

ABOUT THE COLLEGE

Acharya Institute of Technology is committed to excel in teaching, learning, research and developing professionals who make a difference globally. Faculty at Acharya is not only involved in teaching but they also pursue research to push the boundaries of human knowledge. The students are motivated to pursue academic research by taking up bigger challenges. Acharya Institute of Technology is the ultimate destination, located in the south Indian city 'Bangalore', known as "Silicon Valley of India". Acharya Institute of Technology was established in the year 2000 and offers 14 undergraduate programmes, 4 postgraduate programmes and 11 research programmes. The diverse academic programmes attract nearly 5000 students from 60+ countries as well as from all parts of India. Acharya is proud of having a large notable alumnus around the world.

ABOUT THE DEPARTMENT

The department of ECE, Accredited by NBA, offers full time UG programme in Electronics & Communication Engineering with an intake of 120, full time PG programme in Digital Communication Engineering with an intake of 18 and a Research Centre recognized by Visvesvaraya Technological University (VTU), Belagavi. The department has qualified and experienced faculty members with specialization in Communication Engineering, Signal Processing, VLSI & Embedded Systems, The ongoing research activities include the areas of Signal Processing, VLSI, Smart Antenna System, Robotics, Artificial Intelligence, Machine Learning, Communication & Networking. The department facilitates well equipped laboratories strengthened by software like Cadence for VLSI Design, MATLAB. Development boards available are used by UG/ PG students for projects and research activities. The department facilitates skill development activities like workshops / summer-winter schools/ internships/contests in collaboration with industries like SASKEN Technologies, Schneider Electric, Moog India, GK Machineries and robotics, sandlogic, etc. The department has MOU with institutes across the globe for student/faculty exchange programme. To enhance the knowledge on current trends, the department has conducted various Faculty Development Programmes, Workshops on DSP Algorithms and Architectures, VLSI, Sensors and Robotics sponsored by Indian Society for Technical Education (ISTE) and All India Council for Technical Education (AICTE) during the previous years.

DEPARTMENT VISION & MISSION

VISION

To be a premier engineering department with excellence in teaching, research and innovation, to meet the global industrial standards and to have significant impact on the well-being of the society.

MISSION

- 1.To provide student centric learning environment, inculcate profound knowledge in both fundamental and applied areas of science and technology.
2. To train and mentor the students in developing leadership qualities and team building skill.

PATRONS

Shri B M Reddy
President, JMJ Education Society

Shri B Premnath Reddy
Chairman, Acharya Institutes

Smt. Shalini Reddy
Executive Director, Acharya Institutes

Dr. Maneesh Paul S
Campus Director, Acharya Institutes

Dr. Prakash M R
Principal, Acharya Institute of Technology

ADVISORY COMMITTEE

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ES to Chairman, Acharya Institutes

Dr. Prashant C M
Dean Faculty, Acharya Institute of Technology

Dr. D Ganesh Rao
Dean, Circuit Branches

Dr. Anil Kumar Ramesh
Head , R&D, Dover India Pvt. Ltd, Bengaluru

Dr. S. K. Murthy
Patent Counsel, Intel Technologies, Bengaluru

Dr. H. V. Ravish Aradhya
Professor, R V College Of Engineering, Bengaluru

PROGRAM CHAIR

Dr. Rajeswari
Professor, HOD, ECE, Dean Academics,
Acharya Institute of Technology

Program Coordinator -
Mr. Devasis Pradhan, Assistant Professor, Department of ECE, AIT

Organizing Committee:

1. Dr. Sujatha B M - Professor, Department of ECE, AIT
2. Mr. Nataraju A B - Assistant Professor, Department of ECE, AIT
3. Ms. Priyanka K C - Assistant Professor, Department of ECE, AIT

ONLINE FACULTY DEVELOPEMENT PROGRAM ON 5G GREEN COMMUNICATION & NETWORK(5G-GCN) DEPLOYMENT IN SMART CITIES

(18TH - 22ND JANUARY, 2021)

SPONSORED BY

ATAL ACADEMY - AICTE



ORGANIZED BY
DEPARTMENT OF ELECTRONICS & COMMUNICATION
ENGINEERING
(Accredited By NBA)



