

December 2021
Issue-2

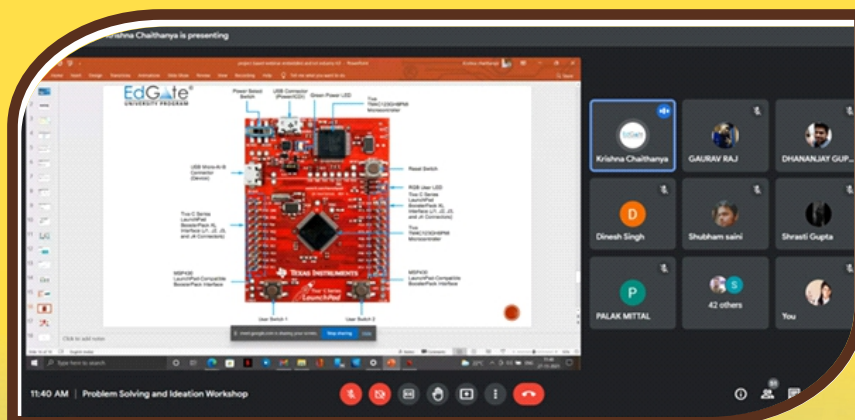
News Letter

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



GL BAJAJ
Institute of Technology & Management

- ▶ **Emerging Phase Change Materials for Future 5G and mmWave Communications**
- ▶ **One Week Faculty Development Programme on Innovative Research & Development Trends in Electronics & Communication Engineering**
- ▶ **Farewell 2021**
- ▶ **Shared Vision for a Better World in association with BIS**
- ▶ **International Conference On Modern Electronics Devices and Communication Systems MEDCOM-2021**
- ▶ **Problem Solving and Ideation Workshop with EdGate Technologies**
- ▶ **Workshop on Entrepreneurship Skill, Attitude & Behaviour Development**
- ▶ **Guest Lecture on Microprocessors 8085 & Microcontrollers 8051**



**FIND
YOUR
SPARK**



www.glbitm.org



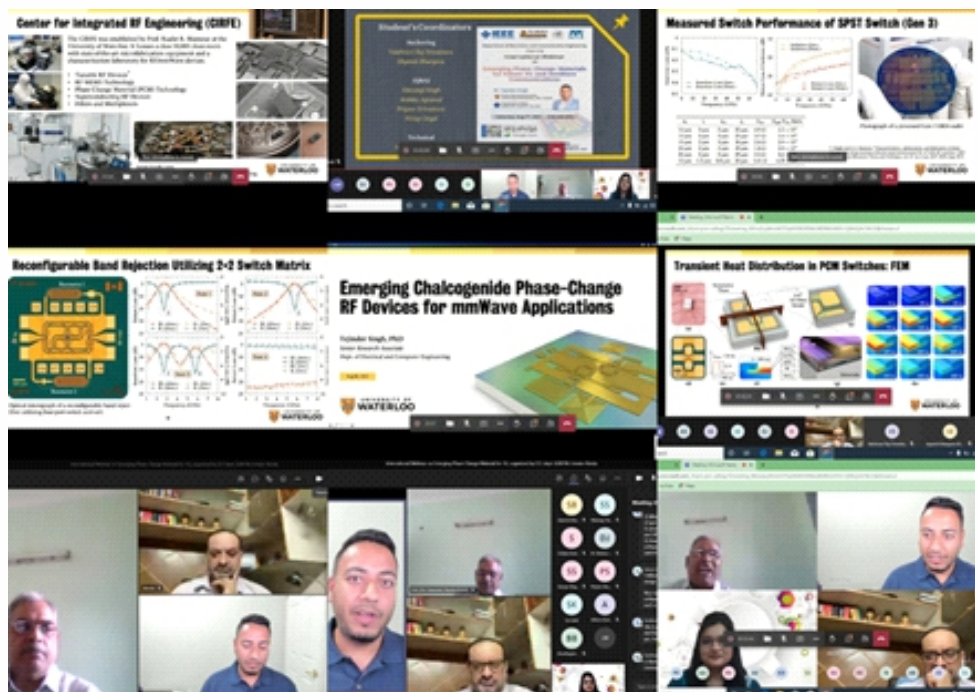
Emerging Phase Change Materials for Future 5G and mmWave Communications

Department of Electronics & Communication Engineering, G.L. Bajaj Institute of Technology & Management, Greater Noida, successfully organized an International Webinar on 7 August 2021 (9:00 AM IST) sponsored by IEEE UP-Section (India), IEEE MTT-S, and IEEE APS. The topic of International Webinar was “Emerging Phase Change Materials for Future 5G and mmWave Communications” delivered by the distinguished speaker Dr. Tejinder Singh, Senior Research Associate, University of Waterloo, ON, Canada and Postdoctoral Fellow, NASA/JPL, Caltech, CA, USA. Dr. Singh is a recipient of the Governor General's Gold Medal, one of the highest Canadian honours in academic and research for his academic excellence and outstanding doctoral research.

