methods on structural stability of thin plated structures using spline finite strip method and generalized beam theory
- Non-linear analysis for the mode characterization of thin-walled structural members
- Behaviour of steel structures under fire and impact







#### **Department: Civil Engineering**



Name: Dr. Anantha Singh T. S.

Qualification: Ph.D., (NIT Trichy)

Designation : Assistant Professor

Contact Number : 8758790511

Email :singh87@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/f780dfce-fab6-4d83-

b0ef-699838abbbbf

Google Scholar ID

:https://scholar.google.com/citations?user=4Mg

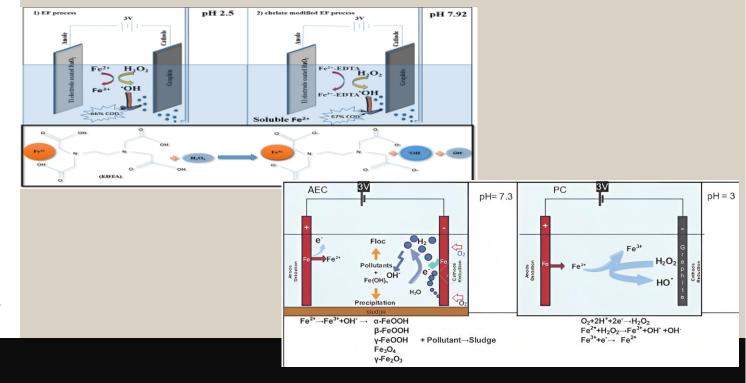
XNssAAAAJ&hl=en&oi=ao

Scopus ID :55372350200

Orcid ID :https://orcid.org/0000-0002-7735-

497X

- Electrochemical methods for the treatment of Industrial wastewater and domestic wastewater
- Treatment of Ammoniacal Nitrogen from wastewater in the presence and absence of carbon pollutant
- Plasma techniques for the complete mineralisation of pollutants present in the wastewater.





### **Department: Civil Engineering**



Name : Dr. Anil Kumar

Qualification: Ph. D. (NIT Surathkal)

Designation : Assistant Professor

Contact Number : 8722609983

Email : <u>kumaranil@nitc.ac.in</u>

Website Address : https://nitc.ac.in/department/civil-

engineering/faculty-and-staff/faculty/54aa93d1-4f85-4af7-

9ed4-e0eb2af7ee21

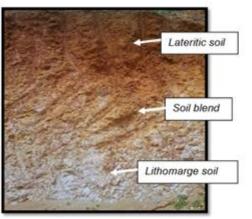
Google Scoler ID :

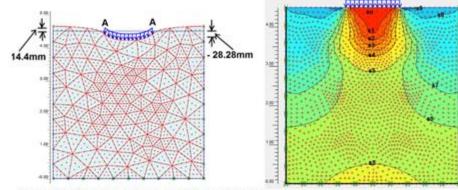
Scopus ID : 57307680500

Orcid ID

### Area of Research:

• Area of Research: Soil dynamics, Ground improvement techniques, Foundation engineering, Sustainable materials in road construction.





Study of resilient properties of soil using experimental and

numerical modeling







Utilization of Industrial waste in road construction



### **Department: Civil Engineering**

Name : Dr. Anil Kumar Dash

Qualification: Ph.D., (IIT Kharagpur)

Designation : Assistant Professor

Contact Number : +91-8348468078

Email : anilkumar@nitc.ac.in,

bouanil@gmail.com

Website address :

https://nitc.ac.in/department/civil-engineering/faculty-

and-staff/faculty/2414e1d0-5821-4507-b351-

4e7530ef71b4

Google Scholar ID : T8E68LgAAAAJ

Scopus ID

Orcid ID

- Naval Hydrodynamics: Ship maneuvering, Towing tank experiments, Planar motion mechanism (PMM) Hull-propeller-rudder interaction,
- CFD: Simulation of Ship, Submarine motion using OpenFOAM
- Uncertainty quantification and propagation: Stochastic response surface method, Monte Carlo technique.
- Nonlinear dynamics: Stability and bifurcation analysis of steady state ship maneuvering, Numerical continuation, MATCONT.
- Fluid-Structure interaction: Vibration of marine propeller blade
- Finite Element Analysis of Plate and Shell: Propeller blade, forced vibration in ship maneuvering



### **Department: Civil Engineering**



Name: Dr. Anjana Bhasi

Qualification: Ph.D., (IIT Madras)

Designation :Assistant Professor

Contact Number :04952286234

Email :anjanabhasi@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/5589cf99-69f1-4b72-

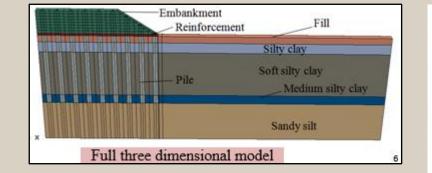
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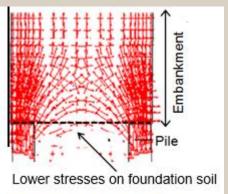
Scopus ID :55883830600

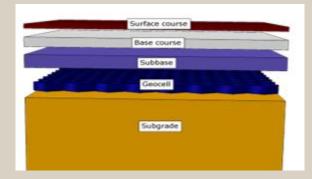
Orcid ID 0000-0002-5096-2924:

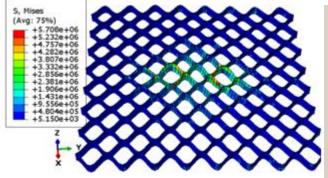
### Area of Research:

 Finite Element Modelling and Simulation of Geotechnical Engineering Structures, Ground Improvement Methods, Geosynthetics for reinforcement of earth structures, Soil Mechanics and Foundation Engineering











### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

**Department: Civil Engineering** 



Name: Dr. Arunkumar R.

Qualification: Ph.D., (IIT Bombay)

Designation : Assistant Professor

Contact Number : +91 495 228 6252

Email : arunkr@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/c68af38d-e8c7-4b6f-

bc6e-3575b72ec191

Google Scholar ID : FhA6X6kAAAAJ

Scopus ID : 36112836800

Orcid ID : 0000-0002-4211-7480

- Hydrology and Water Resources Engineering
- Water Resources System Analysis
- Application of Soft Computing Techniques in Water Resources
- Climate Change Impact Assessment on Water Resources



### **Department: Civil Engineering**



Name: Dr. Aswathy E. V

Qualification: Ph.D., (Institute)

Designation :Assistant Professor

Contact Number :9496344766

Email :aswathy@nitc.ac.in

Website address :

Google Scholar ID :

Scopus ID :56893785200

Orcid ID :0000-0002-0084-7338

- Bioaerosol characterization
- Air pollution and Control
- Water and Wastewater Treatment



### **Department: Civil Engineering**

**Consultancy**: Structural

health monitoring of bridges



: Dr. B Radhika Name

Qualification: Ph.D. (IISc. Bangalore)

: Assistant Professor Designation

Contact Number : +91 8895 239 837

**Email** : bradhika@nitc.ac.in

Website address : https://nitc.ac.in/department/civil-

engineering/faculty-and-staff/faculty/db9c3c9e-4784-

4988-a9ef-5a4f0aa8560c

Google Scholar ID

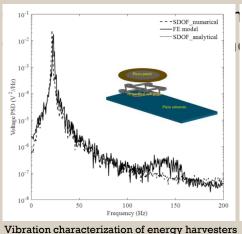
https://scholar.google.com/citations?user=EIMo5xEAAAAJ

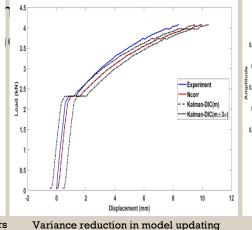
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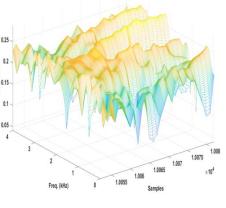
Scopus ID : 57193514975

Orcid ID : 0000-0001-8641-3663

- Structural dynamics
- Random vibrations
- Structural health monitoring
- Monte Carlo methods and model updating
- Structural reliability analysis
- Vehicle pavement interaction studies
- Performance based earthquake engineering
- Signal processing for vibration characterization







SHM using signal processing



### **Department: Civil Engineering**

Name : Dr. Bhaskar S

Qualification: Ph.D., (NITK)

Designation : Assistant Professor

Contact Number : +91 9742720843

Email : bhaskars@nitc.ac.in

Website address :

Google Scholar ID

https://scholar.google.com/citations?user=IpZod3UAAAAJ&

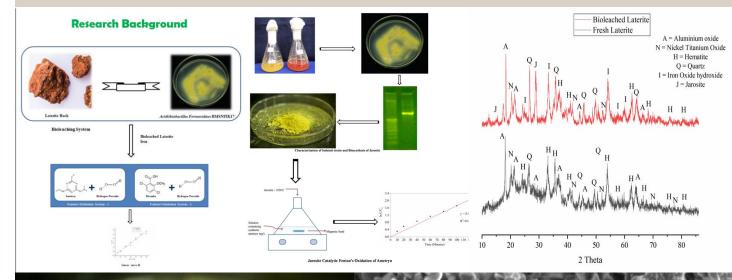
hl=en&oi=sra

Scopus ID : 57205261275

Orcid ID : 0000-0002-0203-3629

### Area of Research:

 Bioleaching, Water and Wastewater Treatment, Biomining of valuable minerals from low-grade ores, Advanced Oxidation Process







### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name : Dr. Ganaraj K.

Qualification: Ph.D., (IIT Bombay)

Designation :Assistant Professor (grade II)

Contact Number :7259124390

Email :ganarajk@nitc.ac.in

Website address : https://nitc.ac.in/department/civil-

engineering/faculty-and-staff/faculty/85587a1e-

d5d7-4136-a161-a89c846ca522

Google Scholar ID :XySYIJsAAAAJ&hl

Scopus ID : 57200969180

Orcid ID :0000-0003-4532-5186

### **Department: Civil Engineering**

- Municipal and Industrial Solid Waste Management,
- Decontamination of soils
- Soil Stabilization
- Environmental Geotechnology
- Water and Wastewater treatment



### **Department: Civil Engineering**

Name : Dr. Gaurav Misuriya.

Qualification: Ph.D., (IIT Bombay)

Designation :Assistant Professor

Contact Number : 8291474108

Email : gauravmisuriya@nitc.ac.in

Website address :

Google Scholar ID:

https://scholar.google.co.in/citations?user=AWprBZIA

AAAJ&hl=en&oi=ao

Scopus ID :57224122135

Orcid ID :0000-0002-5233-0226

- Open Channel Hydraulics
- Local Scour
- Unsteady Turbulent Flow
- Wave and Current Interaction



### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Civil Engineering**



Name: Dr. Hillol Chakravarthy

Qualification: Ph.D., NIT Patna

Designation : Assistant Professor

Contact Number : +917765883445

Email : hillol@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/8a2412ac-c5f9-4a86-

b2a4-f78e8144cfb4

Google Scholar ID : 7fN7zQAAAAJ&hl=en

Scopus ID : 57210787152

Orcid ID :

### Area of Research:

Design of pavements

Development and evaluation of alternative materials for pavements









### **Department: Civil Engineering**



Name: Dr. Jayachandran K

Qualification: Ph.D., (IIT Madras)

Designation : Assistant Professor

Contact Number : +91 94422 64411, 0495 228 6237

Email : jk@nitc.ac.in

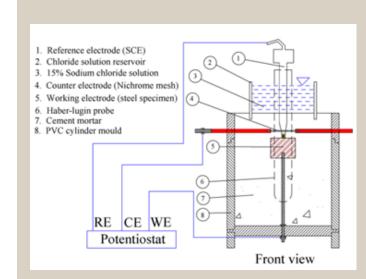
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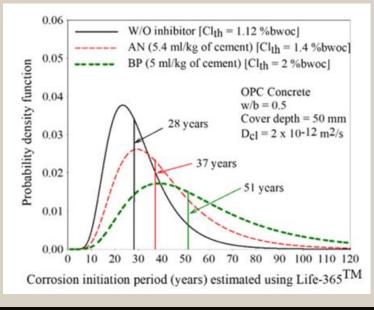
Google Scholar ID : \_sNZrQUAAAAJ&hl

Scopus ID : 56369235800

Orcid ID : 0000-0003-3360-9202

- Durability of concrete structures (Assessment; Test methods; Modelling; Performance specifications)
- Service life estimation of reinforced concrete structures
- Cathodic protection systems for corrosion mitigation
- Non-destructive Techniques for assessment of structures
- Design and performance assessment for special concrete's







### **Department: Civil Engineering**



Name : Dr. Anand K. V.

Qualification: Ph.D., (Institute)

Designation : Assistant Professor

Contact Number : 9940084140

Email : kvanand@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/c871fa90-e176-4b81-

bb79-6c2ffbee7d63

Google Scholar ID :

https://scholar.google.com/citations?user=Jpu0qKwAAAAJ

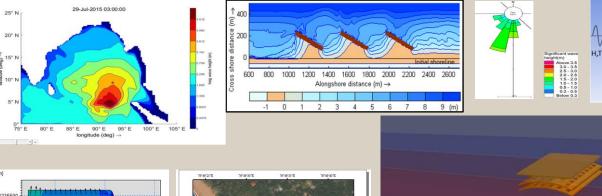
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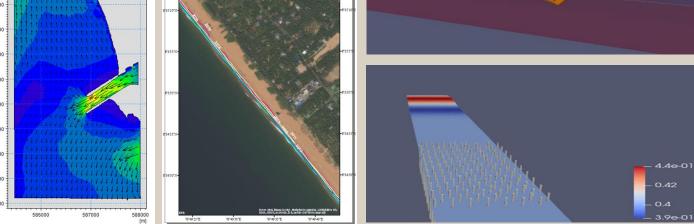
Scopus ID : 57131502500

Orcid ID : 0000-0002-5024-6741

### Area of Research:

 Currently working on Coastal erosion and protection, Wave structure interaction problems, Extreme wave events (Cyclones), Wave (renewable) energy and GIS applications to Coastal engineering







### **Department: Civil Engineering**

Name: Dr. Kondalraj R.

Qualification: Ph.D., (IIT Madras)

Designation : Assistant Professor

Contact Number : +91-9952856868

Email : kondalrajr@nitc.ac.in

Website address : <a href="https://nitc.ac.in/department/civil-engineering/faculty-and-staff/faculty/5799ca60-655c-">https://nitc.ac.in/department/civil-engineering/faculty-and-staff/faculty/5799ca60-655c-</a>

4770-9d27-8fd1055ff7e5

Google Scholar ID

:https://scholar.google.com/citations?user=gmd

bciwAAAAJ&hl=en

Scopus ID :57222352560:

Orcid ID :0000-0002-5257-1679

Area of Research:

Structural Engineering

Analysis and Design of Reinforced and Prestressed Concrete Structures

Design of Disturbed Regions using Strut-and-Tie Model



### **Department: Civil Engineering**

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name: Dr. M. Abdul Akbar

Qualification: Ph.D., (NIT Calicut)

Designation :Assistant Professor

Contact Number :9037816460

Email :maa@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/796730fb-878d-49f9-

8bed-bcae4f45fc80

Google Scholar ID : cTnqt9MAAAAJ&hl=en

Scopus ID: 57188689756

Orcid ID: 0000-0002-4221-4395:

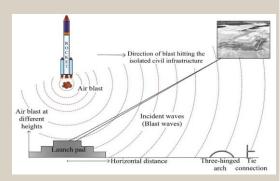
### Area of Research:

 Structural Analysis and Design, Finite Element Analysis, Offshore Structures, Blast loading, Seismic loading, Wind Energy

 During Industrial experience, I had worked on Design of Tall Buildings. Some Notable projects are Wave One, Noida and Palais Royale, Mumbai









### **Department: Civil Engineering**

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name: Dr. M. Sivakumar

Qualification: Ph.D., (NIT Calicut)

Designation :Assistant Professor Gr. I

Contact Number : +91 9446452997

Email :sivakumarm@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/d0c07503-fd47-41d2-

a708-01c924cd7cfb

Google Scholar ID

:https://scholar.google.com/citations?hl=en&us

er=hJ24pxAAAAAJ

Scopus ID :

Orcid ID : 0000-0002-4747-3070),

- Transportation Engineering: Pavement Material Characterisation
- Mechanistic Empirical Pavement Design
- Alternative Materials in Pavemnet Construction and Maintenance



### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Civil Engineering**



Name : Dr. Madhavan K.

Qualification: Ph.D., (IIT Bombay)

Designation : Assistant Professor

Contact Number : 9987105797

Email : madhavan@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/9c7e9e1e-0f24-4c02-

81d2-5f369969e7e1

Google Scholar ID

:https://scholar.google.com/citations?user=HL5

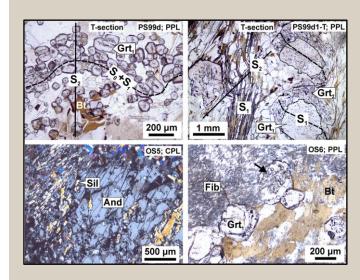
wKdkAAAAJ&hl=en

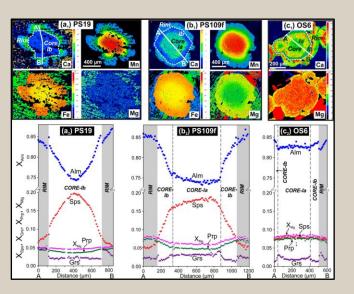
Scopus ID : 57194560148

Orcid ID :https://orcid.org/0009-0001-2805-

3556

- Geological and Geotechnical investigation of Landslides.
- Petrology and Exploration geology







### **Department: Civil Engineering**



Name: Dr. Mini Remanan

Qualification: Ph.D., (IIT Madras)

Designation :Assistant Professor

Contact Number : 9387818525

Email :mini@nitc.ac.in

Website address :

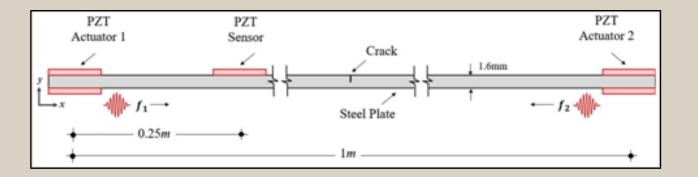
Google Scholar ID: J7MilZgAAAAJ

Scopus ID :

Orcid ID :

### Area of Research:

Micro-damage detection in structural elements using nonlinear wave mixing





### **Department: Civil Engineering**



Name : Dr. Muhamed Safeer P. K.

Qualification: Ph.D., (IIT Delhi)

Designation : Assistant Professor

Contact Number : 9895599785

Email : msafeerpk@nitc.ac.in

Website address :

Google Scholar ID: =FJ\_d8vIAAAAJ&hl=en

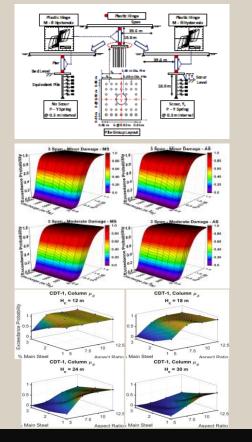
Scopus ID : 56626146500

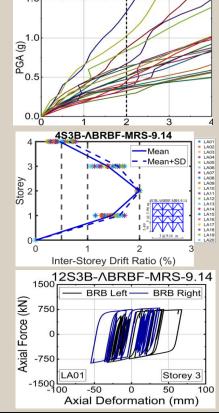
Orcid ID : 0000-0001-8325-4716

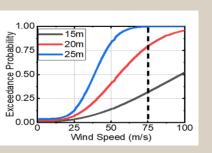
### Area of Research:

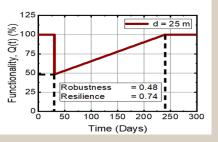
 Resilience and robustness assessment of steel framed structures, RC bridges and wind turbines against extreme loadings.

4S3B-ABRBF-MRS-9.14











### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

Department: Civil Engineering



Name: Dr. Munavar Fairooz C.

Qualification: Ph.D., (IIT Khatagpur)

Designation :Assistant Professor

Contact Number :7557818784

Email :fairoozmunavarc@gmail.com

Website address :https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/8ff967fc-9507-421f-

ac23-907143cf0ad8

Google Scholar ID

:https://scholar.google.com/citations?user=4B0S

odQAAAAJ&hl=en&authuser=1

Scopus ID

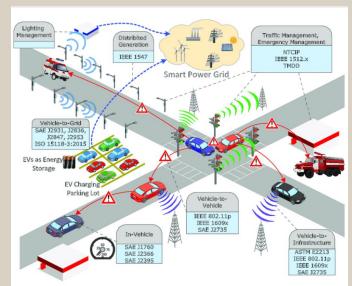
:https://www.scopus.com/search/form.uri?displ

ay=basic#basic

Orcid ID :https://orcid.org/0000-0002-5273-

0529

- Transportation Planning, Multi-modal Transportation Systems, Road Safety, Big Data Analysis, Machine Learning for Transportation Planning, Maritime transport
- Use a graphical representation describing your research(one or two images), if interested.







### **Department: Civil Engineering**



Name: Dr. Nishant Mukund Pawar

Qualification: Ph.D., (IIT Bombay)

Designation : Assistant Professor

Contact Number : +91 7989275326

Email : nmpawar@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/52ff84a4-cb58-47d2-

aaf2-1c38d1df497c

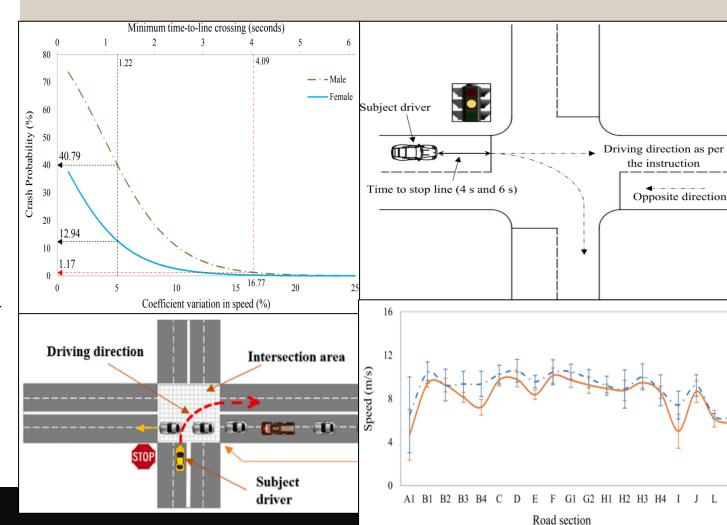
Google Scholar ID :

https://scholar.google.co.in/citations?user=I\_5IPzYAAAAJ&

hl=en

Scopus ID : 57212526365

Area of Research: Driver behavior modelling, accident analysis, road safety, human factors, road infrastructure design.





NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Civil Engineering**



Name : Dr. Prateek Negi

Qualification: Ph.D., IIT Delhi

Designation :Assistant Professor

Contact Number : 09953919464

Email :prateek@nitc.ac.in

Website address

https://nitc.ac.in/department/civil-engineering/faculty-

and-staff/faculty/c23c48a9-4464-43f5-b8e6-

271bd1ededae

Google Scholar ID:

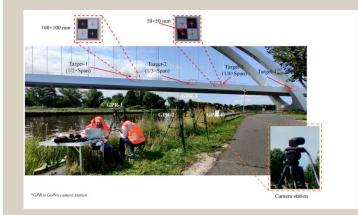
https://scholar.google.co.in/citations?user=78EUJksAAA

AJ&hl=en

Scopus ID: 57718315800

Orcid ID: 0000-0002-0429-4902

- Structural Health monitoring, Geotechnical Instrumentation
- Condition Assessment of Civil Structures, Bridges, Tunnels, Ports, Marine and Offshore Structures
- Rock Mechanics, Landslide Susceptibility Assessment, Full Depth reclamation of Roads







### **Department: Civil Engineering**



Name: Dr. Prethiv Kumar R

Qualification: Ph.D., (IIT Madras)

Designation : Assistant Professor

Contact Number : 8508525456

Email : prethivkumar@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/4f947545-0c44-

453d-a81a-bc704c71a73c

Google Scholar ID:

https://scholar.google.com/citations?hl=en&authuser

=1&user=OQOgzi0AAAAJ

Scopus ID : 57202996985

Orcid ID : 0000-0002-7521-6063

- Vibration of Offshore Structures
- Fluid Structure Interaction



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Civil Engineering**

Name : Ms. Reesha Bharath K.

Qualification: Pursuing PhD

Designation :Assistant Professor

Contact Number : :+919445419902

Email :reeshabharath@nitc.ac.in

Website address : <a href="https://nitc.ac.in/department/civil-engineering/faculty-and-staff/faculty/1bddfde6-8b87-">https://nitc.ac.in/department/civil-engineering/faculty-and-staff/faculty/1bddfde6-8b87-</a>

47ac-a423-93055db4f694

Google Scholar ID :W67Y6f0AAAAJ

Scopus ID :

Orcid ID :0000-0002-8325-0720

- Construction materials (Light weight concrete, Geopolymer concrete)
- Alternate building materials
- Construction management



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Civil Engineering**



Name: Dr. Renjitha Mary Varghese

Qualification: Ph.D., (IISc Bangalore)

Designation : Assistant Professor

Contact Number : 9496887320

Email : renjitha@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/5266b1d9-1fa6-4f62-

bae8-a827aa6068c6

Google Scholar ID

:https://scholar.google.com/citations?user=ioet

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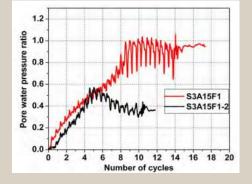
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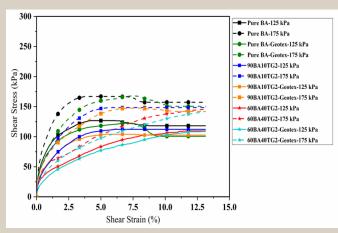
Orcid ID : 0000-0002-3773-6631

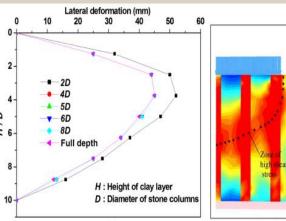
### Area of Research:

 Liquefaction potential of soils and its mitigation techniques; Reinforced earth retaining structures; Geotechnical seismic base isolation techniques; Landslide studies











NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Civil Engineering**



Name: Dr. Resmi S. R.

Qualification: Ph.D., (SVNIT Surat)

Designation :Assistant Professor

Contact Number : 9537632196

Email :resmi@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/565d9f61-5321-4b27-bbb6-a0ab213a7346

Google Scholar ID :AlSoVUQAAAAJ

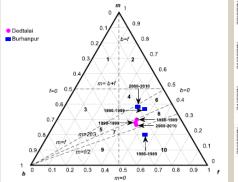
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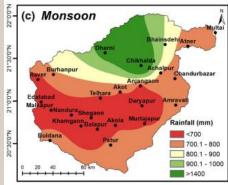
Orcid ID :0000-0003-3928-2853

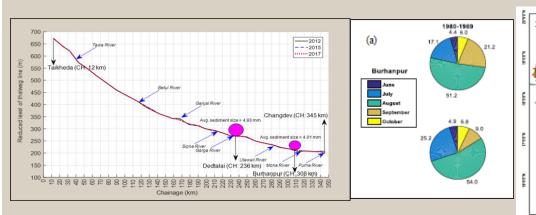
### Area of Research:

Fluvial Geomorphology and sediment transport studies in rivers; Remote
 Sensing and GIS applications in Water Resources; Hydrological analysis; Climate
 Change Impact on Basin Hydrology; Flood frequency analysis











### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Civil Engineering**



Name: Dr. Rohan Bhasker

Qualification: Ph.D., (IIT Madras)

Designation : Assistant Professor

Contact Number : +91-9176893811

Email : rohan@nitc.ac.in

Website address : https://nitc.ac.in/department/civilengineering/faculty-and-staff/faculty/1a58f18d-8f4d-412e-

a3c9-384c6528f971

Google Scholar ID:

https://scholar.google.com/citations?user=qoZHM9kAAAAJ

&hl=en

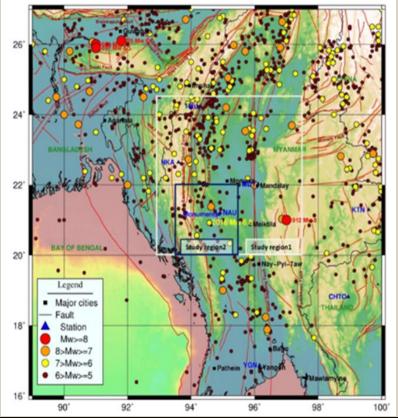
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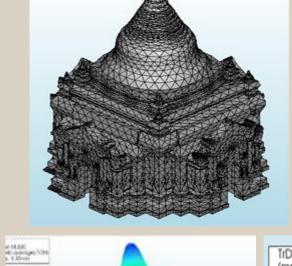
Orcid ID : 0000-0001-7428-8199

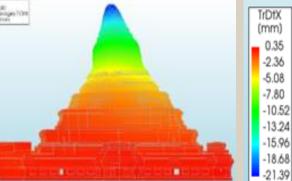
### Area of Research:

 Earthquake Engineering, Nonlinear Structural Analysis, Risk and Reliability Analysis, Reinforced Concrete and Masonry Structures, Applied Machine

Learning









### **Department: Civil Engineering**



Name: Dr.S K Pramada

Qualification: Ph.D., (IIT Madras)

Designation : Assistant Professor

Contact Number : +91-9656006952

Email : pramada@nitc.ac.in

Website address : <u>National Institute of Technology</u>

(nitc.ac.in)

Google Scholar ID:

https://scholar.google.com/citations?user=4A7sxEUAAAAJ

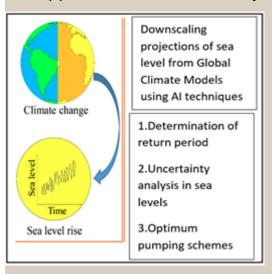
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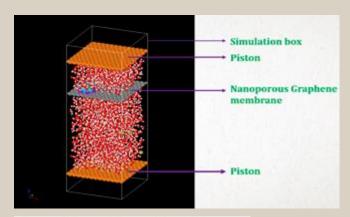
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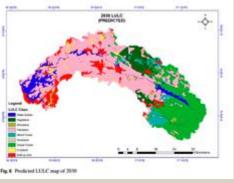
Orcid ID : 0000-0002-3597-3254

### Area of Research:

(1) Optimum dewatering schemes for open cast mining and construction works(2) Management of coastal areas under climate change scenarios(3) Application of AI techniques in water resources engineering and application of Molecular Dynamics Simulation for desalination process









### **Department: Civil Engineering**



Name : Dr. Sanjay Singh.

Qualification: Ph.D., (IIT Bombay)

Designation : Assistant Professor

Contact Number : 9004767438

Email : sanjaysingh@nitc.ac.in

Website address :

Google Scholar ID:

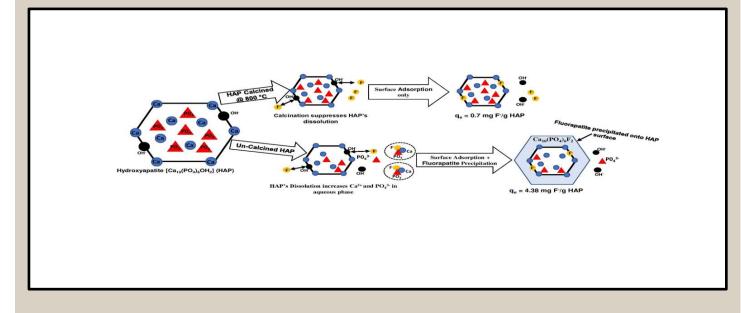
https://scholar.google.com/citations?user=0zXWHgIA

AAAJ&hl=en

Scopus ID : 57215185915

Orcid ID https://orcid.org/0000-0002-1888-097X:

- Groundwater treatment technologies. Removal of inorganic contaminants such as Fluoride, Arsenic, and Uranium.
- Wastewater treatment using hybrid Advanced Oxidation Processes





### **Department: Civil Engineering**



Name : Dr. Seethalakashmi P

Qualification: Ph.D., (IITGN)

Designation : Assistant Professor

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Email : seetha@nitc.ac.in

Website address : <u>National Institute of Technology</u>

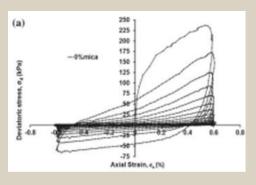
(nitc.ac.in)

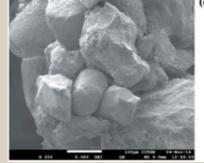
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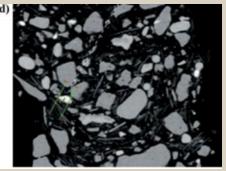
Scopus ID : 57201880306

Orcid ID : 0009-0006-8707-1828

- Shear strength and Dynamic behavior, Liquefaction susceptibility and cyclic instability of problematic soils
- Stress induced anisotropy of soils
- Microscopic Interparticle Interactions in Granular Materials subjected to Particle Breakage
- Influence of Salinity Ingression on shear behaviour of soft marine clay under different degree of saturation
- Performance of disconnected piled raft foundations
- Performance of Twin Tunnelling in Soft Soils









NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Civil Engineering**



Name : Dr. Sharan Kumar Goudar

Qualification: Ph.D., (NITK, Surathkal)

Designation :Assistant Professor

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Google Scholar ID

https://scholar.google.co.in/citations

?user=ClHELSIAAAAJ&hl=en

Website address

https://nitc.ac.in/department/civil

engineering/faculty-and

staff/faculty/5f729543-fb90-4ecf-

b3be-3133645cd13c

- Service life prediction of RC Structures,
- corrosion studies in RC Structures,
- Structural Stability of RC Structures,
- Analysis of Steel-concrete Interface,
- Development of sustainable high-speed railway sleepers,
- High-performance concretes
- Development of sustainable green concrete



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### Department: Civil Engineering

Name: Dr. Sudha Das Khan.

Qualification: Ph.D., (NIT Durgapur)

Designation : Assistant Professor

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49f1-a920-07173ad006c5

Google Scholar ID:

https://scholar.google.co.in/citations?user=WZx0who

AAAAJ&hl=en

Scopus ID :56196651100

Orcid ID :. 0000-0001-8764-4615

- Structural Health Monitoring of Reinforced Concrete Structures
- Application of Soft Computing techniques in Structural Health Monitoring
- Application of Decision Making techniques in Bridge Management System



### **Department: Civil Engineering**



Name: Dr. Vikas Poonia.

