

The background is a deep blue gradient filled with a complex network of glowing blue lines that resemble electronic circuit traces. These lines are interspersed with numerous small, bright blue dots and larger, more prominent glowing spheres, creating a sense of dynamic energy and digital connectivity.

ELECTRO SANCHAR-2021

The Electrons around you...

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Estd.2000

ABES ENGINEERING COLLEGE



ELECTRO SANCHAR 2021

Department of Electronics & Communication Engineering, established in the year July 2000 has been accredited by the “National Board of Accreditation (NBA)” up to 2022. ECE Department offers undergraduate-level program with an annual intake of 180 students and Postgraduate Programme with an annual intake of 06 students in “Electronics & Communication Engineering”. Department has seen remarkable growth in terms of the quality of students intake, the inclusion of postgraduate programs. Department has well-equipped Labs with the necessary hardware and software to meet the curriculum requirements at the undergraduate and postgraduate level, they not only meet the academic curriculum but also industry requirements.

VISION

To contribute to India and the world through excellence in education and research in the field of Electronics & Communication Engineering and serve as a valuable resource for the industry and the society at large.

MISSION

To create an environment, which shall encourage the development of innovative professionals and researchers in the cutting-edge technologies of Electronics & Communication Engineering, in line with industry requirements and to impart professional ethics with a positive attitude.

TEAM MEMBERS

Sh. Neeraj Goel (Chief Patron)

Sh. Sachin Goel (Patron)

Dr. Sanjay Kr. Singh(Editor-in-chief)

Faculty Members

Ms. Ranjeeta Yadav (Editor)

Ms. Tania Gupta

Ms. Rakhi Kumari

Ms. Geetanjali Raj

Student Members

Ms. Devanshi Chauhan

Ms. Vritti Mehrotra

Ms. Shivangi Singh

Ms. Abha Tiwari

From The Desk of Editor-in-Chief



Dear Readers,

It gives me immense happiness to release "Electro Sanchar 2021". It was quite inspiring to watch and witness the potential of our student's achievements at various stages. We always believe that "Hard Work has no shortcuts". Here, in ABESEC, we continuously strive for excellence. We develop an ecosystem where each human being is motivated to align towards their goal. I must say that a student must be focused and alert to achieve his target. He/ She must know the "More from less" strategy to bring the most out of available resources. All the geniuses have one thing in common that they are always in "Learning Mode"; the same is applicable to students as well. Once the students develop the thinking or attitude of this level then even failure becomes learning to them, and they fall under the category of "bound to succeed". Best wishes and blessings to ECE Team. Congratulations to the editorial team for their determined efforts in bringing out this magazine.

Prof. (Dr.) Sanjay Kr. Singh
HOD-ECE

Message from Editor



Dear Readers,

We are very happy to announce the next series "Electro Sanchar 2021". It is a matter of honor that our department is publishing this bulletin every year. The idea of updating the faculty and students with the current happenings in the department is creditable. It is glad to see the teacher-student community of our department strives to reach a greater attitude. I hope this issue of departmental e-magazine will encourage the students, staff and faculty.

Sincerely,
Ms. Ranjeeta Yadav
Assistant Professor-ECE

Program Outcomes (POs)

PO1.Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2.Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3.Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9. Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse exams, and in multidisciplinary settings.

PO10.Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11.Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12.Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (PSOs) relevant to the Course:

PSO1.An ability to design and analyze the concepts and applications in the field of communication/ networking, signal processing, embedded systems and semiconductor technology.

PSO2.An ability to comprehend the technological advancements in the usage of modern design tools to analyze and design subsystems/processes for a variety of applications.

PSO3.An ability to learn the courses related to Microelectronics; Signal processing, Microcomputers, Embedded and Communication Systems to develop solutions to real world problems.

PSO4.An ability to communicate in both oral and written forms, the work already done and the future plans with necessary road maps, demonstrating the practice of professional ethics and the concerns for social and environmental impact.

PEO3: To develop managerial and soft skills so that they become confident and competent enough to take challenging responsibilities & leadership roles in the industry & corporate.

PEO4: To equip them with solid foundation in ECE engineering so that they can pursue higher studies in the subject.

PEO5: To groom the students to acquire professional ethics, moral values and devotion to duty so that they prove to be worthy citizen of India with international outlook.