Topics covered during the session are as mentioned below

- PCM switches for mmWave.
- PCM Microfabrication processes.
- PCM GeTe-based RF Switches for mmwave applications.
- Multiport Switch configurations and development.
- Reconfigurable PCM based passive components.
- 5G communication applications.

The session was very interactive and the session was followed by Q&A and feedback form submission, concluded by Vote of Thanks by the faculty coordinator Dr. Astha Sharma, Assistant Professor, ECE. The objective of the webinar was achieved and benefitted the keen participants. The webinar witnessed total registration of around 200 participants from 24 countries internationally, major participation from 15 states nationally and the participation was from the diverse audience comprising of Faculty members, Scientists, Research Scholars, Industry professionals and students.



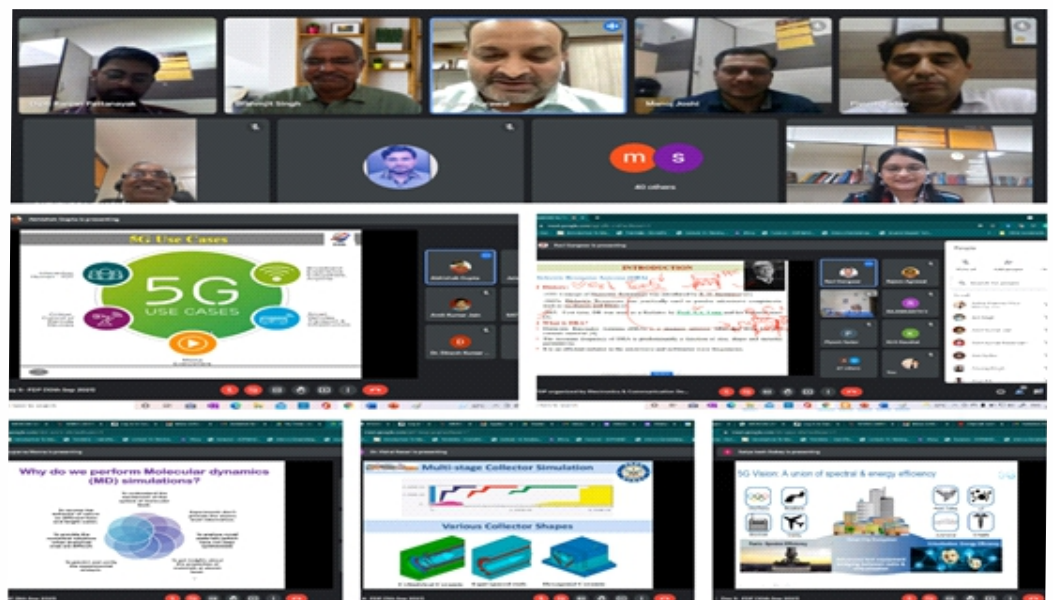


One Week Faculty Development Programme on Innovative Research & Development Trends in Electronics & Communication Engineering

Department of Electronics & Communication Engineering, G.L. Bajaj Institute of Technology & Management, Greater Noida have organized a One Week Faculty Development Programme on "Innovative Research & Development Trends in Electronics & Communication Engineering" (6th September 2021- 12th September 2021) and technically sponsored by IIC, IEEE UP Section (India), Start in UP and AKTU.

The Scope of FDP was to promote Electronics and Communication centered Innovation and Research that will serve as a rapidly expanding foundation for the vision of Society 5.0. Sustained research & development in the electronics sector is essential for developing indigenous technology and its transfer to industry for commercialization. This FDP has come at the right time to help nurture academic spirit among professionals and help in building the least expensive, most effective, insightful, ensuring product integrity, innovative engineering solutions for the pressing societal problems. The FDP contains Renowned speakers from industries and academia invited to deliver their talk on the latest technologies.

