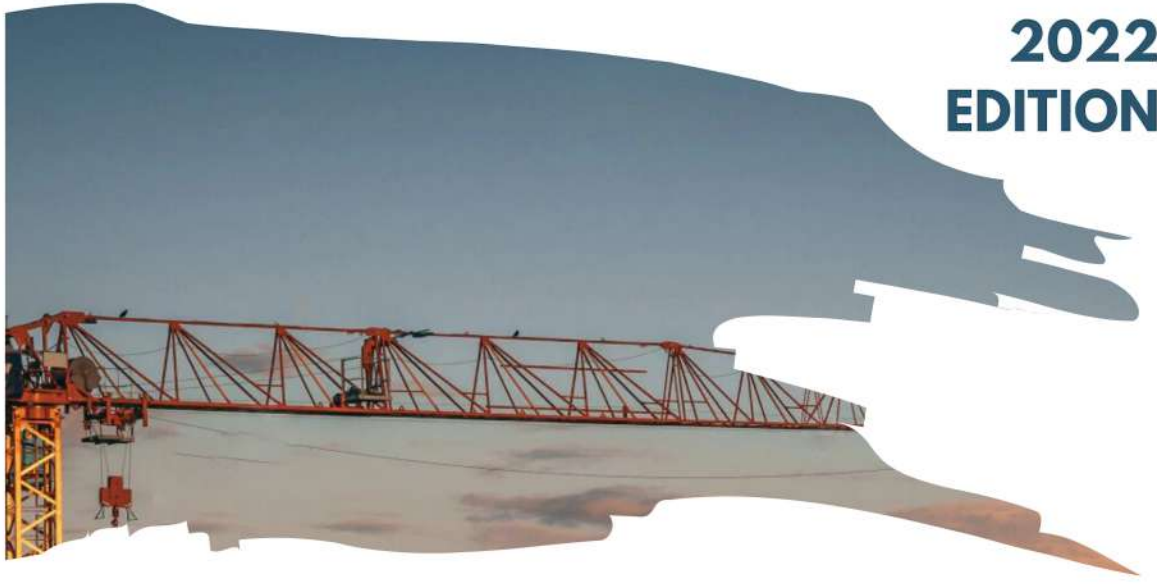


2022
EDITION

WEBINARS

Webinar sessions by
eminent personalities
for aspirants



ARTICLES

Articles and papers
submitted by students



AWARDS

Awards &
Achievements by
Civil Eng. Dept.
NITC



Hephaestus

CIVIL ENGINEERING ASSOCIATION NITC

WEBINARS

“Advancements & Career Opportunities in Construction Management”

Dr. R Sathish Kumar
Dr. Sarbesh Mishra

13th December 2021
2:00PM to 3:30PM

Civil Engineering Association of NITC organised a webinar on 13.12.2021 (Monday) between 2:00 to 3:30 PM for the BTech students of NITC Calicut. The webinar focused on the advancements and career opportunities in construction management.

The details of the webinar are as follows:

- Recent Advancements in Construction, Real Estate, Infrastructure and Engineering Projects Management
by Dr. R Sathish Kumar, Professor, NICMAR Hyderabad.
- Career Opportunities in Construction, Real Estate, Infrastructure and Engineering Projects Management
by Dr. Sarbesh Mishra, Professor & Deputy Dean, NICMAR, Hyderabad.

Project and construction management is as important as any other department in infrastructure sector. Knowing the advancements helps us to utilise them and work effectively and having knowledge about the opportunities builds our career. Dr R Sathish Kumar and Dr Sarbesh Mishra shared their knowledge and interacted with students on this particular topic. This webinar gave an insight of the opportunities, skill sets that require to utilise those opportunities and made the students aware of new advancements and technologies in Construction, Real Estate, Infrastructure and Engineering Projects Management.

WEBINARS

"Life as a Civil Engineering Professional: A Dutch Perspective"

Er. Krishna Ajithkumar Pillai
Er. Pallavi Palla

2nd April 2022
2:00PM to 3:30PM

"MS, MTech, MBA, Placements... What should I choose after my four years of Civil Engineering, and how should I prepare for that? What about the emerging trends in civil engineering? Well, I wish to do an MS abroad? But ...will it suit me? What are the main differences in academics and culture amongst different countries?" No matter which year you are, we know these questions are bothering you.

CEA presented a webinar titled "Life as a Civil Engineering Professional : A Dutch Perspective" where we provided an opportunity for transitory interactions with two alumni who have done their masters in structural engineering from TU Delft in the Netherlands.

Speakers for this session are **Krishna Ajithkumar Pillai**, junior structural engineer and FEM specialist ABTB. V, Delft, the Netherlands, and **Pallavi Palla**, a structural engineer at Royal HaskoningDHV. Both are NITC alumni who cured all perplexities regarding higher studies in civil engineering and provided more insights about taking up post-graduation abroad. An active participation of students made the webinar successful in providing invaluable knowledge about the current scenario of higher studies abroad.