Programme Educational Objectives (PEOs)

PEO1: To impart the students sound technical knowledge and skills in the core & related science & mathematics subjects of Electronics & Communication Engineering so that they graduate as professionally competent engineers, capable of applying & implementing the acquired skills.

PEO2: To inculcate in students a desire to be innovative and passionate about excelling in the field of Electronics & Communication Engineering.



A Note from HOD (ECE)

Dear Readers,

A warm and affectionate welcome from the Department of Electronics & Communication Engineering of ABES Engineering College. Electronics Engineering is a dynamically changing and widening branch of the engineering profession, having applications in every discipline of engineering. It is the driving force behind rapid development in the latest technological growth. Electronics and communication engineering provides excellent career opportunities in various sectors of Industries. The department has a fine blend of qualified and experienced faculty and staff members. We are continuously striving hard to improve the quality of education and maintain its position of leadership in engineering and technology. The Department is equipped with state-of-the-art Laboratories to provide adequate opportunities for the students to learn and innovate new skills and ideas.

The industry-Academia relationship helps in developing a powerful engine for innovation and economic growth. This relationship helps in modernizing teaching and learning methods by fostering an exchange of ideas and skills. Is also developing people with the skills and competencies required for new innovations which transform worldwide markets and industries?

The main goal of the department is to develop innovative professionals and researchers in line with the requirement of industry and research organizations. At ABES we are committed to creating an environment for the students where they can develop critical thinking and problem-solving skills. I am confident enough that our students will prove to be invaluable assets for any organization.

Highlights of ECE Department (NBA Accredited up to 2022)

4 YEARS B.TECH. (ECE) | 2 YEARS M.TECH. (ECE)

Among other fields of engineering, the Department of Electronics Engineering rises up. Established in the year July 2000 and offer undergraduate-level program in Electronics and Communication Engineering, the Department has seen remarkable growth in terms of quality of students intake, the inclusion of post-graduate program 'Electronics and Communication Engineering.

Prof. (Dr.) Sanjay Kr. Singh leads the Department. He is supported by a team of dynamic, skilled, and energetic members of the faculty and equally trained and qualified technical staff.

- ❖ In the second year, we have achieved results of 97%, in the third year 97% and in the fourth year 100%.
- ❖ In terms of placements, we have achieved a level of 89.72%.
- ❖ Total 97 papers have been published, submitted, or accepted in SCOPUS indexed journal, UGC indexed journal, National & International conferences from B.Tech Final Year Projects.
- ❖ COE-Optical, Antenna and Microwave Engineering Successfully completed five Consultancy Projects.
- ❖ Participations in Workshops/STTPs/FDP, etc: 177
- ❖ Certifications courses like npTEL, coursera etc. by faculty: 10