The FDP was beneficial for the faculty of engineering and sciences, researchers, and industry persons interested in expanding their knowledge and exploring the various innovative research and developments to foster a culture of Innovation in Electronics & Communication Applications. The FDP received 128 registrations, both from national and international, and witnessed 81 participants attending the program, comprising faculty members, research scholars, and industry professionals, and around 20 students of the institute participated. The session was concluded with a valedictory session, followed by e-feedback form submissions and the distribution of certificates. The feedback of the FDP was excellent, and participants requested to arrange more such events.





Farewell 2021

On 9th October 2021 Department of Electronics & Communication Engineering, G.L. Bajaj Institute of Technology & Management, Greater Noida, organized the farewell part for 2021 and 2020 pass out students. Director Dr. Rajeev Agarwal and HOD Dr. Satyendra Sharma in their speech wished good luck to the students for their bright future. Students of B. Tech third year and Final year presented very entertaining group dance, solo dance and solo song performances. Token of love and appreciation was given to the students of by their juniors.

Overall the event was full of entertainment and all the students enjoyed it a lot.





Shared Vision for a Better World in association with BIS

On the occasion of World Standard Day, 2021, GL Bajaj in collaboration with the Bureau of Indian Standards (BIS) of Ministry of Consumer Affairs, Food & Public Distribution, Govt. of India conducted an event on 11 October 2021. The theme of the event was “Shared Vision for a Better World”. Participants shared their vision through Poster Making and Essay Writing on the same theme. Around 40 students participated in the event and following emerged as the winners:

POSTER MAKING

1st prize: Rs 3000-Mr. Rajeev Kumar Singh of ME Deptt. 4th Year

2nd prize: Rs 2500- Mr. Himanshu Mishra of ECE Deptt. 2nd Year

3rd prize: Rs 2000-Mr. Sumit Chauhan EEE Deptt. 4th Year

Consolation Prize: Rs 1500-Ms. Shaski Singh of IT Deptt. 2nd Year

EVENT 2: ESSAY WRITING

1st prize: Rs 3000-Ms. Amisha Raj of ECE Deptt. 2nd Year

2nd prize: Rs 2500-Mr. Aditya Singh of ECE Deptt. 2nd Year

3rd prize: Rs 2000- Ms. Manisha Tyagi of IT Deptt. 2nd Year

Consolation Prize: Rs 1500- Ms. Ananya Singh, CSE 2nd Year





International Conference On Modern Electronics Devices and Communication Systems MEDCOM-2021

The Department of Electronics and Communication Engineering has organized three days International Conference on Modern Electronics Devices and Communication systems MEDCOM-2021, sponsored by The Defence Research and Development Organisation (DRDO) and Council of Science & Technology, Uttar Pradesh (CSTUP) in Hybrid mode, scheduled on October 29 – October 31, 2021.

Aim of the Conference

Innovation and Research in a broad area of Modern Electronics and communication Engineering need to enhance its capabilities for recent challenges. Recent advances in different domains like Sensor Technologies, Electronic devices, Wireless Communications, Signal Processing, Computer Vision, Medical Image, Data Processing, and globalization of digital society across various social areas have intensified the growth of sustainable electronics and communication systems. To effectively maintain a sustainable environment, it is constantly needed to meet the quality of service requirements of the emerging intelligent ICT applications. In this perspective, this International Conference brings together the state-of-the-art Research works to propose novel architectures, models, and algorithms for solving the emerging challenges in almost all the areas of Modern electronics devices and communication systems. Real-time analysis in communication systems and VLSI Design and prerequisite controls with AI/ML will be more attractive at this conference.

The conference aims to bring teachers, researchers, scientists, engineers, and scholars together. They will exchange and share their experiences, new ideas, and research results about all aspects of mentioned areas. The three days conference included talks by experts from industry, academia, and research organizations.

Day 1 Schedule

- Inaugural session at 10:00 am
- Address by Chief Guest Prof. Rakesh Sinha, Member of Rajya Sabha, Parliament of India, New Delhi.
- Address by Guest of Honour Dr. Vineet Kansal, Vice-Chancellor, AKTU University, Lucknow.
- Keynote Talk - Dr. Mohammad Khaleqi, Department of Electrical Engineering, Shahid Beheshti University, Iran.
- Address by Special Invite- Dr. S C Sharma, Regional Scientist Officer, CSTUP.
- Keynote Talk – Dr. Chetan Singh Thakur, Department of Electronic Systems Engineering, Indian Institute of Science, Bengaluru.
- Session1A at 2:00 pm onwards.
- Keynote Talk – Dr. SwetaSneha, Department of Computer Science and Information Systems, Kennesaw State University, US.