SESSIONS

“Future of Construction: Integrated openBIM Management with BEXEL Manager”

Mr. Madhav Sreekumar

18th February 2022

4:00PM to 5:30PM

A webinar is organised by CEA on “Future of construction: Integrated open BIM management with BEXEL Manager”.

Speaker: **Mr. Madhav Sreekumar, Consultant, BEXEL India**

Date: 18.02.2022 (Friday)

Time: 4:00 PM to 5:30 PM



BEXEL

This talk by Mr. Madhav Sreekumar explained the emergence and importance of BIM in construction projects especially with BEXEL. 2D,3D,4D,5D and 6D BIM models were explained and significance of each of this is made clear. These type of talks helps students know about new techniques and gives them an idea of its use, importance and significance.,

Hephaestus 2022

TALKS

Pre-Placement Talk



Dr. Harikrishnan

05th June 2022

A pre placement talk was organised by Centre for Career development on 5th June 2022 for the academic year 2021-2022. It is conducted every year and is a very useful program where the TPOs give information about the placement/ internship processes going inside the campus.

Dr Harikrishnan, Asst Professor, CED department emphasized the skills that students have to acquire while they apply for the internships/ placements. He also talked about how the training for the placements are done and what all are the major companies that will be visiting the campus regularly. Also they discussed the rules and regulations of placement/ internship procedure and strictly warned about the malpractices and the consequences of it.

It was truly an informative session and through this session the students understood the importance of Placements/ internship and the trend that is followed in the campus about the same. This session gave good insight into the placement/internship procedure and drove the students towards achieving their dream placement.

AWARDS

NITCAA Cochin Chapter Awards 2022 Presented on 2022 May 07

Dr. Saranya P

Dr. Saranya P procured NITCAA award for the **Best Doctoral Thesis in Engineering & Technology of Kerala 2022**, she also accomplished her PhD thesis.

PhD thesis title : **Development of GGBS-Dolomite Geopolymer Concrete and its Structural Application**



Concrete is the inevitable construction material for the infrastructural development of a country. Cement concrete has a significant role in the creation of greenhouse gases in the atmosphere during its production.

Hence, a stage has come where it is necessary to reduce the use of cement concrete. Geopolymer concrete (GPC) is cementless concrete in which polymeric reaction gives strength to concrete. This research focuses on the development of geopolymer concrete using Ground Granulated Blast furnace Slag and dolomite as source materials. She completed her PhD under the guidance of Dr. Praveen Nagarajan and Dr. A P Shashikala. She also received a Memento, citation and an amount of Rs 10,000 as an appreciation for her work.

ARTICLES

“Relevance of ‘Internet of Things’ in Civil Engineering”

Muvvala Sheethal Pavan Puthra

Dept. of Traffic & Transportation Planning, NITC

There are ‘smart’ answers for any issue in the technology-driven engineering world of today. One of the various media that makes it possible to offer smarter solutions is the ‘Internet of Things.’ The term “Internet of things” (IoT) generally refers to physical objects (or groups of such objects) equipped with sensors/ computing power/ software and other technologies that communicate with one another and exchange data through the Internet or other communications networks.

WHERE IT IS EMPLOYED?

Various branches of civil engineering have gradually adopted IoT into their practices. Remote sensing, an allied branch of civil engineering is also symbiotically related to IoT.

- Structural Health Monitoring (SHM) is employed in buildings to identify and measure deterioration. IoT enables the option of preventive care in the domain of structural engineering.
- Transportation being a data-intensive discipline, heavily relies on the accuracy of collected data. This concern is addressed by IoT, where modern day traffic studies are dominantly IoT-based.
- Hydraulic structures are about to be monitored by IoT systems.
- Geo-thermal distribution, slope monitoring are some of the practices enabled by IoT in the discipline of geotechnical engineering.
- Surveying & GIS extensively rely upon IoT for accurate results.

Contd.

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There are numerous other instances, where IoT is employed in civil engineering domains such as offshore structures, sanitary engineering, construction management etc. Public Transportation in all developed countries is fully IoT enabled. India is also progressing in this direction, with the implementation of smart card in metro trains and electronic ticketing in buses.

WHY ‘ADOPT IoT’?

World Economic Forum (WEF) has identified civil engineering as a declining discipline in 2018. A survey conducted by Bentley titled ‘Readiness for Industry 4.0’ has identified that failing to adopt IoT has affected the competence of engineering firms. The report also concludes that a one-time qualification(graduation) is of no good, without regular and relevant upskilling.

HOW TO UPSKILL IN IoT?

Even though IoT is relevant in industrial practices, it should be imbibed in aspirants from the student phase. Educational institutions have also started including IoT in their academic curriculum for civil engineers. Here are some things, aspiring civil engineering can do to stay competent in the context of IoT.

- Stay updated about the trends in application of IoT in civil engineering through academic journals.
- Basic learning of a programming language, preferably Python.
- Imbibe IoT in their project works.