Acharya Institute of Technology, Dr. Sarvepalli Radha
Krishnan Road, Soladevnahalli, Bengaluru - - 560107
Karnataka
www.acharya.ac.in

Program Coordinator
Mr. Devasis Pradhan, Assistant Professor,
Department of ECE, AIT, Bengaluru

OVERVIEW

Over the years, mobile communication has been transformed from a pure telephony system to a network that can transport rich multimedia contents, which has greatly improved people's ability to communicate. During last few decades mobile communication has witnessed developments from 1G to 4G, and now it is leading towards 5G mobile communication networks, which is expected to be deployed by the year 2020. 5G is focused not only on increasing data rate, rather it provides a new path for thinking. 5G would need a mobile communication network that can accommodate enormously large number of connected devices, machine to machine communication, ambient intelligence and Internet of Things. It will require enormous upgrades and new set of technologies toward 5G system which will be developed include system capacity, data throughput performance, reliability, security, latency, energy consumption, technology convergence and cost.

WHO CAN PARTICIPATE ?

Faculty Members of the AICTE approved institutions, research scholars, PG Scholars, participants from Government, Industry (Bureaucrats/ Technicians/Participants from Industry etc.) and staff of host institutions. Not more than 30% from Host Institution. Total Participant - 200.

TENTATIVE TOPICS

1. What is 5G? How to achieve it?
2. Channel Models for 5G
3. Channel Impairments and Removal Techniques
4. Millimeter Wave Communication, Terahertz communication
5. Multiple Access Schemes for 5G, NOMA, GFDM, BDMA
6. Fundamentals of OFDM, MIMO, MU- MIMO and Massive MIMO technologies
7. Channel Estimations and Equalization Techniques
8. Cognitive Radio Networks (CRN) and Software Defined Networks (SDN)
9. Technologies Involved in developing smart cities
10. IOT, D2D Communication and Sensor Networks.
11. Antenna Design for 5G
12. Optical Wireless Communication (FSO, VLC)
13. Sparse Signal Processing for 5G
14. Stress Management

UNIQUENESS OF THE PROGRAM

One unique feature of this course will be demonstrating the interdisciplinary nature of 5G research, which requires knowledge of antenna, wireless propagation channel, wireless front-end along with the knowledge of the physical layer and network layer aspects of 5G communications. Keeping this in mind, the experts for this course are invited from various specializations like wireless communication, antenna engineering, microwave engineering etc;

REGISTRATION

Registration: There is No Registration Fee. To join this Online FDP, you are requested to register your name by clicking the registration link:
<https://www.aicte-india.org/atal>

Note: The Certificates shall be issued by AICTE Training and Learning (ATAL) academy to those participants who have attended the program with minimum 80% attendance and scored minimum 60% marks in the test conducted at the end of the online FDP.

ACTE TRAINING AND LEARNING (ATAL)

ATAL Programme is an initiative by AICTE which aims at empowering faculty to achieve goals of Higher Education such as access, equity and quality. These programs have been designed to fulfill the need to train the young generation in skill sector and having faculty & technicians to be trained in their respective disciplines. The objectives of ATAL FDP are:

- To support technical institutions in fostering research innovation and entrepreneurship through training.
- To stress upon empowering technical teachers & technicians using ICT
- To provide a variety of opportunities for training and exchange of experiences such as workshops, orientations, learning communities, peer mentoring and other FDPs.

ORGANIZED AT

The programme will be coordinated and conducted by the department of Electronics and Communication Engineering, Acharya Institute of Technology, Bengaluru, Karnataka, India through online platform.

IMPORTANT DATES

Submission of application: 10th November, 2020
Intimation of selection: 15th January, 2021
Confirmation by participants: 15th January, 2021

DURATION OF FDP

18/01/2021 – 22/01/2021

ADDRESS OF CORRESPONDENT

Post your application form to
Mr Devasis Pradhan, Programme Coordinator
Assistant Professor., Dept of ECE
Acharya Institute of Technology, Dr. Sarvepali
Radhakrishnan Road, Soladevnahalli, Bengaluru-560107
Mail id: devasispradhan@acharya.ac.in
Mobile -9972935781

HEAD OF THE DEPARTMENT

Dr. Rajeswari, Professor, HOD, Dean Academics
Department of ECE, Acharya Institute of Technology, Dr. Sarvepali
Radhakrishnan Road, Soladevnahalli, Bengaluru-56010

RESOURCE PERSON

Communication Technology experts from industries like, British Telecomm, Wipro, Numocity, etc; and reputed institutes like IIT, NIT, IIIT, SMVDU, AIT etc; will be facilitating the training programme.