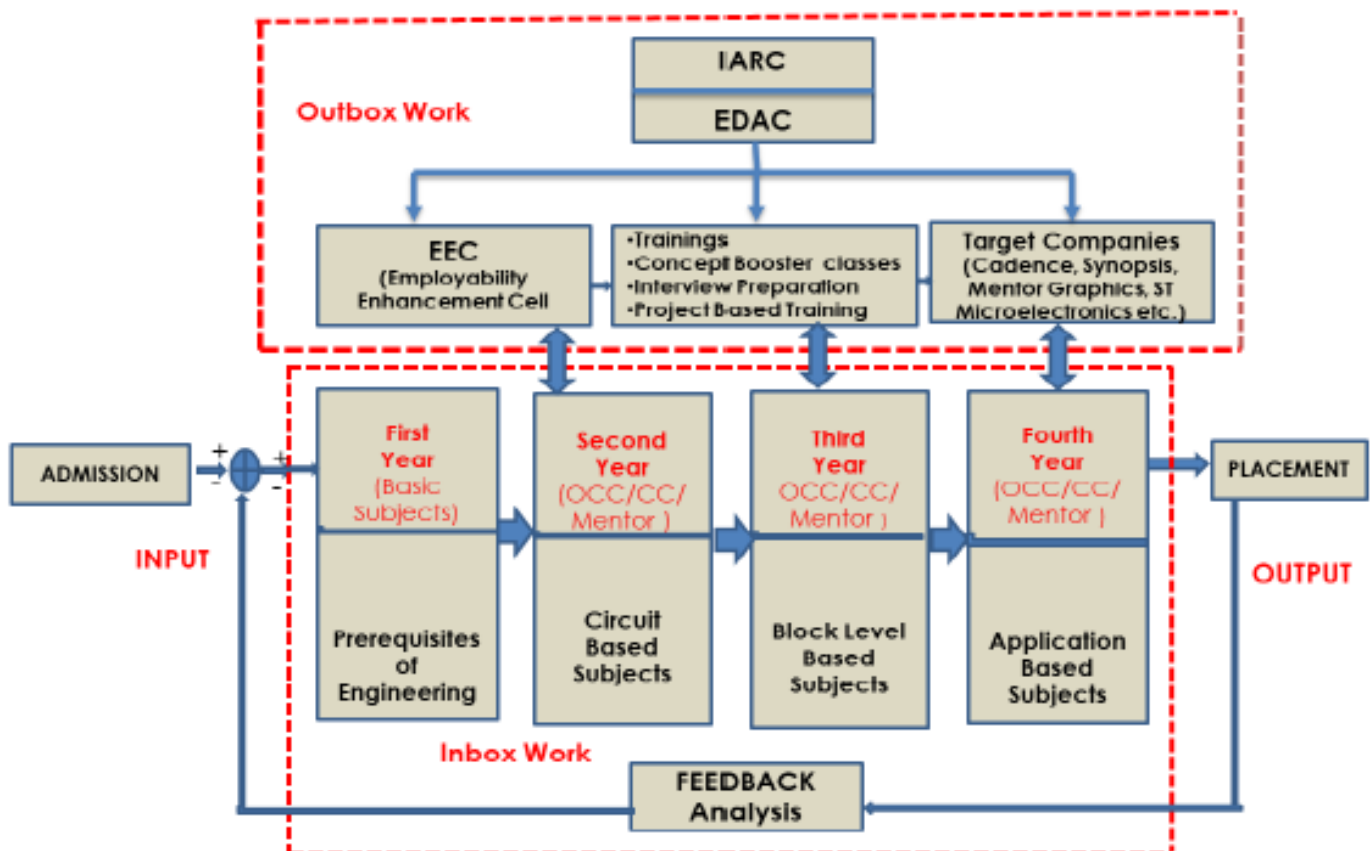
Strengths

- EEC (Employability Enhancement Cell)
- IARC (Industry Academia Relationship Cell)
- EDAC (Electronic Design and Consultancy)
- Electronic ICU
- In house Trainings : 06
- FDP : 04
- SDP : 01
- Guest Lectures : 12
- MoUs : 01
- Patents : 10
- Startup : 01
- Consultancy Projects : 05
- Faculty Publications : 49
- Student Publications : 46

Placement



FUNCTIONALITIES OF ECE DEPARTMENT



Dept. of Electronics & Communication Engineering

1. Department Academic Activities

The Initiatives are taken by the Department to improve Academic Statistics are:

