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Associate Professor & HoD, Dept. of ECE, BMSCE

Organizing Team & Co-ordinators

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Registration

Registration fee:

UG/PG students/Full-time Research scholars: Rs. 100/-

Faculty: Rs. 150/-

Industry Personnel: Rs. 200/-

to be paid to the following **Bank Account**:

Account No: 20274180376

Account Name: HOD-ECE

Bank Name: Allahabad Bank

B.M.S.C.E Campus, Hanumanthnagar, Bengaluru 560019.

IFSC Code: ALLA0212011

Interested participants are requested to register by filling out the following Google form:

<https://forms.gle/DMww5iVMFkFcCEeh6>

Important Dates

Last Date for Registration: 03rd September 2020, 11 AM.

Inauguration: 04th September 2020, 2:00 PM.

Valedictory: 10th September 2020, 11:15 AM.

E-certificates will be provided to all the participants who attend the course.



B. M. S. College of Engineering

Autonomous Institute under VTU

Accredited by NAAC with A++ grade

presents

**One-week Online
Value-added Course**

on

**Emerging Technologies:
Industry Perspectives**

4th September – 10th September, 2020



Organized by

**Department of Electronics and
Communication Engineering**

About the Institution

B.M.S. College of Engineering, Bengaluru has the unique distinction of being the first private engineering college established in the country in 1946. The institution owes its existence to the foresight and vision of its beloved founders, Late *Śrī* B. M. Sreenivasaiah and his illustrious son *Śrī* B. S. Narayan. Imparting quality education and training was the founder's vision for the development of skilled and competent engineers who will go on to become the workforce for the benefit of national prosperity.

The college initially started with three undergraduate programmes in 1946 and currently offers fourteen undergraduate and fifteen postgraduate programmes in conventional and emerging fields. In addition, the college also offers PhD programmes in fourteen of its departments which are recognized as research centers by the University, and is also approved as QIP Centre in Engineering and Technology by AICTE. The college maintains high academic quality standards, the certification by the National Board of Accreditation (NBA) bearing testimony for the same. The college has been an autonomous institute under VTU since 2008. In fact it is the first few institutions in the India to be bestowed with NBA in Tier-I Format (Washington Accord) in the year 2013. The institute is accredited by National Assessment and Accreditation Council (NAAC) with highest grade of A++ in the second Cycle with a CGPA of 3.83 on a scale of four. The institution is a proud recipient of TEQIP-III (World Bank Funded Project) after successful participation in TEQIP-I and II Projects. BMSCE is the only partner institution in the country with the Melton Foundation, USA which promotes cross-cultural learning for selected students along with peers from five other countries and is one of the most preferred higher educational destinations for students all across the country and also attracts students from South Asian and African countries.

About the Department

The department of Electronics and Communication Engineering (ECE) of BMSCE was established in 1971 with an initial intake of 60 students to the Under Graduate (UG) program and enhanced to an intake of 120 students from 1983 and 180 students from 2018. The department offers three Postgraduate Programmes: "M. Tech. Electronics" from 1986, "M. Tech. Digital Communication Engineer-

ing" from 1996 with an intake of 18 students and "M. Tech. VLSI Design & Embedded Systems" from 2014 with an intake of 24 students. The department is also a recognized Research Centre (RC) by VTU from 2002 and is a recognized Quality Improvement Programme (QIP) center by the AICTE from 2011. With these activities on-hand, the overall objective of the department is to contribute significantly to the realization of the vision of BMSCE. The department is accredited by NBA for 6 years under TIER-I from 2017 to 2023. The department has a long tradition of excellence in educating, mentoring, and inspiring future technology leaders & researchers in the area of Electronics & Comm. Engg.

About the course

The course is designed to enhance technical skills of the participants for emerging opportunities in research and industry. Eminent technical leaders drawn from the industry will be engaging the participants. The topics are chosen to encompass a broad spectrum of current and emergent technologies in Healthcare, Robotics, IoT, Vision systems, Autonomous/Connected cars, and the semiconductor industry.

Target Audience

This course provides an exposure and insights into the technology developments in the industry and hence both students and faculty are encouraged to participate actively. This course will help the faculty in tuning their teaching and research activities to align with industry practices.

Resource Persons & Schedule

1. **Dr. T. V. Prabhakar**, Principal Scientist, Zero Energy Networks Laboratory (Zen lab), DESE, IISc, Bangalore
4th Sept 2020, Friday, 2:00 PM – 3:45 PM
Construction of Digital Twins: The concept of Digital twins is to come up with virtual replicas of physical devices that are used for simulation before actual devices are built and deployed. They impact technologies such as IoT, AI and analytics in optimizing these devices.
2. **Nataraj Kumar**, Director, Strategic Innovation Group, Philips Health Care, Bangalore
5th Sept 2020, Saturday, 11:00 AM – 12:45 PM
Digitization in Pathology and the promise of AI: Healthcare industry is looking for innovative solutions and a boost to a faster and more efficient application of

technologies like Artificial Intelligence (AI) and Deep Learning. Pathology is one area which stands to greatly benefit from these applications and will be the focus of this talk.

3. **Dr. Shrikant Rao**, Director, Gimbal Tech LLP, B'lore.
7th Sept 2020, Monday, 2:00 PM – 3:30 PM
Robotic Navigation: from vacuum cleaners to cruise missiles: This talk will give a gentle introduction to navigation of mobile robots with a few examples to illustrate various traditional and emerging techniques. The use of 2D/3D sensors like Vision and LIDARs, with and without apriori maps will be discussed.
4. **Mohammed Ibrahim**, Staff Engineer, Honeywell Technology Solutions, Bangalore.
8th Sept 2020, Tuesday, 2:00 PM – 3:30 PM
Cockpit Vision Systems: Controlled Flight into Terrain (CFIT) was a major cause of aviation accidents in 1970s and 80s. Honeywell, a pioneer in aviation safety products and solutions, introduced Enhanced Ground Proximity Warning System (EGPWS) that dramatically reduced accident rates. This talk gives an overview of EGPWS and associated safety products such as Synthetic, Enhanced and Combined Vision Systems.
5. **Sunil Joshi**, Director, Crevavi Engineering Solutions, Bangalore.
9th Sept 2020, Wednesday, 2:00 PM – 3:30 PM
Driverless and Connected Cars: Autonomous vehicles are a natural convergence of multiple technologies like Artificial Intelligence, sensors, high speed connectivity and huge computing power that is available for the engineers to realize true driverless cars.
6. **Paramesh Padmanabhan**, Engineering Director, Intel Corporation, San Jose, USA.
10th Sept 2020, Thursday, 9:30 AM – 11 AM
Introduction to Process Design Kits (PDK) in Semiconductor Industry: PDKs from a semiconductor foundry represents a library of files that contain description of the basic building blocks of the process used to precisely describe the manufacturing process details to designers and design tools. This talk will cover an overview of a typical PDK from a semiconductor foundry, its use in reference flows for Analog and Digital designs, ecosystem for PDK and reference design flow development and latest advances in PDK.