SPEAKER FROM INSTITUTIONS

1. Dr. Preetam Kumar, Associate Professor, Department of EE, IIT Patna.
2. Dr. Radhakrishna Ganti, IIT Madras
3. Dr. Vivek Bohra, Associate Professor, IIIT Delhi
4. Dr. Rajarshi Mahapatra, Associate Professor, Dean Academics, Dr.SPM IIIT Raipur.
5. Dr. Rakesh Kumar Jha, Associate Professor, Department of ECE, Shri Mata Vaishno Devi University, Jammu & Kashmir
6. Dr. Ravishankar, Professor, Department of ECE, RVCE, Bengaluru
7. Dr. Sudhindra K R, Associate Professor, Department of ECE, BMSCE, Bengaluru
8. Dr. Subbarao Boddu, Assistant Professor, Department of EE, Mahindra University, Ecole Centrale School of Engineering, Hyderabad.
9. Dr. Dhaval Patel, Assistant Professor, Ahmadabad University
10. Dr. Adarsh Patel, Assistant Professor, SCEE, IIT Mandi, HP
11. Prof. Urmi Nanda Biswas, Professor, Department of Psychology, M.S. University Baroda
12. Prof. Shalini K. Sharma, Head Counselling, Welfare, T&P NMAM Institute of Technology, Nitte -Udupi

SPEAKER FROM INDUSTRY

1. Mr. Ravikiran Annaswamy, CEO, Numocity Technologies, Bengaluru
2. Dr. S. K. Murthy, Patent Counsel, Intel Technologies, Bengaluru
3. Mr. Subhas Mondal, Wipro Fellow & Chief Architect -5G, Bengaluru
4. Dr. Debajit De, Senior RF Engineer, VVDN Technologies, BBSR
5. Mr. Manish Shukla, Manager Technical Delivery, British Telecommunication, Bengaluru
6. Mr. Joyasankar Dwibedy, Senior Deployment System (RF Design Architect) CommScope., Bengaluru





ONLINE FIVE DAYS FACULTY DEVELOPEMENT PROGRAMME
ON
5G - GREEN COMMUNICATION NETWORK (5G-GCN) DEPLOYMENT IN SMART CITIES
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AICTE TRAINING & LEARNING - ATAL ACADEMY



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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
ACHARYA INSTITUTE OF TECHNOLOGY,
DR. SARVEPALLI RADHAKRISHNAN ROAD, SOLADEVNAHALLI, BENGALURU, KARNATAKA

NOTEABLE SPEAKERS FROM INSTITUTES & INDUSTRY



Dr. Preetam Kumar
IIT, Patna, India



Dr. Rajarshi Mahapatra
IIIT, Naya Raipur, India



Prof. Urmi Nanda Biswas
M.S. university Baroda, India



Dr. Radhakrishna Ganti
IIT ,Madras, India



Dr. Rakesh Kumar Jha
SMVD University, J&K, India



Prof. Shalini K Sharma
NMAM Institute of Technology,
Udupi, India



Dr. Vivek Bohara
IIIT, Delhi, India



Dr. S. Ravishankar
RVCE, Bengaluru, India



Mr. Subhas Mondal
Wipro Fellow & Chief Architect
5G, Bengaluru, India



Dr. Sudhindra K R
BMSCE, Bengaluru, India



Dr. Subbarao Boddu
Mahindra University, Hyderabad
India



Mr. Manish Shukla
Technical Delivery Manager
British Telecommunication, India



Dr. Dhaval Patel
Ahmedabad University, India



Mr. Ravikiran Annaswamy
CEO, Numocity Technologies,
Bengaluru, India



Dr. Debajit De
Sr. RF Engineer,
VVDN Technology, India



Dr. Adarsh Patel
IIT, Mandi, HP, India



Dr. S. K. Murthy
Patent Counsel,
Intel Technologies, India



Mr. Joyasankar Dwibedy
Sr. Deployment System
Engineer, CommScope, India



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DR. SARVEPALLI RADHAKRISHNAN ROAD, SOLADEVNAHALLI, BENGALURU, KARNATAKA