Qualification: Ph.D., (IIT Indore)

Designation : Assistant Professor

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4fd8-a34b-8d090dadfc8e

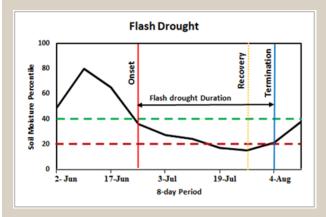
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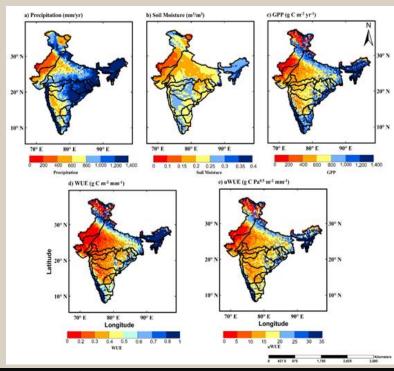
https://scholar.google.com/citations?user=Ede3YxgAA AAJ&hl=en&oi=ao

Scopus ID : 56126279900

Orcid ID : 0000-0001-5819-3747

- 1. Drought monitoring
- 2. Flash drought and forecasting
- 3. Climate change impact assessment
- 4. Crop modelling
- 5. Climate-vegetation interactions







### Department: Civil Engineering



Name: Dr. Yogeshwar V. Navandar

Qualification: Ph.D., (SVNIT, Surat)

Designation : Assistant Professor

Contact Number : 7741057366

Email : navandar@nitc.ac.in

Website address :

https://nitc.ac.in/department/civil-engineering/faculty-

and-staff/faculty/522600b3-5e98-445f-862f-

c67e8fc818f1

Google Scholar ID :

https://scholar.google.co.in/citations?user=K4ONQJQAAA

AJ&hl=en

Scopus ID

Area of Research:

Traffic Engineering, Road Safety, Infrastructure Management, Port Management, Virtual Reality, Transportation Economics

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT





# Faculty Expertise Department of Computer Science and Engineering

# LIST OF FACULTY

- > Dr. Abdul Nazeer K. A
- **▶** Dr. Priya Chandran
- > Dr. S. D. Madhu Kumar
- > Dr.Vineeth Paleri
- > Dr. Gopakumar G
- > Dr. Saidalavi Kalady
- **▶** Dr. Saleena N.
- **▶ Dr. Jimmy Jose**
- > Dr. Muralikrishnan K.
- > Dr. Vinod Pathari
- > Dr. Subhasree M
- > Dr. Subashini R
- > Dr. A. Sudarshan Chakravarthy

- > Dr. Amit Praseed
- > Dr. Anu Mary Chacko
- > Dr. Arun Raj Kumar P.
- > Dr. Anand Babu. N. B
- > Dr. Anil Pinapati
- ≻ Dr. Jayaraj P. B
- > Dr. Joe Cheri Ross
- > <u>Dr. Hiran V. Nath</u>
- > Dr. Jay Prakash
- > Dr. Pournami P. N.
- > Dr. Prabu Mohandas
- > Dr. Lijiya A
- > Dr. Manjusha K.

- **>** Dr. Renjith P
- > Dr. S. Sheerazuddin
- > Dr. Pranesh Das
- **▶** Dr. Raju Hazari
- > <u>Dr.Venkatarami Reddy</u> <u>Chintapalli</u>
- > Mr. Sreenu Naik Bhukya
- > Dr. T. Veni
- > Dr. Vasudevan A. R.
- > Mr. Sumesh T. A
- > Dr.Nirmal Kumar Boran
- > Mr. Srinivasa T. M



# LIST OF FACULTY

- > Dr. Chandramani Chaudhary
- > Dr. Santosh Kumar Behera
- > Dr. Muneeswaran P
- > Dr. Ashwin Jacob
- > Dr. Shweta
- > Dr. Vidhya Kamakshi
- > Dr. B Umamaheswara Sharma

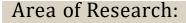


# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്നോളജി കാലിക്കറ്റ്

# राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

**Department: Computer Science and Engineering** 



N C

Name : Abdul Nazeer K A

Qualification: Ph.D. (NIT Calicut)

Designation

:Professor

Contact

: 91-495-2286818

Number Email

: nazeer@nitc.ac.in

Website address

https://people.cse.nitc.ac.in/nazeer/

Google Scholar

: ayUDm8IAAAAJ&hl=en

ID Scopus ID

: 36806639500

Orcid ID

: 0000-0002-0527-9026

Artificial Intelligence, Health Informatics

Bioinformatics, Data Science



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Computer Science and Engineering**



Name: Dr. Priya Chandran

Qualification: Ph.D., (IISc Bangalore)

Designation : Professor

Contact Number : 91 9895999306

Email : priya@nitc.ac.in

Website address : https://people.cse.nitc.ac.in/priya/

Google Scholar ID : 1686276427036

Scopus ID : 23395749400

Orcid ID :0000-0003-1822-9447

- Computer Architecture, Information Security, Formal Methods
- Security in Virtualization, Automatic Generation of Architectural Simulators
- 33 years of academic and Research Experience at NIT Calicut
- \* Ongoing Project page:





# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Computer Science and Engineering**



Name : Dr. S D Madhu Kumar

Qualification: Ph.D., (IIT Bombay)

Designation : Professor

Contact Number : 91 9447353393

Email : madhu@nitc.ac.in

Website address : https://people.cse.nitc.ac.in/madhu

Google Scholar ID:

Scopus ID : 18233852400

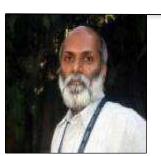
Orcid ID :\_orcid.org/0000-0002-5276-8842

- Cloud Computing, Big Data Analytics, Cyber Security
- 32 years of academic and Research Experience at NIT Calicut



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Computer Science and Engineering**



Name : Dr. Vineeth Paleri

Qualification: Ph.D., (IISc Bangalore)

Designation : Professor

Contact Number : 91 9447028869

Email : <u>vpaleri@nitc.ac.in</u>

Website address

https://people.cse.nitc.ac.in/vpaleri/

Google Scholar ID:

https://scholar.google.com/citations?user=u9aQj

M8AAAAJ&hl=en

Scopus ID :

Orcid ID : 0000-0002-3394-1558

Area of Research:

Programming, Programming Languages, Compilers



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്നോളജി കാലിക്കറ്റ്

# राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

## NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Computer Science and Engineering**



Name : Dr. Gopakumar G

Qualification: Ph.D., (University of Kerala)

Designation : Associate Professor

Contact Number : 9446032724

Email : gopakumarg@nitc.ac.in

Website address :

https://people.cse.nitc.ac.in/gopakumar/ Google

Scholar ID : gFTX6toAAAAJ

Scopus ID :

Orcid ID :

#### Area of Research:

 Computational Biology, AI/Machine Learning, Computational Drug Discovery, Biological Network Analysis



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ്

# राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Computer Science and Engineering**



Name : Dr. Saidalavi Kalady

Qualification: Ph.D.,(NIT Calicut)

Designation : Associate Professor

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Email : <u>said@nitc.ac.in</u>

Website address : https://people.cse.nitc.ac.in/saidalavi/

Google Scholar ID:

IXgE7V4AAAAJ&hl=en

Scopus ID : 25723260000

Orcid ID : 0000-0002-0923-4765

Area of Research:

Computer Architecture and Computational intelligence



# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Computer Science and Engineering**

Name : Dr. Saleena N

Qualification: Ph.D., (NIT Calicut)

Designation : Associate Professor

Contact Number : 91 495 228 6807 / 9995335860

Email : saleena@nitc.ac.in

Website address :https://people.cse.nitc.ac.in/saleena/

Google Scholar ID :

Scopus ID : 35753617700

Orcid ID : 0000-0002-2449-

7758

Area of Research:

Compilers, Programming Languages



# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Computer Science and Engineering**



Name : Dr. Jimmy Jose

Qualification: Ph.D., (IIT Kharagpur)

Designation : Associate Professor

Contact Number : 91 495 228 6812 / 9495872548

Email : jimmy@nitc.ac.in

Website address

https://people.cse.nitc.ac.in/jimmy

Google Scholar ID : tqxzB5IAAAAJ

Scopus ID : 56425215400

Orcid ID : 0000-0001-7074-090X

#### Area of Research:

Cryptography and Security

• Stream Ciphers, Cellular Automata, Hardware Security



# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Computer Science and Engineering**

Name: Dr. Muralikrishnan K.

Qualification: Ph.D., (IISc Bangalore)

Designation : Professor

Contact : 91 495 228 6805 / 9188868251

Number Email : <u>kmurali@nitc.ac.in</u>

Website address

Google Scholar

ID https://scholar.google.com/citations?user=4zqDLhIA

AAAJ& hl=en

Scopus :

ID Orcid :

ID IRINS :https://nitc.irins.org/profile/53759

DBLP :https://dblp.org/pid/17/6771.html

#### Area of Research:

- Algorithms, graph theory, complexity and coding theory.
- compilers, operating systems and database systems.

#### **Educational Programming Projects for undergraduates:**

- 1. eXpOS Operating System Coding Project: <a href="https://exposnitc.github.io/">https://exposnitc.github.io/</a>
- 2. eXpL Compiler Coding Project: <a href="https://silcnitc.github.io/">https://silcnitc.github.io/</a>
- 3. NITCBase RDBMS Coding Project: <a href="https://nitcbase.github.io/">https://nitcbase.github.io/</a>



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Computer Science and Engineering**



Name : Dr. Vinod Pathari

Qualification: Ph.D., IIT Bombay

Designation : Associate Professor

Contact Number : 91 495 228 6803 / 6801

Email : pathari@nitc.ac.in

Website address : https://tinyurl.com/pvinod

Google Scholar ID : t74GmO8AAAAJ

Scopus ID : 16176247800

Orcid ID : 0000-0002-2601-5265

- Information Security Management
- Authentication schemes in the IoT environment



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

## **Department: Computer Science and Engineering**

Name : Dr. Subhasree M

Qualification: Ph.D., (IIT Madras)

Designation : Associate Professor

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Email : <u>subha@nitc.ac.in</u>

Website address :

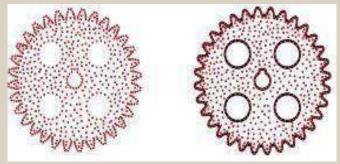
https://people.cse.nitc.ac.in/subha/

Google Scholar ID : zozwQ00AAAAJ

Scopus ID : 56708730000

Orcid ID : 0000-0003-1476-2594

- Computational Geometry
- Data Structures and Algorithms









# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Computer Science and Engineering**



Name : Dr. Subashini R

Qualification: Ph.D., (IIT Madras)

Designation : Associate Professor

Contact Number : +91-9567198141

Email : suba@nitc.ac.in

Website address

https://subanitc.github.io/subashini/

Google Scholar ID : TDKCxSIAAAAJ

Scopus ID : 56938553500

Orcid ID : 0000-0002-9724-3484

- Design and Analysis of Classical Algorithms for real-time Graph problems
- Design and Analysis of Parameterized Algorithms for NP-Hard Graph problems
- Classical and Parameterized Complexity Theory
- Data Structures and Graph Algorithms



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

## **Department: Computer Science and Engineering**



Name : Dr. A Sudarshan Chakravarthy

Qualification: Ph.D., (NIT Warangal)

Designation : Assistant Professor

Contact Number : 9866103571

Email : sudarshan.annadanam@nitc.ac.in

Website address

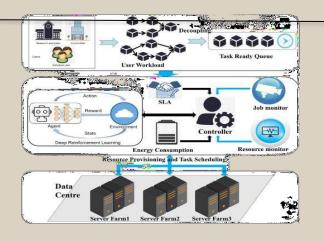
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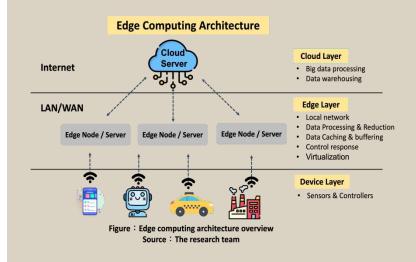
Google Scholar ID : Aq7wZdwAAAAJ

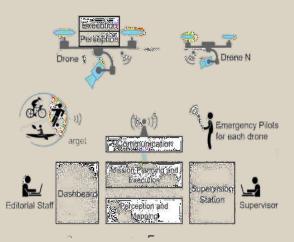
Scopus ID : 57208644143

Orcid ID : 0000-0001-7035-8225

- Cloud Computing
- Edge Computing
- Unmanned Aerial Vehicle Networks
- Vehicular Computing
- Energy Efficiency









# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Computer Science and Engineering**



Name: Dr. Amit Praseed

Qualification: Ph.D. (NITK Surathkal)

Designation : Assistant Professor (Grade II)

Contact : 8904611847

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Website :https://people.cse.nitc.ac.in/amitprase

address ed

: Ev1dvKYAAAAJ

Google Scholar ID

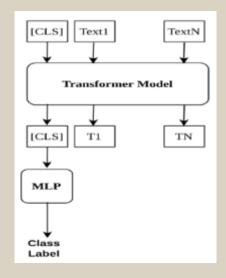
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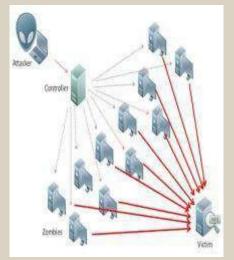
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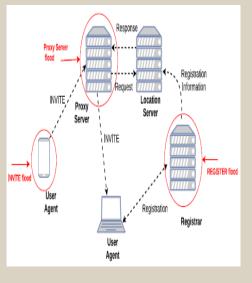
: 0000-0003-3965-0118

Orcid ID

- Modelling of user/system behavior for describing and detecting attacks against web applications
- Applications of data science and AI techniques for tackling security issues such as fake news detection and detection of machine generated text or code









# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Computer Science and Engineering**



Name: Dr. Anu Mary Chacko

Qualification: Ph.D., (NIT Calicut)

Designation : Assistant Professor (Grade I)

Contact Number : 9496135685

Email : anu.Chacko@nitc.ac.in

Website address :

https://people.cse.nitc.ac.in/achacko

Google Scholar ID : Anu Mary Chacko

Scopus ID : 56040154900

Orcid ID : https://orcid.org/0000-0001-7830-

8679

- Health Informatics with focus on EHR data Analytics
- Assistive Technology development for Intellectually Disabled.
- Fake Profiles in Online Social Networks



# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Computer Science and Engineering**



Name : Dr. Arun Raj Kumar P.

Qualification: Ph.D., (NIT Tiruchirappalli)

Designation : Associate Professor

Contact : 9894426777

Number Email : park@nitc.ac.in

Website address : https://www.nitc.ac.in

Google Scholar

: by5zZUYAAAAJ

ID

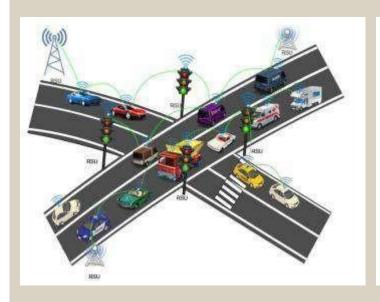
: 57193792435

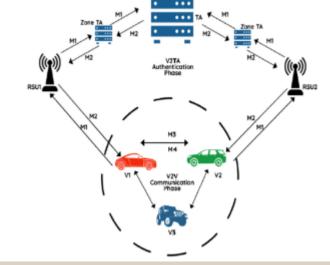
Scopus : 0000-0001-9052-2002

**ID** Orcid

ID

- Computer Networks (VANET, UAVNET, etc.)
- Network Security
- Malware Analysis







# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ്

# राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# Department of Computer Science and Engineering



Name: Dr. Anand Babu. N.B

Qualification: Ph.D., (IIT Bombay)

Designation : Assistant Professor

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https://people.cse.nitc.ac.in/anandbabu/

Google Scholar ID:

https://scholar.google.de/citations?user=3PHhwFwAAAAJ

&hl=en

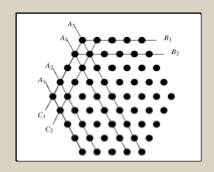
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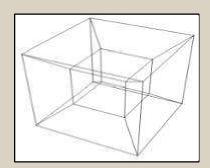
Orcid ID : https://orcid.org/0000-0002-9904-

0488

- · Combinatorics.
- Probabilistic problems on graphs and hypergraphs.
- Graph Theory & Algorithms their applications to Theoretical Computer Science.

$$X_{t+1} = X_t + \sum_{i,j} [\frac{1}{2} \frac{a_i b_i}{X_t} \frac{1}{n+1} (b_j - b_i) + \frac{1}{2} \frac{a_i b_i}{X_t} \frac{1}{n+1} (a_j - a_i)]$$







# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

## **Department: Computer Science and Engineering**



Name : Dr. Anil Pinapati

Qualification: Ph.D., (NIT Warangal)

Designation : Assistant Professor

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Email : anilpinapati@nitc.ac.in

Website address :

Google Scholar ID :

Scopus ID :

Orcid ID : 0000-0001-7767-989X

- Information Security and Cryptography
  - Improving the efficiency of scalar multiplication in ECC
  - Digital signatures with Bilinear pairings



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്നോളജി കാലിക്കറ്റ്

# राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

## NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

## **Department: Computer Science and Engineering**



Name : Dr. Jayaraj P B

Qualification: Ph.D., (NIT Calicut)

Designation : Associate Professor

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Google Scholar ID :

https://scholar.google.co.in/citations?user=SPj98

qcAAAAJ&hl=en

Scopus ID : 57196066549

Orcid ID : https://orcid.org/0000- 0002-9924-

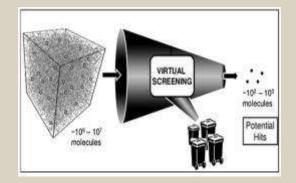
9046

#### Area of Research:

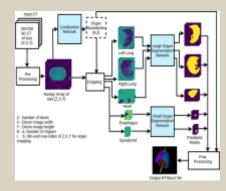
Artificial Intelligence, Machine learning, Deep learning, Computer Vision, AI in HealthCare

Applying engineering solutions for healthcare applications

- Developed a biomedical device for Primary Screening Cervical Cancer
- Constructed an Autocontrouing Station for helping in Radiotherapy
- Created tools for helping in Virtual Screening in Computational Drug Discovery









# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

## **Department: Computer Science and Engineering**

Name : Dr. Joe Cheri Ross

Qualification: Ph.D., (IIT Bombay)

: Assistant Professor Designation

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: https://people.cse.nitc.ac.in/joe

Google Scholar

:https://scholar.google.com/citation s?user=fFaMrF0AAAAJ&hl=en

ID

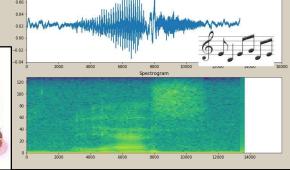
Scopus ID : https://orcid.org/0000-0001-

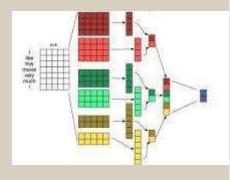
#### Area of Research:

Music Information Retrieval (MIR), Natural Language Processing (NLP):

- Retrieval tasks including motif identification in Indian classical music
- Retrieval tasks for popular music like cover song identification, structural segmentation. Also focusing on similarity computation for Indian classical and popular music.
- Multi-modal approaches involving text and audio for MIR.
- Text classification problems leveraging Large Language Models and Knowledge Graphs.









# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

## **Department: Computer Science and Engineering**

## Area of Research:



Name : Dr. Hiran V Nath

Qualification: Ph.D., (IDRBT/UoH)

Designation :Assistant Professor

Contact :9895744150

Number Email :hiranvnath@nitc.ac.in

Website :https://sites.google.com/site/hira

address nvnath/

Google Scholar :a6X5I14AAAAJ

ID Scopus ID :43261854300

Orcid ID :0000-0001-7881-

4694

Cyber Security and Forensics, Computer Networks

- Vulnerability Assessment and Penetration Testing, along with attack graph
- Detecting malware and its analysis process
- Forensics analysis of cyber security incidents, evidence generation and root cause analysis
- Threat Intelligence



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ്

# राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

## **Department: Computer Science and Engineering**



Name : Dr. Jay Prakash

Qualification: Ph.D., (IIITM, Gwalior)

Designation : Assistant Professor (Grade II)

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Website address

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Google Scholar ID:

https://scholar.google.co.in/citations?user=K9zg8jkAAAAJ&

<u>hl=en</u>

Scopus ID : 56770747700

Orcid ID : 0000-0002-0048-5621

- Machine Learning,
- Computational Intelligence,
- Data & Text Mining,
- Multi-Objective Optimization



# നാഷണൽ ഇൻസ്സിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

## **Department: Computer Science and Engineering**



Name : Dr. pournami P N

Qualification: Ph.D., (NIT Calicut)

Designation : Associate Professor

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Website address

https://people.cse.nitc.ac.in/pournami/

Google Scholar ID : vTXulXoAAAAJ

Scopus ID : 55341891800

Orcid ID : 0000-0002-8846-2044

#### Area of Research:

• Computer vision, Medical image processing and analysis, machine learning, Deep learning.



**Department: Computer Science and Engineering** 

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



: Dr. Prabu Mohandas Name

Qualification: Ph.D., (Anna University)

: Associate Professor Designation

**Contact Number** : 9994058168

: prabum@nitc.ac.in Email

: https://www.nitc.ac.in Website address

Google Scholar ID:

https://scholar.google.co.in/citations?user=woQhAcoAAAAJ

&hl=en

: 57193065854 Scopus ID

: 0000-0002-8296-6428 Orcid ID

- Image Processing (Plant Disease, Object Detection)
- Medical image Processing(Mammogram & Thermal Images)
- **Intelligent Transportation System**
- Machine Learning



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്നോളജി കാലിക്കറ്റ്

# राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

## **Department: Computer Science and Engineering**



Name : Dr. Lijiya A

Qualification: Ph.D., (NIT Calicut)

Designation : Associate Professor

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Website address

: https://people.cse.nitc.ac.in/lijiya/

Google Scholar ID

https://scholar.google.com/citations?user=iJvLadwAAAAJ&

hl=en

Scopus ID : 55438229300

Orcid ID : https://orcid.org/0000-0002-8310-

1362

Area of Research: Computer Vision, Artificial Intelligence, Machine Learning

- Currently my Research focus is on Assistive Technology(AT) mainly in the following areas:
  - . AT for Hearing Impaired 2. AT for Vision Impaired
    - 3. Tools for detecting learning Disability.
- Deepfake Detection Tools



Assistive Technology



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

## **Department: Computer Science and Engineering**

Name : Dr. Manjusha K

Qualification: Ph.D., (Amrita)

Designation : Assistant Professor

Contact Number : 9626968726

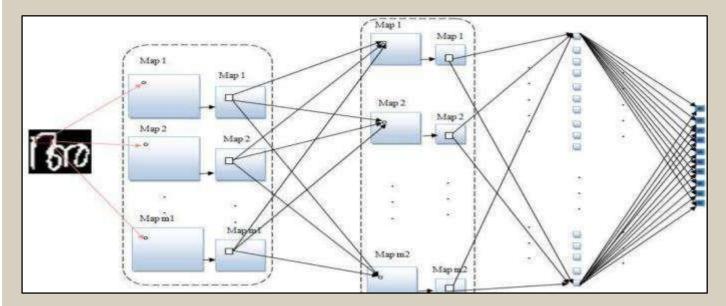
Email : manjusha@nitc.ac.in

Google Scholar ID : vm409CsAAAAJ

Scopus ID : 36998803700

#### Area of Research:

→ OCR - Worked in the recognition of character images extracted from scanned document images especially in the Malayalam script



★ Currently working on Satellite Images for extracting useful information using Machine Learning techniques



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

## **Department: Computer Science and Engineering**



Name : Dr. Renjith P.

Qualification: Ph.D (IIITDM

Kancheepuram)

Designation : Assistant Professor

Contact Number : 9446677222

Email : renjith@nitc.ac.in

Website address :

Google Scholar ID : Ux-N1UoAAAAJ

Scopus ID: 57140612900

Orcid ID : 0000-0002-4934-4571

Area of Research: Graph theory and Graph algorithms.

Dichotomy results on the complexity of some problems in graph theory

• Can we partition a graph class into two such that in one of the class a decision problem is NP-Complete, and in the other it has a polynomial-time solution?

Some results and ongoing research

Problem	$K_{1,5}$ -free split graph	$K_{1,4}$ -free split graph
Steiner tree problem	NP-Complete	Polynomial
Hamiltonian cycle problem	NP-Complete	Polynomial
Hamiltonian path problem	NP-Complete	Polynomial
Total Outer-Connected Dominating set	NP-Complete	in progress

Some open problems for further research

Problem	Graph class	Status
Characterization for Hamiltonian path*	k-trees (fixed $k \ge 3$ )	open
and Hamiltonian cycle*		
Spanning tree* with at most (at least)	k-trees (fixed $k \geq 3$ ),	open
'm' leaves	split graphs	



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ്

# राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Computer Science and Engineering**



Name: Dr. S Sheerazuddin

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Number Email : sheeraz@nitc.ac.in

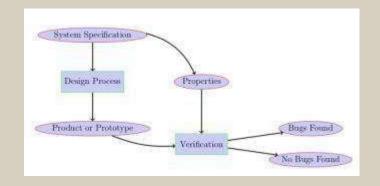
Website address : https://sheerazuddins.github.io/

Google Scholar : Eu75tbEAAAAJ

ID Scopus ID : 36835572400

Orcid ID : 0009-0007-6004-2703

- → Logic & Automata
- → Model Checking
- → Multi Agent Systems
- **→** Probabilistic Verification







# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# Department : Computer Science and Engineering Department:



Name : Dr. Pranesh Das

Qualification: Ph.D., (NITN)

Designation : Assistant Professor

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Email

:praneshdas@nitc.ac.in

Website address

duuless

https://nitc.ac.in/department/computer-science-amp-engineering/faculty-and-staff/faculty/page/3

Google Scholar ID :

https://scholar.google.com/citations?user=suWm38AAA

AAJ&hl=en Scopus ID

: 55823595100

Orcid ID : 0000-0002-4375-676X

Area of Research:

Data mining, optimization, machine learning and applied computing



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Computer Science and Engineering**

Name : Dr. Raju Hazari

Qualification: Ph.D., (IIEST)

Designation : Assistant Professor

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Google Scholar : rcogsCMAAAAJ

ID Scopus ID : 55794688700

Orcid ID : 0000-0003-1145-959X

- Cellular Automata
- Machine Learning



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ഒടക്ലോളജി കാലിക്കറ്റ്

# राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

## **Department: Computer Science and Engineering**



Name: Dr.Venkatarami Reddy

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b8d0-41a5-9c04- eb7ee4433e78

Google Scholar ID :

https://scholar.google.co.in/citations?user=17bBkH

EAAAAJ&hl=en

Orcid ID : 0000-0003-2806-2230

#### Area of Research:

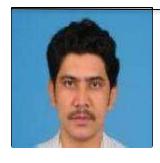
Softwarization and Cloudification of Networks (Network Function virtualization (NFV)) for Beyond 5G and 6G, Networks and Wireless systems, Open Radio Access Networks (O-RAN), Mobile Edge Computing, Vehicular Networks, Internet of Things (IoT), Machine learning in networks.

- Current area of work
  - Designing mechanisms at NFV orchestrator for ensuring performance isolation for End-to-End (E2E) Network Slicing for B5G and 6G services.
  - AI/ML for vRAN network slicing



# **Department: Computer Science and Engineering**

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name: Mr. Sreenu Naik Bhukya

Qualification: M.Tech, (Ph.D) (IITDhanbad)

Designation : Assistant Professor

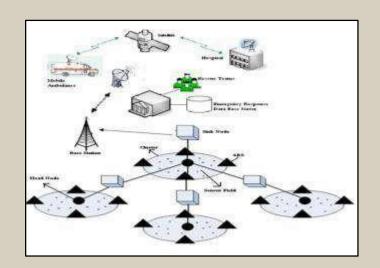
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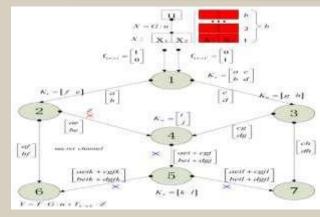
Email : bsnaik 81@nitc.ac.in

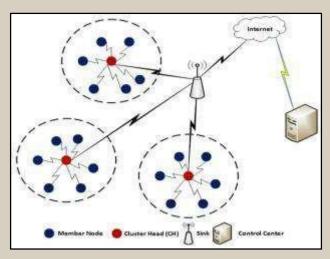
Website address :https://people.cse.nitc.ac.in/sree

nunaikbukya/

- → Wireless Sensor Networks
- **→** Energy Efficiency
- → Network Coding









NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

## **Department: Computer Science and Engineering**



Name: Dr. T. Veni

Qualification: Ph.D., (NIT Trichy)

Designation : Assistant Professor

Contact Number : 9894613178

Email : veni@nitc.ac.in

Website address

https://people.cse.nitc.ac.in/veni/

Google Scholar ID : gjBOZG8AAAAJ

Scopus ID : 57202679464

Orcid ID : 0000-0003-3510-4654

- Cloud Computing
- Fog Computing
- Internet of Things (IoT)



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ഒടക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

## **Department: Computer Science and Engineering**

Name: Dr. Vasudevan, A. R.

Qualification: Ph.D. (NIT Trichy)

Designation : Assistant Professor

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Website address

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Google Scholar ID :

Scopus ID : 56659194600

Orcid ID : 0000-0002-2943- 0026

- Areas of Interest
  - Network Security, Systems Security, IoT and IoT Security
  - Security issues in UAVs
  - Practical applications of AI in defensive cybersecurity



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്നോളജി കാലിക്കറ്റ്

# राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Computer Science and Engineering**

Name: Mr. Sumesh T A

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Google Scholar :

ID Scopus ID :

Orcid ID : 0000-0001-6579-

3193

- Computer Networks
- Computer Vision



### शक्षाय प्राचानिका सस्यान कालाकट NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Computer Science and Engineering**



Name: Dr. Nirmal Kumar Boran

Qualification: Ph.D., (IITB)

Designation Contact: Assistant Professor

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Website address : nirmalkboran@nitc.ac.in

Google Scholar ID : https://people.cse.nitc.ac.in/nirmal/

https://scholar.google.com/citations?user=u8xcsoMAAAAJ

&hl=en

Scopus :

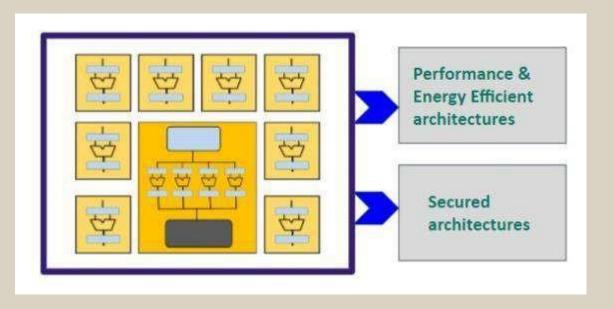
ID

: 0000-0003-3942-

Orcid ID 7899

#### Area of Research:

I work in the domain of computer architecture, processor design, security.





### **Department: Computer Science and Engineering**



Name: Mr. Srinivasa T M

Qualification: M.Tech., (PhD)

Designation : Assistant Professor

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Website address

https://nitc.ac.in/department/computer-science- amp-

engineering/faculty-and-staff/faculty

- DNA Computing, Parallel Computing
- HPC, Hardware



### Department of Computer Science and Engineering



Name : Dr. Chandramani Chaudhary

Qualification: Ph.D., Birla Institute of

**Technology And Science** 

Designation Contact: Assistant Professor

Number Email : 9462101856

Website address : chandramanic@gmail.com

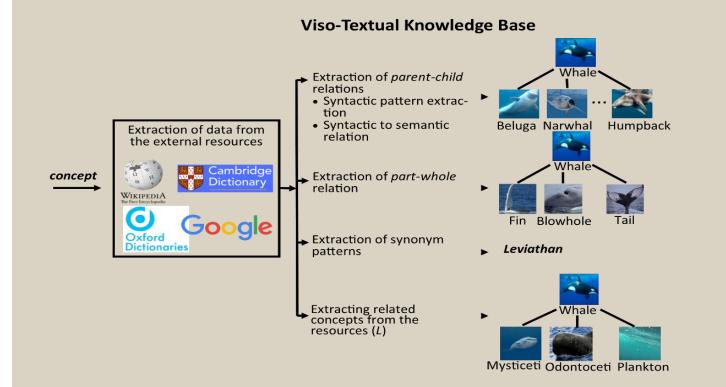
Google Scholar ID :

Scopus ID : Ds7Rs3IAAAAJ&hl=en

: 57202302678

#### Area of Research:

Currently focused on constructing knowledge graphs by harnessing multimodal data, which entails the intersection of machine learning, computer vision, and natural language processing. Concurrently, actively engaged in the field of drug discovery research.





### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Computer Science and Engineering**



Name: Dr. Santosh kumar Behera

Qualification: Ph.D., IIT Bhubaneswar

Designation Contact: Assistant Professor

Number Email : 9861610637

Website address : skbehera@nitc.ac.in

:https://scholar.google.co.in/citations

?user=3Pq3UdQAAAAJ&hl=en

Google Scholar ID

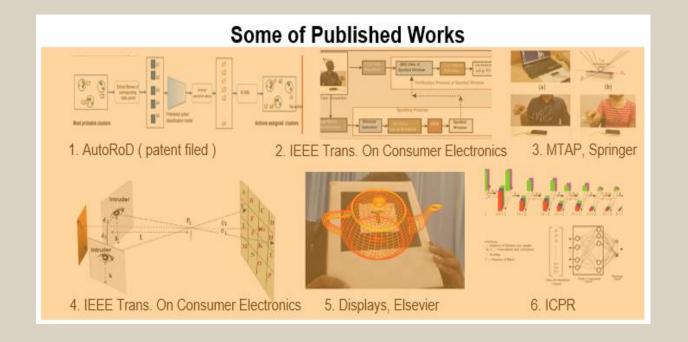
:https://sites.google.com/view/behe

rask/research

#### Area of Research:

Artificial Intelligence, Computer Vision, Human Computer Interaction, Augmented and Virtual Reality, Biomedical Image Processing

- 1. A Robust Biometric Authentication System using 3D Finger Motions in Air
- 2. <u>Computer-Vision-Guided Human Pulse Rate Estimation</u>
- 3. <u>Designing of Marker-based Augmented Reality Learning Environment for Kids</u>





### **Department: Computer Science and Engineering**



Name: Dr. Muneeswaran P

Qualification: Ph.D., (IIT Mandi)

Designation : Assistant Professor

Contact Number : 8056808608

Email : muneeswaranp@nitc.ac.in

Website address :

Google Scholar ID: U4r15B4AAAAJ

Scopus ID : 57219145653

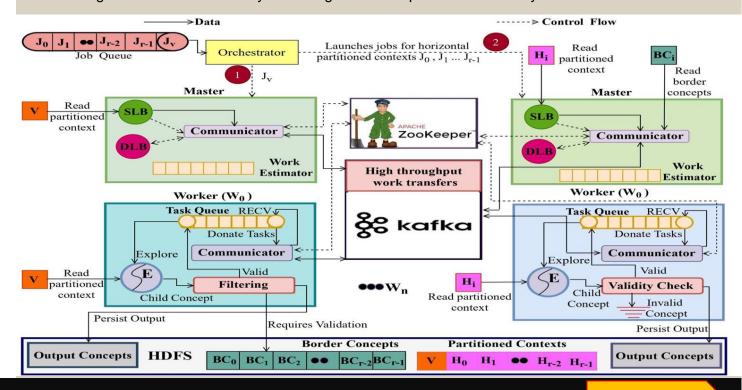
Orcid ID : 0000-0003-4099-3003

#### Area of Research:

Distributed System, IoT, Formal Concept Analysis, and Federated Learning Write two to three points about your area of expertise/Current area of work.

