



# PREFACE



## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

**JIS College of Engineering, Kalyani, WB**

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### FROM THE DESK OF THE EDITORIAL BOARD!

The goal is to equip students with a strong foundation in the development of advanced electronic devices and communication systems, focusing on design optimization and innovation. By fostering close collaboration with research institutions and industry, students will engage in cutting-edge research and practical applications. The educational approach emphasizes continuous learning through qualitative assessments, hands-on projects, industry training, and the development of technical communication skills. Future engineers will be inspired to excel through seminars, project work, group discussions, and competitions that sharpen their critical thinking and problem-solving abilities. Emphasis will also be placed on nurturing professional ethics, humility, and a commitment to societal well-being, encouraging engineers to be both technically proficient and socially responsible.

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## DEPARTMENTAL VISION AND MISSION

Certainly! Here's the content broken down into points:

1. Graduates will possess a solid foundation in key areas such as Communication Systems, Signal Processing, SoC (System on a Chip), VLSI, and Nanotechnology, preparing them for successful careers as engineering professionals, researchers, academics, and entrepreneurs.
2. They will apply their technical expertise to design, develop, and implement innovative real-world applications, with a strong commitment to ethical practices and societal well-being.
3. Graduates will excel in integrating theoretical knowledge with practical problem-solving to address complex engineering challenges, particularly in multidisciplinary environments.
4. With strong project management skills, they will effectively lead teams, manage resources, and oversee projects from conception to execution, ensuring successful outcomes.
5. Graduates will utilize modern engineering tools, software, and hardware solutions to contribute to advancements across various sectors, including telecommunications, electronics, healthcare, and environmental technology.
6. They will be able to communicate complex technical ideas clearly and effectively, whether through technical reports, presentations, or collaborative discussions, facilitating knowledge transfer within teams and across industries.
7. Committed to lifelong learning, graduates will continuously update their skills and knowledge to adapt to the fast-changing technological landscape and maintain their professional edge.
8. Their dedication to sustainability will lead them to design engineering solutions that are environmentally responsible, contributing to the goals of sustainable development.
9. As future leaders in their fields, graduates will navigate global challenges with innovation, integrity, and a strong sense of moral responsibility, shaping the future of technology in ways that positively impact society, industry, and the environment.
10. They will foster a culture of teamwork, creativity, and ethical responsibility,

setting the foundation for future innovations that will have a lasting, positive effect on the world.

This version provides a clear, structured breakdown of the main ideas. Let me know if you need more details!

## ALUMNI CONNECT TASK

ORGANIZED BY ECE DEPARTMENT

The Department of Electronics and Communication Engineering has actively hosted numerous Alumni Connect Programs to bridge the gap between current students and industry demands. These sessions provide valuable insights for students on the latest industry requirements, career paths, and effective strategies for preparing for job interviews. Through these programs, students gain first-hand knowledge from experienced alumni about what employers seek in fresh graduates, how to stand out in interviews, and how to approach the job market with confidence.

Renowned alumni such as Mr. Sabyasachi Sinha, Dr. Neelan Jana Sengupta, and Ms. Ayendreyee Sinha have been invited as guest speakers in several of these sessions. These distinguished alumni, currently excelling in their respective fields, share their experiences, discuss evolving trends in technology, and offer practical advice on how to navigate the early stages of an engineering career. By covering topics related to industrial practices, project management, and technical advancements, these alumni connect programs offer students a unique perspective on how to transition smoothly from academia to professional environments.

The department's professors play a key role in coordinating these events, ensuring that the programs run smoothly and that the speakers address the most pressing concerns of the students. With enthusiastic participation from a large number of students, these sessions have proven to be an excellent platform for interactive learning. Alumni not only share their personal career trajectories but also provide valuable guidance on topics such as how to approach technical and HR interviews, resume building, and how to showcase technical skills effectively.

Additionally, the alumni shed light on specific industry trends, the skill sets that are most in demand, and the importance of soft skills alongside technical expertise. They emphasize the need for continuous learning and staying updated with cutting-edge technologies to remain competitive in the field. The alumni also guide students on opportunities for internships, networking, and the significance of professional certifications to enhance employability.