Day 2 Schedule

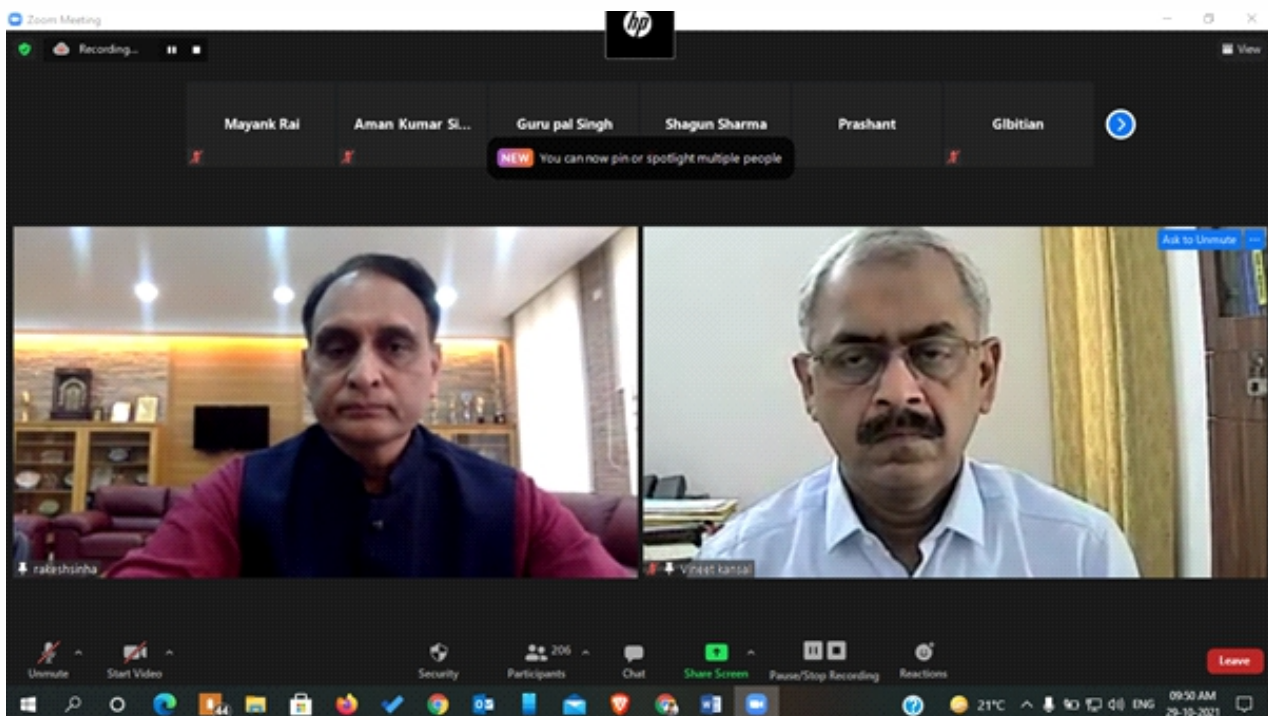
- Address by Special Invite- Dr. Radhe Lal, Joint Director CSTUP.
- Keynote Talk - Dr. Vipin Balyan, Department of Electrical, Electronic and Computer Engineering, Cape Peninsula University of Technology, Capetown, SA.
- Parallel Session 2A,3A,4A, and 5A at 11:00 am onwards.
- Keynote Talk - Dr. Fikreselam Gared Mengistu, Department of Electrical and Computer Engineering, Bahir Dar University, Ethiopia.
- Keynote Talk - Dr. Ayush Goyal, Department of Electrical Engineering and Computer Science, Texas A&M University- Kingsville, US.

Day 3 Schedule

- Conference Validation function.

The conference received 200 papers from different IITs, NIT's, Universities, seven other countries, and 60 were selected for further process. All the sessions were concluded in hybrid mode, discussing their topic by experts of session chairs and Co-chairs.

An International conference was completed successfully in the hybrid mode due to this Covid-19 Pandemic situation.