Designing a scalable distributed framework to handle the irregular workload that runs on commodity hardware.

Provisioning the resources elastically according to the computational efficiency of the cluster.





### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Computer Science and Engineering**



Name : Dr. Ashwin Jacob

Qualification : Ph.D., Institute of

Mathematical Sciences, Chennai, HBNI,

India

Designation : Assistant Professor Grade II

Contact Number : 7306067288

Email : ashwinjacob@nitc.ac.in

Website address

https://scholar.google.com/citations?user

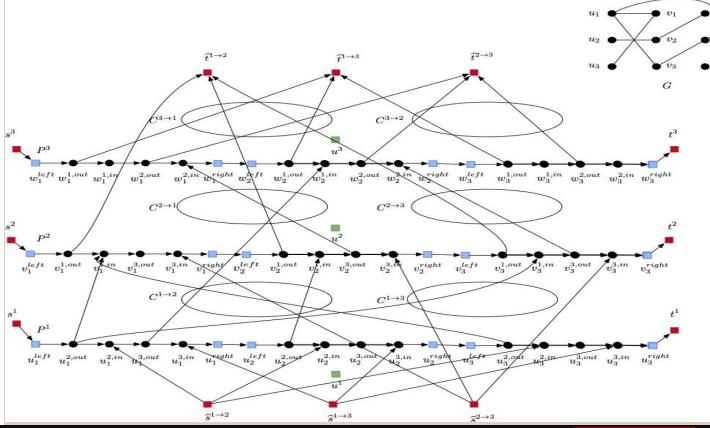
Google Scholar ID =nyQkLtQAAAAJ&hl=en

Scopus ID : 57202372156

Orcid ID : 0000-0003-4864-043X

#### **Area of Research:** Parameterized Algorithms

Primary research interest is in the parameterized complexity of graph algorithms with a special focus on vertex deletion problems and associated structural parameterizations.





### **Department: Computer Science and Engineering**



Name : Dr. Shweta

Qualification: Ph.D., IIIT Allahabad

Designation : Assistant Professor

Contact Number: 8953890437

Email : shweta@nitc.ac.in

Website address :https://sites.google.com/view/sh

wetawebpage?usp=sharing

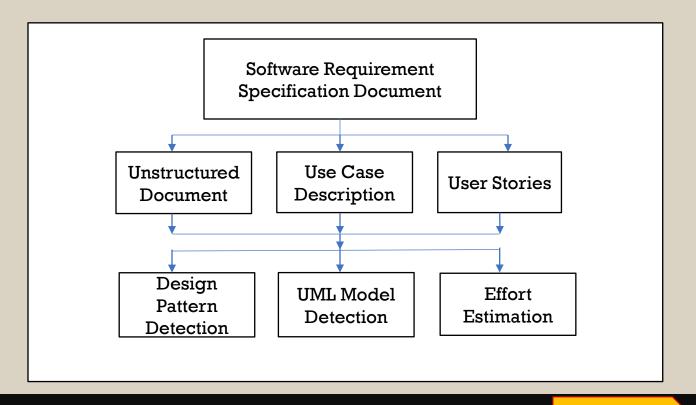
Google Scholar ID: 7uPRe50AAAJ Scopus ID: 57206353176

Orcid ID : 0000-0003-3935-8256

#### Area of Research:

I have dedicated my research efforts to the areas of Natural Language Processing, software engineering, and requirement modelinG.

I am also focusing over different research domain in software engineering such as effort estimation, design pattern detection.





#### **Department: Computer Science and Engineering**



Name : Dr. Vidhya Kamakshi

Qualification: Ph.D., IIT Ropar

Designation : Assistant Professor

Contact Number: 9003662809

Email : vidhyakamakshi@nitc.ac.in

Website address:

Google Scholar ID:

https://scholar.google.com/citations?user=Fi-

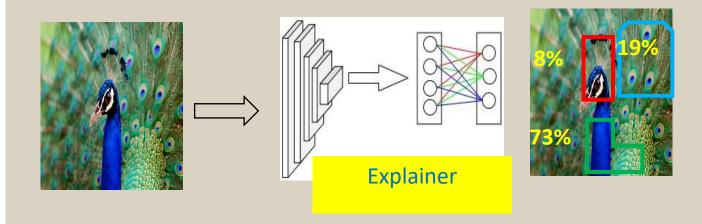
R6wEAAAAJ&hl=en

Scopus ID : 57225895617

Orcid ID : 0000-0001-7588-6318

### **Area of Research:** Explainable AI, Computer Vision

My research attempts to unravel the black box nature of Neural Networks, which is one of the current state-of-the-art machine learning models, thereby encouraging more research and applications leveraging these models, which already have great representational and generalization ability and shall have better explainable nature which the users and researchers can leverage to fine-tune the models and apply them onto various high-risk application scenarios as well where currently the use of these state of the art neural network models is limited due to their uninterpretable and black box nature.





### നാഷണൻ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ്

### राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Computer Science and Engineering**



Name : Dr. Umamaheswara Sharma B

Qualification: Ph.D., NIT Warangal

Designation : Assistant Professor

Contact Number: 9542954304

Email : busharma@nitc.ac.in

Website address:

Google Scholar ID:

https://scholar.google.com/citations?user=Jd

gEWh4AAAAJ&hl=en

Scopus ID

Orcid ID : 0000-0003-1676-3347

#### Area of Research:

Software Engineering, Document Analysis and Recognition, Machine Learning, Software Reliability

Current focus of my research is on the topic such as Software Defect Prediction, Investigating the Feasibility of SDP models and the Handwritten Character Recognition Models.

## NATIONAL INSTITUTE OF TECHNOLOGY CALICUT





# Faculty Expertise Department of Electrical Engineering

### LIST OF FACULTY

- Dr. Angshudeep Majumdar
- Dr.KM Arun Neelimegham
- > Dr. Harish Sudhakaran Nair
- > Dr. Jagadanand G
- > Dr.S.Kanagalakshmi
- > Dr. Kumaravel S.
- > Dr. Mija S I
- > Dr. Mithun M. S.
- > Dr. Nasirul Haque
- Dr. Nikhil Sasidharan
- > Dr. Preetha P
- > Dr. Rakesh R Warier
- > Dr. Rijil Ramchand
- > Dr. Sanjay M

- Dr. Shreelakshmi M P
- > Dr. Sindhu T K
- Dr. Subha D. Puthankattil
- > Dr. Subhash K.M.
- Dr. Sunitha R
- Dr. Vivek Mohan
- > Dr.S.N.Deepa
- Dr. Nimal Madhu M.
- Dr. Devesh Shukla
- Dr. Ashiq Muhammed P E
- > Dr. Ranjith Ravindranathan Nair
- Dr. M. Raghuram
- Dr. Sathiya S
- > Dr. Rahul Radhakrishnan



### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

#### **Department: Electrical Engineering**

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name: Dr. Angshudeep Majumdar

Qualification: PhD, IIT Kharagpur

Designation : Assistant Professor (Level-10)

Contact Number : +91-7605807068, +91-9836156758

Email : angshudeepmajumdar@nitc.ac.in

Website address :

https://nitc.ac.in/department/electrical-engineering/faculty-and-staff/faculty/4c97e871-2bbe-4a80-9d8a-abb42ab85782

Google Scholar ID :

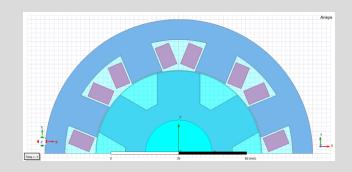
https://scholar.google.com/citations?hl=en&user=JXNiwnAAA

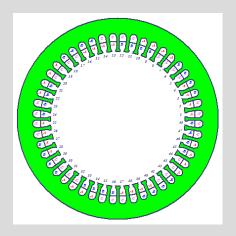
AAJ

Scopus ID : 57191861986

Orcid ID : 0000-0001-5525-7282

- Analysis of electrical machines using finite element method
- Design and control of non-conventional machines for electric vehicles application







### നാഷണൽ ഇൻസ്സിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Electrical Engineering**

Name: Dr.KM Arun Neelimegham

Qualification: Ph.D., (IIT Kharagpur)

Controller design for time delay systems

Modelling of fuzzy PID controller

Model Predictive control

Area of Research:

• Controller design for power converters

Designation :Assistant Professor

Contact Number :8436239866

Email :arunkm@nitc.ac.in

Website address :

Google Scholar ID

https://scholar.google.com/citations?user=qoN8BvIAAAAJ

&hl=en&authuser=1

Scopus ID :57210475402

Orcid ID :https://orcid.org/0000-0002-3077-

9305



#### **Department: Electrical Engineering**

Name: Dr. Harish Sudhakaran Nair

Qualification: Ph.D., IIT Madras

Designation : Assistant Professor

Contact Number : +91-9487130637, +91-495-2286390

Email : harishsn@nitc.ac.in

Scopus ID : 57189581141

Orcid ID : 0000-0003-4487-1337

### Area of Research:

#### **Power Electronics**

- Broad area of research expertise is in the advanced control of power electronic converters.
- Current research is focused on
  - predictive control of single-phase and three-phase front-end rectifiers
  - modeling and analysis of high-frequency switching effects on control implementation
  - digital control techniques for high-frequency switched power supplies



### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Electrical Engineering**



Name: Jagadanand G

Qualification: Ph.D., (NIT Calicut)

Designation : Professor, EED

Contact Number : 9447923071

Email : jagadanand@nitc.ac.in

Website address :

https://nitc.ac.in/department/electrical-

engineering/faculty-and-staff/faculty/71bd0f45-f3ac-41b1-

b20b-6b7c93acafa1

Google Scholar ID :

https://scholar.google.com/citations?user=Rtst11YAAAAJ&

hl=en

Scopus ID : 57202913709

Orcid ID : 0000-0001-8299-2450

Area of Research:

Condition Monitoring of Electric Systems - including Motors, Converters / Inverters, Energy Storage Systems etc.

- Electric Vehicles.
- Embedded system.



### നാഷണൽ ഇൻസ്സിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Electrical Engineering**



Name: Dr.S.Kanagalakshmi

Qualification: Ph.D. (Anna

Designation :Assistant Professor

Contact Number :9445324164

Email :kanagalakshmi@nitc.ac.in

Website address :

https://nitc.ac.in/department/electrical

Google Scholar ID

https://scholar.google.com/citations?hl=en&user=qlmU

cx0AAAAJ#d=gs\_hdr\_drw&t=1686209556855

Scopus ID

Orcid ID :0000-0002-6935-5905

- Process control automation
- Control & Instrumentation
- Multi-model Control Systems
- Adaptive Control
- Machine learning in Process control
- Robotics & Control



Interacting Hybrid Tank system



DSP based DAQ







Quadrotor



#### **Department: Electrical Engineering**

#### Area of Research:

Name: Dr. Kumaravel S.

Qualification: Ph.D., (NITC), PDF (UCD – Ireland)

Designation : Associate Professor

Contact Number : 9645654204

Email : kumaravel\_s@nitc.ac.in

Website address :

https://nitc.ac.in/department/electrical-

engineering/faculty-and-staff/faculty/b681c4cb-2694-

4ee9-b826-c9b41378654d

Google Scholar ID

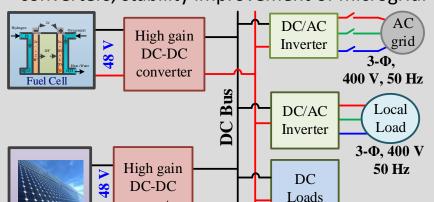
https://scholar.google.co.in/citations?user=Ce-

6ipUAAAAJ&hl=en

Scopus ID : 56862003200

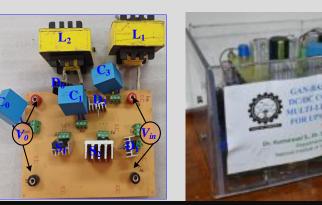
Orcid ID : 0000-0002-3795-7768

Design and development of high gain DC-DC converters and Multi-input DC-DC converters, stability improvement of microgrid.









converter



### നാഷണൽ ഇൻസ്സിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

#### **Department: Electrical Engineering**

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name: Dr. Mija S J

Qualification: Ph.D., (National Institute

of Technology Calicut)

Designation : Associate Professor

Contact Number : 9446336388

Email : mija@nitc.ac.in

Website address: <a href="https://nitc.ac.in/department/electrical-engineering/faculty-and-staff/faculty/b12754c4-3937-4889-9bb8-e817e10ee824">https://nitc.ac.in/department/electrical-engineering/faculty-and-staff/faculty/b12754c4-3937-4889-9bb8-e817e10ee824</a>

Google Scholar ID :

https://scholar.google.com/citations?user=SZPdW0cAAAAJ &hl=en

Scopus ID

https://www.scopus.com/authid/detail.uri?authorId=25724 563100

#### Area of Research:

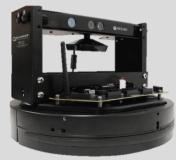
Analysis and control of nonlinear systems, flight control systems, multi-agent systems, robotic systems, sliding mode control, biologically inspired controllers, etc.

















#### **Department: Electrical Engineering**

### Area of Research:



Name: Dr. Mithun M. S.

Qualification: Ph.D., IIT Madras

Designation : Assistant Professor, EED

Contact Number : 9176033036, 7034907040

Email : mithunms@nitc.ac.in

Website address : www.nitc.ac.in

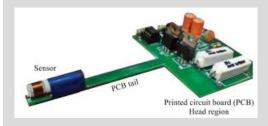
Google Scholar ID : KFsOMRsAAAAJ

Scopus ID : 55388645600

Orcid ID : 0000-0002-1960-685X

Measurements and Instrumentation

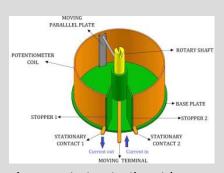
- Design of inductive and capacitive sensors
- Condition monitoring and diagnostics of transformers



A miniaturized inductive proximity sensor with extended sensing range



A cost-effective, capacitance-based ppm sensor for transformers



A non-contact, potentiometric angle transducer



### നാഷണൽ ഇൻസ്സിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

#### **Department: Electrical Engineering**

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

Name: Dr. Nasirul Haque

Qualification: Ph.D., (Jadavpur Univ.)

High Voltage Engineering

Dielectric Materials

Condition Monitoring of Power Apparatus

Partial Discharge

Area of Research:

Designation :Assistant Professor

Contact Number :9051012358

Email :nasirul@nitc.ac.in

Website address :

Google Scholar ID

https://scholar.google.com/citations?user=9c6JgZkAAAAJ&

hl=en

Scopus ID :56740430500

Orcid ID :https://orcid.org/0000-0003-3150-

4511



### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

**Department: Electrical Engineering** 

### Area of Research:



Name: Nikhil Sasidharan

Qualification: Ph.D., (AIT, Bangkok)

Designation :Assistant Professor

Contact Number :8943680434

Email :nikhils@nitc.ac.in

Website address :

Google Scholar ID

https://scholar.google.com/citations?user=ACGy9xQAAAAJ&

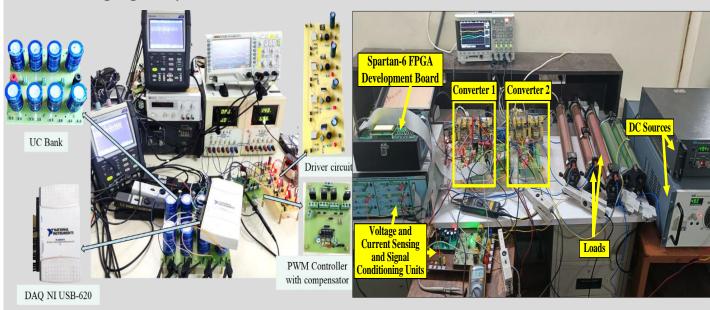
<u>hl=en</u>

Scopus ID :56866034600

Orcid ID :0000-0002-8188-3444

Low voltage microgrid modelling

- EV motor/ Drive design,
- Solar PV installation
- EV charging adapters





### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Electrical Engineering**



Name : Dr. Preetha P

Qualification: Ph.D., Indian Institute of Science,

Bangalore

Designation : Professor

Contact Number : 0495 2286315, 0495-2288016

Email : preetha@nitc.ac.in

Website address: <a href="https://nitc.ac.in/department/electrical-engineering/faculty-and-staff/faculty/d8f0a408-4fef-4738-aa36-a09434872961">https://nitc.ac.in/department/electrical-engineering/faculty-and-staff/faculty/d8f0a408-4fef-4738-aa36-a09434872961</a>

Google Scholar ID

https://scholar.google.co.in/citations?user=Js-vMgIAAAAJ&hl=en

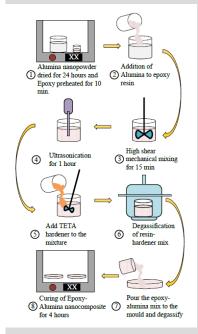
Scopus ID :

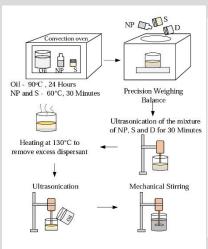
https://www.scopus.com/authid/detail.uri?authorId=572066832

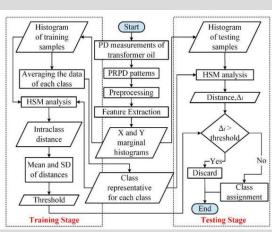
<u>57</u>

Orcid ID : https://orcid.org/0000-0001-5822-2528

- Development of new solid and liquid nanodielectric materials for high voltage applications.
- Condition monitoring of power apparatus using statistical data analysis and artificial intelligence techniques.









### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Electrical Engineering**



Name : Rakesh R Warier

Qualification: Ph.D., (IIT Bombay)

Designation : Assistant Professor:

Contact Number : 9967275052

Email : rakeshw@nitc.ac.in

Website address :

Google Scholar ID

https://scholar.google.co.in/citations?user=QsG8IGEAAAAJ

&hl=en:

Scopus ID :

Orcid ID : https://orcid.org/0000-0002-3396-

0441

Area of Research:

 My research primarily focus on developing control algorithms, that enable effective coordination of swarms of robots to effectively execute tasks cooperatively under disturbances and measurement errors. The work has potential applications for coordinated control of groundbots, UAVs, and teams of underwater vehicles.



### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്നോളജി കാലിക്കറ്റ്

### राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

**Department: Electrical Engineering** 



Name: Rijil Ramchand

Qualification: Ph.D., (IISc Bangalore)

: Professor

Contact Number :0495-2286332

Email :rijil@nitc.ac.in

Website address :

https://nitc.ac.in/department/electrical-

engineering/faculty-and-staff/faculty/a4514a73-7f24-4b4e-

a8ea-e71b65531387

Google Scholar ID :ZFc2IPQAAAAJ

Scopus ID :26635891200

Orcid ID :0000-0003-0938-2300

- Power Electronics
- Induction Motor Drives
- Multi-level Inverters
- Current-controlled Inverters



### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### **Department: Electrical Engineering**

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

Name: Sanjay M

Qualification: Ph.D.,

**CHRISTIAN MEDICAL** 

COLLEGE VELLORE,

**TAMILNADU** 

Designation : ASSISTANT PROFESSOR

Contact Number : 0495-2286385

Email : msanjay@nitc.ac.in

Website address

https://nitc.ac.in/department/electricalengineering/faculty-and-staff/faculty/ef6a3fb6-7d73-4ed1-

8714-f395c7a0bf18

Areas of Research:

Bioengineering

**Computational Neuroscience** 

**Medical Electronics** 

Neurophysiology



### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Electrical Engineering**

Name: Shreelakshmi M P

Qualification: Ph.D., (IIT Bombay)

Designation : Asst. Professor Grade II

Contact Number : +919656586586

Email : shreelakshmi@nitc.ac.in

Website address : NIL

Google Scholar ID : Shreelakshmi M P

Scopus ID : 55849170600

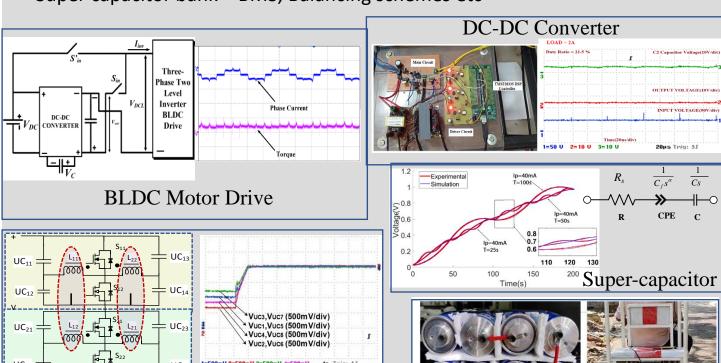
Orcid ID : 0000-0002-4813-0475

#### Area of Research:

Electric Vehicle charging technology

Super-capacitor Balancing

- Motor drives BLDC, SynRM, Induction Motor, EESM
- Super capacitor bank BMS, Balancing schemes etc





### നാഷണൽ ഇൻസ്സിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

**Department: Electrical Engineering** 

### Area of Research:



Name: Sindhu T K

Qualification: Ph.D., (IIT Madras)

Designation :Professor

Contact Number 9447921390

Email :tk sindhu@nitc.ac.in

Website address :

https://nitc.ac.in/department/electrical-

engineering/faculty-and-staff/faculty/7631131e-194c-

4d58-a582-c77e2129958c

Google Scholar ID :

https://scholar.google.co.in/citations?user=zGIFpYgAAAAJ&

hl=en

Scopus ID :2794001100

Orcid ID : 0000-0003-4795-1308

Generation of nonthermal plasma and it's application in various fields

- Development of nanocomposite insulators
- Development of nanocomposite materials for EMI shielding
- Electromagnetic compatibility analysis



### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Electrical Engineering**



Name: Subha D.Puthankattil

Qualification: Ph.D.(NITC)

Designation :Associate Professor

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engineering/faculty-and-staff/faculty/2c0ca691-95db-4e0c-

ab16-bc23c6835e85

Google Scholar ID:

https://scholar.google.com/citations?user=NfZfrIIAAAAJ&hl

=en

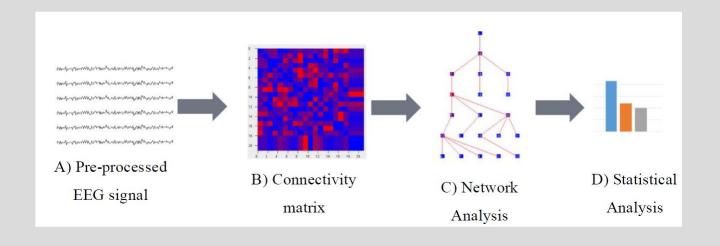
Scopus ID :55436927500

Orcid ID : 0000-0001-9413-4955

#### Area of Research:

#### Biomedical Engineering - Computational Neuroscience

 Analysis of EEG signals under psychiatric and neurologic disorders :neurodevelopmental/ neurodegenerative diseases( Alzheimers disease, Autism Spectrum Disorder, Depression, Schizophrenia, DL, ML and Al applications in biomedical Engineering)





### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Electrical Engineering**



Name: Subhash K.M.

Qualification: Ph.D., (NIT Calicut)

Designation :Assistant Professor

Contact Number :9446463671

Email :subhash@nitc.ac.in

Website address : https://bit.ly/43hdps2

Google Scholar ID :

Scopus ID :<u>55220454200</u>

Orcid ID :0000-0001-8000-8763

- Biomedical Signal/Image processing and analysis (ECG, EMG etc.).
- Biomedical signal acquisition, processing and analysis for healthy and diseased subjects using ML and DL approaches.
- Continuous monitoring of subjects using biomedical signals



### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

**Department: Electrical Engineering** 



Name: Dr. Sunitha R

Qualification: Ph.D., (NIT Calicut)

Designation : Associate Professor

Contact Number : 0495 2286323

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https://nitc.ac.in/department/electrical-

engineering/faculty-and-staff/faculty/a37f5619-c15d-4557-

b3fa-0fadb482633b

Google Scholar ID : IFj3wToAAAAJ

Scopus ID : 57190393113

Orcid ID : 0000-0002-4247-4998

- Wide Area Monitoring, Protection and control of Power Systems
- Power System Security assessment and Security level prediction
- Assessment of Dominant Oscillatory modes in Power Systems and its mitigation
- Dynamic State Estimation for Wide Area Monitoring of Power Systems
- Synchrophasor Data Driven Islanding Detection Strategies and a Defensive Scheme for Microgids
- Self healing of propagating distrurbances in Power systems



### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Electrical Engineering**

Name: Vivek Mohan

Qualification: Doctor of Engineering

Asian Institute of Technology, Thailand

Designation : Assistant Professor

Contact Number : +91 8113093716

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vivekmohan@nitc.ac.in

Website address : www.vivekmohangokulam.in

Google Scholar ID

https://scholar.google.com/citations?user=pnJ4as0AAAAJ&

<u>hl=en</u>

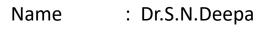
Scopus ID : 56245256200

Orcid ID : 0000-0002-3304-7150

- Electricity Markets, Risk Management and Optimization in Energy Systems, Power System Economics, Power System Stability, Microgrid Energy Management
- Current areas of work:
  - Energy portfolio optimization and selection
  - Electricity market analysis and pricing
    - TSO-DSO co-ordination
    - Energy blockchain and local energy markets
    - Green energy markets
  - Utility and microgrid studies
    - Microgrid energy management
    - Tariff and feed-in-tariff rationalization
    - Stakeholder benefit optimization
    - Distributed generation economics
  - System studies
    - Stochastic optimal power flow studies with renewables
    - Economic dispatch in deregulated power systems
    - Reliability studies with renewables
    - Bifurcation analysis in power systems



### **Department: Electrical Engineering**



Qualification: Ph.D. (PSG College of

Technology, CBE)

Designation : Associate Professor

Contact Number : 99446 79333

Email : sndeepa@nitc.ac.in

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engineering/faculty-and-staff/faculty/

7d1d7053-cf18-46a0-9312-d211ddbac959

Google Scholar ID : <a href="https://scholar.google.com/citations?user="https://scholar.google.com/citations?user="https://scholar.google.com/citations?user="https://scholar.google.com/citations?user="https://scholar.google.com/citations?user="https://scholar.google.com/citations?user="https://scholar.google.com/citations?user="https://scholar.google.com/citations?user="https://scholar.google.com/citations?user="https://scholar.google.com/citations?user="https://scholar.google.com/citations?user="https://scholar.google.com/citations?user="https://scholar.google.com/citations?user="https://scholar.google.com/citations">https://scholar.google.com/citations?user="https://scholar.google.com/citations">https://scholar.google.com/citations?user="https://scholar.google.com/citations">https://scholar.google.com/citations?user="https://scholar.google.com/citations">https://scholar.google.com/citations</a>

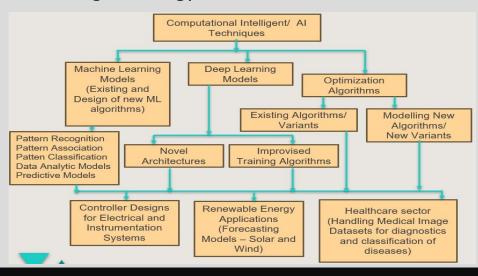
F0aBlR8AAAAJ&hl=en&oi=ao

Scopus ID : 9636847300

ORCID ID : 0000-0003-

2150-5051

- Design and Modelling of novel Machine learning (ML) and Deep learning (DL) Techniques
- Applicability of AI/ ML/ DL techniques in Renewable Energy Sector, Healthcare Sector (into medical image processing) and Intelligent Controller Designs
- Development of Heuristics Optimization algorithms and applying it in Controller Designs, Energy and Healthcare domain.





### **Department: Electrical Engineering**



Name: Nimal Madhu M.

Qualification: Ph.D., (Asian Institute

of Technology, Thailand)

Designation : Assistant Professor

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Website address : Faculty Page (nitc.ac.in)

Google Scholar ID : LdwjpcIAAAAJ

Scopus ID : 58100654800

ORCID ID : 0000-0002-5981-2033

- Deep and Machine Learning Applications to Power Systems
- Time-series Forecasting
- Risk Analysis and Energy Portfolio Optimization
- DL-assisted Stock Market Prediction
   & Portfolio Optimization
- Battery State Estimation and Digital Twins
- DL and Blockchain Application in Energy Markets



### **Department: Electrical Engineering**



Name : Dr. Devesh Shukla

Qualification: Ph.D., (IIT (BHU)

Varanasi)

Designation : Assistant Professor

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<u>lectrical-engineering/faculty-and-staff/faculty/93a</u>

32ce0-be9f-4d34-b52c-99180bb17d0a

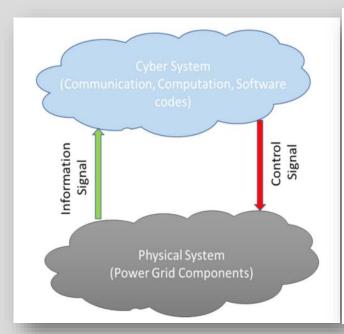
Google Scholar ID: bBH\_xCoAAAAJ

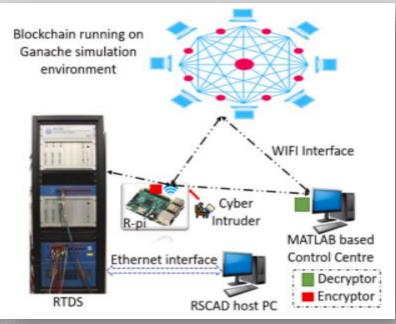
Scopus ID :57197053492

ORCID ID :0000-0003-4851-6615

- Cyber-Physical Power Systems.
- Integrated Transmission & Distribution System.
- Blockchain and its Application in Power Systems.
- Active Distribution Systems.

- Large-scale renewable grid-integration challenges.
- Application of AI and deep learning for event detection and classification in power systems.
- ➤ ATC/ADC assessment and enhancement in Power System.







### **Department: Electrical Engineering**

#### Area of Research:

Name: Dr. Ashiq Muhammed P E

Qualification: Ph.D., (Indian Institute

of Science, Bangalore)

Designation : Assistant Professor

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Email :ashiqmuhammed@nitc.ac.in

Website address :

Google Scholar ID :

https://scholar.google.com/citations?user=wEwPpncAAAAJ&hl=en

Scopus ID :

ORCID ID :0000-0002-6675-4978

- Magnetic Design of Power Converters
- High Frequency Planar Magnetic Components
- Condition Monitoring of Power Transformers
- High Frequency Response of Coils
- Finite Element Analysis of Electrical Machines



### **Department: Electrical Engineering**



Name: Ranjith Ravindranathan Nair

Qualification: Ph.D., (IIT Kanpur)

Designation : Assistant Professor

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engineering/faculty-and-staff/faculty/2823b3c5-0554-4486-b623-

4d669161362b

Google Scholar ID :017uesAAAAAJ&hl

Scopus ID :55931888700

ORCID ID :0000-0002-0673-0448

- → Coordination & Resource Optimal / Resilient Control of Multi Robot/ Multi-agent Systems
- → Cyber-Physical Systems:- Modelling & Control, Anomaly detection & Countermeasures.
- → Intelligent and adaptive control of nonlinear systems
- → Hybrid Visual Servoing in Mobile Robotic Systems
- → Control & Navigation strategies for connected Electric Vehicles
- → Learning-based Control



### **Department: Electrical Engineering**

### Area of Research:

Name : M. Raghuram

Qualification: Ph.D., (IIT-BHU)

: Assistant Professor

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Email : mraghuram@nitc.ac.in

Website address: https://nitc.ac.in/department/electrical-

engineering/faculty-and-staff/faculty/29f4bb4d-bb93-4c1f-90

69-d5756fce89de

Google Scholar ID : https://scholar.google.co.in/citati

ons?user=Ceup-JEAAAAJ&hl=en

Scopus ID :

ORCID ID : https://orcid.org/0000-0002-5597-2929

Space Vector modulation techniques for matrix converters

Ultra sparse matrix converters

Impedance source matrix converters

High gain DC-AC converters





Name: Dr. Sathiya S

Qualification: Ph.D., (NIT TRICHY)

Designation : Assistant Professor

Contact Number : -

Email : sathiyas@nitc.ac.in

Website addres : https://nitc.ac.in/department/electrical-

engineering/faculty-and-staff/faculty/d346c1fb-9f98-435c-93af-5c26ec893b91

Google Scholar ID : 3BJh3xEAAAAJ

Scopus ID : 55657970900

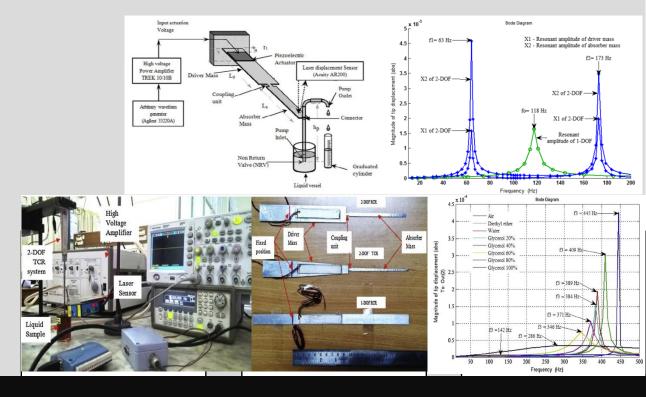
ORCID ID : 0000-0002-4944-3174

### **Department: Electrical Engineering**

#### Area of Research:

#### SENSOR SYSTEM DESIGN

Design of piezoelectric sensors for liquid viscosity and density sensing, MEMS sensors for biosensing applications, piezoelectric actuators for microfluidic applications, IoT and Al approach for measurement systems.