- **Overall Class Coordinator (OCC):** The concept of this initiative was to have double-checked on the working of class coordinators and students. The OCC keeps close coordination between all the class coordinators of a particular year and removes any gap between them. He also works as a bridge between class coordinators and students so that any grievance or problem related to administration or academics can be sought out. He also handles discipline issues of that year for which he/she is designated. Overall class coordinators, class coordinators and mentors take care of various aspects of co-curricular activities (Academic, Counselling, and Discipline) to maintain complete decorum.
- **Mentor-Mentee Program** was introduced to counsel, motivate, and guide the mentees & encourage them to achieve their potential in terms of growth & development. To make mentees aware of the resources & opportunities available for professional development. To motivate the mentees to work in emerging areas & identify their areas of strength & concern. To encourage them to take active participation in research activities and get it published. To provide observation & feedback of mentees to the next higher level.
- **Extra classes** for short attendance and academically needy students had started from the starting of the semester.
- **Daily Attendance Monitoring:** The list of students having attendance < 75% will be posted every Friday on the departmental boards. Short Attendance letters are posted fortnightly.
- **Buddy Classes:** In the class, there are slow learners and fast learners, to handhold the slow learners this initiative is undertaken. The fast learners of the class handhold some of the slow learners in academics through notes, explaining the topics, solving numerical etc. This initiative will help slow learners to come to the same platforms as others.
- **Concept Booster Classes (CBC)** for in-depth study for core companies/PSUs/ IES. The classes are taken by senior faculty members of the department.
- **Student Research papers,** it has been made suggested for project groups to publish two Research Paper in a Scopus / UGC indexed Journal and in an International Conference.
- **Placement Tracker** was introduced to monitor the record of the interview process held that the data may be analyzed further, and effective steps may be taken to enhance the skills of the students for the upcoming interviews.
- **Training Tracker:** The 3rd year students go for industrial training for 4 to 6 weeks in some industry of their choice. The student brings a certificate after completion of training. To understand what he /she has learned day wise a tracker was introduced. This training tracker consists of day wise monitoring of training like in which department and under whose guidance he/she is doing training etc. After completion of training, the student will bring the tracker for evaluation.
- **Project Tracker:** Project Tracker tracks the interaction details of the project supervisor & the team.
- **Electronics ICU:** Under this initiative, the department offers maintenance and repairs of various electronic equipment's at the college level.
- **Department Level Placements:** Under this initiative, the department has developed linkages with several renowned industries for MoUs which will help in internships & placements.
- **Tie-ups with Reputed Academic Universities & Institutions for Start-ups, Intellect Transfer & Faculty Development.**
- **GATE Classes + Content Preparation for Core Field Companies**

2. Research & Innovation

Research & Innovation activity of ECE department integrates Publications, Patents, Incubation and Start-up. The purpose behind this is to improve upon quality as well as several publications. Every project group in the final year is advised to have at least two publications (Review & Implementation) out of their project in an academic session. Apart from this, every faculty member is required to have a maximum number of publications in reputed Nationals/Internationals journals/Conference.

- Any innovative and novel ideas from projects are further encouraged for the patent.
- Department provides support to the students who are interested in their own startups/ business opportunities. It provides expert/ resource person and helps in registration of startup etc.
- Department has initiated to setup an incubation center to develop new ideas into products.

Publications

JOURNALS/CONFERENCES: -

- Priyanka Bhardwaj et. al published a paper titled ***"Integrated electro-optic tunable power splitter based on microring resonators having interleaved PN junctions,"*** Proc. SPIE 11364, Integrated Photonics Platforms: Fundamental Research, Manufacturing and Applications, July 2020.(SCI)
- Priyanka Bhardwaj et. al published a paper titled ***"FDTD modeling of integrated electro-optic modulators based on mode-gap shifting in photonic crystal slab waveguides containing a phase change material,"*** published in Journal of the Optical Society of America B, June 2020 (SCI)
- Priyanka Bhardwaj et.al. paper entitled ***"An Intelligent Scheme for Slot Reservation in Vehicular Ad Hoc Networks"***, accepted in China Communications. (SCI)
- Pallavie Tyagi, Khushbu Bansal, Sanjay Kr. Singh and Pushkar Praveen: Presented and published a paper titled ***"Differential Amplifier analysis on different technology nodes using Cadence Virtuoso"*** in International Conference on Smart Machine Intelligence and Real-Time Computing Smart Com, June 2020. (SCOPUS).
- Ranjeeta Yadav, Dr. Sanjay Kr. Singh, Pranavi Yadav and Nimish Nigam: Presented and published a paper titled ***"IOT based Advanced Weather Monitoring"*** in International Conference on Smart Machine Intelligence and Real-Time Computing, June 2020. (SCOPUS)
- Shailendra Bisariya, Sanjay Kr. Singh, Rishabh Aggarwal, Preeti Anand, Shaurya Garg: Presented and published a paper titled ***"Multifunction filter using Current Conveyor"*** in International Conference on Smart Machine Intelligence and Real-Time Computing SMART COM 2020, June 2020. (SCOPUS)
- Shailendra Bisariya, Preeti Anand, Rishabh Aggarwal: Presented a paper titled ***"Multifunction filter using Current Conveyor: a review"*** in International Conference on Futuristic Innovations in Technology and Engineering (FITE)-2020, November 2020. (SCOPUS)
- Shailendra Bisariya, Neelofer Afzal: published a paper titled ***"Design and Implementation of CDTA: a review"*** in SCI indexed Journal Sādhana (Published by the Indian Academy of Sciences)/ Springer India, September 2020, volume-45, issue-1, pp. 1-24.
- Shilpa Srivastava, Dr. Sanjay Kr Singh, Pushkar and Ashish Khare: Presented and published a paper titled ***"Social Distance Monitoring and Alarm System"*** in International Conference on Smart Machine Intelligence and Real-Time Computing Smart Com, June 2020. (SCOPUS)
- Himani Garg, Navneet Sharma, Manidipa Roy: Presented and published a paper titled ***"Interactive pH measurement system"*** in International Conference on Smart Machine Intelligence and Real-Time Computing Smart Com, June 2020. (SCOPUS)
- Tania Gupta, Dr. Richa Bhatia: Presented and published a paper titled ***"Communication Technologies in Smart Grid at Different Network Layer: An Overview"*** in IEEE International Conference on Intelligent Systems, August 2020. (SCOPUS)