Problem Solving and Ideation Workshop with EdGate Technologies

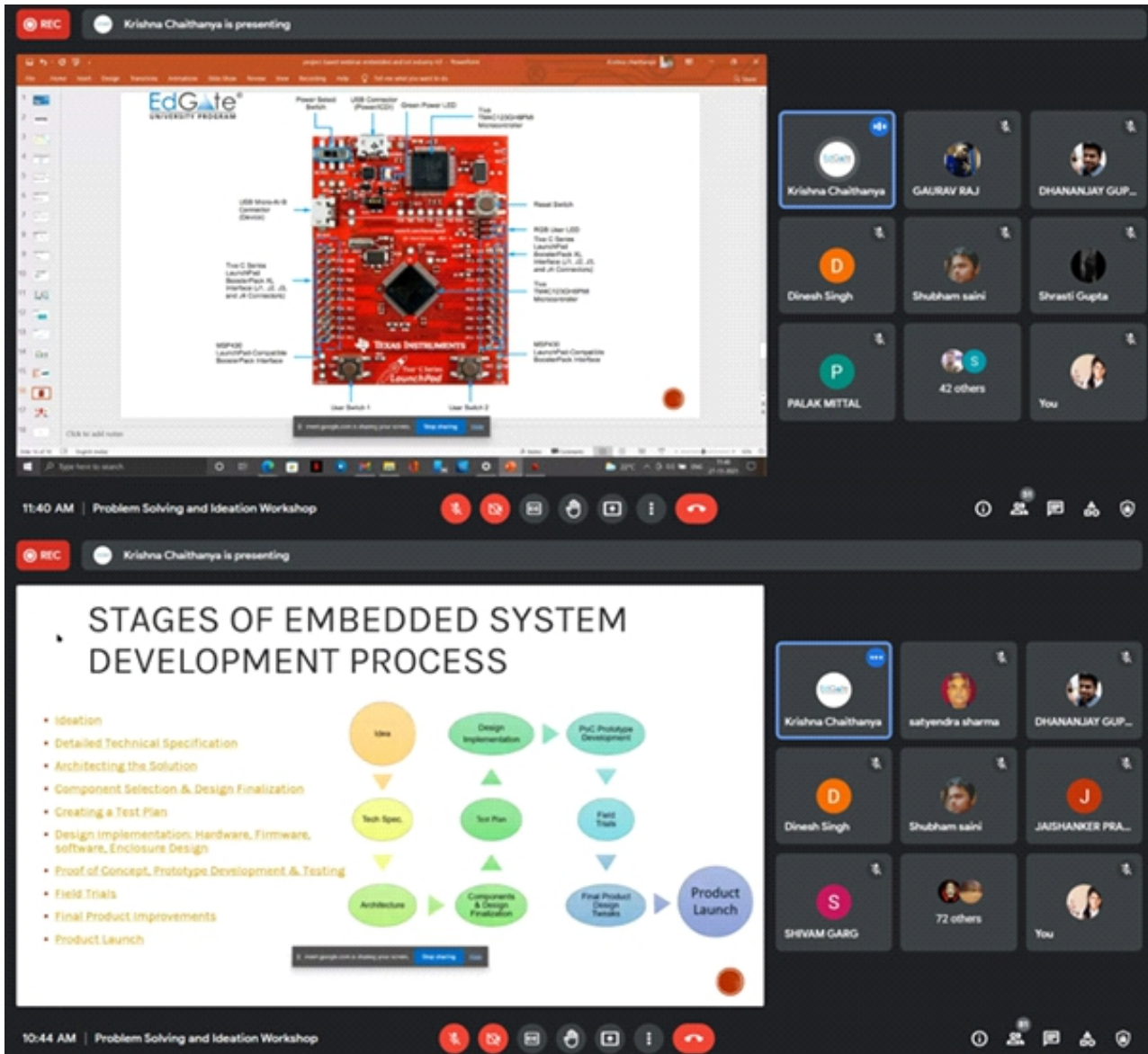
Department of Electronics and Communication Engineering in association with the Institute's Innovation Council of GLBITM, Greater Noida, organized an online session "Problem Solving and Ideation Workshop with EdGate Technologies" on 27th Nov 2021 (10:30 AM- 12:30 PM). This workshop aimed to spark the innovative spirit in the budding innovators by guiding them on how to convert their Innovative Ideas into Action. As rightly said Innovation is not just only about Creativity and Idea generation but requires Action to turn an idea into real value. The session aimed to provide experiential learning using TI technology.