Name : Rahul Radhakrishnan

Qualification: Ph.D. (IIT Patna)

Designation : Assistant Professor

Contact Number : +91 8084736155

Email : rahulr@nitc.ac.in

Website address :

Google Scholar ID : RMTmH6cAAAAJ&hl

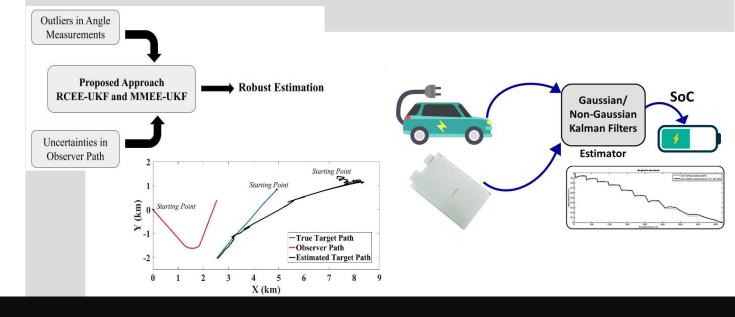
Scopus ID : 56536114100

ORCID ID : 0000-0001-8818-0525

### **Department: Electrical Engineering**

#### **Area of Research:**

- State Estimation
- Target Tracking and Navigation
- State of Charge Estimation
- Process Control
- ML and Deep Learning Methods in Estimation and Process Control



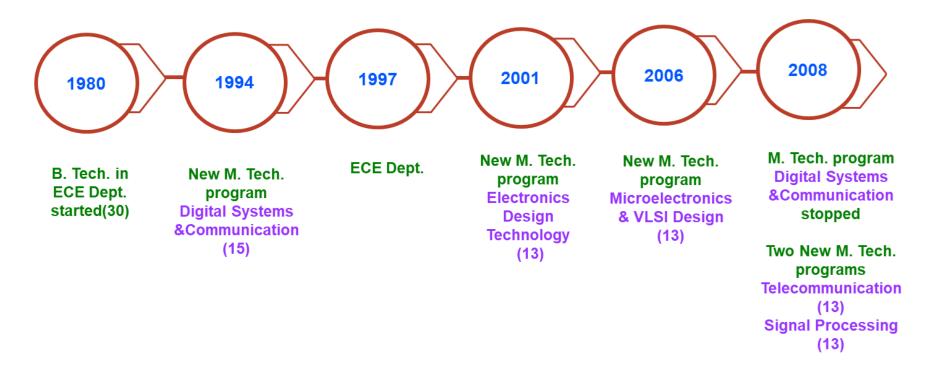
# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT





# Faculty Expertise Department of Electronic & Communication Engineering

### **Timeline of the Growth of ECE Department**



# LIST OF FACULTY

<ul> <li>▷ Dr. Jaikumar M.G</li> <li>▷ Dr. Ameer P.M.</li> <li>▷ Dr. Ashutosh Mishra</li> <li>▷ Dr. Srinivasarao</li> <li>▷ Dr. A.V. Babu</li> <li>▷ Dr. Bindiya T.S</li> <li>▷ Dr. Aswathi R. Nair</li> <li>▷ Dr. Waquar Ahmad</li> <li>▷ Dr. S. M. Sameer</li> <li>▷ Dr. Lintu Rajan</li> <li>▷ Dr. G. Abhilash</li> <li>▷ Dr. Raghu C.V.</li> <li>▷ Dr. G. Abhilash</li> <li>▷ Dr. Sudeep PV</li> <li>▷ Dr. Lalit Kumar</li> <li>▷ Dr. G. Narendra Kum</li> <li>▷ Dr. C. Periasamy</li> <li>▷ Dr. Vinay Joseph</li> <li>▷ Dr. Nikhil Kumar C.S</li> <li>▷ Dr. Saikat Ch. Bakshi</li> <li>▷ Dr. Debjani Goswami</li> </ul>	ı						
<ul> <li>Dr. A. V. Babu</li> <li>Dr. Gopi Krishna Saramekala</li> <li>Dr. B. Bhuvan</li> <li>Dr. Waquar Ahmad</li> <li>Dr. S. M. Sameer</li> <li>Dr. Lintu Rajan</li> <li>Dr. G. Abhilash</li> <li>Dr. Sudeep PV</li> <li>Dr. Praveen Sankaran</li> <li>Dr. Sudhish N. George</li> <li>Dr. V. Sakthivel</li> <li>Dr. M. Sawathi R. Nair</li> <li>Dr. B. Bhuvan</li> <li>Dr. B. Bhuvan</li> <li>Dr. Chithira P R</li> <li>Dr. Chithira P R</li> <li>Dr. Gaurav Siddharth</li> <li>Dr. Jagadeesh V. K.</li> <li>Dr. Jagadeesh V. K.</li> <li>Dr. Jailsingh Bhookya</li> <li>Dr. Arjunan M S</li> <li>Dr. G. Narendra Kum</li> <li>Dr. Sudhish N. George</li> <li>Dr. V. Sakthivel</li> <li>Dr. M. Surya Prakash</li> <li>Pr. Saikat Ch. Bakshi</li> </ul>	l	Dr. Jaikumar M.G	>	Dr. Ameer P. M.	>	Dr. Akhil P T	Dr. Rakesh R. T.
Dr. G. Sreelekha Dr. Gopi Krishna Saramekala Dr. B. Bhuvan Dr. P. P. Deepthi Dr. S. M. Sameer Dr. Lintu Rajan Dr. Gaurav Siddharth Dr. Gaurav Siddharth Dr. Jagadeesh V. K. Dr. G. Abhilash Dr. Sudeep PV Dr. Praveen Sankaran Dr. Suja. K. J. Dr. Sudhish N. George Dr. V. Sakthivel Dr. Dr. M. Surya Prakash Dr. Sanjay Viswanath Dr. Jagadeesh V. K. Dr. Jailsingh Bhookya Dr. Arjunan M S Dr. G. Narendra Kum Dr. Sudhish N. George Dr. V. Sakthivel Dr. Nikhil Kumar C. S Dr. Saikat Ch. Bakshi	l	Dr. P. S. Sathidevi		Dr. Anup Aprem		Dr. Ashutosh Mishra	Dr. Srinivasarao
<ul> <li>Dr. P. P. Deepthi</li> <li>Dr. Jayakumar E. P.</li> <li>Dr. S. M. Sameer</li> <li>Dr. Lintu Rajan</li> <li>Dr. Dhanaraj K. J.</li> <li>Dr. Raghu C. V.</li> <li>Dr. G. Abhilash</li> <li>Dr. Sudeep PV</li> <li>Dr. Praveen Sankaran</li> <li>Dr. Suja. K. J.</li> <li>Dr. Lalit Kumar</li> <li>Dr. G. Narendra Kum</li> <li>Dr. G. Narendra Kum</li> <li>Dr. Sudhish N. George</li> <li>Dr. V. Sakthivel</li> <li>Dr. M. Surya Prakash</li> <li>Pr. Saikat Ch. Bakshi</li> </ul>	l	Dr. A. V. Babu			>		<u>Chintagunta</u>
<ul> <li>Dr. S. M. Sameer</li> <li>Dr. Lintu Rajan</li> <li>Dr. Dhanaraj K. J.</li> <li>Dr. Raghu C. V.</li> <li>Dr. G. Abhilash</li> <li>Dr. Sudeep PV</li> <li>Dr. Praveen Sankaran</li> <li>Dr. Suja. K. J.</li> <li>Dr. Lalit Kumar</li> <li>Dr. G. Narendra Kum</li> <li>Dr. Sudhish N. George</li> <li>Dr. V. Sakthivel</li> <li>Dr. M. Surya Prakash</li> <li>Reddy</li> <li>Dr. Sanjay Viswanath</li> <li>Dr. Jagadeesh V. K.</li> <li>Dr. Arjunan M S</li> <li>Dr. G. Narendra Kum</li> <li>Dr. M. Surya Prakash</li> <li>Reddy</li> <li>Dr. Nikhil Kumar C.S</li> <li>Dr. Saikat Ch. Bakshi</li> </ul>	l	Dr. G. Sreelekha		Dr. Gopi Krishna Saramekala	<u>a</u> >	Dr. B. Bhuvan	Dr. Waquar Ahmad
<ul> <li>Dr. S. M. Sameer</li> <li>Dr. Lintu Rajan</li> <li>Dr. Dhanaraj K. J.</li> <li>Dr. Raghu C. V.</li> <li>Dr. G. Abhilash</li> <li>Dr. Sudeep PV</li> <li>Dr. Praveen Sankaran</li> <li>Dr. Suja. K. J.</li> <li>Dr. Lalit Kumar</li> <li>Dr. G. Narendra Kum</li> <li>Dr. Sudhish N. George</li> <li>Dr. V. Sakthivel</li> <li>Dr. M. Surya Prakash</li> <li>Reddy</li> <li>Dr. Saikat Ch. Bakshi</li> </ul>	l	Dr. P. P. Deepthi		Dr. Jayakumar E. P.		Dr. Chithira P R	<ul><li>Dr. Sanjav Viswanath</li></ul>
Dr. Dhanaraj K. J.       Dr. Raghu C. V.         Dr. G. Abhilash       Dr Sudeep PV         Dr. Praveen Sankaran       Dr. Suja. K. J.         Dr. Sudhish N. George       Dr. V. Sakthivel         Dr. M. Surya Prakash       Reddy         Dr. C. Periasamy       Dr. Venu Anand         Dr. Nikhil Kumar C.S       Dr. Saikat Ch. Bakshi	l	Dr. S. M. Sameer		<u>Dr. Lintu Rajan</u>			
▶ Dr. G. Abhilash       ▶ Dr. Sudeep P V         ▶ Dr. Praveen Sankaran       ▶ Dr. Suja. K.J.       ▶ Dr. Lalit Kumar       ▶ Dr. G. Narendra Kum         ▶ Dr. Sudhish N. George       ▶ Dr. V. Sakthivel       ▶ Dr. M. Surya Prakash       Reddy         ▶ Dr. C. Periasamy       ▶ Dr. Venu Anand       ▶ Dr. Nikhil Kumar C.S       ▶ Dr. Saikat Ch. Bakshi	l	Dr. Dhanaraj K. J.		Dr. Raghu C. V.		Di. Gaulav bludilaitii	Di. jayaucesii v. iz.
Dr. Sudhish N. George > Dr. V. Sakthivel       Dr. M. Surya Prakash       Reddy         Dr. C. Periasamy       Dr. Venu Anand       Dr. Nikhil Kumar C.S       Dr. Saikat Ch. Bakshi		Dr. G. Abhilash		Dr Sudeep PV		Dr. Jailsingh Bhookya	Dr. Arjunan M S
> Dr.C.Periasamy > Dr. Venu Anand > Dr. Nikhil Kumar C.S > Dr. Saikat Ch. Bakshi	l	Dr. Praveen Sankaran	>	Dr. Suja. K .J.		<u>Dr. Lalit Kumar</u>	Dr. G. Narendra Kuma
Dr. D. Winer Jacob	l	Dr. Sudhish N. George	>	Dr. V. Sakthivel		Dr. M. Surya Prakash	Reddy
▶ Dr.R. Suresh ▶ Dr. Vinay Joseph ▶ Dr. Nujoom Sageer Karat ▶ Dr. Debjani Goswami		Dr.C.Periasamy	>	Dr. Venu Anand	>	Dr. Nikhil Kumar C.S	Dr. Saikat Ch. Bakshi
		Dr.R. Suresh	>	Dr. Vinay Joseph	>	Dr. Nujoom Sageer Kara	Dr. Debjani Goswami



### **Department: Electronics & Communication**

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name : Dr. Jaikumar M.G.

Qualification: Ph.D., (IIT Madras)

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Email : jkmg@nitc.ac.in

Website address

https://ece.nitc.ac.in/index.php?option=com\_php&Itemid=66&uname=jaikumar

Google Scholar ID :

Scopus ID :

Orcid ID :

#### Area of Research:

 Semiconductor Devices: Modelling and Fabrication, Power Semiconductor Devices, SiC Power MOSFETs



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Electronics & Communication**

### Area of Research:

Name: Dr. P. S. Sathidevi

Qualification: Ph.D., (REC Calicut)

 Speech and Audio Processing, Biomedical Signal Processing, Wavelets, Cryptography

Designation : Professor (HAG)

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Email : sathi@nitc.ac.in

Website address

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mid=66&uname=sathi

Google Scholar ID

https://scholar.google.com/citations?user=xTU9ejUAAA

AJ&hl=en

Scopus ID :

Orcid ID : 0000-0003-3839-9910



### **Department: Electronics & Communication**

Name: Dr. A. V. Babu

Qualification: Ph.D., (NIT Calicut)

Designation : Professor

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Email : babu@nitc.ac.in

Website address

https://ece.nitc.ac.in/index.php?option=com\_php&Itemid=

66&uname=babu

Google Scholar ID :

Scopus ID :

Orcid ID :

#### Area of Research:

 Wireless Communications, Communication Networks, Mobile Computing, Cognitive Radio, Full Duplex, High Data Rate Wireless LAN, Heterogenous Networks, NOMA, IoT



### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Electronics & Communication**



Name: Dr. G. Sreelekha

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<u>uname=lekha</u>

Google Scholar ID : JFcAJp UAAAAJ

Scopus ID : 23986235600

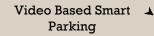
Orcid ID : 0000-0002-7943-2812

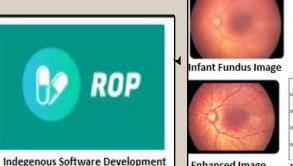
#### Area of Research:

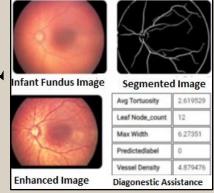
Software for ROP Screening and

Diagnosis in Infants

- Image & Video Processing, Biomedical Signal Processing
- Use a graphical representation describing your research(one or two images), if interested.

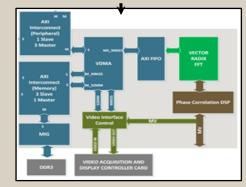








Video Stabilisation System





#### **Department: Electronics & Communication**



Name: Dr. P. P. Deepthi

Qualification: Ph.D., (NIT Calicut)

Designation : Professor

Contact Number : 0495-2286725

Email :deepthi@nitc.ac.in

Website address :

https://ece.nitc.ac.in/index.php?option=com\_php&Itemid=

66&uname=deepthi

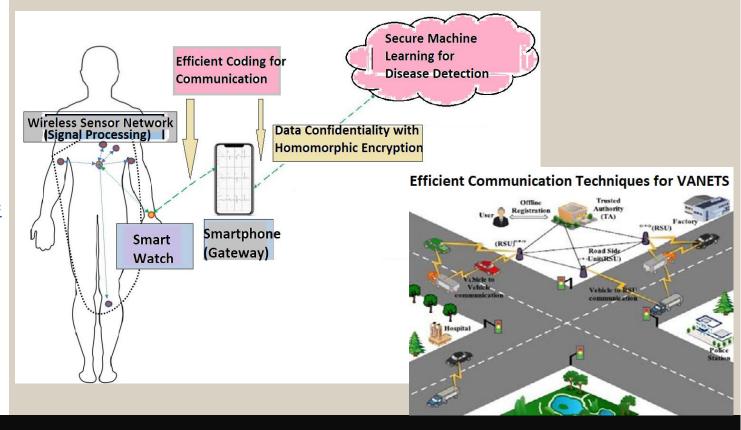
Google Scholar ID :

Scopus ID :

Orcid ID :0000-0003-2295-7455

#### Area of Research:

 Communication, Channel Coding, Index Coding, Cryptography, Multimedia Security, Signal Processing, Secure Signal Processing, Coding for Machine Learning





NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Electronics & Communication**

Name: Dr. S. M. Sameer

Qualification: Ph.D., (IIT Kharagpur)

Designation : Professor

Contact Number : 0495-2286720

Email : sameer@nitc.ac.in

Website address

https://ece.nitc.ac.in/index.php?option=com\_php&Itemid=

66&uname=sameer

Google Scholar ID : 6YDnH4AAAAAJ

Scopus ID : <u>24475436500</u>

Orcid ID : 0000-0002-1685-7936

#### Area of Research:

• Estimation Theory, 5G and 6G Wireless Communication Systems







NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Electronics & Communication**

Name: Dr. Dhanaraj K. J.

Qualification: Ph.D., (IIT Delhi)

Designation : Associate Professor

Contact Number : 0495-2286710 , 08547616464

Email : dhanaraj@nitc.ac.in

Website address

https://ece.nitc.ac.in/index.php?option=com\_php&Itemid=

66&uname=dhanaraj

Google Scholar ID

Scopus ID :

Orcid ID :

Area of Research:

 Low Power Analog IC Design, VLSI Architectures for Signal Processing, Neuromorphic Chip Design

# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ്

# राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Electronics & Communication**

### Area of Research:

Name: Dr. G. Abhilash

Qualification: Ph.D., (IISc)

Designation : Associate Professor

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Email : abhilash@nitc.ac.in

Website address

https://ece.nitc.ac.in/index.php?option=com\_php&Itemid=

66&uname=abhilash

Google Scholar ID

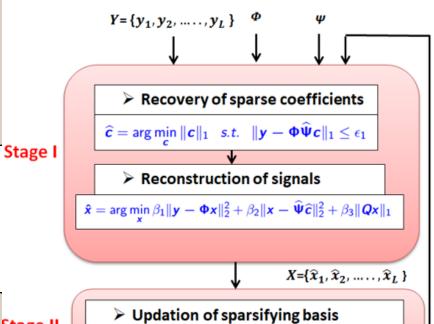
:https://scholar.google.com/citations?user=9oN

314AAAAAJ

Orcid ID :https://orcid.org/0000-0002-9365-

 Signal Theory: Filter Design, Wavelets, Compressive Sensing and Sparse Signal Processing, Quantum Signal Processing

Stages of the algorithm for signal reconstruction from blind compressive measurements using Procrustes method.



Stage II

Vpdation of sparsifying basis  $\hat{\Psi}^T = \arg\min_{x \in \mathbb{R}^n} \|\Psi^T \hat{X} - \hat{C}\|_F^2 \text{ s.t. } \Psi \Psi^T = I.$ 

$$|\Psi|X - C||_F$$
 s.t.  $|\Psi\Psi| = 1$ 

$$\widehat{\Psi} = UV^T$$

ion rk



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Electronics & Communication**



Name: Dr. Praveen Sankaran

Qualification: Ph.D., (Institute)

Designation : Associate Professor

Contact Number : 0495-2286721

Email : psankaran@nitc.ac.in

Website address

https://ece.nitc.ac.in/index.php?option=com\_php&Itemid=

66&uname=psankaran

Google Scholar ID

:https://scholar.google.com/citations?user=If K

7K0AAAAJ&hl=en

Scopus ID :

Orcid ID

Area of Research:

 Statistical pattern analysis, Computer Vision, Medical Image Analysis, Drone Analytics



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Electronics & Communication**

Name: Dr. Sudhish N. George

Qualification: Ph.D., (NIT Calicut)

Designation : Associate Professor

Contact Number : 0495-2286716, 9446204157,

7025510787

Email : sudhish@nitc.ac.in

Website address

https://ece.nitc.ac.in/index.php?option=com\_php&Itemid=

66&uname=sudhish

Google Scholar ID :

https://scholar.google.com/citations?user=DxUoID0AAAAJ

&hl=en

Scopus ID : 55247082500

Orcid ID : 0000-0002-0886-9478

#### Area of Research:

Machine Learning, Image Processing, Computer Vision, Deep Learning,
 Medical Image Analysis

### Development of Machine Learning/Deep Learning Models:

- Video Recovery & Analysis
- Restoration of Medical Images
- Image/Video Super Resolution
- Moving Object Detection
- Image/Video Super Deweathering
- Subspace Clustering & Applications
- Human Action Analysis
- Spectral Image Analysis for Horticultural Products
- Wireless Capsule Endoscopy Data Analysis
- Robotic Surgery
- Coronary Angiograms Analysis



#### **Department: Electronics & Communication**

Name: Dr.C.Periasamy

Qualification: Ph.D.)

Designation : Associate Professor

Contact Number : 9549654235

Email : cperiasamy@nitc.ac.in

Website address :

https://ece.nitc.ac.in/index.php?option=com\_php&Itemid=

66&uname=cperiasamy

Google Scholar ID

:https://scholar.google.co.in/citations?user=7fsL

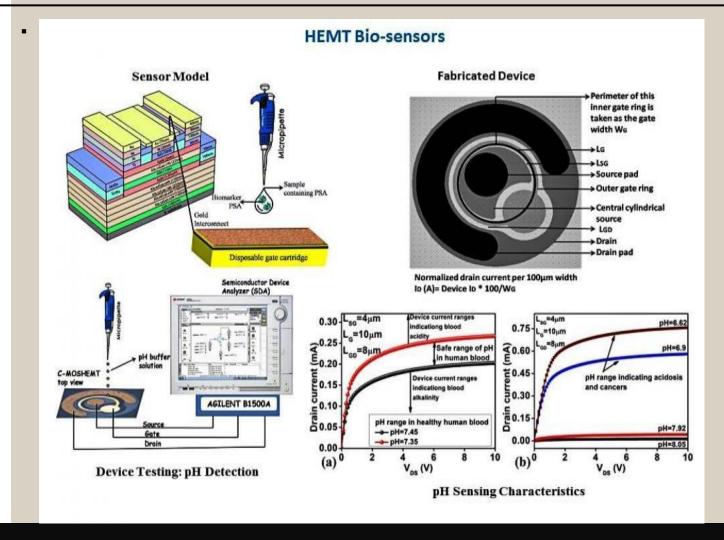
zOwAAAAJ&hl=en

Scopus ID :56685179600

Orcid ID :https://orcid.org/0000-0002-1992-

804X

#### Area of Research: MEMS and Bio-Sensor





### **Department: Electronics & Communication**

Name: R. Suresh

Qualification: Ph.D., ()

Designation : Associate Professor

Contact Number : 0495-2286712

Email : rangan@nitc.ac.in

Website address

https://ece.nitc.ac.in/index.php?option=com\_php&Itemid=

66&uname=rangan

Google Scholar ID

Scopus ID :

Orcid ID

Area of Research:

Electronics and Communication Engineering



### **Department: Electronics & Communication**

Name: Dr. Ameer P. M.

Qualification: Ph.D., (NIT Calicut)

Designation : Assistant Professor Grade I

Contact Number : 0495-2286731

Email : ameer@nitc.ac.in

Website address

https://ece.nitc.ac.in/index.php?option=com php&Itemid=

66&uname=ameer

Google Scholar ID

Scopus ID :

Orcid ID

Area of Research:

Wireless Networks, Signal Processing, Machine Learning, Image Processing



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Electronics & Communication**

Name: Dr. Anup Aprem

Qualification: Ph.D., (University of

British Columbia, Vancouver)

Designation : Assistant Professor Grade I

Contact Number : 6713

Email : anup.aprem@nitc.ac.in

Website address

https://ece.nitc.ac.in/index.php?option=com\_php&Itemid=

66&uname=anup.aprem

Google Scholar ID :

Scopus ID :

Orcid ID

#### Area of Research:

Statistical Signal Processing and Bayesian Machine Learning



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Electronics & Communication**

Name: Dr. Bindiya T.S

Qualification: Ph.D., (NIT Calicut)

Designation : Assistant Professor Grade I

Contact Number : 0495-2286723, 9496818039

Email : bindiyajayakumar@nitc.ac.in

Website address

https://ece.nitc.ac.in/index.php?option=com\_php&Itemid=

66&uname=bindiyajayakumar

Google Scholar ID : <u>f1hKW1wAAAAJ</u>

Scopus ID : <u>55912381300</u>

Orcid ID : 0000-0002-8406-1833

#### Area of Research:

 FPGA/ASIC Implementation of Signal Processing/Neural Network Architectures, Digital VLSI Circuits/Systems, DSP Algorithms/Architectures, Multirate Filters and Filter Banks



### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Electronics & Communication**



Name: Dr. Gopi Krishna Saramekala

Qualification: Ph.D., (NIT Rourkela)

Designation : Assistant Professor Grade I

Contact Number : 0495-2286733, 8074317117,

8465073963

Email : gopikrishna@nitc.ac.in

Website address :

https://ece.nitc.ac.in/index.php?option=com\_php&Itemid=

66&uname=gopikrishna

Google Scholar ID:

https://scholar.google.com/citations?hl=en&authuser=2&u

ser=aqPF-owAAAAJ :

Scopus ID :

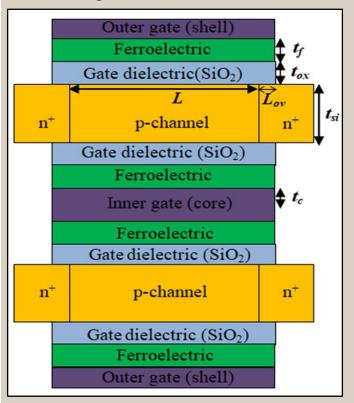
https://www.scopus.com/authid/detail.uri?authorld=55777259100

Orcid ID : <a href="https://orcid.org/0000-0003-0608-">https://orcid.org/0000-0003-0608-</a>

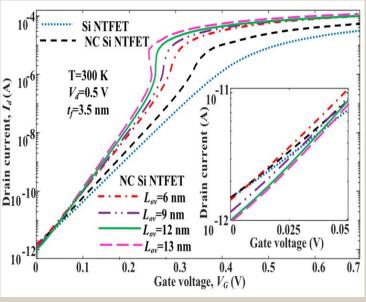
<u>843X</u>

#### Area of Research:

 Modeling, Simulation and Fabrication of Semiconductor Devices, Machine Learning for Semiconductor Devices, Steep-slope devices.



**Cross-sectional view of Negative Capacitance Si Nanotube FET** 



Transfer characteristics of Negative Capacitance
Si Nanotube FET



### **Department: Electronics & Communication**

Name: Dr. Jayakumar E. P.

Qualification: Ph.D., (NIT Calicut)

Designation : Assistant Professor Grade I

Contact Number : 0495-2286732, 9497467811

Email : jay@nitc.ac.in

Website address

https://ece.nitc.ac.in/index.php?option=com\_php&Itemid=

66&uname=jay

Google Scholar ID :

https://scholar.google.com/citations?user=M4kWa9QAAAA

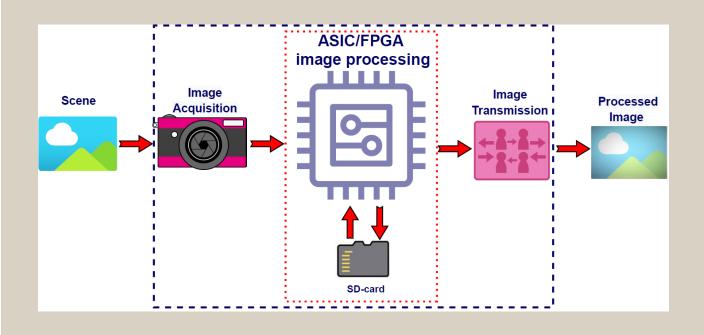
J&hl=en

Scopus ID :

Orcid ID :0000-0002-6692-8720

#### Area of Research:

VLSI Architecture for Digital Image Processing, ASIC/FPGA implementation,
 Hybrid CPU-FPGA Accelerators, Speech and Audio Processing,



### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്നോളജി കാലിക്കറ്റ്

# राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Electronics & Communication**



Name: Dr. Lintu Rajan

Qualification: Ph.D., (NIT Jaipur)

Designation : Assistant Professor Grade I

Contact Number : 04952286718, 9495807919

Email : lintu@nitc.ac.in

Website address

https://ece.nitc.ac.in/index.php?option=com\_php&Itemid=66

&uname=lintu

Google Scholar

ID:https://scholar.google.com/citations?user=gHJ04-

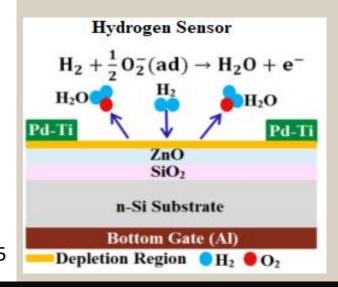
cAAAAJ&hl=en&oi=ao:

Scopus ID :6603745762

Orcid ID :https://orcid.org/0000-0003-2956-7425

#### Area of Research:

 Semiconductor device fabrication and modelling, Gas sensors, Sensors, Thin films, Nanotechnology, MEMS, Machine learning for device optimization, Bio-Sensors







### **Department: Electronics & Communication**



Name: Dr. Raghu C. V.

Qualification: Ph.D., (IISc)

Designation : Assistant@rofessorn

Contact Number : 0495-2286715, (0)9495255164

Email :

Website address

https://ece.nitc.ac.in/index.php?option=com\_php&Itemid=

66&uname=raghucv

Google Scholar :

https://scholar.google.com/citations?hl=en&user=XhrtjGcA

AAAJ&view op=list works&sortby=pubdate

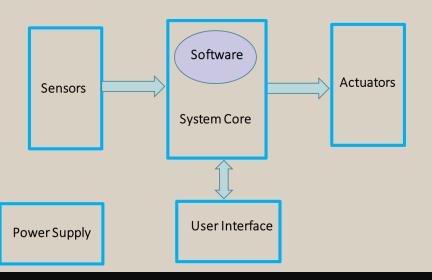
Scopus ID 44861611100:

#### Area of Research:

 Electronic System Design, Embedded Systems, Control Systems, Electronic Circuits, Electromagnetic Compatibility

#### Other Expertise:

Microcontrollers and microprocessors, Schematics and PCB design





### **Department: Electronics & Communication**



Name: Dr Sudeep P V

Qualification: Ph.D., (NIT Trichy)

Designation : Assistant Professor Grade I

Contact Number : 04952286708, 09496370647

Email : sudeep.pv@nitc.ac.in

Website address:

https://ece.nitc.ac.in/index.php?option=com\_php&Itemid=66&uname=sudeep.pv

Google Scholar ID : <u>Dr. P.V. Sudeep - Google Scholar</u>

Scopus ID : 37862221600

Orcid ID : 0000-0002-6738-7786

#### Area of Research:

 Medical Image Analysis, Machine Learning, Deep Learning, Computer Vision, NLP



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Electronics & Communication**



Name : Dr. Suja. K .J.

Qualification: Ph.D., (NIT Calicut)

Designation :Assistant Professor Grade I

Contact Number :04952286722

Email :suja@nitc.ac.in

Website address

: https://ece.nitc.ac.in/index.php?option=com\_p

hp&Itemid=66&uname=sujakj

Google Scholar ID : 55603190900

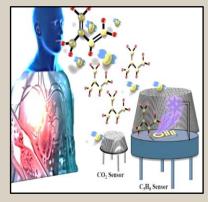
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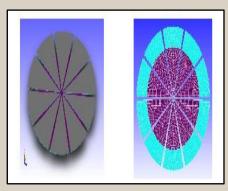
Orcid ID : https://orcid.org/0000-0003-

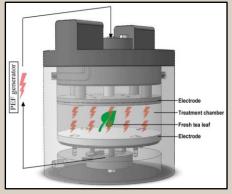
1158-2977

#### Area of Research:

 Micro/Nanoelectronics, MEMS, Modeling and Simulation of MEMS/Nano Sensors/Application of pulsed electric field.









### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Electronics & Communication**



Name: Dr. V. Sakthivel

Qualification: Ph.D., (NIT Calicut)

Designation :Assistant Professor Grade I

Contact Number :04952286730,9995335962

Email :sakthi517@nitc.ac.in

Website address

: <a href="https://ece.nitc.ac.in/index.php?option=com">https://ece.nitc.ac.in/index.php?option=com</a> p

hp&Itemid=66&uname=sakthi517

Google Scholar ID :

Scopus ID :

Orcid ID :

#### Area of Research:

Digital Signal Processing, Multirate Filter Banks



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Electronics & Communication**

### Area of Research:

• Microelectronics, Electronic Instrumentation, Soft Robotics



Name: Dr. Venu Anand

Qualification: Ph.D., (IISc Bangalore)

Designation :Assistant Professor Grade I

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Email :venuanand@nitc.ac.in

Website address

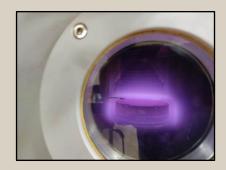
: https://ece.nitc.ac.in/index.php?option=com\_p

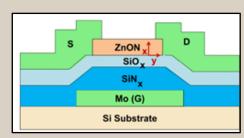
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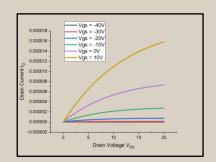
Google Scholar ID :

Scopus ID :

Orcid ID :









NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Electronics & Communication**

Name : Dr. Vinay Joseph

Qualification: Ph.D., (University

of Texas at Austin)

Designation :Assistant Professor Grade I

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Email :vjoseph@nitc.ac.in

Website address

: https://ece.nitc.ac.in/index.php?option=com\_p

hp&Itemid=66&uname=vjoseph

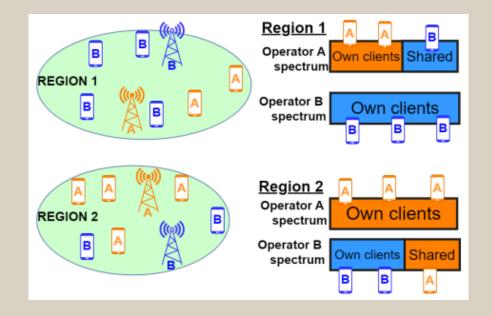
Google Scholar ID :

Scopus ID :

Orcid ID :

#### Area of Research:

 Resource allocation in communication networks, Stochastic optimization, 5G: Upper layers and standardization





NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Electronics & Communication**

Name: Dr. Akhil P T

Qualification: Ph.D., (IISc Bangalore)

Designation :Assistant Professor Grade II

Contact Number :8075322651

Email :akhil@nitc.ac.in

Website address

: https://ece.nitc.ac.in/index.php?option=com\_p

hp&Itemid=66&uname=akhil

Google Scholar ID :

Scopus ID :

Orcid ID

Area of Research:

Optimization, control and learning in networks



### **Department: Electronics & Communication**

Name: Dr. Ashutosh Mishra

Qualification: Ph.D., (IIT Kharagpur)

Designation :Assistant Professor Grade II

Contact Number :6701

Email :ashutosh@nitc.ac.in

Website address

: https://ece.nitc.ac.in/index.php?option=com\_p

hp&Itemid=66&uname=ashutosh

Google Scholar ID :

Scopus ID :

Orcid ID :

Area of Research:

VLSI Architecture Design, Image Processing, Medical Image Analysis,
 Multimedia Signal Processing, and Digital IC Design.



### **Department: Electronics & Communication**



Name: Dr. Aswathi R. Nair

Qualification: Ph.D., (IISc, Bangalore)

Designation :Assistant Professor Grade II

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Website address

: https://ece.nitc.ac.in/index.php?option=com\_p

hp&Itemid=66&uname=aswathirnair

Google Scholar ID :

Scopus ID :

Orcid ID :

Area of Research:

 Semiconductor devices - modeling and fabrication; Neuromorphic devices; Flexible and wearable electronics



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Electronics & Communication**



Name: Dr. B. Bhuvan

Qualification: Ph.D., (IIT Delhi)

Designation :Assistant Professor Grade I

Contact Number :04952286711, 9495575325

Email :bhuvan@nitc.ac.in

Website address

: https://ece.nitc.ac.in/index.php?option=com\_p

hp&Itemid=66&uname=bhuvan

Google Scholar ID :

Scopus ID :

Orcid ID :https://orcid.org/0000-0003-0854-

8997

#### Area of Research:

- Integrated circuit design and CMOS image sensors
- Use a graphical representation describing your research(one or two images), if interested.



### **Department: Electronics & Communication**



Name: Dr. Chithira P R

Qualification: Ph.D., (IIT Madras)

Designation :Assistant Professor Grade II

Contact Number :6774

Email :chithirapr@nitc.ac.in

Website address

: https://ece.nitc.ac.in/index.php?option=com\_p

hp&Itemid=66&uname=chithira

Google Scholar ID :

Scopus ID :

Orcid ID :

#### Area of Research:

- Statistical Timing Analysis
- Digital circuit design



### **Department: Electronics & Communication**

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

Name: Dr. Gaurav Siddharth

Qualification: Ph.D.

