

TEQIP SPONSORED

Faculty Development Programme

Analog and Mixed Signal Circuits for CMOS Intelligent Sensors

(AMCCIS 18)

July 9 - 14, 2018



Organized by

Department of Electronics and Communication Engineering



National Institute of Technology Calicut

Kozhikode, Kerala - 673601

Under TWINNING WITH



Govt. Engineering College Bharatpur

Bharatpur, Rajasthan -321303

About the Department

The UG programme in Electronics & Communication Engineering started in 1980 in the Department of Electrical Engineering. The rapid development in Electronics and Communications initiated the inception of a separate Department of Electronics & Communication Engineering in 1997, after the trifurcation of the Department of Electrical Engineering. The department also offers four regular M. Tech programmes, viz., Electronics Design & Technology, Microelectronics & VLSI Design, Signal Processing and Telecommunication leading to the M. Tech degree of the institute. In addition to the above, there are a number of students pursuing research at the Department in various fields of Electronics & Communication Engineering leading to Ph.D. The Department is a recognized QIP Centre of the AICTE for both M. Tech and PhD programs. The Department is also actively engaged in R&D activities. Sponsored research programmes funded by various agencies are undertaken by the faculty of the department.

About NIT Calicut

National Institute of Technology Calicut (NITC), is fully centrally funded by MHRD and is governed by the NIT Act 2007. Institute has ten departments, three schools and nine research centers. It offers ten UG, and thirty PG programmes along with the Ph.D programme in various fields of Science, Technology and Engineering. Faculties in the various Departments have active collaborations with universities and elite institutions within and outside India for research and have active consultancy for industries.

About GEC, Bharatpur

Government Engineering College (GEC) Bharatpur is an autonomous institute under Bharatpur Society, Rajasthan, India. GECB was established in the year 2007. The college has six departments namely Mechanical Engineering, Civil Engineering, Electronics & Communication Engineering,

Electrical Engineering, Computer Science & IT and Applied Science & Humanities.

About TEQIP III

Technical Education Quality Improvement Programme (TEQIP) was launched in December, 2002 by the Ministry of Human Resource Development, India with the World Bank assistance. The programme was conceived and designed as a long term project to be implemented in 10-12 years in 3 phases to support excellence and transformation in Technical Education in the country. Third phase of the programme namely TEQIP III was started in the year 2017 and will be ending in 2020. The main objective of TEQIP III is to improve the quality of Engineering Education in existing government institutions in the educationally backward states and also arrange for twinning them with other institutions like NITs and a few affiliating technical Universities(ATU).

About Kozhikode

NITC is located about 22 kilometers north-east of Kozhikode City. Kozhikode, also known as Calicut, is known as the city of spices. Kozhikode is a major knowledge hub of Kerala and is the hometown of institutions of national importance including NITC, IIMK, DOEACC, CWRDM etc. Calicut is connected by direct trains/road/air to all major cities in India. Kozhikode beach, Kappad beach where Vasco De Gama landed first, Kadalundy bird sanctuary, Tusharagiri Waterfalls, Pazhassiraja Museum, Tali Temple and Kuttichira Masjid are some of the local attractions.

Preamble

Sensors are required to sense natural signals and deliver it to computational devices. On-chip sensor design is a hot topic of research as it reduces the interaction of the signal with the external world till the signal reaches the output of the chip. The CMOS technology has been the front runner due to their low power consumption. Hence, the circuit

elements in CMOS technology are used to make sensors on-chip. At times, the stringent specifications of parameters such as low power consumption, low noise etc., demand intelligent processing in the signal chain. This programme aims to design intelligent sensing architectures realizable in CMOS technology and highlight the research trends and practices for the design of analog and mixed signal circuits for intelligent sensors.

Course Contents

The programme will cover the following topics:

- Introduction to sensors in CMOS technology
- Sensor readout circuits such as amplifiers and analog to digital converters in CMOS technology
- CMOS image sensors
- Intelligent focal-plane processing in CMOS image sensors
- Intelligent CMOS power management circuits and temperature sensors circuits for wireless sensor nodes
- Intelligent bio-inspired vision systems
- MEMS sensors

Resource Persons

All the sessions will be handled by faculty of NITC, invited experts from IISc/IITs and professionals from Industries.

Eligibility

Faculty members from various AICTE approved Engineering Colleges/Institutions can apply.

Working professionals and practicing engineers from various research organizations and industries, and Research scholars can also apply.

Twenty faculty members selected (on first come first served basis) from the total applicants will be exempted from registration fee and food and accommodation charges.

Registration Fee

- Industry/ Research Organizations: Rs. 5000+18% GST
- Academic institutions: Faculty* Rs. 3000+18% GST
- Research scholars: Rs. 1000+18% GST

This includes only registration materials. Boarding and Lodging will be extra.

Boarding & Lodging

Boarding & Lodging will be provided for participants from industry / self-financing faculty/Research scholars/students either in the Institute Guest House or International Hostel on chargeable basis, based on their request.

Charges: International hostel	Rs. 450/Room
Ladies hostel	Rs. 250/Room
Boys hostel	Rs. 250/Room
Guest house	Rs. 350/Room

For registration, fill the online registration form at <http://qr.rs/q/d734b> (Or, Scan the QR code given below.) and upload the scanned copy of the endorsement form.

Payment (if required) needs to be done only after confirmation of your selection.

The registration fee has to be paid through online transfer. The bank details are given below for online transfer.

Acc.Name: Director NIT Calicut, Continuing education programme, Account No:37618269594 ; Branch: SBI NIT Calicut, IFSC code: SBIN0002207

Travel Expenses

- No TA/DA will be paid for any participant. Parent Institutions are expected to provide the support.

Important Dates

Last date of registration: 15 June 2018

Intimation of selection: on/before 19 June 2018.

Endorsement of the Head of the Institution/Department

Certified that Mr./ Ms./ Dr.

..... is an employee of this institution and is hereby sponsored for the training programme on **Analog and Mixed Signal Circuits for CMOS Intelligent Sensors (AMCCIS 18)** at NIT Calicut during 9th - 14th July 2018. He/she will be permitted to attend the course, if selected.

Place:

Date:

Name & Signature of the Sponsoring Authority
(*seal of the institution*)



Scan the QR Code for online registration

Coordinators

Dr. Dhanaraj K. J. & Mr. B. Bhuvan

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Co-Coordinator

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