- **Ranjeeta Yadav, Divya Mishra, Deepti Rawat, Himanshu Sharma, Tripti Mishra**, Presented and published a paper titled ***"Microcontroller based Monitoring and alert System"*** in International Conference on Smart Machine Intelligence and Real-Time Computing SMART COM 2020, June 2020. (SCOPUS)
- **Ajay Suri, Dr. Sanjay Kumar Singh, Rashi Sharma, Pragati Sharma, Naman Garg, Riya Upadhyaya**: Presented and published a paper titled ***"Development of Sign Language using Flex Sensors"*** in ICOSEC Sep-2020. (IEEE)
- **Prachi Kataria, Anuwarti Rai, Aanchal Singh, Ashwin Anand, Raman Kapoor and Sanjay Kr. Singh**: Presented and published a paper titled ***"Low Power VLSI Design of Arithmetic and Logic Circuits using Multiple Threshold CMOS Technique"*** in International Conference on Smart Machine Intelligence and Real-Time Computing, June 2020. (SCOPUS)
- **Priyanka Tyagi, Sanjay Singh and Piyush Dua**: Presented and published a paper titled ***"Design & Simulation of CNTFET based folded Cascade Op-Amp for Instrumentation Amplifier"*** in International Conference on Smart Machine Intelligence and Real-Time Computing, June 2020. (SCOPUS)
- **Priti Kumari and Sanjay Singh**: Presented and published a paper titled ***"Smart Irrigation System Using IoT"*** in International Conference on Smart Machine Intelligence and Real-Time Computing, June 2020. (SCOPUS)
- **Vijay Kumar, Sanjay Kumar Singh, Raman Kapoor**: Presented and published a paper titled ***"Static Noise Margin Analysis of 6T SRAM"*** in 2020 IEEE International Conference for Innovation in Technology (INOCON) Bengaluru, India. Nov 6-8, 2020. (IEEE)
- **Pragati Gupta, Akanksha Raj, Akshita Katiyar, Raman Kapoor* and Sanjay Kumar Singh**: Presented and published a paper titled ***"Arduino Based Smart Dustbin for Efficient Waste Segregation and Disposal"*** in Futuristic Innovations in Technology and Engineering (FITE-2020), 11-12 December 2020.
- **Abhishek Jaiswal, Animesh Mishra, Raman Kapoor and Sanjay Kumar Singh**: Presented and published a paper titled ***"FPGA based air quality monitoring system"*** in Futuristic Innovations in Technology and Engineering (FITE-2020), 11-12 December 2020.
- **Shailendra Bisariya, Raman Kapoor, Sanjay Kr. Singh, Pushkar Praveen**: Presented and published a paper titled ***"Design of Current Conveyor Trans-Conductance Amplifier for low power applications: A Review"*** in International Conference on Smart Machine Intelligence and Real-Time Computing SMART COM 2020, June 2020.
- **Shikhar Swarup Saxena, Shubham Sisodia, Vasu Singh, Hemant Vashistha, Arpita Johri**: Published a paper titled ***"Smart Prepaid Energy Meter System with Home Security Alert Features"*** in Journal of Energy, Environment & Carbon Credits, STM Journals, ISSN: 2249-8621, Volume-10, Issue -1, June 2020.
- **Manish**: Published a paper titled ***"Blooming of 3D to 5D printing technology in biomedical engineering"*** in International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) ISSN(P): 2249-6890; ISSN(E): 2249-8001, Vol. 10, Issue 3, Jun 2020, 5897-6000.
- **Khushbu Bansal, Pallavie, S.K Singh, Kriti mandal, Priyanka Saini and Sonia Sharma**: Presented and published a paper titled ***"Autonomous Car and Driver Drowsiness Detection using Face and eyes Detection Technique"*** in International Conference on Smart Machine Intelligence and Real-Time Computing Smart Com, June 2020.
- **Khushbu Bansal, Surbhi Singh, Spurti Shukla, Pallavie and S.K Singh**: Presented and published a paper titled ***"Design of 6T-sram on different technology nodes"*** in International Conference on Smart Machine Intelligence and Real-Time Computing Smart Com, June 2020.
- **Aditi Srivastava, Niharika Agarwal, Nishtha Ghai, Rashmi Jain, Tania Gupta, Dheeraj Singh**: Published a paper titled ***"Home Air Quality Monitoring System"*** in the international journal of analytical and experimental modal analysis, Volume XII, Issue VII, July/2020, Page No:651.
- **Geetanjali Raj, Sumit Gupta, Mohit, Shubham Singh**: Presented and published a paper titled ***"Smart Shoes for Blind"*** in International Conference on Smart Machine Intelligence and Real-Time Computing Smart Com, June 2020.
- **Priyanka Bhardwaj et.al** ***"IoT Based Smart Agriculture Aid System Using Raspberry Pi"***, International Journal of Recent Technology, Vol. 10 (5), pp. 274-278, June 2021