Designation :Assistant Professor Grade II

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Website address

: https://ece.nitc.ac.in/index.php?option=com

php&Itemid=66&uname=gaurav

Google Scholar ID

https://scholar.google.co.in/citations?user=PL-

SAJYAAAAJ&hl=en

Scopus ID : Siddharth, Gauray - Author details -

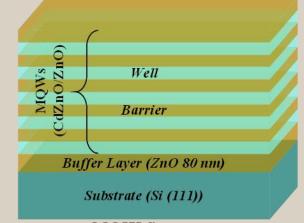
Scopus

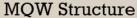
Orcid ID : https://orcid.org/0000-0002-2482-2899

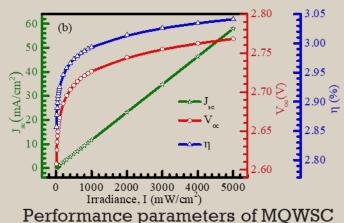
Personal Website: <a href="https://gsidd90.wixsite.com/pmdr">https://gsidd90.wixsite.com/pmdr</a>

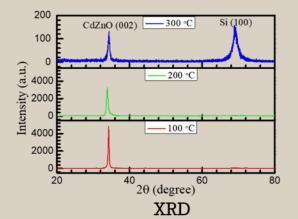
#### Area of Research:

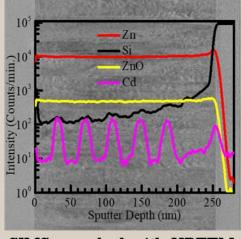
Photovoltaics, Photodetector, Nanoelectronics devices











SIMS coupled with HRTEM



### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Electronics & Communication**



Name: Dr. Jailsingh Bhookya

Qualification: Ph.D., (NIT Warangal)

Designation :Assistant Professor Grade II

Contact Number :0495-2286777, 9177957376

Email :jailsingh@nitc.ac.in

Website address

: https://ece.nitc.ac.in/index.php?option=com\_php&Itemid

=66&uname=jailsingh

Google Scholar ID

https://scholar.google.com/citations?user=hxdWg9YAAAAJ&hl=en&oi=a

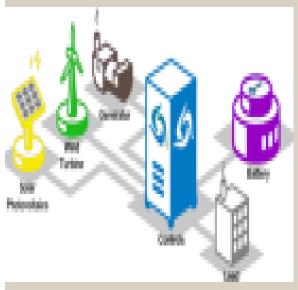
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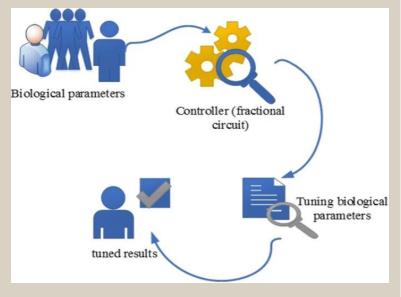
Scopus ID: <u>Bhookya, Jailsingh - Author details - Scopus Preview</u>

Orcid ID :https://orcid.org/0000-0002-6268-2188

#### Area of Research:

- Electronic System Design and Control, Internet of Things.
- Automatic recognition of road asphalt, cracks and condition assessment system for Android-based devices using IoT technology in Smart Cities.







# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Electronics & Communication**

Name: Dr. Lalit Kumar

Qualification: Ph.D., (IIITDM Jabalpur)

Designation :Assistant Professor Grade II

Contact Number :0495-2286717, 8590244396

Email :lalit@nitc.ac.in

Website address

: https://ece.nitc.ac.in/index.php?option=com\_p

hp&Itemid=66&uname=lalit

Google Scholar ID: Dr. Lalit Kumar - Google Scholar

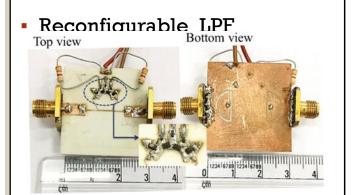
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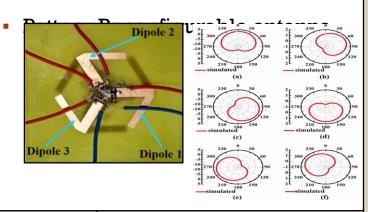
Orcid ID : https://orcid.org/0000-0002-7647-

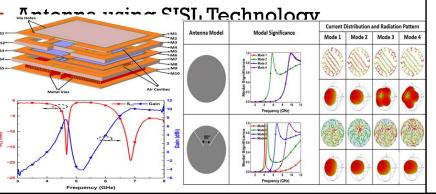
9607

#### Area of Research:

 RF/ Microwave Reconfigurable Filters and Antenna, Microwave and millimeterwave devices characterization, and other microwave passive circuits







#### Simulation Facilities:

CST, HFSS, and ADS

Measurements Facilities:

• R & S VNA (0-40

. Horn antennas



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Electronics & Communication**

Name: Dr. M. Surya Prakash

Qualification: Ph.D., (IIT Guwahati)

Designation :Assistant Professor Grade II

Contact Number :04952286734

Email :suryaprakash@nitc.ac.in

Website address

: <a href="https://ece.nitc.ac.in/index.php?option=com">https://ece.nitc.ac.in/index.php?option=com</a> p

hp&Itemid=66&uname=suryaprakash

Google Scholar ID :

Scopus ID :

Orcid ID

#### Area of Research:

 Signal Processing algorithms and VLSI Architectures, VLSI for communications and multimedia, VLSI with Artificial Intelligence, ASIC design, Experimental Neuroscience, Electronic Aspects of Neuroscience.



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Electronics & Communication**

Name: Dr. Nikhil Kumar C.S

Qualification: Ph.D., (IIT Madras)

Designation :Assistant Professor Grade II

Contact Number :0495-2286740

Email :nikhilkumarcs@nitc.ac.in

Website address

: https://ece.nitc.ac.in/index.php?option=com\_p

hp&Itemid=66&uname=nikhilkumarcs

Google Scholar ID

:https://scholar.google.co.in/citations?user=RO

M69AUAAAAJ&hl=en

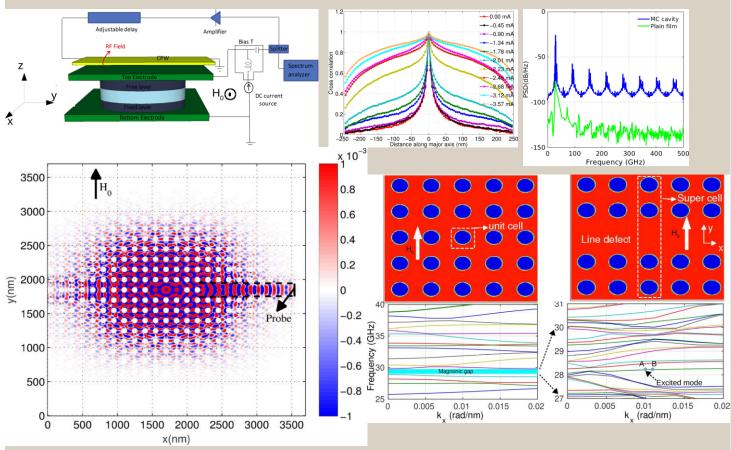
Scopus ID : 57214110116

Orcid ID : <a href="https://orcid.org/0000-0003-3213-">https://orcid.org/0000-0003-3213-</a>

<u>505X</u>

#### Area of Research:

• RF and Microwaves, Spin Wave Devices, Spintronic Devices, Spin Waves for Quantum Computing. Hybrid Magnonics





#### **Department: Electronics & Communication**

Name: Dr. Nujoom Sageer Kar

Qualification: Ph.D., (IISc Banglore)

Designation :Assistant Professor Grade II

Contact Number :0495-2286772, +91-9901655223

Email :nujoom@nitc.ac.in

Website address

: https://ece.nitc.ac.in/index.php?option=com\_p

hp&Itemid=66&uname=nujoom

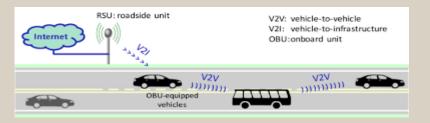
Google Scholar ID :

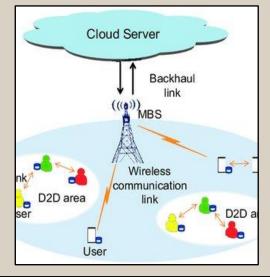
Scopus ID :

Orcid ID :

#### Area of Research:

 Coding Theory and Applications: Wired & wireless network coding, Index Coding, Coded Caching and Coded Computation with applications to Machine Learning, D2D and Vehicular Communications (V2X, V2V).







#### **Department: Electronics & Communication**

Name: Dr. Rakesh R. T.

Qualification: Ph.D., (IIT Kharagpur)

Designation :Assistant Professor Grade II

Contact Number :0495-2286775, +919074740347

Email :rakesh@nitc.ac.in

Website address

: https://ece.nitc.ac.in/index.php?option=com\_p

hp&Itemid=66&uname=rakesh

Google Scholar ID

https://scholar.google.com/citations?user=fl3zTTEAAAAJ&h

I=en&oi=sra

Scopus ID :

Area of Research:

 Signal processing and resource allocation for wireless communications, geometrical modeling of wireless channels, machine learning for communications



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Electronics & Communication**

Name: Dr. Srinivasarao Chintagunta

Qualification: Ph.D., (NIT Trichy)

Designation :Assistant Professor Grade II

Contact Number :0495-2286776, 8106222670

Email :srinivasarao@nitc.ac.in

Website address

: https://ece.nitc.ac.in/index.php?option=co

m php&Itemid=66&uname=srinivasarao

Google Scholar ID

https://scholar.google.com/citations?user=bo-

bXtAAAAAJ&hl=en

Scopus ID : 55820346600

Orcid ID : 0000-0001-9589-6775

- Array Signal Processing, MIMO radar, Localization of UAVs
- PAPR reduction of OFDM & OTFS waveforms



#### **Department: Electronics & Communication**



Name: Dr. Waquar Ahmad

Qualification: Ph.D., (IIT Kanpur)

Designation :Assistant Professor Grade I

Contact Number :04952286714, +918707835655

Email :waquar@nitc.ac.in

Website address

: https://ece.nitc.ac.in/index.php?option=com\_ph

p&Itemid=66&uname=waquar

Google Scholar ID

:https://scholar.google.com/citations?user=HttYbp

QAAAAJ&hl=en

Scopus ID :

Area of Research:

Speaker Recognition/Verification Automatic Speech Recognition
 Detection and Classification of Acoustic Scenes and Events speech enhancement



#### **Department: Electronics & Communication**

Name : Sanjay Viswanath

Qualification: Ph.D (IISc, Bangalore).

Designation :Assistant Professor Grade II

Contact Number :0495-2286701, +91-8762733081

Email :sanjayviswanath@nitc.ac.in

Website address

: <a href="https://ece.nitc.ac.in/index.php?option=com">https://ece.nitc.ac.in/index.php?option=com</a> p

hp&Itemid=66&uname=sanjay

Google Scholar ID :

https://scholar.google.com/citations?user=ZvT1C3sAAAAJ&

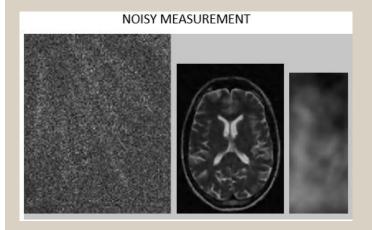
hl=en&oi=ao

Scopus ID : 57225823008

Orcid ID : https://orcid.org/0000-0002-8125-

3725

- Image Processing and Optimization.
- Bio-medical Inverse Problems, Magnetic Resonance Imaging, and Fluorescence Microscopy.
- Computer Vision and AI/ML Microservices.







# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Electronics & Communication**



Name: Dr. Jagadeesh V. K.

Qualification: Ph.D (NIT Trichy)

Designation :Assistant Professor Grade II

Contact Number : +91-9895449913

Email : jagadeeshvk@nitc.ac.in

Website address : <a href="https://nitc.ac.in/department/electronics-">https://nitc.ac.in/department/electronics-</a>

amp-communication-engineering/faculty-and-

staff/faculty/15a9a881-3871-4afb-a0ce-3dc7b2b0b66e

Google Scholar ID : pFWYTIQAAAAJ&hl=en

Scopus ID :

Orcid ID :0000-0002-9033-5212

- Optical Wireless Communication (FSO, VLC, UWOC)
- Optical Communication
- Photonic Crystal Fiber
- Photonics
- Optical Sensors
- Co-Operative wireless Communication



#### **Department: Electronics & Communication**



Name: Dr. Arjunan M S

Qualification: PhD (IIT Indore)

Designation : Assistant Professor Grade II

Contact Number : +91-8225054575

Email : arjunanms@nitc.ac.in

Website address:

https://nitc.ac.in/department/electronics-amp-

communication-engineering/faculty-and-

staff/faculty/bcd9b31e-6ead-4cda-99fe-35746712db3f

Google Scholar ID : PDHNjEQAAAAJ&hl

Scopus ID :

Orcid ID :0000-0002-1683-0338

- Phase change photonic memory devices for neuromorphic computing applications
- Photonic integrated circuits for Biosensing applications
- Broadband tunable absorber
- Optical limiter for defence application
- Optical filters for space applications
- Biomedical system development



#### **Department: Electronics & Communication**



Name: Dr. G. Narendra Kumar Reddy Qualification: Ph.D (IIT Bhubaneswar).

Designation : Assistant Professor Grade II

Contact Number : +91- 8008005843

Email : narendrakumarreddy@nitc.ac.in

Website address

: https://nitc.ac.in/department/electronics-amp-

communication-engineering/faculty-and-

staff/faculty/acdd603a-72b9-49f3-9e80-65fb871409a5

Google Scholar ID : <u>octuOtMAAAAJ</u>

Scopus ID :

Orcid ID : <u>0000-0001-6157-0443</u>

- Signal Processing (Denoising, Compression, Signal Quality Assessment and Feature Extraction)
- Wearable Healthcare Monitoring
- Artificial Intelligence Framework for Improving Diagnostic Accuracy and Reducing False Alarms
- Energy-Efficient Strategies for IoT Enabled Health Monitoring
- Compressed Sensing and Sparse Representation
- VLSI Signal Processing



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Electronics & Communication**



Name: Dr. Saikat Ch. Bakshi

Qualification: PhD (IIEST Shibpur)

Post-Doc: National University of Singapore

Designation :Assistant Professor Grade II

Contact Number : +91-0495-2282301

Email : saikatbakshi@nitc.ac.in

Website address

: https://nitc.ac.in/department/electronics-amp-

communication-engineering/faculty-and-

staff/faculty/19442100-5746-4e74-8e4a-498aacdd2916

Google Scholar ID : <u>As7KoJYAAAAJ</u>

Scopus ID : 57200617305

Orcid ID :0000-0002-3459-4770

- Stealth Technology
- RF & Microwave Engineering
- Machine Learning based Microwave Imaging
- Phased Array and Reflect Array Antenna for Space Application Radar System Design
- Radar/ Array Signal Processing
- Beamforming for 6G
- Fundamental/Theoretical Aspects of Basic Electromagnetics
- Image Processing for Biological and Environmental Application
- Smart Agriculture and IoT Based Sensors
- Hyperspectral Imaging



#### **Department: Electronics & Communication**

Name: Dr. Debjani Goswami

Qualification: Ph.D (IIT Kharagpur)

Designation :Assistant Professor Grade II

Contact Number :0495-2286701

Email :debjanigoswami@nitc.ac.in

Website address

: https://nitc.ac.in/department/electronics-amp-

communication-engineering/faculty-and-

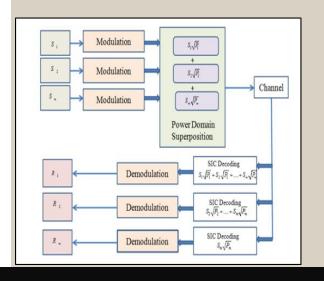
staff/faculty/932ee230-cbc2-4252-be38-cce15eb44b0e

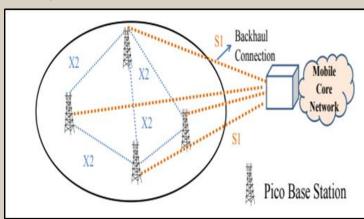
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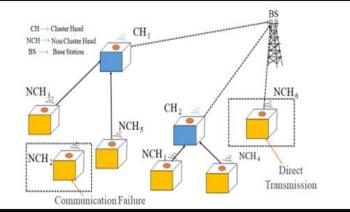
Scopus ID : 57209089089

Orcid ID : 0000-0002- 8506-1114

- Resource Allocation in beyond 5G Systems
- Network Synchronization
- Non-orthogonal multiple access (NOMA) assisted communication Networks.







# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT





# Faculty Expertise Department of Mathematics

# LIST OF FACULTY

- Dr.Sanjay P. K.
- Dr. Abhay Kumar Chaturvedi
- > Dr.R. Ashok
- > Dr. Chiranjit Ray
- > Dr. Deepesh K P
- Dr. Geethika Sebastian
- Dr. S. Gokulraj

- **Dr. Krishnan Paramasivam**
- > Dr. Nazim Khan
- > Dr. Neetu Garg
- > Dr. Sekhar Ghosh
- > Dr. Sunil Jacob John
- > Dr. Sunitha M S
- > Dr. Vibhuti Arora



# **Department: Mathematics**

Area of Research:

Name: Sanjay P. K.

Qualification: Ph.D., (I.I.Sc.)

Designation : Associate Professor

Contact Number : 04922285217

Email : sanjaypkATnitc.ac.in

Website address : https://t.ly/k2ot1

Google Scholar ID : 4gSHszcAAAAJ

Scopus ID : 55656641300

ORCID ID : 0000-0002-0507-9075

Harmonic Analysis

Harmonic Analysis on the Heisenberg Groups.



# **Department: Mathematics**

Name: Abhay Kumar Chaturvedi

Qualification: Ph.D., (IIT Delhi)

Designation :Assistant Professor

Contact Number :9990698307

Email :akchaturvedi@nitc.ac.in

Website address : Link

Google Scholar ID :

Scopus ID :

ORCID ID :

#### Area of Research:

Numerical Analysis
 Numerical Analysis of Ordinary and Partial Differential Equations
 Numerical Analysis of Singularly Perturbed Differential/Delay-Differential Equations
 Finite Difference Methods
 Scientific Computing

have designed and analyzed numerical techniques (using finite difference and finite element methods) for some singularly perturbed time-dependent or independent partial differential equations whose solutions may have a boundary and interior layers. I have considered a perturbed convection-reaction-diffusion interface singularly problem having discontinuities in the coefficients and the source term along the interface. For this problem, a finite difference and a local discontinuous Galerkin (LDG) method are analyzed on an appropriate Shishkin mesh for parameter-uniform convergence. I parameters-uniform convergence of a numerical method for a timedependent weakly coupled system of two convection-diffusion equations having discontinuities in the source terms. I also explored the parameters-uniform convergence of a numerical method for a system of m(>1) singularly perturbed parabolic semilinear reactiondiffusion equations with a discontinuous source term. The parameteruniform error estimates of this problem are obtained in maximum norm using the bounds on the derivatives of the solution and Green's function.



# **Department: Mathematics**



Name: R. Ashok

Qualification: Ph.D., (IIT Madras)

Designation : Assistant Professor

Contact Number : 7092538031

Email : ashokr@nitc.ac.in

Website address : <u>NITCWebsite</u>

Google Scholar ID : fK3EX\_cAAAAJ

Scopus ID :

Orcid ID

Area of Research:

Wave structure interactions



# **Department: Mathematics**

Name : Dr. Chiranjit Ray

Qualification: Ph.D. Indian Institute of

Technology Guwahati

Designation : Assistant Professor (Grade - I)

Contact Number : +91 - 9990707179

Email : chiranjitray@nitc.ac.in

Website address : https://sites.google.com/view/chiranjitray

Google Scholar ID : OqrYp3gAAAAJ

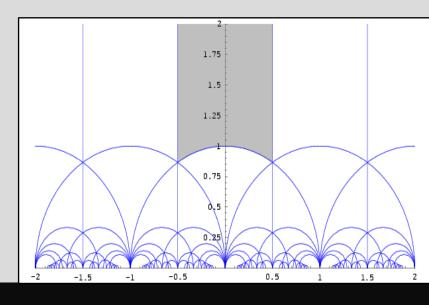
ResearchGate ID : Chiranjit-Ray

ORCID ID : 0000-0001-5311-9425

MathSciNet ID : 1242169

Area of Research:

Number Theory: Modular Forms, Partition Theory





### **Department: Mathematics**



Name: Dr. Deepesh K P

Qualification: Ph.D., (IIT Madras)

Designation :Assistant Professor

Contact Number :9400035597

Email :deepeshkp@nitc.ac.in

Website address

https://nitc.ac.in/department/mathematics/faculty-and-staff/faculty/cadb33c3-9ccd-4b91-831c-efde2bfc49c0

Google Scholar ID :bOAo5K4AAAAJ

Scopus ID :35094952100

Orcid ID :0009-0002-4790-9425

#### Area of Research:

 My research area is Functional Analysis and Operator Theory. I work on spectral study of operators, singular values and its generalizations. I am also interested in the study of Hardy-Hilbert spaces.



# **Department: Mathematics**



Name: Dr. Geethika Sebastia

Qualification: Ph.D., (IIT Hyderabad)

Designatio : Assistant Professor Grade II

Contact Number : 9494828537

Email : geethika@nitc.ac.in

Website address

https://nitc.ac.in/department/mathematics/faculty-and-

staff/faculty/f219e829-ecf8-4e3e-950b-073f5ae0ded7

Google Scholar ID : QkqeL\_gAAAAJ

Scopus ID : 57202075861

ORCID ID : 0000-0003-0744-3974

### Area of Research:

**Functional Analysis** 

Write two to three points about your area of expertise/Current area of work:

- Variations of the Gleason Kahane Zelazko Theorem in Banach algebras.
- Non linear preserver problems in Banach Algebras.



# **Department: Mathematics**



Name: Dr. S. Gokulraj

Qualification: Ph.D., (CUTN)

Designation : Assistant Professor

Contact Number : +91 9940906056

Email : gokulrajs@nitc.ac.in

Website address: https://sites.google.com/view/gokulraj/

Google Scholar ID :

Scopus ID : 57204124950

ORCID ID : 0000-0002-2952-5586

#### Area of Research:

#### **Optimization and Game Theory**

- My recent work on constrained games is about the mathematical programming formulation of the constrained games which has an immediate applications in the future smart grid technology.
- I am also working on the problems on the bi-linearity rank of specific convex(non-polyhedral) cones, cone preservers, and positive linear maps on different cones.



# **Department: Mathematics**



Name : Dr. Krishnan Paramasivam

Qualification: Ph.D., (IIT Madras)

Designation : Associate Professor

Contact Number : 9526019924

Email :sivam@nitc.ac.in

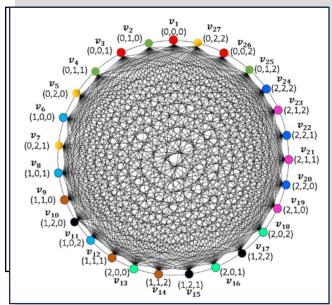
Website address : webpage

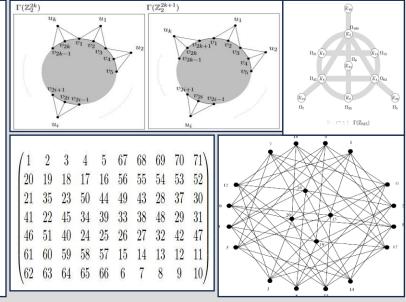
Scholar ID : <u>Scholar ID</u>

Scopus ID : 57208577562

ORCID ID :<u>0000-0001-8935-2819</u>

- Algebraic graph theory
- Combinatorics and design theory
- Zero-divisor graphs problems (algebra)
- Generalization: magic squares and rectangles







# **Department: Mathematics**

Name : Dr. Nazim Khan

Qualification: Ph.D., (Aligarh Muslim

University)

Designation : Assistant Professor

Contact Number : 9696132698

Email : nazimkhan@nitc.ac.in

Website address :

https://nitc.ac.in/department/mathematics/faculty-and-

staff/faculty/ce45f8b7-21ea-4610-8974-0450cf4301fe

Google Scholar ID:

Scopus ID :57346405800

ORCID ID : 0000-0003-4040-5013

#### Area of Research:

• My core area of research is Functional identities in Rings and Algebras.

My current research interest includes the following area:

- Field Theory
- Machine Learning



# **Department: Mathematics**

Name : Neetu Garg

Qualification: Ph.D. (NIT Kurukshetra)

Designation : Assistant Professor

Contact Number : 04952285231

Email : neetu@nitc.ac.in

Website address : National Institute of Technology

(nitc.ac.in)

Google Scholar ID : KeIKRIOAAAAJ&hl

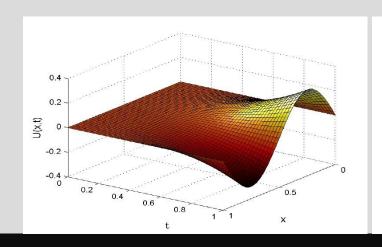
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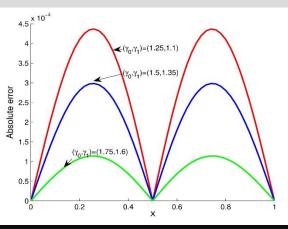
ORCID ID :

#### Area of Research:

Numerical Analysis, Fractional Differential Equation

Write two to three points about your area of expertise/Current area of work. I am interested in the analysis and numerical solution of the fractional differential equations.







# **Department: Mathematics**



Name : Dr. Sekhar Ghosh

Qualification: Ph.D., (NIT Rourkela)

Designation : Assistant Professor

Contact Number : 7382563682

Email : sekharghosh@nitc.ac.in

Website address : <u>NITC Webpage</u>

Google Scholar ID : uv -pagAAAAJ

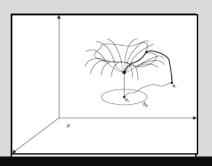
Scopus ID : 57197850860

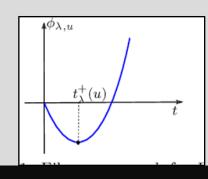
ORCID ID : 0000-0002-5082-2374

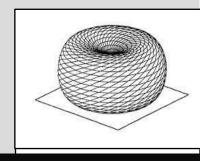
#### Area of Research:

Analysis and Theoretical PDEs.

I work on the theory of existence and regularity of weak solutions to nonlinear elliptic PDEs over Euclidean domains and sub-elliptic PDEs on stratified Lie groups. My research includes analytical tools like Functional analysis, Variational methods, Weak convergence method, etc.









# **Department: Mathematics**

Name : Sunil Jacob John

Qualification: Ph.D., (CUSAT)

Designation :Professor

Contact Number :9447208759

Email :sunil@nitc.ac.in

Website address :

https://nitc.ac.in/department/mathematics/faculty-and-staff/faculty/8a8c8a75-0863-40e6-

b5c4-972a45f6336d

Google Scholar ID :Sunil Jacob John - Google Scholar

Scopus ID :35318729500,55096973100, 25924321100

ORCID ID :0000-0002-6333-2884

Area of Research:

**SET GENERALIZATIONS** 

Fuzzy sets, Soft sets, Multisets, Rough sets

**TOPOLOGY** 

Algebraic topology, Fuzzy topology



## **Department: Mathematics**



Dr. Sunitha M S

M.Phil, Ph.D., (CUSAT)

Designation : Professor

Contact Number : 9744448250

Email : sunitha@nitc.ac.in

Website address

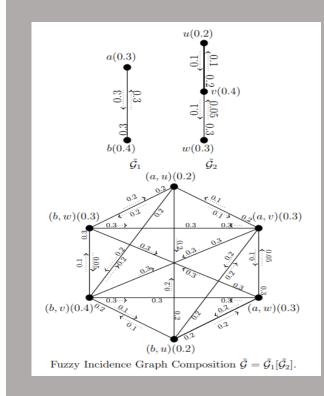
https://nitc.ac.in/department/mathematics/faculty-and-staff/faculty/3abb1ebc-da4a-468e-86a5-6c2f083f87b4

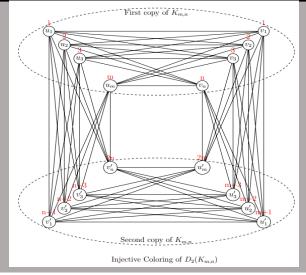
Google Scholar ID

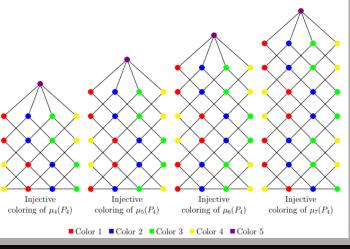
https://scholar.google.com/citations?user=3pvV3zUAAAAJ &hl=en&oi=ao

Scopus ID : 6602736787

- Fuzzy Graph Theory
- Algebraic Graph Theory
- Graph Coloring









# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

## NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Mathematics**



Name: Dr. Vibhuti Arora

Qualification: Ph.D. (IIT Indore), Postdoc (IIT

Bhubaneswar)

Complex analysis

Area of Research:

Geometric Function Theory

Quasiconformal Mappings

Harmonic mappings

Designation : Assistant Professor

Contact Number : 7000473664

Email : vibhuti@nitc.ac.in

Website address

https://sites.google.com/view/vibhutiarora/home

Google Scholar ID :4X3qG7AAAAAJ

Scopus ID :57204524723

Orcid ID : 0000-0003-2408-0765

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT





# Faculty Expertise Department of Management Studies

# LIST OF FACULTY

- > Dr. Muhammad Shafi
- > Dr. Nithya M
- **▶Dr. Sreejith S S**
- > Dr. Althaf S
- > Dr. Manju Mahipalan
- > Dr. Sreekanth V K
- > Dr. S. Saravana Kumar
- > Dr. Arjun Anil Kumar



#### **Department: School of Management Studies**



Name : Dr. Muhammad Shafi

Qualification: Ph.D., (AMU Aligarh)

Designation :Associate Professor

Contact Number :8943001345

Email :shafi@nitc.ac.in

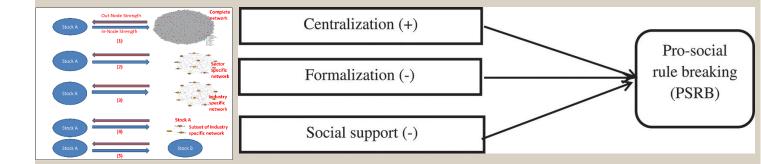
Website address : <u>www.soms.nitc.ac.in</u>

Google Scholar ID : <a href="mailto:shafi@nitc.ac.in">shafi@nitc.ac.in</a>

Scopus ID : 57191954493

Orcid ID : 0000-0002-6667-576X

- Business Government Relations, CSR and Governance
- Financial Management and Analytics.
- General Management, Macroeconomics





#### **Department: School of Management Studies**



Name : Dr. Nithya M

Qualification: Ph.D., (Anna University)

Designation: : Assistant Professor Grade I

Contact Number :9486538113

Email :nithyam@nitc.ac.in

Website address : https://nitc.ac.in/schools/school-

of-management-studies/faculty-and-

staff/faculty/430a0c0e-7ff3-468d-aeb9-267f96eb72aa

Google Scholar ID

https://scholar.google.com/citations?hl=en&user=Nzq47B

**EAAAAJ** 

Scopus ID : 57206334106

Orcid ID : 0000-0002-0962-128X

#### Area of Research: Marketing

- Brand Extension, Brand Activism, Co-branding
- Consumer behavior, Green consumption, Sustainability Marketing, Green washing
- Femvertising, Counter-stereotyping in advertising, woke washing
- Gender inclusivity in Marketing and Segmentation









# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: School of Management Studies**



Name : Sreejith S S

Qualification : Ph.D., (Indian Institute

of Science, Bangalore)

Designation : Assistant Professor

Contact Number : 8078398067

Email : sreejithss@nitc.ac.in

Website address : https://nitc.ac.in/schools/school-of-

management-studies/faculty-and-staff/faculty/page/2

Google Scholar ID : sreejithss@nitc.ac.in

Scopus ID : 57062587300

Orcid ID : 0000-0002-3294-5434

#### Area of Research:

Organizational Behavior & Human Resource Management

- Multiple Criteria Decision Making in Employee Performance Evaluation
- HR Analytics adoption in organizations challenges and opportunities
- Building a diverse, equitable, inclusive and sustainable workplace





Name: Althaf S
Ph.D., (Indian Institute of
Management Bangalore)
Five Year Integrated Masters
(Indian Institute of Technology
Madras)

Designation : Assistant Professor

Contact Number: 8277681558

Email althaf@nitc.ac.in :

Website address

:https://sites.google.com/view/althafs/

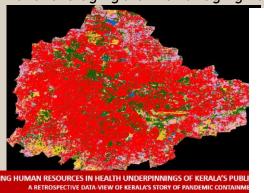
Google Scholar ID :aKEaP8AAAAJ

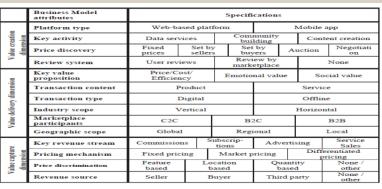
Scopus ID :57224742076

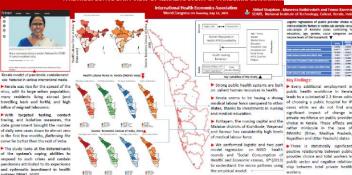
Orcid ID :0000-0001-6289-8061

#### **Department: School of Management Studies**

- Data Driven Public Policy
  - Urban Economics and Policy-Building a Geo-spatial and Urban Database for India and furthering spatial economic/policy research on India using Google Earth Engine and open source GIS/python possibilities
  - Healthcare Economics and Policy
  - Qualitative research and database creation on venture creation and survival of Indian entrepreneurs and platforms and understanding evolution of digital platform business models and leveraging them for bridging fragmented markets and meeting unmet needs









# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

#### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

**Department: School of Management Studies** 

Designation

Name: Manju Mahipalan

Qualification: Ph.D. NIT Karnataka

: Assistant Professor

Contact Number : 9446142355

Email :manju@nitc.ac.in

Website address : https://nitc.ac.in/schools/school-

of-management-studies/faculty-and-

staff/faculty/4074ad34-087e-4b3a-95f5-f2a8c69e9127

Google Scholar ID :

:https://scholar.google.com/citations?user=ijrXd1IAAAAJ&

<u>hl</u>=en

Scopus ID :57203546423

Area of Research:

➤ Workplace well-being

➤ Positive Psychology- Relevance & Interventions

➤ Imposter Phenomenon- Qualitative Study



# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

**Department: School of Management Studies** 



Name: Sreekanth V K

Qualification: Ph.D., (Indian Institute of

Technology Kharagpur)

Designation : Assistant Professor

Contact Number : +91 9895925259

Email : <u>sreekanth@nitc.ac.in</u>

Website address

https://sites.google.com/nitc.ac.in/sreekanthvk

Google Scholar ID : <a href="mailto:sreekanth@nitc.ac.in">sreekanth@nitc.ac.in</a> (cnNAvYcAAAAJ)

Scopus ID : 56192885600

Orcid ID : 0000-0002-7709-0257

#### Area of Research:

Open Innovation and Knowledge Management

- The growth of an organization depends on promoting innovation and knowledge within the organization. The research intends to develop an inclusive framework that creates explicit knowledge and nurtures collaboration and open innovation.
- Designing and developing an artificial intelligence-enabled knowledge management system to create, capture, and disseminate knowledge from large amounts of data is necessary for large organizations and us startups.
- The research aims to create a framework to ensure access and availability to reliable and affordable knowledge bases for decision-making for organizations.
- The research must consider the nuances of services and follow a systemic approach to develop an effective knowledge management system.