SCHEDULE- SESSION

18-01-2021 MONDAY	9.30 AM - 10.30 AM Welcome & Inauguration	12.00PM -1.30 PM - ----Lunch Break	3.00 PM-3.15 PM -----Short Break
	10.30 AM - 12.00 PM Dr. Preetam Kumar , Associate Professor, Department of EE, IIT Patna. (Session 1)	1.30- 3.00 PM Dr. Rajarshi Mahapatra, Associate Professor, Dean Academics , Dr.SPM IIIT Raipur (Session -2)	3.15 PM - 4.45 PM Dr. Rakesh Kumar Jha, Associate Professor,Department of ECE, Shri Mata Vaishno Devi University, Jammu & Kashmir (Session - 3)
19-01-2021 TUESDAY	9.30 AM - 11.00 AM Dr. Radhakrishna Ganti, IIT Madras (Session -1)	11.00 - 11.15 AM -----Short -Break 11.15 AM - 12.45 PM Dr. Vivek Bohra, Associate Professor, IIIT Delhi (Session - 2)	12.45PM -1.30 PM----Lunch Break 1.30 PM - 3.00 PM Dr. Subbarao Boddu, Assistant Professor, Department of EE, Mahindra University, Ecole Centrale School of Engineering, Hyderabad (Session -3)
	9.30 AM - 11.00 AM Dr. Ravishankar, Professor, Department of ECE, RVCE, Bengaluru (Session -1)	11.00 - 11.15 AM -----Short Break 11.15 AM - 12. 45 PM Dr. Dhaval Patel, Assistant Professor, Ahmadabad University (Session -2)	12.45PM -1.30 PM----Lunch Break 1.30 PM - 3.00 PM Dr. Adarsh Patel, Assistant Professor, SCEE, IIT Mandi, HP, India (Session -3)
20-01-2021 WEDNESDAY	9.30AM - 10.30 AM (Keynote Speaker - Industry) Mr. Ravikiran Annaswamy, CEO, Numocity Technologies,Bengaluru	12.00 - 12.15 PM ---- Short Break	1.30 PM - 2.00 PM ---- Lunch Break

21-01-2021 THURSDAY	10. 30 AM - 12.00 PM Mr. Subhas Mondal, Wipro Fellow & Chief Architect -5G , Bengaluru (Session -1)	12.15 PM - 1.30 PM Mr. Manish Shukla, Manager Technical Delivery, British Telecommunication, Bengaluru (Session -2)	2. 00 PM - 3.30 PM Dr. Debajit De, Senior RF Engineer, VVDN Technologies, BBSR (Session-3)
22-01-2021 FRIDAY	9.30 AM - 10.30 AM (Keynote Speaker) Shalini K. Sharma, Head, Counselling, Welfare, Training & Placement, NMAM Institute of Technology,Udupi	12.00- 1.00 PM ----- Lunch Break	3.00 PM- 4.15 PM Urmi Nanda Biswas,D.Phil. Professor,Department of Psychology,The M.S.University of Baroda, Vadodara, Gujarat-390002 (Session -3)
	10.45 AM - 12.00 PM Mr. Joyasankar Dwibdey, Senior Deployment System (RF Design Architect) CommScope., Bengaluru (Session -1)	1.00 PM - 2.30 PM Dr. Sudhindra K R, Associate Professor, Department of ECE, BMSCE , Bengaluru (Session -2)	4.15 PM - 5.00 PM Closing Ceremony - Vote of Thanks from Program Coordinator Feedback Session
ASSESSMENT			
18-01-2021	4.45 PM - 5.30 PM	Assessment -1	
19-01-2021	3.15 PM - 4.00 PM	Assessment -2	
20-01-2021	3.15 PM - 4.00 PM	Assessment -3	
21-01-2021	3.30 PM - 4.15 PM	Assessment -4	