- **Priyanka Bhardwaj et.al “Effect of Atmospheric Turbulences on BPSK”**, International Journal of Recent Technology, Vol 10 (5), pp. 353-357, June 2021
- **Priyanka Bhardwaj et.al “BER of Various Modulation Techniques Under Atmospheric Turbulences”**, International Journal of Engineering and advanced Technology, Vol 10 (5), pp. 302-307, June 2021
- **Priyanka Bhardwaj et.al “Soldier Health and Position Tracking system using IOT, GSM and GPS module”**, International Journal of Research and Analytical Reviews, Vol. 8 (2), ISSN-2349-5138, pp-959-966, June 2021
- **Priyanka Bhardwaj et.al. “IOT based Smart Agriculture Aid System”**, International Journal of Research and Analytical Reviews, Vol. 8 (2), ISSN 2349-5138, pp-562-566, June 2021
- **Priyanka Bhardwaj et.al. “Review of various modulation techniques for optical wireless communication System”**, International Journal of Research and Analytical Reviews, Vol. 8 (2), ISSN 2349-5138, pp-86-89, June 2021.
- **Shailendra Bisariya, Neelofer Afzal, “Design and implementation of CCTA for Low Power Applications: a Review”**, Recent Advances in Electrical & Electronic Engineering (benthamscience), Vol.14 (4), ISSN 2352-0973, pp.-406-414, Jan. 2021.
- **Manidipa Roy, Rehan Sharma, Mansi Chopra, Himanshu Yadav, Pratishtha Singh, “Bandwidth Enhancement Of Patch Antenna Using Defected Ground Structure”**, Zeichen Journal, Vol.7 (7), pp. 231-238, 2021
- **Manidipa Roy, Durgesh Nandini, Priya Verma, Anshu Sharma, Nishant Raghav, “Condition Monitoring Of Soil For Cultivation Of Crops”**, Zeichen Journal, Vol.7 (6), pp. 451-462, 2021
- **Manidipa Roy, Rahul Pal, Deepak Vishwakarma, Praveen Kumar Pal, Radheyshyam Maurya, “Gesture Controlled Wheelchair Along with Home Automation”**, Zeichen Journal, Vol.7 (6), pp. 298-311, 2021
- **Saini S.K., Gupta R, “Artificial Intelligence methods for analysis of Electrocardiogram Signals for Cardiac Abnormalities: state-of-the-art and Future Challenges”**, Artificial Intelligence Review Rev, <https://doi.org/10.1007/s10462-021-09999-7>, April 2021
- **Ranjeeta Yadav, Upasana Sharma, Anjana Bhardwaj “Appearance Tracking Framework Using GSM”** presented a paper in International Conference on Artificial Intelligence and Sustainable Engineering (AISE-2020), January 2021
- **Shivam Pathak, Shivam, Tarun Yadav, Ashish Gupta, “Remote Monitoring of Agriculture Sector using IOT”**, International Journal of Aquatic Science, ISSN 2008-8019, Vol 12 (2), pp. 1373-1379, 2021
- **Surekha Ghangas et al. “Detection of Temperature in Server Rooms using WSN”**, International Journal of Creative Research Thoughts, Vol. 9 (5), ISSN 2320-2882, pp- i103-i109, May 2021
- **Devvrat Tyagi, Rajesh Kumar, “Rhythm Identification and Classification for Electrocardiogram Signals using Feature Cluster Framework Classifier”**, International Journal of Advanced Research in Engineering and Technology, Vol. 12(1), pp. 199-208, 2021.
- **Devvrat Tyagi, Ashish Gupta et al., “Analysis of Linear Quantization based Wavelet Decomposition Technique for Electrocardiogram Signal Compression”** International Journal of Electrical Engineering and Technology, Vol 12 (1), pp. 118-130, 2021.
- **Devvrat Tyagi, Rajesh Kumar, “Identification of QRS Segments of Electrocardiogram signals using Feature Extraction”**, International Conference for Convergence in Technology (I2CT), doi: 10.1109/I2CT51068.2021.9417869, pp. 1-5, 2021
- **Devvrat Tyagi, Sachin Kumar and Rajesh Kumar, “Multifunctional Antenna Design for Internet of Things Applications”** International Conference on Advanced Computing and Communication Systems (ICACCS), pp. 557-560, 2021
- **Ashish Gupta, Rajesh Kumar and Devvrat Tyagi, “Wireless sensor network for IoT based ECG monitoring system using NRF and LabVIEW”**, Multimodal biometric system: security and applications, CRC press, 2021
- **Geetanjali Raj, Ranjeeta Yadav, Vishal Kumar Singh, “GSM Appliance Control Prototypes for Smart Classrooms”** presented a paper in International Conference on Artificial Intelligence and Sustainable Engineering (AISE-2020), January 2021