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: School of Management Studies**

Name : S. Saravana Kumar

Qualification: Ph.D., (Indian Institute of

Technology Madras)

Designation : Assistant Professor Grade II

Contact Number : 9361001806

Email : saravanakumar@nitc.ac.in

Website address: https://nitc.ac.in/schools/school-of-

management-studies/faculty-and-staff/faculty

Google Scholar ID: saravanakumar@nitc.ac.in

Orcid ID : https://orcid.org/0009-0006-2895-

596X

#### Area of Research:

Industrial Engineering and Operations Research :

Work System Design, Improving Plant Layout, Designing of Material Handling Systems, Modelling and analysis of Production, Inventory, Queueing, Supply Chain and Service Systems

Developing Branch-and-Bound algorithms, Branch and Price algorithms,
 Column generation methods for Integer Programming of difficult-to-solve (combinatorial) optimization problems

 Design of Non-Traditional Optimization methods including Search- Based Heuristic, Metaheuristic and Hybrid algorithms for Combinatorial problems



# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

## **Department: School of Management Studies**



Name : Arjun Anil Kumar

Qualification: Ph.D., (Indian Institute of

Science)

Designation : Assistant Professor Grade II

Contact Number : 9591043540

Email : arjunanilk@nitc.ac.in

Website address:

https://nitc.ac.in/department/managementstudies/faculty-and-staff/faculty/581d60b3-aa0a-40ff-bfa6-

748d34079c71

Google Scholar ID: cLoXq6QAAAAJ

Orcid ID : https://orcid.org/0000-0002-5163-

- Natural Resource Management using Applied Remote Sensing Techniques
- Land Use Land Cover (LULC) Monitoring using Deep/Machine Learning Algorithms
- Spatial Analytics using R, Python, Colab, QGIS and Google Earth Engine

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT





# Faculty Expertise Department of Materials Science and Engineering

# List of Faculty

- >Dr.C.B.Sobhan
- > Dr.N.Sandhyarani
- **▶ Dr. Soney Varghese**
- **>** Dr. Sajith V
- > Dr. Shijo Thomas
- > Dr. Aparna Zagabathuni
- **▶** Dr. Shyam Kumar C N
- **▶**Dr.Hanas T
- > Dr. Vinod E. Madhavan



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Materials Science and Engineering**



Name: C. B. Sobhan

Qualification: Ph.D., (IIT Madras)

Designation: Professor (HAG)

Contact Number : 91-495-2286502

Email : csobhan@nitc.ac.in

Website address : https://nitc.ac.in/schools/school-

of-materials-science-and-engineering/faculty-and-

staff/faculty/513a6035-689e-4603-80a1-88d4f16ef98e:

Google Scholar ID :

https://scholar.google.co.in/citations?user=FGbfZ-

AAAAAJ&hl=en

Scopus ID :

https://www.scopus.com/authid/detail.uri?authorId=660

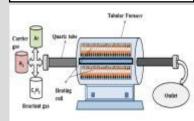
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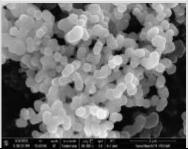
Orcid ID : 0000-0001-9570-9191

#### Area of Research:

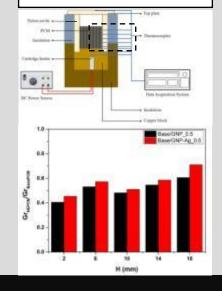
- Microscale and Nanoscale Thermal Phenomena
- Optical Methods Interferometry
- Synthesis and Properties of Nanomaterials
- Molecular Dynamics Simulations

Chemical Vapor
Deposition Synthesis of
Carbon Spheres

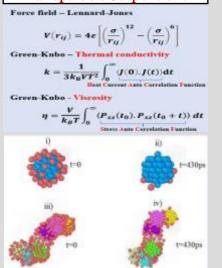




Nano-enhanced Phase Change Materials for Heat Transfer Applications



Molecular Dynamics
Simulation of Thermal and
Momentum Transport in
Nanoparticle Suspensions





**Department: Materials Science and Engineering** 



Name: Dr. N. Sandhyarani

Qualification: Ph.D., (IIT Madras)

Designation :Professor

Contact Number :04952286537

Website address :

https://nitc.ac.in/department/school-of-materials-

science-and-engineering/faculty-and-

staff/faculty/0abbb58f-cc45-42ea-821c-

36e495860cda

Google Scholar ID :

https://scholar.google.com/citations?user=IKbgQa8AA

AAJ&hl=en

Scopus ID :6603360447

Orcid ID :0000-0002-6623-3347

#### **Areas of Research:**

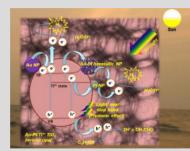
Nanomaterials for healthcare and clean energy applications

**Green Energy Generation:** Synthesis of electrocatalyst/ photocatalysts for Water Splitting Reactions Involving Hydrogen Evolution Reaction (HER) & Oxygen Evolution Reaction(OER).

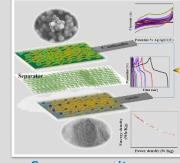
**Clean Energy Generation:** Electrocatalyst development for Direct Methanol Fuel Cells.

**Energy Storage** Design and development of nanomaterials for Batteries & Supercapacitors.

**Biosensors** Development of biosensors for the detection of biomolecules and biomarkers



Photocatalytic HER



Supercapacitor



Sepsis Biomarker sensor device



**Department: Materials Science and Engineering** 

#### Area of Research:



Name : Dr. Soney Varghese Qualification : Ph.D., (Eindhoven

University of Technology,

The Netherlands)

Designation : Professor

Contact Number :9446792019

Email :soneyva@nitc.ac.in

Website address : www.nitc.ac.in

Google Scholar ID

Scopus ID :36872173800

Orcid ID :

Nanomaterials for sensors, polymer technology, material characterisation, composite materials



#### **Department: Materials Science and Engineering**

Name : Dr. Sajith V

Qualification: Ph.D. (NIT Calicut)

Designation : |

**Contact Number** 

Email

Website address

: Professor

:+91-495-228-6525, 9446361125

: sajith@nitc.ac.in

:https://nitc.ac.in/schools/school-

of-materials-science-andengineering/faculty-and-

staff/faculty/a560bde9-0be3-

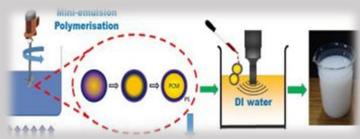
4a8f

Orcid ID : 0000-0002-9574-9182

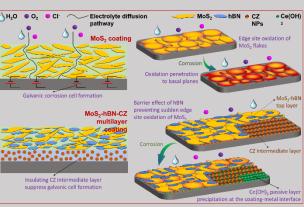
#### **Areas of Research:**

- ☐ Phase change materials
- ☐ Corrosion and wear resistant coatings
- ☐ Thermal management of Electronics
- EV Battery cooling

- ☐ Toxicity studies of Micro/nano plastics
- Exhaust gas treatment technologies
- Nano coolants/Nano lubricants







#### **Collaborators**















### **Department: Materials Science and Engineering**

Name : SHIJO THOMAS

Qualification : Ph.D., (NIT CALICUT)

Designation :ASSOCIATE PROFESSOR

Contact Number :9446276409

Email :shijo@nitc.ac.in

Website address : https://nitc.ac.in/schools/school-

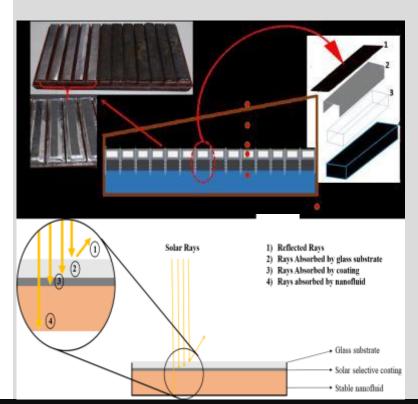
of-materials-science-and-engineering/faculty-and-

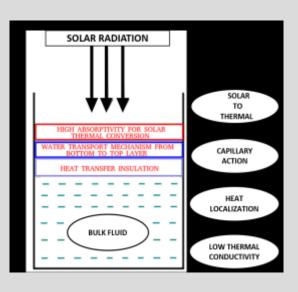
staff/faculty/32086a1c-5a4c-4e2c-ad95-93a808515a70

Google Scholar ID :HNAttQ4AAAAJ Scopus ID :57216961335

Orcid ID :0000-0003-3070-255

- Applications of nanofluids and modified surfaces in solar thermal systems and heat transfer.
- Desalination using multilayer floating absorber materials.
- High Entropy Nanomaterials for Solar fuels from waste water and CO2







# **Department: Materials Science and Engineering**

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name: Dr. Aparna Zagabathuni

Qualification: Ph.D.(IIT Kharagpur)

Designation : Assistant professor (Level-11)

Contact Number :9734533473

Email :aparnazagabathuni@nitc.ac.in

Website address

https://nitc.ac.in/department/school-of-materials-

science-and-engineering/faculty-and-

staff/faculty/c5834f28-09d2-492e-8049-f78cbbbb2b16

Google Scholar ID : IjoVjRIAAAAJ Scopus ID : 57201340995

Orcid ID : 0000-0002-4188-1102

#### Area of Research:

- Nanofluids
- Metamaterials
- 3D printing
- MEMS based Artificial cochlea
- Biomaterials and biomedical devices

Automated electrode array insertion tool for cochlear implant surgery



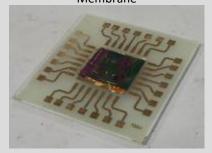
3D printed human cochlea



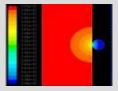
3D printed Metamaterials



MEMS based Artificial Basilar Membrane



Strength of Heat transfer of nanoparticle using Metamaterial FEM





NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Materials Science and Engineering**

#### Area of Research:

Name : Shyam Kumar C N Qualification : Ph.D., (Technical

University of Darmstadt)

Designation : Assistant Professor

Contact Number : 9995890971

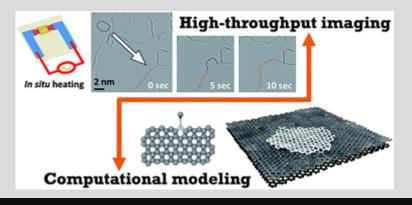
Email :shyam@nitc.ac.in Website address : <a href="https://nitc.ac.in">https://nitc.ac.in</a>

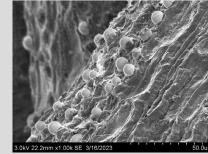
Google Scholar ID : Google Scholar Link

Scopus ID

Orcid ID : 0000-0001-6946-8726

 My research interest centers around in situ/operando characterization to explore the structure-property-performance paradigm primarily in carbon nanomaterials, as well as in other materials systems.







# **Department: Materials Science and Engineering**

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name Qualification : Dr. Hanas T

: Ph.D. in Materials

Science, (IIT Madras)

Designation : Assistant Professor

Contact Number :+91-495-228-6526, 9446991191

Email : hanas@nitc.ac.in

Website address :https://nitc.ac.in/schools/school-of-

materials-science-and-

engineering/faculty-and -

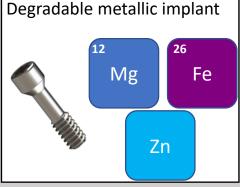
staff/faculty/31821e0f-50c4-4842-

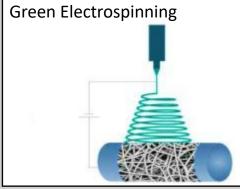
bca8-40ffc8d6b7fc

Scopus ID : 23970750800

- ☐ Surface Coatings and Modifications
- ☐ Biodegradable Materials
- ☐ Biodegradable Metallic Implants
- ☐ Severe Plastic Deformation

- Electrospinning
- Nanocomposites
- Medical Materials
- Affordable Healthcare









**Department: Materials Science and Engineering** 



Name : Dr. Vinod E. Madhavan

Qualification : Ph.D. (Indian Institute of

Science, Bangalore)

Designation : Assistant Professor

Contact Number : 9980590027

Email : vinodem@nitc.ac.in

Website address : Website Link

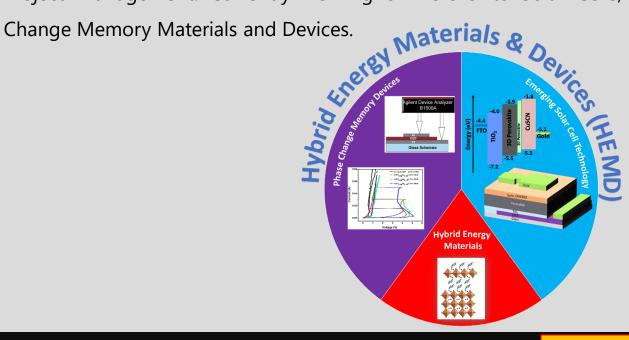
Google Scholar ID : Google Scholar Link

Scopus ID : 24400270600

Orcid ID : 0000-0002-8501-8351

#### Area of Research:

• Experienced research scientist with a demonstrated history of working in the materials development, device physics and Solar PV cells( Perovskite Solar cells, CZTSSe solar cells). Skilled in materials analysis, devices Fabrication, thin film Research and Development (R&D) as well as Project Preparation and Project Management. Currently working on Perovskite Solar Cells, Phase



# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT





# Faculty Expertise Department of Mechanical Engineering

# LIST OF FACULTY

Dr Jose Mathew	Dr. Saleel Ismail	Dr. Ilango M Dr. Sujith Kumar CS
Dr. R. Manu	Dr. T.J. Sarvoththama Jothi	Dr. Jacob Koshy Mulamootil > Dr. Sumer B Dirbude
Dr. R Sridharan	Dr. Vinay V. Panicker	▶ Dr. Jithin M ▶ Dr. VIJAYARAJ K
Dr.V. Madhusudanan Pilla	ai≻ Dr. A. M. Sreenath	Dr. Ratna Kumar K Dr. Vikash Kumar
Dr. Sudheer. A. P	Dr. Sai Saketha Chandra Athkuri	Dr. Mohammed Rashad K Dr. Vineesh K P
Dr. Amit Kumar Singh	Dr. AVSSH Sravan Kumar	Dr. Pradeepmon T.G.  Dr. Vinod Kumar Sharma
Dr. ARUN P	Dr. Allen Anilkumar	Dr. Pranay Vinayak
Dr. G. Varaprasad	Dr. Amit Kumar Rai	Dr. R. Prabhu Sekar
Dr. Jagadeesha T	Dr. Arindam Bhattacharjee	Dr. Rohinikumar B
Dr. Jinu Paul	Dr. Arun Babu K	Dr.Sajan T John
Dr. M Srinivas	Dr. Basil Kuriachen	Dr. Sandip Rudha Budhe
Dr. Murali K P	Dr. Deepak Lawrence K	Dr. Sangeeth K
Dr. Nitinkumar D	Dr. Devendra K Yadav	Dr. Sanjeev Kumar Manjhi
Dr.Dhanish P.B.		Dr. Sharu B K



# **Department: Mechanical Engineering**

# Research Areas:



Name: Dr Jose Mathew Ph. D. (IIT Bombay)

Designation: Chairperson, Centre for Industry

Institutional Relations (CIIR) &

Professor (HAG)

Ph: 0495-2286405, 9447416639

Email: josmat@nitc.ac.in

ORCID Id: <a href="https://orcid.org/0000-0001-7126-882X">https://orcid.org/0000-0001-7126-882X</a>

Scopus Id: 57202195509

Google Scholar Id: 2VIW6WcAAAAJ

https://scholar.google.co.in/citations?user=2VIW6W

<u>cAAAAJ</u>

Web: <a href="https://nitc.ac.in/department/mechanical-engineering/faculty-and-staff/faculty/eb8313e6-">https://nitc.ac.in/department/mechanical-engineering/faculty-and-staff/faculty/eb8313e6-</a>

e2ff-4987-8030-46bcd11c1c7b

Lab: <a href="https://www.amc.nitc.ac.in/">https://www.amc.nitc.ac.in/</a>
Metal Cutting Studies: Micro-Nano Machining,

Machining of FRP composites, AM/3D printing,

etc.

CAI, CAD/CAM: CNC Machines, etc.



# **Department: Mechanical Engineering**

Name : Dr. R. Manu

Qualification : Ph.D., (IIT Madras)

Designation : Professor

Contact Number : 8547078925

Email : manu@nitc.ac.in

Website address :

https://nitc.irins.org/profile/53776

Google Scholar ID

https://scholar.google.com/citations?hl=en&user=DA

MluQoAAAAJ

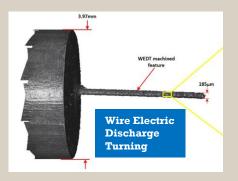
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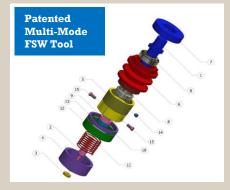
Orcid ID :0000-0002-8229-1344

- Non-traditional Machining
- Friction Stir Welding
- CAD/CAM











# **Department: Mechanical Engineering**

Name: R Sridharan

Qualification: Ph.D., (IIT Bombay)

Designation : Professor (HAG)

Contact Number : 9495788136

Email : sreedhar@nitc.ac.in

Website address

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/0306b50c-be4a-4bce-

a9c5-093fa95d6d49

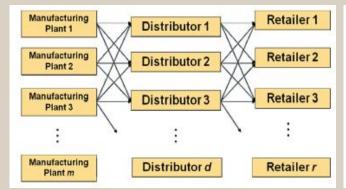
Google Scholar ID :5gy4PEQAAAAJ

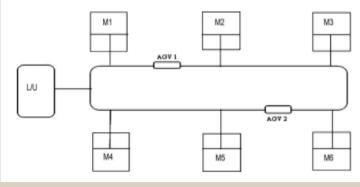
Scopus ID :<u>7005923110</u>

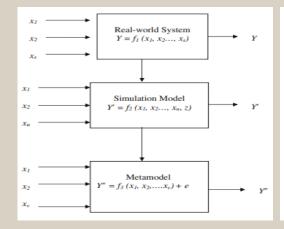
Orcid ID :0000-0002-0186-6442

#### Areas of Research:

 Decision Modelling, Simulation Modelling and Analysis, Operations Management, Supply Chain Management, Total Quality Management, Indian Knowledge Systems.







गोपीभाग्य मधुवातः श्रुंगशोदधि संधिगः

Go pi bha gya ma dhu vra ta srin gi so da dhi san dhi ga

3 1 4 1 5 9 2 6 5 3 5 8 9 7 9 3

खलजीवितखाताव गलहाला रसंधरः

Kha la ji vi ta kha ta va ga la haa laa ra san dha ra

2 3 8 4 6 2 6 4 3 3 8 3 2 7 9 2

π = 3.1415926535897932384626433832792



#### **Department: Mechanical Engineering**



Name: V. Madhusudanan Pillai

Qualification: Ph.D., (NITC)

Designation :Professor

Contact Number :9895367804

Email :vmp@nitc.ac.in

Website address

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/c7484ecc-72bd-4386-8ad1-

5692edaa2c86

Google Scholar ID : Madhusudanan Pillai V - Google Scholar

Scopus ID :

https://www.scopus.com/authid/detail.uri?authorld=

57194773139

Orcid ID : <a href="https://orcid.org/0000-0001-6702-7994">https://orcid.org/0000-0001-6702-7994</a>

#### Area of Research:

- Lean Manufacturing Management
- Green/Sustainable Supply Chain Management and Supply Chain Operation Simulation
- Material Requirements Planning, Scheduling, Facility Layout Planning, and Inventory Management
- Annualised Hours Planning, and Ergonomics
- Machine Learning and Blockchain applications in Supply chain management.

Note on Technologies developed Home Pages of
Software
Packages/Teachin
g Lab Exercises
developed

SUPPLY CHAIN
MANAGEMENT
SIMULATION Basic details, training
outcomes, license fee
details



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# Department: Mechanical Engineering

# Name: Sudheer, A. P.

Qualification: Ph.D., (NIT Calicut)

Designation :Associate Professor

Contact Number :+91-9961450987

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Website address:

https://nitc.ac.in/department/mechanical-engineering/faculty-and-staff/faculty/8eb95fa4-0e19-4246-

aa46-75095a3ec8d8

Google Scholar ID:

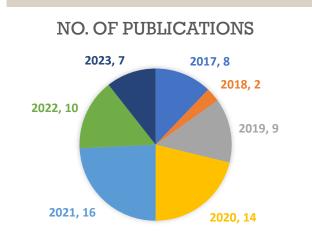
https://scholar.google.com/citations?view\_op=list\_works&

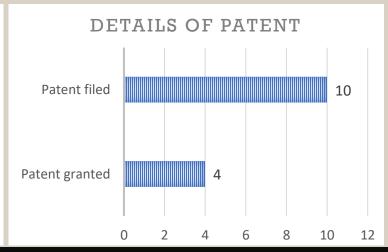
hl=en&hl=en&user=iikzCB4AAAAJ&sortby=pubdate

Scopus ID :49362153500

Orcid ID :https://orcid.org/0000-0003-0644-

- Robotics: Kinematics, Dynamics, and Control
- Serial and parallel manipulators
- Mobile robotics: Humanoid robot, Wheeled and tracked robots
- Assistive technology: Robotic device for rehabilitation, Exoskeleton
- AI, IoRT
- Agricultural robotics
- External research grant: 110 lakh+







# **Department: Mechanical Engineering**



Name: Amit Kumar Singh

Qualification: Ph.D.

Designation : Associate Professor

Contact Number : 9549657317

Email : amitsingh@nitc.ac.in

Website address :

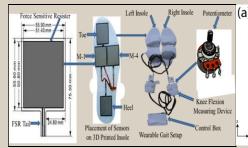
https://nitc.ac.in/department/mechanicalengineering/faculty-and-staff/faculty/page/2

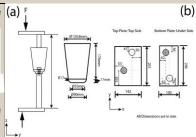
Scopus ID : <u>Qd24uwwAAAAJ</u>

Google Scholar ID :

https://scholar.google.co.in/citations?hl=en&user=Qd24u wwAAAAJ&view op=list works&gmla=AJsN-F4FZrrRh

- Bio Medical Engineering, 3D Printed Medical Devices, Prosthetics and other Assistive Devices.
- Design for Additive Manufacturing, Digital Twin for Additive Manufacturing









Wearable Gait Setup

Element Stresses (vonMises) (MPa)

4.397E-02

3.3096+02

3.420E-02

2.932E-02

2.444E+02

1.956E+02

1.467E-02

9.791E-01

4.908E-01

2.590E-01

Structural Testing of Prosthetics

Wearable Exoskeleton

Design for Additive Manufacturing- Lattice Structures



# **Department: Mechanical Engineering**



Name: ARUN P

Qualification: Ph.D. (IIT BOMBAY)

Designation : Associate Professor

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Email : arun.p@nitc.ac.in

Website address

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/4b63044a-3f37-4f92-

b0ad-92a4a5716548

Scopus ID : 23984365900

Google Scholar ID

https://scholar.google.co.in/citations?user=JVUgGj4AAAAJ

Orcid ID

https://orcid.org/0000-0002-5061-1913

- Mathematical modeling and optimal thermal design of various energy systems
  - PV-battery and PV-Thermal hybrid systems
  - Data driven modelling of conventional and renewable energy systems
- Renewable energy utilization:
  - Thermo-chemical conversion of biomass for energy applicationsgasification, pyrolysis
  - Low and medium temperature solar thermal systems-solar drying, desalination



# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Mechanical Engineering**

Name: Dr. G. Varaprasad

Qualification: Ph.D., (NIT Calicut)

Designation : Associate Professor

Contact Number : 9809600900 (Mob.)/ 0495-2286403

Email : gvp@nitc.ac.in

Website address :

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/5b8535d5-0ddf-4652-

978f-7313ffe22545

Google Scholar ID :

https://scholar.google.com/citations?user=N0x66dsAAAAJ&

hl=en&oi=ao

Scopus ID :

ORCID ID : 0000-0003-4288-4185

Areas of Research:

Marketing Research

Consumer Behavior

Lean Six Sigma

Ergonomics

Adoption Studies

Operations Management



# **Department: Mechanical Engineering**



Name: Dr. Jagadeesha T

Qualification: Ph.D.

Designation : Associate Professor

Contact Number : 8547193373

Email : jagdishsg@nitc.ac.in

Website address

https://nitc.ac.in/department/mechanical-engineering/

Scopus ID : 35590009200

Google Scholar ID

https://scholar.google.com/citations?hl=en&user

=uGu8tTgAAAAJ

orchid id <a href="https://orcid.org/0000-0003-2072-4391">https://orcid.org/0000-0003-2072-4391</a>

- Advanced Machining and Manufacturing Processes: Design and applications.
- Additive Manufacturing : Simulations, Fabrication and Modelling
- Smart materials and fabrication of devices and structures
- Biomaterials , Nano materials and Surface Coatings
- Industrial Tribology
- Smart factories and Digital manufacturing
- Processing of Electronic Materials.
- Beam Processes (Laser, Ion, Electron), modelling and its interactions with material.



# **Department: Mechanical Engineering**



Name : Dr. Jinu Paul

Qualification : Ph.D., (NTU

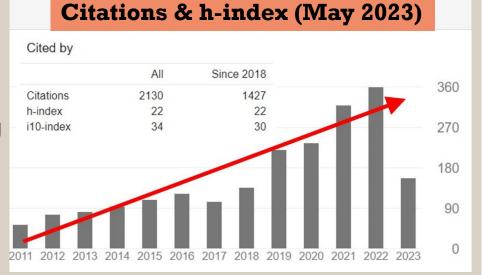
Singapore)

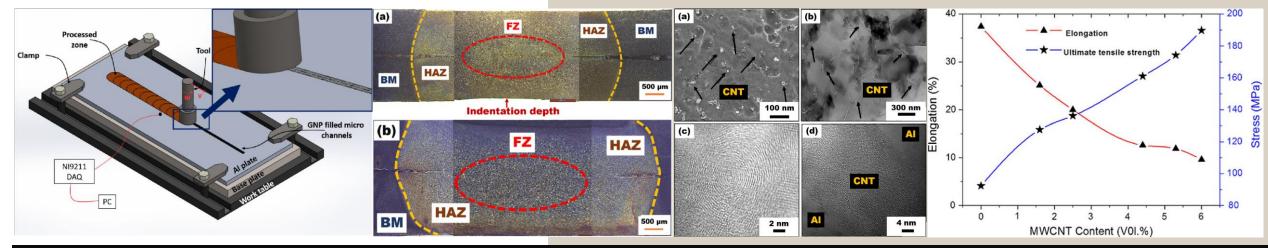
Designation : Associate Professor

Contact Number : 9002279620

Email :jinupaul@nitc.ac.in

- Welding
- Thin/thick Coatings
- Surface Engineering
- Composites
- Characterization







### **Department: Mechanical Engineering**



Name: M Srinivas

Qualification: Ph.D., (NIT Calicut)

Designation : Associate Professor

Contact Number : +91 9207227444

Email : msrinivas@nitc.ac.in

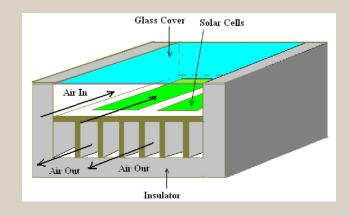
Website address :

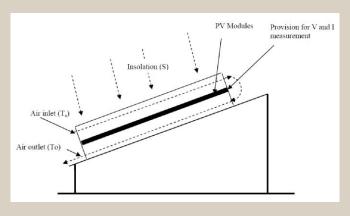
Google Scholar ID : TNvngJkAAAAJ

Scopus ID : 57190847688

Orcid ID : 0000-0001-6906-5556

- Alternative energy technology
- Hybrid energy systems
- Solar thermal systems







#### **Department: Mechanical Engineering**

Name: Murali K P

Qualification: Ph.D., (IIT Bombay)

Designation :Associate Professor

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Email :kpmurali@nitc.ac.in

Website address

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/d96190b2-980f-

4160-a0fa-de22616cbf98

Google Scholar ID :OQo54KwAAAAJ

Scopus ID :8676373200

Orcid ID :0000-0001-5210-0335

Area of Research: Electronic Materials

Development of Microwave Substrates for RF circuit applications:

Tuning of electrical and magnetic parameters for the enhancement of RF device performance

Flexible, bio-compatible and high temperature substrates – Polymer and ceramic matrix composite substrates

Magneto-dielectric RF absorbers





Flexible bio-compatible RF substrate and metamaterial based antenna fabricated on the proprietary substrate



# **Department: Mechanical Engineering**

# D

Name : Dr. Nitinkumar D. Banker

Qualification: Ph.D., (IISc, Bangalore)

Designation : Associate Professor

Contact Number : 9958392338

Emai : nitinkumardb@nitc.ac.in

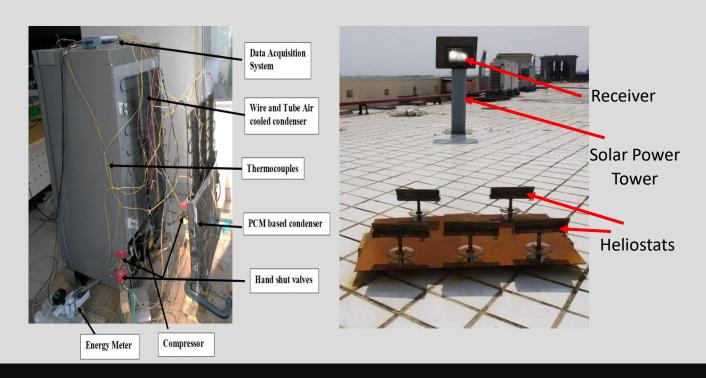
Website address :

Google Scholar ID : 6IVZIIMAAAAJ

Scopus ID : 6603055383

ORCID ID : 0000-0001-9307-9819

- Mechanical and heat operated refrigeration systems
- □ Compressed gas energy storage
- □ Solar thermal energy
- □ Thermal management using phase change materials





# **Department: Mechanical Engineering**



Dhanish P. B.

PhD NIT Calicut

**Associate Professor** 

Mob: 9207024889

Email: <a href="mailto:dhanish@nitc.ac.in">dhanish@nitc.ac.in</a>

Website: www.dhanish.in

Google Scholar ID: Dhanish P. B.

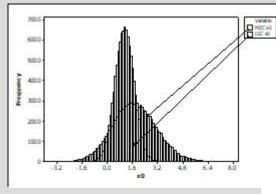
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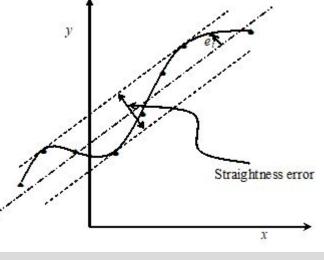
Orcid ID: <u>0000-0002-7727-1031</u>

# Area of Research:

# Metrology –

- Algorithms for form error
- Computation of uncertainties







#### **Department: Mechanical Engineering**

Name : Saleel Ismail

Qualification: Ph.D., IIT Madras

Designation : Associate Professor

Contact Number : +91-9884691904

Email : saleel@nitc.ac.in

Website address :

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/00762e44-98bf-

48c2-ae26-4462d913867b

Google Scholar ID : Saleel Ismail

(https://scholar.google.com/citations?user=xyrDHhEAAAA

J&hl=en)

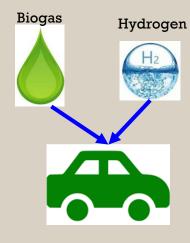
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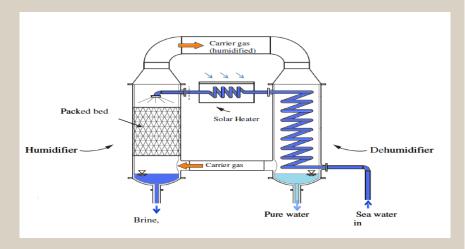
Orcid ID : 0000-0002-5849-4571

#### Area of Research:

- Internal combustion engines
- Solar desalination systems

 Use a graphical representation describing your research(one or two images), if interested.







# **Department:** Mechanical Engineering

Name: T.J. Sarvoththama Jothi

Qualification: Ph.D

Designation : Associate Professor

Contact Number : 8893814713

Mail Id : tjsjothi@nitc.ac.in

Web Address

https://nitc.ac.in/search?search=jothi

Google Scholar :

https://scholar.google.com/citations?user=8lTajj4AA

AAJ&hl=en

Scopus Id :<u>22950881000</u>

Orcid id :https://orcid.org/0000-0002-

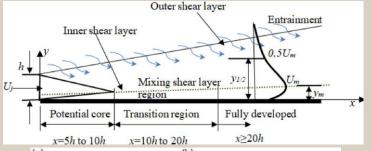
9674-9045

### Area of Research:

different engineering systems.

Write two to three points about your area of expertise/Current area of work.
 I am working in the fields of Aeroacoustics, Combustion, and noise control of

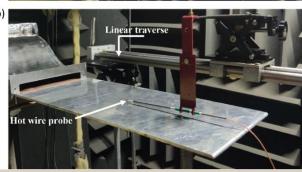
• Use a graphical representation describing your research (one or two images), if interested.