These programs create an enriching environment where students can directly interact with professionals, ask questions, and clear doubts about their future careers. By fostering a sense of community and support between alumni and current students, the department continues to enhance the employability of its graduates while encouraging them to strive for excellence in their professional journeys. The success of these programs lies in the shared experiences, candid advice, and motivational talks that leave a lasting impact on students, inspiring them to pursue their career goals with renewed determination.

# WORKSHOP

## ORGANIZED BY ECE DEPARTMENT

The Department of Electronics and Communication Engineering has consistently organized a wide range of workshops aimed at benefiting students, faculty members, and staff. These workshops are designed to provide participants with essential knowledge on various subjects, including cutting-edge industry trends and pedagogical advancements. They serve as valuable platforms for skill enhancement and practical learning, covering both technical and professional development aspects. Here are some of the important events:

**Online Workshop on Ethical Hacking and InfoSec** – Held on March 15, 2021, this workshop focused on cybersecurity, providing students and faculty with hands-on experience in ethical hacking techniques and the essentials of information security.

**Professional Programming Techniques – Employability Skill Development Initiative** – Conducted on April 8, 2021, this event helped students enhance their programming skills while also focusing on developing employability skills to meet industry requirements. The session covered best practices in coding, debugging, and efficient problem-solving techniques.

**Workshop on Remote Services – Android/Apple/Apple Watch** – This workshop, held on May 12, 2021, introduced participants to the latest advancements in remote services for mobile devices. Participants learned how to develop, manage, and troubleshoot services related to Android, Apple devices, and wearables such as the Apple Watch.

**FDP (Faculty Development Program) on Recent Research Trends in AI/ML and Data Science** – Spanning from June 3 to June 7, 2021, this program was targeted at faculty members and research scholars. It offered an in-depth exploration of the latest research trends in Artificial Intelligence, Machine Learning, and Data Science, with sessions led by prominent industry experts and academicians.

**Workshop on Firebase in Internet of Things (IoT)** – Held on June 20, 2021, this workshop provided insights into using Firebase, a popular mobile and web application development platform, in the context of the Internet of Things. The participants were guided through the integration of Firebase for data management, real-time updates, and efficient IoT communication systems.

In addition to these events, the department has also been active in organizing other interactive sessions focused on project management, advanced programming techniques, and real-world problem-solving strategies. The goal is to equip students and faculty members with the latest tools and knowledge required to thrive in a rapidly evolving technological landscape. Workshops often include collaborative hands-on activities, ensuring participants gain practical experience along with theoretical insights.

These initiatives not only enhance technical competencies but also encourage professional growth, teamwork, and innovation. The department remains committed to delivering quality education and training that aligns with the latest industry standards, fostering a well-rounded learning environment for all participants.

# STUDENTS ACHIEVEMENTS

Here's a write-up on the students' achievements between March and June 2021:

## Student Achievements: March - June 2021

1. Avijit Gouli: In March 2021, Avijit secured 3rd position in the final-year class ranking, excelling in core subjects like Digital Communication and Microprocessors. His dedication and consistent performance throughout the academic year made him one of the top performers in the department.
2. Rima Raha: Rima made a significant mark by winning the second prize in a national-level Hackathon held in April 2021. Her team's project, focusing on AI-driven healthcare solutions, was highly praised for its innovation and practical applicability.
3. Tanmoy Row: In May 2021, Tanmoy achieved 1st place in a coding competition organized by the Department of Electronics and Communication Engineering. His expertise in competitive programming and problem-solving impressed both peers and faculty alike.
4. Anindya Sarkar: Anindya was awarded the 'Best Presenter' title in the department's technical symposium in June 2021. His insightful presentation on "5G Networks and Future Trends" was a standout contribution during the event.
5. Prantik Halder: Prantik excelled in collaborative projects and was part of a team that won the first prize in an IoT-based competition held in May 2021. The team's project on "Smart Traffic Management System" demonstrated advanced technical skills and creativity.
6. Deprateem Gupta: Deprateem participated in a prestigious electronics design competition in April 2021 and was awarded for the most innovative solution. His project on low-power wireless sensor networks earned him high recognition from industry experts and academic mentors.

These achievements reflect the students' hard work, technical prowess, and commitment to excelling both academically and in extracurricular activities.

## THANKS

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