The speaker of the session was T. Krishna Chaithanya, Embedded System Engineer, EdGate Technologies Pvt. Ltd., Bangalore. The speaker emphasized on Embedded systems, which can be found in many places nowadays, including homes, offices, cars, industries, hospitals, and consumer electronics. Their massive numbers and increased complexity necessitate a new design strategy, which includes new hardware and software development. One can quickly convert designs into operational embedded systems with the help of a good off-the-shelf prototyping tool.

The session revolved around the following topics:

- Exposure on Texas Instruments technology
- Fundamentals of Microcontroller based Design
- Stages of Embedded System Development Process
- Architecture of MSP430 low power design
- Demonstration of practical skills using TM4C123G LaunchPad of Tiva C series

The workshop witnessed the active participation of around 91 students of ECE department and faculty members of the department and the workshop was concluded with a Q&A session.





Workshop on Entrepreneurship Skill, Attitude & Behaviour Development

The Department of Electronics and Communication Engineering in association with Institute's Innovation Council of GLBITM organized an offline workshop on "Entrepreneurship Skill, Attitude & Behaviour Development" on 10/12/2021(2:00 PM- 4:00 PM) at the Audi 1 (Academic Block -1) in G.L. Bajaj Institute of Management & Technology, Greater Noida (U.P.). The guest speaker of the event was Mr. Shashank Srivastava, Founder of Open Ocean Foundation, New Delhi.

An educator, a trainer, a resource faculty, Shashank Srivastava, is a highly motivated professional with experience in Learning and development, Process building with training small and large groups across diverse industries. Proven success in leveraging educational theories and methodologies to design, develop, and deliver successful training programs and integrate instructional technology to provide onsite and virtual training, Adept at organizing and facilitating management, team building training programs and activities.

This workshop aimed to spark the entrepreneurial spirit in the budding innovators by guiding them on how to convert their Innovative Ideas and emerge as successful Entrepreneurs. Becoming an entrepreneur is an important career decision, and to plunge into this domain requires the right skill set, attitude, and behaviour.

The speaker highlighted some of the key characteristics of an entrepreneur, which are:

- Empathy is instilled through entrepreneurial ideals and related "ways of thinking, doing, feeling, seeing, communicating, organizing, and learning things."
- Development of strategic thinking and scenario planning skills, as well as the ability to make intuitive decisions based on little knowledge.
- Stimulating a variety of entrepreneurial behaviours such as seeking for and seizing opportunities, networking, taking initiative, convincing others, and making intuitive decisions. This necessitates a diverse set of pedagogical tools.

The workshop witnessed the active participation of around 112 students (ECE, CSE, IT, and CE departments) and ECE faculty members. The event was initiated IIC student coordinators. The workshop was concluded with a Q&A session.



Guest Lecture on Microprocessors 8085 & Microcontrollers 8051

On 16th – 17th December 2021 a Value Added Course session of “Microprocessors 8085 & Microcontrollers 8051” by Mrs. Shylaja V Karatangi, was arranged in the Microprocessor Lab, department of Electronics and Communication for the BCA 2nd year students of GL Bajaj Institute of Technology and Management.

Session includes with Evolution of Microprocessor and its applications, interpretation of Architecture and more importance given for practical's to explore the how basic microprocessor 8085 works and Assembly language coding.

This value added course makes the students learn more practically, that is Outcome Based Education about the subject which is their in course curriculum activity.





Editorial Board

Convenor : Dr. Satyendra Sharma (HOD)

Editor : Dr. Dinesh Singh - Associate Professor
: Dr. Shilpa Choudhary - Associate Professor



VISION

To become a department of repute and prepare globally competent and socially responsible professionals with holistic knowledge and technical skills.

MISSION

- ✓ To provide a supportive environment for effective knowledge transfer and nurturing ideas.
- ✓ To equip students with technical and leadership skills, and abilities to face the global challenges.
- ✓ To create an environment conducive for research and development with continuous involvement of industry.
- ✓ To inculcate professional and moral values in the students.

Program Educational objectives (PEO)

On completion of this course, our graduates will be able to

1. Exhibit multi-disciplinary technical and leadership skills for better employability, higher education and entrepreneurship.
2. Possess strong knowledge in the field of Electronics and Communication Engineering to develop solutions for real life problems.
3. Undertake professional responsibilities through strong team-work, communication skills and life-long learning.
4. Become socially responsible professionals with moral values and ethics.

www.glbitm.org



Plot No. 2, Knowledge Park III,
Greater Noida, Distt. G.B. Nagar, U.P., India-201306