# **Department: Mechanical Engineering**

Name: Dr. Vinay V. Panicker

Qualification: Ph.D., (NIT Calicut)

Designation : Associate Professor

Contact Number : 9447597959 (Mob.)/

0495-2286466 (O)

Email : vinay@nitc.ac.in

Website address :

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/04f6f065-8f63-4c24-

b1e0-2b464b2eb478

Google Scholar ID : Vinay V. Panicker

Scopus ID : 54946804400

ORCID ID : 0000-0003-2167-3653

- Logistics and Supply Chain Management
- Freight Transportation
- Multi-modal Transportation
- Ergonomics and Human Factors in Engineering Design
- Six Sigma
- Operations Research and Optimization Techniques
- Operations Management
- Multi-Criteria Decision Making Techniques



#### **Department: Mechanical Engineering**



Name: A. M. Sreenath

Qualification: M Tech(IIT Madras)

Designation : Assistant Professor, NIT Calicut

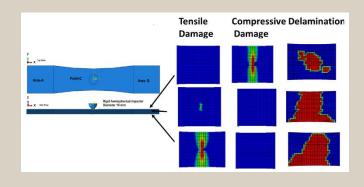
Contact Number : 9446254691

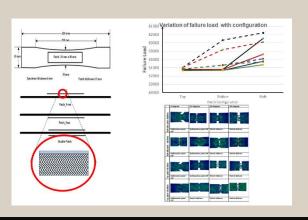
Email : Sreenath@nitc.ac.in

Scopus ID: : 57211751349

Orcid ID :0000-0002-5299-2537

- Fatigue of Materials
- FEM Modelling of Composite materials
- Impact modelling on composite material
- Repair of damaged composite components







# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name: Dr. Sai Saketha Chandra

Qualification: Ph.D., (IIT Hyderabad)

Designation : Assistant Professor

Contact Number : 9848820753

Email : saisakethachandra@nitc.ac.in

Google Scholar ID : See below

Scopus ID : 57218566817

Orcid ID : 0000-0002-8391-9893

LinkedIn :

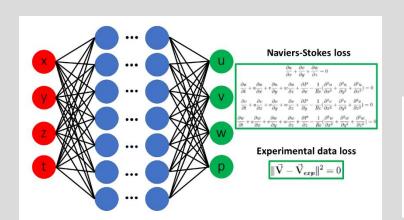
https://in.linkedin.com/in/saketha-chandra-athkuri-4161b193

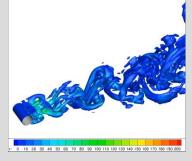
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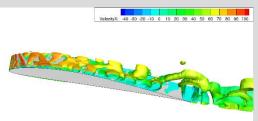
https://scholar.google.com/citations?hl=en&user=f-T38KQAAAAJ&view\_op=list\_works&gmla=AJ1KiT3e1U\_nFeJOu8\_kGpYBhNmgJlKbxMJPC0Nyggte3aGvclRnGvD3 LO7Ae6eiiJsePOd22SOqohgL6m\_04HfO

# Department: Mechanical Engineering

- Application of Artificial Intelligence (AI) and Machine learning to fluid flows
- Data driven turbulence modelling
- Physics Informed Neural Networks (PINNs) for fluid flows
- · Application of Deep learning to fluid flows
- Transition modelling
- CFD solver development for compressible flows









#### **Department: Mechanical Engineering**

#### Area of Research:

Micro-machining of difficult-to-machine metals and alloys like Ti-6Al-4V.

Post-machining finishing and deburring operations

Additive manufacturing

Name: A V S S H Sravan Kumar

Qualification: Ph.D., (IIT

Designation : Assistant Professor, Grade – II

Kharagpur)

Contact Number : 8116815123

Email : sravankumar@nitc.ac.in

Website address

https://nitc.ac.in/department/mechanical-

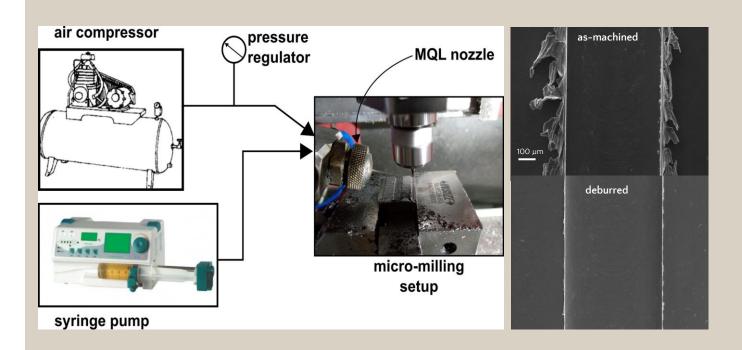
engineering/faculty-and-staff/faculty/4286cf95-e381-

4f68-bfae-b8220a67f4ca

Google Scholar ID : y-bALSUAAAAJ&hl

Scopus ID : 57218172861

Orcid ID : 0000-0002-6101-1358







നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

## NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name : Allen Anilkumar

Qualification : Ph.D., (IIT Bombay)

Designation : Assistant Professor

Contact Number :+91 7709790452

Email : allenanilkumar@nitc.ac.in

Website address :

Google Scholar ID

https://scholar.google.com/citations?user=FwIwh1wAAAAJ&hl=en&oi=ao

Scopus ID

https://www.scopus.com/authid/detail.uri?authorId=57208993057

ORCID ID : https://orcid.org/0000-0003-4615-2635

# SCIENCE AND ENGINEERING

Areas of Research:

Vibrations and Structural Dynamics

**Experimental Dynamics** 

Coriolis Vibratory Gyroscopes

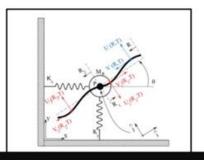
Parametrically-Excited Systems

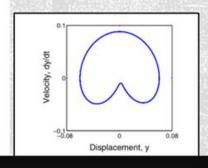
**Ground Resonance** 

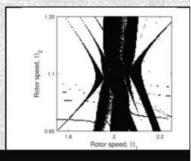
'Dithered' Systems: Laser Gyroscopes

**Axi-Symmetric Structures** 

**Electrostatically Actuated Dynamics** 









#### **Department: Mechanical Engineering**



Name: Dr. Amit Kumar Rai

Qualification: Ph.D., (IIT Kanpur)

Designation :Assistant Professor

Contact Number :7355542803

Email :amitrai@nitc.ac.in

Website address

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/53c9f213-1f1f-483f-

ac42-df153df61569

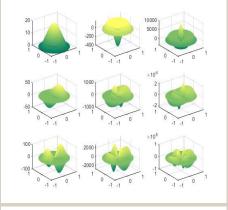
Google Scholar ID :rai.knit2007@gmail.com

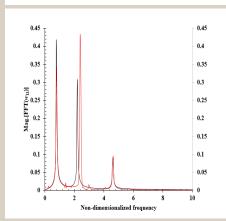
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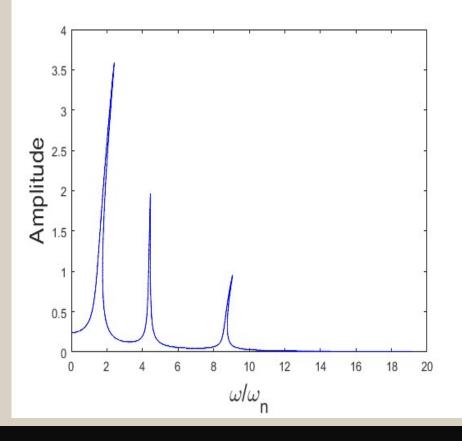
Orcid ID :

#### Area of Research:

 Dynamics and vibration of structures, functionally graded materials, computational mechanics (Finite element analysis), composite materials.









#### **Department: Mechanical Engineering**



Name : Dr. Arindam Bhattacharjee

Qualification: Ph.D., IIT Kanpur

Designation : Assistant Professor

Contact Number : 7992011945

Email : arindambhattacharjee@nitc.ac.in

Website address

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/1c6339ba-8883-43a5-

a26a-bc5e500da7de

Google Scholar ID :

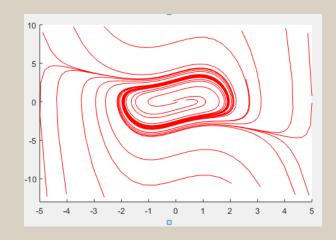
https://scholar.google.com/citations?user=8T1gMoAAAAAJ&

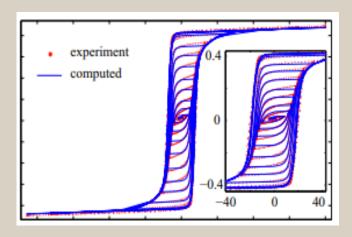
hl=en

Scopus ID

Orcid ID

- Dynamics and Control
- Vibration
- Nonsmooth system
- Optimization







#### Department: Mechanical engineering

Name: Dr. Arun Babu K

Qualification: MS (IITM), Ph.D.

(IITKGP) (Institute)

Designation : Assistant Professor, NIT Calicut

Contact Number : 9840215353

Email : <u>arunbabu@nitc.ac.in</u>

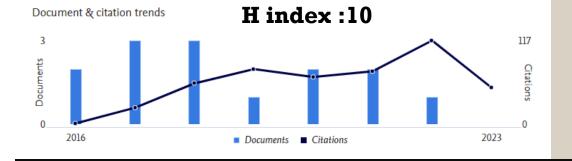
Scopus ID: : 57155306800

Orcid ID : https://orcid.org/0000-0002-4860-6103

Google Scholar ID:

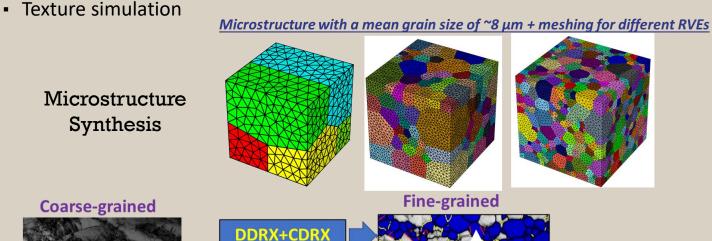
https://scholar.google.co.in/citations?user=Xuw-

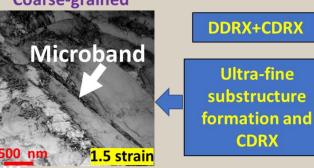
rPIAAAAJ&hl=en



#### Area of Research:

- Thermomechanical processing of metals and alloys
- Microstructure characterization (using EBSD) and texture analyses
- Microstructure modeling and microstructure synthesis





DDRX-Grain

CDRX Grain

25 µm

1 strain

Microstructure Characterization



#### **Department: Mechanical Engineering**

Name: Dr. Basil Kuriachen

Qualification: Ph.D., (NITC)

Designation : Assistant Professor

Contact Number : 9947187133 Email : bk@nitc.ac.in

Website address :

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/e5f74083-0a65-

4070-b08b-a74dc6c903f7

Google Scholar ID :

https://scholar.google.com/citations?user=O2KCeNsAAAA

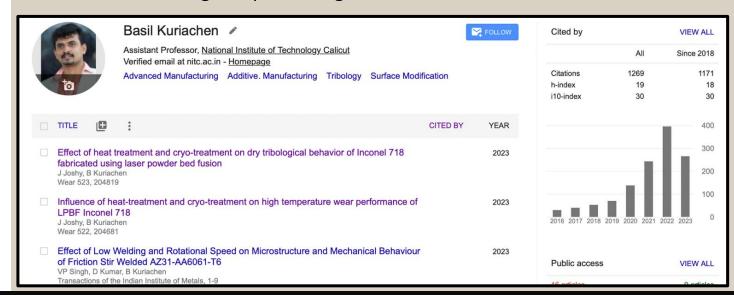
J&hl=en

Scopus ID : 55921560000

Orcid ID : <a href="https://orcid.org/0000-0002-">https://orcid.org/0000-0002-</a>

<u>0664-0792</u>

- Conventional and Advanced Machining
- Tribology
- Metal Additive Manufacturing
- Surface Modifications Processes
- Micromanufacturing
- Precision and ultra precision machining
- Modeling and analysis
- Surface coatings
- Friction stir welding and processing





#### **Department: Mechanical Engineering**



Name: Deepak Lawrence K

Qualification: Ph.D., (IIT Madras)

Designation : Assistant Professor

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Email : deepaklawrence@nitc.ac.in

Website address: https://tinyurl.com/4huz8tjd

Google scholar: https://tinyurl.com/83nszj4y:

Scopus ID : 36135397100

Orcid ID : https://orcid.org/0000-0002-

5607-0302

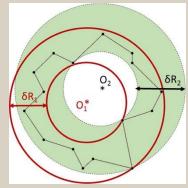
#### Area of Research:

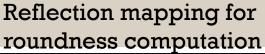
Computational Metrology, Additive Manufacturing, Digital thread and Industry 4.0

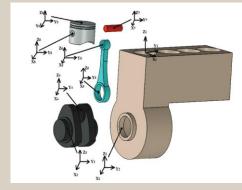
**Computational metrology**: Development of new algorithms and methods in metrology for inspection and evaluation of geometrical products specifications related to surface texture and form errors

**Additive Manufacturing:** Modification of 3D files and build files of additive manufacturing to improve the geometric fidelity and part quality of additive manufactured parts

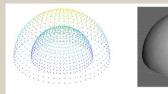
**Digital thread and Industry 4.0:** Extract the product manufacturing information (PMI) from STEP files of CAD geometry to automate the down stream design and manufacturing applications such as tolerance analyses, CNC code generation, direct FEM simulation from CAD, fixture design, process planning generation







Automatic tolerance analyses of assembly



Digital manipulation of point cloud of .stl file for 3 D printing



#### **Department: Mechanical Engineering**

Name: Devendra K Yadav

Qualification: Ph.D., (IIT

**Bhubaneswar**)

Designation :Assistant Professor

Contact Number : +91-7731947356

Email :devendrak@nitc.ac.in

Website address :

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/42d5628e-

f905-46ae-ac32-9120e01ef511

Google Scholar ID : OUYG7cIAAAAJ

Scopus ID :56498621300

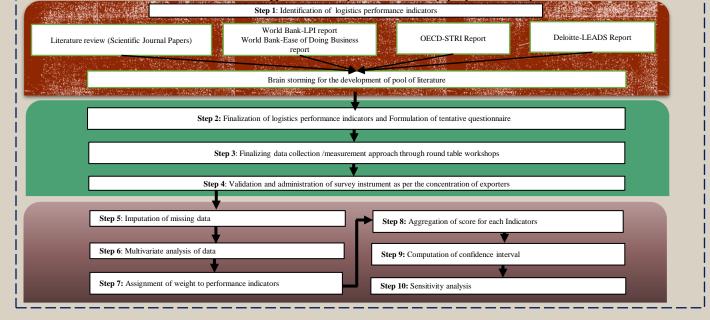
Orcid ID :0000-0002-0009-9499

#### Area of Research:

Machine Learning, Humanitarian Logistics

- Logistics Performance Measurement
- Humanitarian Logistics for managing extreme events
- Machine Learning and Data Analytics for business and management

Multi Criteria-Decision Making Techniques-for-supply chain-problems







Name: Ilango M

Qualification: Ph.D., (IITM)

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Website address:

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/b808d8f9-4fb3-

48b1-9d5b-9faf498a8fbf

Google Scholar

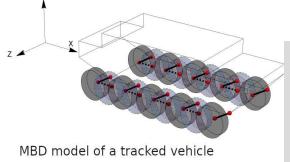
ID:https://scholar.google.com/citations?hl=id&user=fMKp

K60AAAAJ

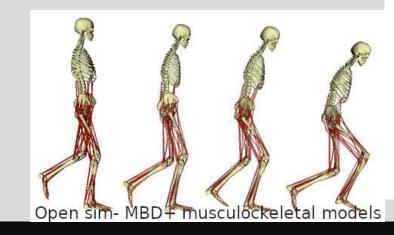
ORCID ID: 0000-0002-6634-8793

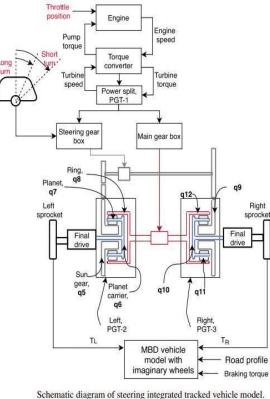
#### **Department: Mechanical Engineering**

#### Area of Research:



Multi-Body Dynamics for Vehicle Dynamics and Biomechanics: I am a learner in Multi-Body Dynamics (MBD), and I specialize in applying my understanding of MBD to solve complex problems in vehicle dynamics and biomechanics.







#### **Department: Mechanical Engineering**



Name: JACOB KOSHY

Qualification: Ph.D., (IIT

Designation : Assistant Professor

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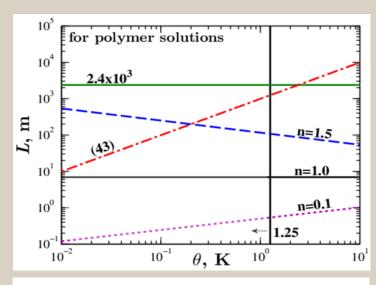
Website address

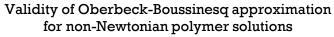
Google Scholar ID : Jacob Koshy Mulamootil

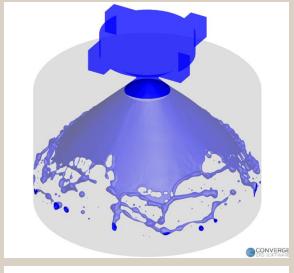
Scopus ID : 57195678575

Orcid ID : 0000-0002-4732-1886

- Expertise in natural convection heat transfer of non-Newtonian fluids using computational fluid dynamics (CFD).
- Study of atomization and sprays using CFD tools and non-intrusive optical diagnostic tools.
- Use of Commercial solvers such as Fluent and Converge CFD for the investigation of heat transfer and fluid dynamics.







CFD simulation depicting the evolution of a hollow cone spray



#### **Department: Mechanical Engineering**



Name : Dr. Jithin M Qualification : IIT Kanpur

Designation : Assistant Professor

Contact Number : 08765248907

Email : jithinm@nitc.ac.in

Website address : Click Here
Google Scholar ID : Click Here
Scopus ID : Click Here
ORCID ID : Click Here

#### **Area of Research:**

- □ Electrochemical Systems of Energy Conversion and Storage
- ☐ Transport in porous media
- Phase field multiphase simulations

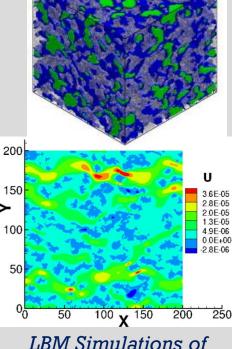
Ongoing Funded Project: Lattice Boltzmann Solver for Transport and Electrochemistry in Lithium-Oxygen Battery: Funded by DST and MeitY, Govt. Of India, as part of the National Supercomputing Mission: Rs. 45.26 Lakhs for 3

years

Re=3.75

Time= 3.23 s

Phase Field LBM Multiphase simulations of water droplet detachment in PEM Fuel Cell Channel



Pore-Scale Transport in Porous media



#### **Department: Mechanical Engineering**



Name: Ratna Kumar K

Qualification: Ph.D., (NIT Calicut)

Designation : Assistant Professor

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Email :ratna\_kumar@nitc.ac.in

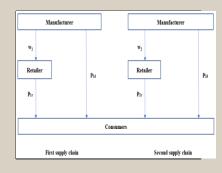
Website address : www.nitc.ac.in

Google Scholar ID :ratna\_kumar@nitc.ac.in

Scopus ID :ratna\_kumar@nitc.ac.in

Orcid ID :0000-0002-2121-306X

- Study and analyze the price competition among dual channel supply chains
- Develop and analyze the work place systems for Physically challenged People
- Develop Assistive technologies for elderly and disabled









#### **Department: Mechanical Engineering**



Name: Mohammed Rashad K

Qualification: Ph.D., (IIT Madras)

Designation : Assistant Professor

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Email : rashad@nitc.ac.in

Website address : linkedin.com/in/rashadkmr/

Google Scholar ID : Mohammed Rashad

Scopus ID : 56735892400

Orcid ID : https://orcid.org/0000-0003-4926-

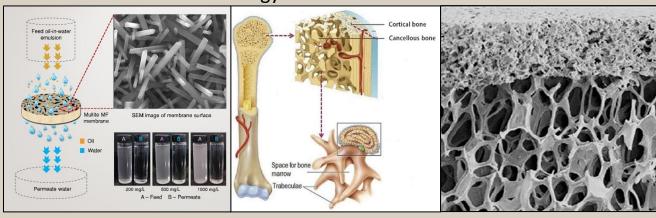
1909

#### Area of Research:

#### Advanced ceramics processing

Focused on the ideation, design and development of novel materials and energyefficient processes for adsorption, separation, water purification and medical applications.

- Porous ceramics/membranes for clean water technologies
- Additive manufacturing/3D printing of ceramic components
- Porous ceramics for medical applications
- Functional materials for energy and environment





#### **Department: Mechanical Engineering**



Name: Pradeepmon T.G.

Qualification: Ph.D., (NIT Calicut)

Designation : Assistant Professor

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engineering/faculty-and-staff/faculty/971872a7-ef1a-

426c-96fe-635fdd46ee3f

Google Scholar ID : oR7DQGQAAAAJ

Scopus ID : 55308166600

Orcid ID : https://orcid.org/0000-0002-

1524-5831

- Evolutionary Algorithms
- Supply Chain Management
- Warehouse Layout Optimization
- Digital Twinning of Supply Chain
- Al in Operations Management
- Green Supply Chain
- Multi-modal Transportation
- Multi-Criteria Decision Making





Name: Dr. Pranay Vinayak Likhar

Qualification: Ph.D., (IISc Bangalore)

Designation : Assistant Professor (Gr.II)

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engineering/faculty-and-staff/faculty/4eb13cdd-6e06-

4a3b-8762-26a45335f8a3

Google Scholar ID : 9WLJhEUAAAAJ

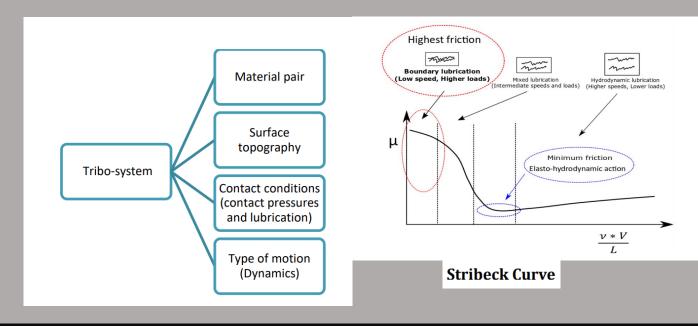
Scopus ID : 57559568500

#### **Department: Mechanical Engineering**

#### Area of Research:

Tribology and Machine Design

My research area is Tribology and currently I am working on the design and development of machines for characterizing frictional behavior under different sliding conditions.





## നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Mechanical Engineering**

Name: Dr. R. Prabhu Sekar

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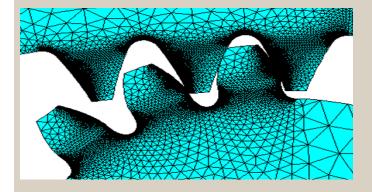
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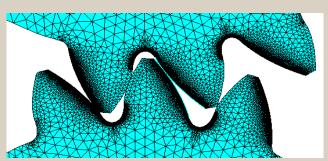
Scopus ID :559951100500

Orcid ID :0000-003-4506-9987

#### Area of Research:

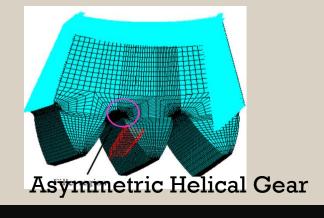
- GEAR DESIGN/ Asymmetric spur and Helical gear Design
- Finite Element Method





**Asymmetric Gear Drive** 

Internal Gear Drive





#### **Department: Mechanical Engineering**



Name : Rohinikumar B

Qualification: Ph.D., (NITC)

Designation :Assistant Professor

Contact Number :9744480751

Email :rohinikumar@nitc.ac.in

Website address :

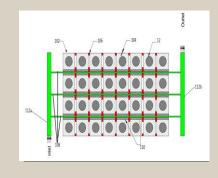
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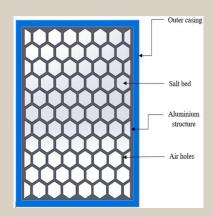
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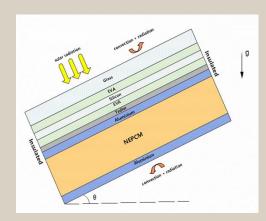
48d6-932b-db52504be75a

ORCID ID :0000-0002-3975-3996

- Solar –Thermal Energy Conversion
- Thermochemical Energy Conversion
- Thermal Management of Devices/Systems
- Convective Heat Transfer









#### **Department: Mechanical Engineering**

Name: Sajan T John

Qualification: Ph.D., (NIT Calicut)

: Assistant Professor

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engineering/faculty-and-staff/faculty/a57e3a8c-8f9a-

41d3-8032-95ab8ff0dadc

Google Scholar ID:

https://scholar.google.com/citations?user=6fHH9d8AAA

AJ&hl=en

Scopus ID :

https://www.scopus.com/authid/detail.uri?authorId=48

361577100

Orcid ID : <u>https://orcid.org/0000-0001-</u>

8032-2664

Area of Research:

Supply Chain Management

Reverse logistics

Network design



#### **Department: Mechanical Engineering**



Name: Sandip Rudha Budhe

Qualification: Ph.D.,

(University of Girona, Spain)

Designation : Assistant Professor

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Email : sandip@nitc.ac.in

Website address

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/fc584998-ca15-

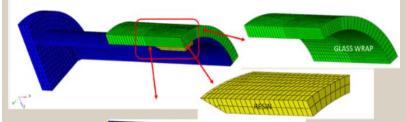
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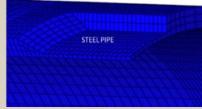
Google Scholar ID : Sandip Budhe - Google Scholar

Scopus ID :55315382900

Orcid ID :<u>0000-0002-3235-9232</u>

- Mechanics of composite materials
- Composite repair of metallic and non-metallic components
- Multifunctional composite materials and Bio-composite materials









Edge view of bonded joints DCB



#### **Department: Mechanical Engineering**



Dr. Sangeeth K

Qualification: Ph.D. (IIT Madras),

PostDoc (ICTS-TIFR)

Designation : Assistant Professor

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Email : <a href="mailto:sangeethkrishnan@nitc.ac.in">sangeethkrishnan@nitc.ac.in</a>

Website address :

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/6161ce1d-d9eb-

49dd-b2f8-e4ab4abf2a61

Google Scholar ID :

https://scholar.google.com/citations?hl=en&user=VruT

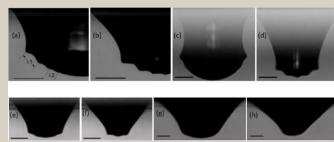
NcAAAAJ

Scopus ID : 57191967491

Orcid ID : 0000-0002-5854-3214

- Fluid dynamics
- 1. Interfacial phenomena jets, bubbles, drops, and cavity collapse.
- 2. Gravity waves nonlinear interaction and bathymetry
- 3. Optical flow diagnosis: High speed imaging; PIV.







#### **Department: Mechanical Engineering**



Name: Sanjeev Kumar Manjhi

Qualification: Ph.D., (Indian

Institute of Technology (ISM)),

Designation : Assistant Professor Gr.II

Contact Number :8210811064

Email :sanjeev@nitc.ac.in

Website address

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/6ed2c729-4181-

47a1-81b4-ea7e0c3606b4

Google Scholar ID:

https://scholar.google.com/citations?user=5S364bAAA

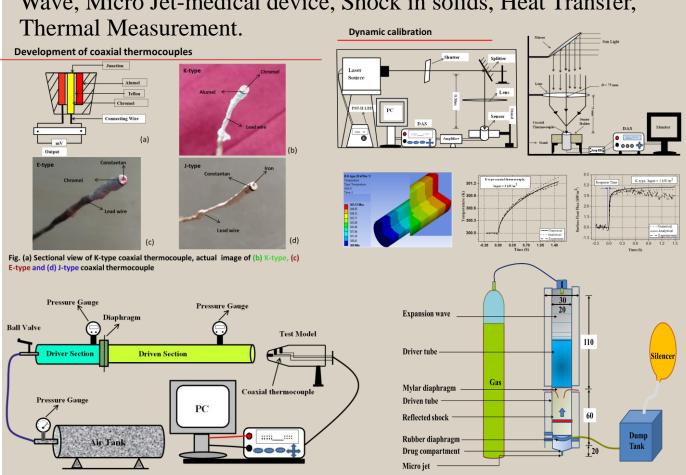
AAJ&hl=en

Scopus ID :57200619997

Orcid ID :

#### Area of Research:

• Thermal sensors, Hypersonic Flow, Shock-shock flow analysis, Shock Wave, Micro Jet-medical device, Shock in solids, Heat Transfer,





#### **Department: Mechanical Engineering**



Name: Sharu B K

Qualification: Ph.D., IIT Bombay & Monash University Melbourne

Designation : Assistant Professor

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Email : sharubk@nitc.ac.in

Website address

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/33337c0b-b7c7-

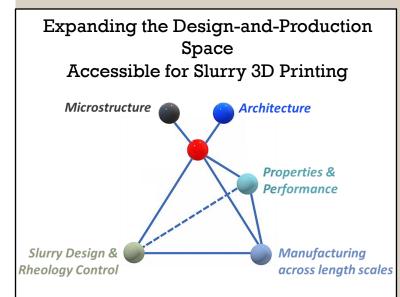
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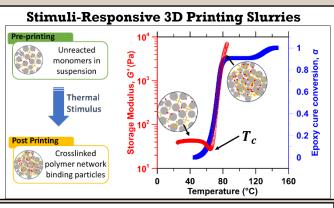
Google Scholar ID :SUITkbIAAAAJ

Scopus ID :57204364707

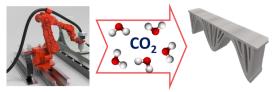
Orcid ID :0000-0001-9939-8239

- Extrusion based Additive manufacturing: 3D printing of architected structures
- Rheology of complex fluids, reactive systems & printing slurries
- Developing stimuli-responsive, rapid stiffening-3D printing slurries
- CO<sub>2</sub> Mineralization: Design of 3D-printable alternative cements allowing CO<sub>2</sub> uptake





CO<sub>2</sub> Sequestration Using 3D Printed Structures





#### **Department: Mechanical Engineering**



Name: Dr. Sujith Kumar CS

Qualification: Ph.D., (NITT)

Designation : Assistant professor

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Email : sujithcs@nitc.ac.in

Website address

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/03df8704-741f-

4d57-9061-de0fd004bb33

Google Scholar ID :

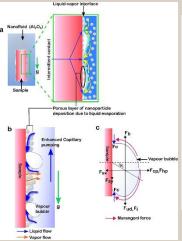
https://scholar.google.com/citations?hl=en&user=Q-o-

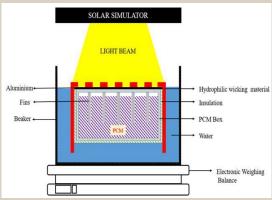
fQkAAAAJ&view\_op=list\_works&sortby=pubdate

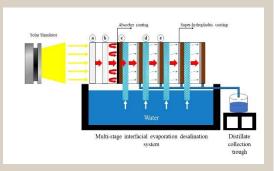
Scopus ID : 56021083100

Orcid ID : 0000-0001-5609-8244

- My research works are interdisciplinary, which are lies at the interface of nano materials, physics, heat transport and chemical kinetics.
- Majorly focused investigating the effect of heterogeneous wettability, nanofin action, porosity, and wettability on both flow and pool boiling heat transfer, on the abovementioned modes of heat transfer
- Solar thermal systems: Interfacial evaporation, solar desalination, phase change materials.









## നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Mechanical Engineering**

#### Area of Research:



Name: Dr. Sumer B Dirbude

Qualification: Ph.D., (IIT Kanpur)

Designation : Assistant Professor

Contact Number : 7755054943

Email : sumer@nitc.ac.in

Website address :

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/e68f840f-5d18-

42bf-a41f-79337caf9237

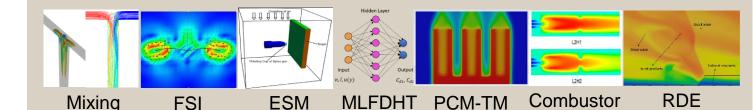
Google Scholar ID :

https://scholar.google.co.in/citations?user=tJg1a14AAAAJ

&hl=en

Scopus ID : 47861886800

- Computational Fluid Dynamics and Heat Transfer
- Combustion, Propulsion, Energy Systems and Fire Safety
- Multiphase flows, Turbulence and Geo-physical Fluid Dynamics
- Bio-fluid Dynamics, Plasma Dynamics
- Experimental Fluid Dynamics and Heat Transfer.
- Collaborative Research Interest: Machine Learning in Fluid Mechanics and Heat Transfer (MLFDHT)
- Some topics of interests are: Electrostatic spray modeling (ESM); Fluidstructure interactions (FSI); Mixing characterization; Battery thermal management (TM) for EVs; Combustion in Detonation (RDE) engines





#### **Department: Mechanical Engineering**



Name: Dr. VIJAYARAJ K

Qualification: Ph.D., (IISc Bangalore)

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engineering/faculty-and-staff/faculty/763b37d2-fc59-

427b-8935-d9019de46ec2

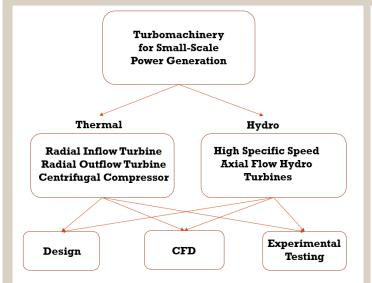
Google Scholar ID :TMuT-dYAAAAJ&hl=en

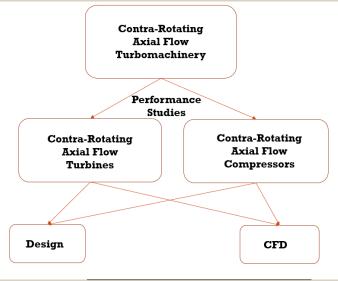
Scopus ID :57216737033

Orcid ID :0000-0002-0119-368X

#### Area of Research:

 My research interest lies in the design and performance analysis (computational and experimental) of thermal and hydro turbomachinery. The current research areas include radial turbomachinery for small-scale power applications, contra-rotating axial flow turbomachinery, and high specific speed axial flow turbines for micro-hydro.







## നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

#### **Department: Mechanical Engineering**

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

Name: Dr. Vikash Kumar

Qualification: Ph.D., (IIT Guwahati)

Designation : Assistant Professor

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Website address

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/442e73fc-f20f-404e-

b4cd-a607c115b4b4

Google Scholar ID

:https://scholar.google.com/citations?user=Mdil

RKcAAAAJ&hl=en&authuser=1

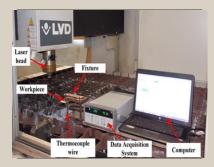
Scopus ID :

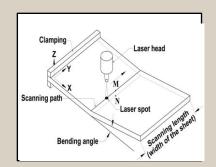
Orcid ID :https://orcid.org/0000-0002-0388-

#### Area of Research:

- Laser based manufacturing (forming, welding, cladding)
- Modeling and Optimization of Advanced Manufacturing Processes
- Smart Manufacturing

 Use a graphical representation describing your research(one or two images), if interested.





graphical representation of your Work



#### **Department: Mechanical Engineering**



Name: Dr. Vineesh K P

Qualification: Ph.D., (IIT Kharagpur)

Designation :Assistant Professor

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engineering/faculty-and-staff/faculty/e5926970-9eba-49e3-

a805-972e8adb25f2

Google Scholar ID

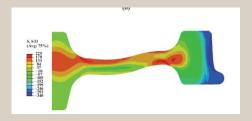
:https://scholar.google.co.in/citations?user=E-

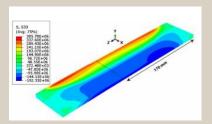
4eP20AAAAJ&hl=en&oi=ao

Scopus ID :56595071700

#### Area of Research:

Computational solid mechanics, Thermo-mechanical simulations







## നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Mechanical Engineering**



Name: Dr. Vinod Kumar Sharma

Qualification: Ph.D., (IIT Indore)

Designation : Assistant Professor

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Email : vinodks@nitc.ac.in

Website address :

https://nitc.ac.in/department/mechanical-

engineering/faculty-and-staff/faculty/1d9fb4a9-8583-4f58-

acf2-fbb9e610ed6d

Google Scholar ID :

https://scholar.google.com/citations?user=uGMYiFMAAAA

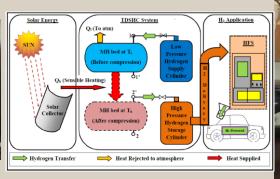
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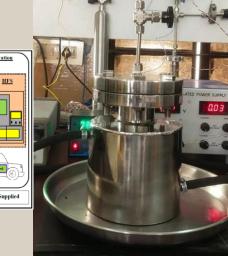
Scopus ID : 56390977700

Orcid ID : 0000-0002-5203-1218

- 1. Hydrogen Production, Separation, Storage and Applications
- 2. Hydrogen Embrittlement and Susceptibility
- 3. CO2 Capture and Sequestration
- 4. Non-Conventional Thermal and Energy Systems







# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT





# Faculty Expertise Department of Physics

## LIST OF FACULTY

- Dr. Chandrasekharan K
- Dr. Ravi Varma M K
- > Dr.Raghu Chatanathodi
- Dr. AJI A. ANAPPARA
- Dr. Vari Siaji Reddy
- Dr. P. K. Madhavan Unni
- Dr. C. S. Suchand Sangeeth
- Dr. Subramanyan Namboodiri Varanakkottu
- Dr. Maneesh Chandran
- Dr. Saurabh Gupta
- **Dr. Goutam Kumar Chandra**
- Dr. Ram Ajor Maurya

- Dr. Aswathi. G
- Dr. P N Bala Subramanian
- > Dr. Sreeraj T P
- Dr Natesan Yogesh
- Dr. Anoop Varghese
- Dr. Raman Namboodiri C. K.
- Dr. Anirban Sarkar
- > Dr. Sayani Chatterjee
- Dr. Haris M K
- > Dr. P Muhammed Shafi
- Dr. Rajesh Mondal
- Dr. Shareef. M
- Dr. Biswajit Mandal



#### **Department: Physics**



Name : Dr Chandrasekharan K

Qualification : Ph.D., (IIT Madras)

Designation : Professor

Contact Number :0495-2285102

Email :csk@nitc.ac.in

Website address

https://nitc.ac.in/department/physics/faculty-and-

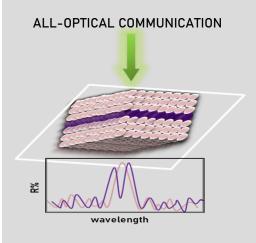
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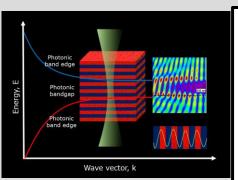
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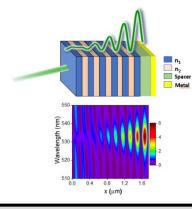
Scopus ID :

Orcid ID 0000-0001-6423-666X:

- Photonic materials for all optical communications.
- Photonic band gap structures and it applications in nonlinear optics.









## നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

#### **Department: Physics**

Name: Ravi Varma M K

Qualification: Ph.D., (University of

Nevada Reno, USA)

Designation : Professor

Contact Number : 9544106752

Email : r.varma@nitc.ac.in

Website address :

https://nitc.ac.in/department/physics/faculty-and-staff/faculty/1dabf1b8-ffc0-4888-8c1e-63c6792f02ff

Google Scholar ID :

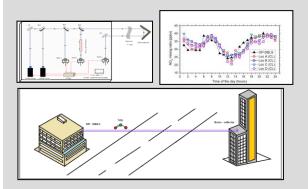
https://scholar.google.co.in/citations?hl=en&user=M83xmk

**UAAAAJ** 

Scopus ID : 9334654900

Orcid ID : 0000-0003-4628-3651

- Development of Instrumentation for Atmospheric, Environmental and Climate Applications based on Optics and Spectroscopy
- Atmospheric Optics and Environmental Measurements of Greenhouse Gases and Aerosol
- Radiative transfer and aerosol forcing on Climate (Global and Regional)
- Use a graphical representation describing your research (one or two images), if interested.



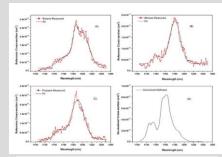
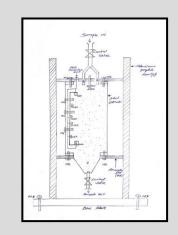


Figure 3: The reference absorption cross-section of (A) Butane, (B) Ethane and (C) Propane, determined using the NIR-IBBCEAS instrument. (D) Absorption cross-section of Methane from HITRAN convolved to the instrument resolution.





#### **Department: Physics**



Name : RAGHU CHATANATHODI

Qualification : Ph.D., (IISc)

Designation : Professor

Contact Number : +91 495 2285104

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Website address

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staff/faculty

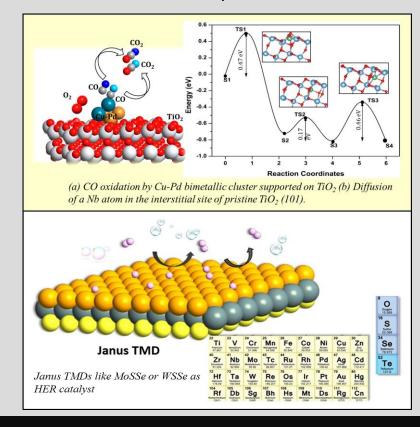
Google Scholar ID :

Scopus ID : 56803773200

Orcid ID : 0000-0001-9649-8285

#### Area of Research:

 Computational Materials Modeling, DFT based Electronic Structure Calculations, Low-Dimensional Systems, Surfaces and Interfaces, Electrochemical Catalysts, Energy Materials, Magnetism, Strongly Correlated Systems, Model Hamiltonian based Computations





#### **Department: Physics**



Name: Dr. AJI A. ANAPPARA

Qualification: Ph.D., (Scuola Normale Superiore, Italy)

Designation : Professor

Contact Number : 0495-2285107

Email : aji@nitc.ac.in

Website address

https://nitc.ac.in/department/physics/faculty-and-

staff/faculty/4990c962-48ca-427c-b74a-7943d5f33f7b

Google Scholar ID :

https://scholar.google.co.in/citations?user=S0hdNrEA

AAAJ&hl=en

Scopus ID : 8114108200

Orcid ID : 0000-0001-7129-4307

#### Area of Research:

#### **Device Applications**

- Carrier-diffusion based broad-band, self-powered photodetectors
- Paper-based, bio-inspired retinomorphic photosensors
- Self-powered wearable electronics
- White-light emitting devices based on sustainable materials

#### **Fundamental studies**

- Light-matter interaction in low-dimensional systems
- Chemical sensing, metal-free phosphorescence materials
- Visible light induced depolymerization of post-consumer plastics



#### **Department: Physics**



Name : Vari Siaji Reddy

Qualification : Ph.D., (IIT Kharagpur)

Designation : Associate Professor

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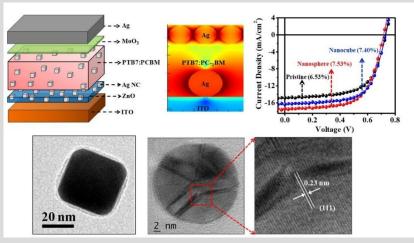
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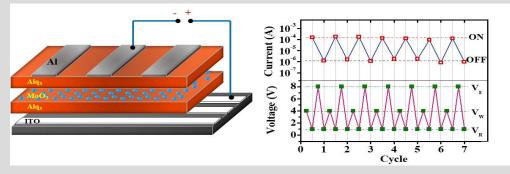
Scopus ID : 14044095700

Orcid ID : 0000-0001-8486-2086

**Areas of Research**: Organic solar cells, Nanomaterials for energy applications, Interface engineering, Organic bistable memory devices



Efficiency enhancement in polymer solar cells using combined plasmonic effects of multi-positional silver nanostructures



Organic Bistable Memory Devices Based on Molybdenum Trioxide Nanostructures



#### **Department: Physics**



Name: P. K. Madhavan Unni Qualification: Ph.D. (Indian Institute Institute of Science, Bangalore)

Designation : Assistant Professor

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https://nitc.ac.in/department/physics/faculty-and-

staff/faculty/7d92fc40-4c6d-4d40-9ae3-168d51e56e4f

Google Scholar ID :

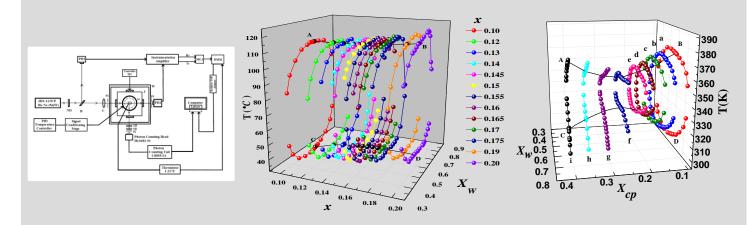
https://scholar.google.co.in/citations?hl=en&user=M83x

mkUAAAAJ

Scopus ID :

Orcid ID :

- Critical Point Phenomena (Experimental): Exploration and realization of special critical points such as the Double Critical Point (DCP), Critical Double Point (CDP), Critical Inflection Point (CIP), Quadruple Critical Point (QCP)
- Liquid-Liquid phase transitions, micellar systems, polymer solutions.
- Soft Matter Physics
- Design/Development of new instruments/experimental setups, electronic, optical and thermal instrumentation.





#### **Department: Physics**



Name: C. S. Suchand Sangeeth

Qualification: Ph.D., (IISc Bangalore)

Designation :Assistant Professor

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Email :sangeeth@nitc.ac.in

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https://nitc.ac.in/department/physics/faculty-and-

staff/faculty/3d57e197-30c9-4d32-bca2-6de4e99d9cb8

Google Scholar ID :

https://scholar.google.com/citations?user=GcT366YAAA

AJ&hl=en&oi=ao

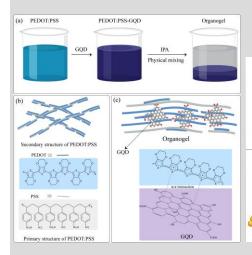
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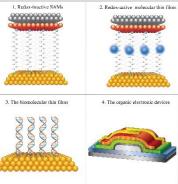
Orcid ID : https://orcid.org/0000-0002-

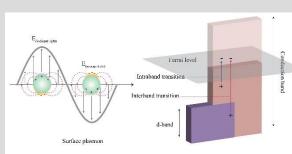
1612-5890

#### Area of Research:

 Charge transport, Organic and Molecular electronics, Nonlinear optical properties of novel materials









# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്നോളജി കാലിക്കറ്റ്

### राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Physics**



Name : Dr. Subramanyan Namboodiri Varanakkottu

Qualification : Ph.D. (Center of Smart Interfaces, Technical

University of Darmstadt, Germany)

Designation : Assistant Professor

Contact Number : +91495-2285125

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Website address : https://oislphysics.wixsite.com/oisl

Google Scholar ID :

https://scholar.google.de/citations?user=Lvzjf3AAAAAJ&hl=en

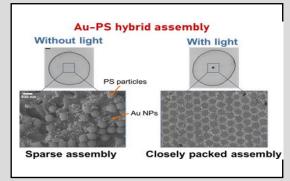
Scopus ID : 55750721500

Orcid ID : http://orcid.org/0000-0001-7024-3882

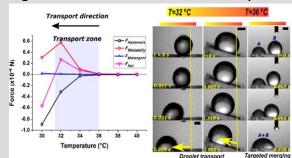
### Areas of Research:

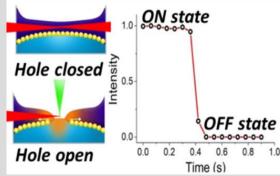
- Optofluidics; All-optical switching; Fiber optics
- Soft matter; Interface science

### Table of content images

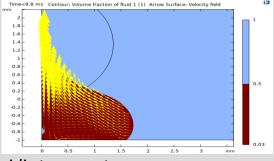


*Light-directed colloidal assembly* 





Plasmonic optical switch



Open surface microfluidic transport



### **Department: Physics**

Name : Dr. Maneesh Chandran

Qualification : Ph.D., (IIT Madras)

Designation : Assistant Professor Contact Number : +91 94441 85850

Email : maneesh@nitc.ac.in

Website address : Google Scholar ID :

https://scholar.google.co.il/citations?hl=en&user=7Rtvc

isAAAAJ

Scopus ID : 56284271600

Orcid ID : 0000-0001-5467-3380

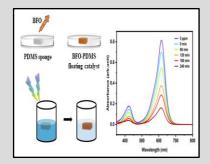
### Area of Research:

- Carbon-based Nanomaterials (Diamond, Graphene, CNT)
- Oxide Thin films and Heterostructures (PZT, BiFeO3)
- Photocatalysis
- Raman spectroscopy

 Use a graphical representation describing your research(one or two images), if interested.









### **Department: Physics**

Name : Saurabh Gupta

Qualification : Ph. D. (BHU)

Designation : Assistant Professor

Contact Number : +91-495-2285121

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Website address :

https://nitc.ac.in/department/physics/faculty-and-

staff/faculty/bc7377d0-a009-4123-88a5-923b86e7565b

Google Scholar ID : --

Scopus ID : <u>56172921600</u>

Orcid ID : <u>0000-0002-4276-7707</u>

- Constrained Dynamics
- (Topologically) Massive & Higher form (p ≥ 2) Gauge Theories
- Supersymmetries and BRST Symmetries
- Neutrino Physics: Mixing and Oscillations
- We focus on the study of the dynamics of physical systems involving inherent constraints. Our investigations entail quantizing the constraint Hamiltonian theories by utilizing canonical and geometrical methods. We primarily focus on the investigation of gauge theories - a theoretical concept that successfully describes all fundamental interactions of nature except gravity.
- We are also interested in the reformulation of gauge non-invariant theories into gauge theories through the symplectic methodology.
- The other themes of research comprise the study of various aspects of symmetries and supersymmetries of (topological) field theories within the BRST framework which enables the analysis of physical systems at the quantum level.



### **Department: Physics**

Name : GOUTAM KUMAR CHANDRA

Qualification : Ph.D. (IIT Kharagpur)

Designation : Assistant Professor

Contact Number : 0495-2285120

Email : goutam@nitc.ac.in

Website address

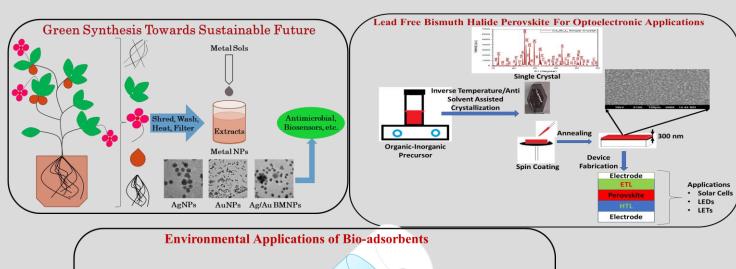
:https://nitc.ac.in/departmen0t/physics

Google Scholar ID :

Scopus ID :

Orcid ID : 0000-0002-6096-7075

- Fundamentals of interactions at the molecular level through spectroscopy (mainly, Raman spectroscopy)
- Green technology towards sustainable future
- Fabrication of opto-electronic materials and its applications







### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



Name: Dr. Ram Ajor Maurya

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Designation : Assistant Professor

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Email : ramajor@nitc.ac.in

Website address : <a href="https://nitc.ac.in/department/physics">https://nitc.ac.in/department/physics</a>

Google Scholar ID : <u>y4rgqtMAAAAJ</u>

Scopus ID : <u>57202824429</u>

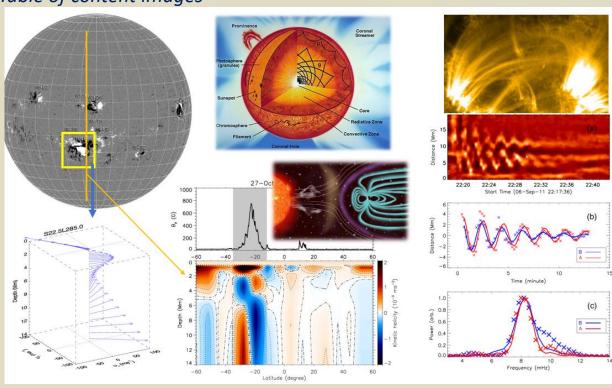
Orcid ID : <u>0000-0002-6353-9252</u>

### **Department: Physics**

### **Areas of Research:** Solar Astrophysics

- Helioseismology
- MHD waves in Solar Atmosphere
- Solar Eruptions and associated Phenomena
- Atmospheric Heating
- Solar-Terrestrial Relations

### Table of content images







Name : Dr. Aswathi. G

Qualification : PhD (IISER Thiruvananthapuram)

Designation : Assistant Professor Grade II

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Email : aswathig@nitc.ac.in

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ORCID ID : 0000-0003-4359-7700

Website address :

https://nitc.ac.in/department/physics/faculty-and-

staff/faculty/17e254f8-b151-40e3-92f0-b39e44c21d5e

### **Department: Physics**

- Material Science and Nanotechnology.
- Multifunctional nanostructured materials: Synthesis and applications.
- Energy storage and conversions devices (Batteries, Supercapacitors, Hydrogen storage etc.)
- Electro and photocatalysis.
- Environmental applications (CO<sub>2</sub> capture, Wastewater treatment etc.)



### നാഷണൽ ഇൻസ്സിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Physics**

# Name : Dr. P N Bala Subramanian

Qualification: Ph.D., IISc - Bengaluru

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https://nitc.ac.in/department/physics/faculty-and-

staff/faculty/e761fba3-946a-442a-902a-dc442819e6d4

Google Scholar ID :

https://scholar.google.com/citations?user=qMj0LgcAAAAJ&

hl=en

Scopus ID :

Orcid ID : 0000-0001-7802-780X

- Classical and Quantum features of gravity
- Quantum field theory
- Quantum Mechanics



Department: Physics

10	7	
No.		
1	<b>9</b> -	
	1	

Name	: Sreeraj T P
Qualification	: Ph.D. (S N Bose National Centre for Basic Sciences)

Designation	: Assistant Professor
Contact Number	: 0495-2285127
Email	: sreerajtp@nitc.ac.in
Website address	:https://nitc.ac.in/department/phy sics/faculty-and- staff/faculty/3a45fbe4-3831-4589- bfdc-27d07d5dfa49
Scopus ID	: 54419166200
Orcid ID	: 0000-0002-5367-6210

- Lattice Gauge theory.
- Mass gap problem is to show that there is a gap between ground state and the next excited state in the spectrum of non-abelian gauge theories. In our research, we have been trying to develop analytical techniques to investigate mass gap problem as well as other low energy aspects of non-abelian gauge theories.
- Ouantum to classical transition.
- Recently, I have also been working towards understanding quantum to classical transitions in non-relativistic as well as relativistic quantum systems.



### **Department: Physics**

Name : Dr Natesan Yogesh Qualification : Ph.D., (IIT Madras)

Designation : Assistant Professor
Contact Number :91-0495-228-5130
Email :yogesh@nitc.ac.in

Website address

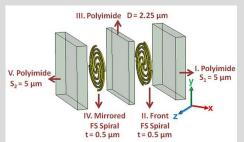
https://nitc.ac.in/department/physics/faculty-and-staff/faculty/5647c4ba-73a2-4f5b-821a-8eab8a7529ef

Google Scholar ID :Ac8zazIAAAAJ Scopus ID :36807038700

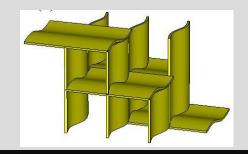
Orcid ID : 0000-0001-6725-3852

- Electromagnetic wave propagation in complex photonic structures at RF/Microwave/THz regimes
- Photonic crystals, Metamaterials, Metasurfaces, Design and Development of RF/microwave/THz optical elements. Plasmonics (Surface plasmon polariton resonance and its applications.

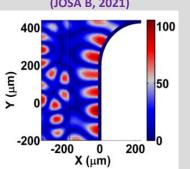
THz Circular
Polarizer (IEEE Photonics, 2015)



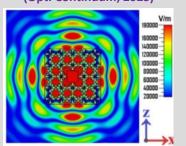
3-D Chiral Assembly (Opt. Letters, 2020)



THz Surface Plasmon Polariton (JOSA B, 2021)



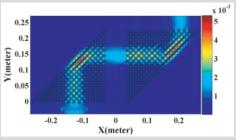
Quad Beam Transformer (Opt. Continuum, 2023)



**Microwave Metamaterial Studies** 



**Self-Collimation in Photonic Crystal** 





### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

Department: Physics



Name: Dr. Anoop Varghese

Qualification: Ph.D (IMSc, Chennai)

Designation : Assistant Professor Grade-II

Contact Number : +91 495 228 5129 Email : anoopv@nitc.ac.in

Website address :

https://nitc.ac.in/department/physics/faculty-and-

staff/faculty/3210c753-4a65-4c4c-8065-b35d021c30ee

Google Scholar ID :

https://scholar.google.com/citations?user=fgCR\_88AAAAJ&

hl=en&oi=ao

Scopus ID : 53985533100

Orcid ID : 0000-0001-9282-3802

Area of Research: Soft Matter and Statistical Physics

- My research interests are broadly in the statistical physics of simple fluids and soft matter systems such as polymers, liquid crystals and colloids.
- For my research I use a combination of theory and a range of computational methods such as Molecular Dynamics, Monte-Carlo and Multiparticle Collision Dynamics.
- My current research interest are in the non-equilibrium dynamics of associating polymers and liquid crystals.





Name: Raman Namboodiri C. K.

Qualification: Ph. D. (IIT Madras)

**Department: Physics** 

**Designation: Assistant Professor** 

Grade\_ II

Contact Number- +91 8050490458

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Email Address- raman@nitc.ac.in

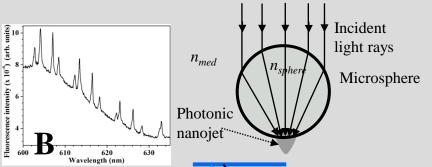
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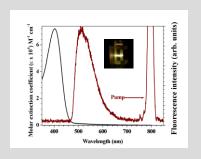
### **Department: Physics**

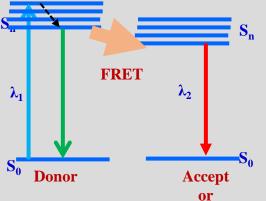
### Area of Research:

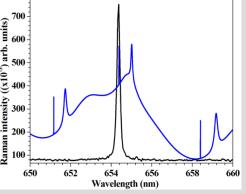
Nonlinear Optics, Fluorescence Microscopy
Multiphoton absorption, Förster Resonance Energy Transfer, Enhancement of Raman

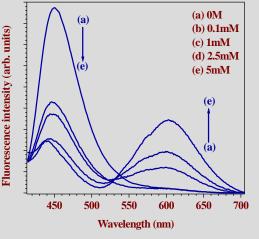
Signals, Whispering Gallery Modes













# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Physics**



Name : Anirban Sarkar

Qualification : Ph.D., (IIT Kharagpur)

Designation : Assistant Professor

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Email : anirban@nitc.ac.in

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staff/faculty/228c2e76-be3b-4891-b01c-8b694c9283d0

Google Scholar ID :

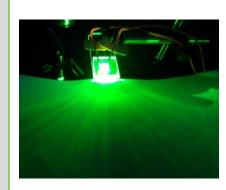
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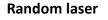
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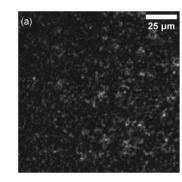
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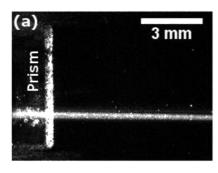
- Laser Physics
- Imaging through disordered Media
- Photonic Crystals: 1D and 3D structures
- Optical Waveguides
- Optical Sensors







Laser speckle



Optical waveguide



### നാഷണൽ ഇൻസ്സിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT





Name: Sayani Chatterjee

Qualification: Ph.D.

(S. N. Bose National Centre for Basic

Sciences)

Designation : Assistant Professor Grade II

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Website address :

https://nitc.ac.in/department/physics/faculty-and-staff/faculty/7ef4ae0a-e250-4923-8d4f-ff2118a83130

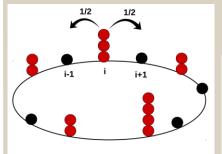
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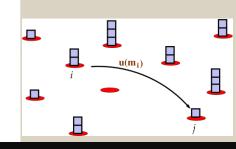
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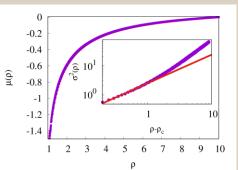
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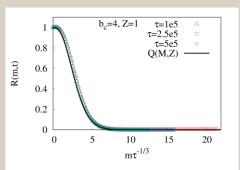
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- 1. Equilibrium and Nonequilibrium Statistical Mechanics
- 2. Equilibrium and Nonequilibrium Thermodynamics
- 3. Soft Matter











### **Department: Physics**



Name : Haris M K

Qualification : Ph.D., (IISER TVM)

Designation : Asst. Professor

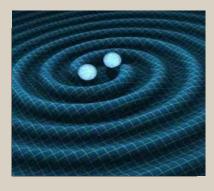
Contact Number : 91 808933833

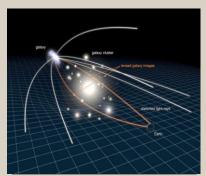
Email : harismk@nitc.ac.in

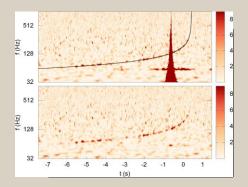
Website address : profile

Orcid ID : 0000-0001-5597-8098

- Gravitational wave Physics
  - Compact binary systems
  - Test of general relativity
  - Gravitational lensing
  - Machine learning









### **Department: Physics**

Name : P Muhammed Shafi

Qualification : Ph.D., (National

Institute of Technology

Tiruchirappalli)

Designation : Inspire Faculty

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Email :muhammedshafi@nitc.ac.in

Google Scholar ID

:https://scholar.google.co.in/citations?u

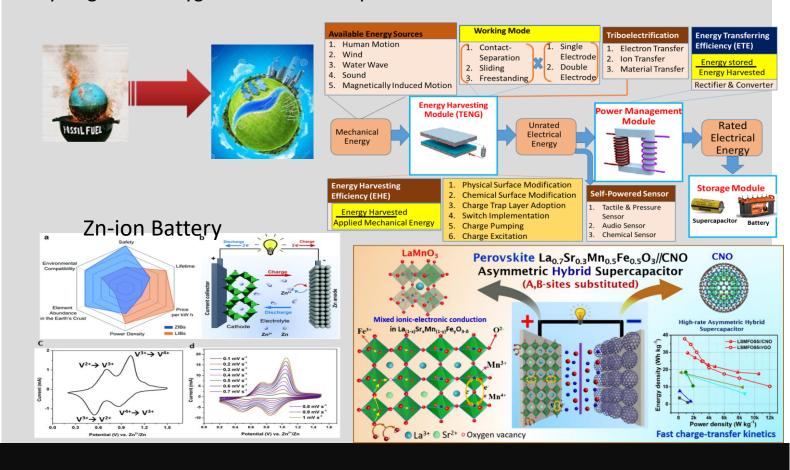
ser=2ql4WJcAAAAJ&hl=en

Scopus ID : 57190935989

Orcid ID : 0000-0002-1482-4305

### Area of Research:

 Material engineering for Triboelectric Nanogenerators (TENGs), Aqueous Zn-ion batteries, Supercapacitor, Photoelectrochemical cell, electrochemical sensor, Hydrogen and Oxygen evolution catalyst.





### **Department: Physics**

The 21-cm Cosmology



Name : Dr. Rajesh Mondal

Qualification : Ph.D., (IIT Kharagpur)

Designation : Assistant Professor (Grade I)

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and-staff/faculty/e536b90e-f4eb-4aa4-9340-e67420406380

Google Scholar ID: <u>rfZCYT4AAAAJ</u>

Scopus ID : <u>57220511322</u>

ORCID ID : <u>0000-0001-7728-3756</u>

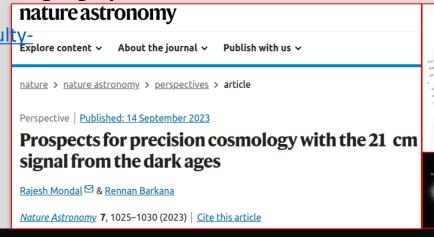
Area of Research:

**Astrophysics & Cosmology** 

Research Interest: 21-cm Cosmology, Epoch of Reionization (EoR), Large-Scale Structure of the Universe, Cosmological N-body Simulations, Simulations of 21-cm signal, Statistical inference, Dark Matter, Low-Frequency Radio Interferometry, Cosmic Microwave

Background (CMB)

Hiring highly motivated and enthusiastic PhD students.





Name : Dr. Shareef. M

Qualification : Ph.D. (Central University of Kerala)

Designation : Assistant Professor

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:https://nitc.ac.in/department/physics/faculty-

and-staff/faculty/99233d52-2fe2-4b7f-b328-ec7015d0a43d

Google Scholar ID :

https://scholar.google.com/citationsuser=zgm4Wg0AAAAJ&

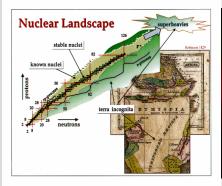
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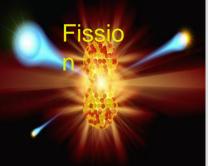
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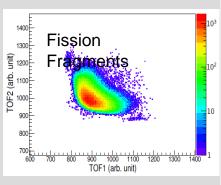
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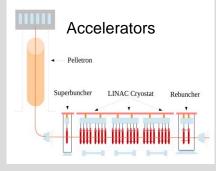
### **Department: Physics**

Area of Research: Experimental Nuclear Physics, Nuclear Fusion-fission, Nuclear reactions, Magic number, N/Z and CELD, Nuclear dissipation, Neutron and other charged particle multiplicities, Sub-barrier fusion, nuclear instrumentation-detectors, Nuclear astrophysics.

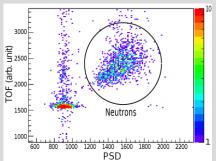














Name: Dr. Biswajit Mandal

Qualification : Ph.D., (Indian Institute of Technology Indore)

Designation : Assistant Professor

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bab36f0e7a12

Google Scholar ID :

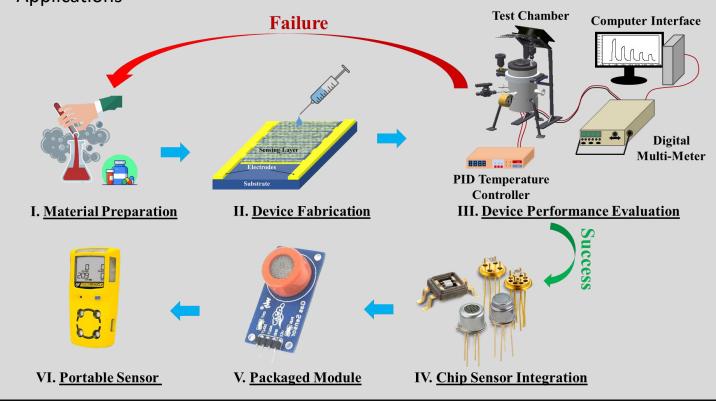
https://scholar.google.com/citations?user=oxSka9kAA

AAJ&hl=en

Scopus ID : 57193691528

### **Department: Physics**

- Hazardous Gas and Volatile Organic compounds Sensors.
- ☐ Ternary and Quaternary Oxides for Supercapacitor and Battery Applications
- Electrochemical Sensors
- Na-ion Batteries
- Prototype development



# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT





# Faculty Expertise Department of Humanities, Arts and Social Sciences

# **LIST OF FACULTY**

- > Dr. Sunitha Sivaraman
- > Dr. Preeti Navaneeth
- > Dr. Reju George Mathew
- Dr. Vrinda Varma



### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

# **Department: Humanities, Arts and Social Sciences**

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT



: Sunitha Sivaraman

Qualification : Ph.D., (IIT Madras)

Designation : Associate Professor

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Email : sunita@nitc.ac.in

Website address : National Institute of Technology

(nitc.ac.in)

Name

Google Scholar ID : Sunitha Sivaraman - Google Scholar

Scopus ID

Orcid ID :0000-0001-9976-207X

### Area of Research:

Economics of Industries and Services (Telecom, Airline, Insurance and Financial sector, Education)

Financial Literacy (Measurement and Intervention)

Statistical Analysis (Biostatistics, Statistical support for medical research)



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ഒടക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### Department: Humanities, Arts and Social Sciences

Area of Research:

Name : Preeti Navaneeth

Qualification : Ph.D., (University of Rajastha,

Jaipur)

Designation : Assistant Professor - Gr.1

Contact Number : 8589889996

Email : preetinavaneeth@nitc.ac.in

Orcid ID : https://orcid.org/0000-0002-6141-

6259

Primary Research Areas include:

Postcolonialilty

Culture and Identity

Environmental Humanities

Current domain of work:

Posthumanism

Indigenous Communities and their culture

Environmental Literature

Childhood Studies

English Language Teaching

English as Second Langauge



# നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്ലോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

### **Department: Humanities, Arts and Social Sciences**



Name: Reju George Mathew

Qualification: Ph.D., (English and Foreign Language University,

Hyderabad)

Designation :Assistant Professor

Contact Number :8971602643

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Website address :https://nitc.ac.in/schools/school-of-

management-studies/faculty-and-staff/faculty

Google Scholar ID: Reju George Mathew rejugm@gmail.com

Scopus ID :

Orcid ID :0000-0002-9459-7383

- Cultural Studies, Film Studies, English Studies, Comparative Literature
- Postcolonial Studies, Critical Caste Theory, Subaltern Studies
- Dalit Literature, Indian Writing in English



### നാഷണൽ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്കോളജി കാലിക്കറ്റ് राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

### NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

# **Department: Humanities, Arts and Social Sciences**



Name : Vrinda Varma

Qualification

M.A, M.Phil. (English and Foreign Languages University, Hyderabad)

Ph.D., (Sree Sankaracharya University

of Sanskrit, Kalady)

Designation : Assistant Professor of English

Contact Number :9496334372

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Website address: https://tinyurl.com/4bcf42ww

Google Scholar ID :https://tinyurl.com/mrymscp9

Orcid ID :0000-0001-8703-1974

- Gender Studies
- Translation Studies
- Food Studies
- Memory Studies
- Children's Literature
- English Language Teaching