- **Geetanjali Raj, Ranjeeta Yadav, Upasana Sharma, Anjana Bhardwaj, "Hassle free Food Ordering Superintendence"**, presented a paper in International Conference on Artificial Intelligence and Sustainable Engineering (AISE-2020), January 2021
- **Geetanjali Raj, Kriti Kulshrestha, Ritu Kumari, Saloni Garg, Swati Adhikari, "Charecteristics Review Of BOC Modulation Including Its Acquisition & Tracking Schemes"** presented a paper in International Conference on Advances in Applied Sciences (AASET-2021), May 2021
- **Geetanjali Raj, Shubham Malpani, Shrishti Gupta, Shreyanshi Agarwal, Mohd. Alam, "Reviewing The Pid Based Technologies Behind Two Wheel Balancing Robot"** presented a paper in International Conference on Advances in Applied Sciences (AASET-2021), May 2021
- **Rehan Sharma, Mansi Chopra, Himanshu Yadav, Pratishtha Singh, Manidipa Roy, "Review: Bandwidth Enhancement of Patch Antenna using Defected Ground Structure"**, International Journal of Research and Analytical Reviews, Vol.8 (6), May 2021
- **Radheyshyam Maurya, Deepak Vishwakarma, Praveen Kumar Pal, Rahul Pal, Manidipa Roy, "Review: Gesture controlled wheelchair with home automation"**, International Journal of Research and Analytical Reviews, Vol.8 (2), pp.607-611, May 2021
- **Durgesh Nandini, Priya Verma, Anshu Sharma, Nishant Raghav, Manidipa Roy, "Review: Condition Monitoring of Soil for Cultivation of Crops"**, International Journal of Research and Analytical Reviews, Vol.8 (6), pp. 581-594, May 2021
- **Saksham Jain, Sanya Aggarwal, Satakshi Tiwari, Siddharth Srivastava, Khushbu Bansal, Sanjay Kumar Singh, "Android Controlled Robot"** presented a paper in International Conference on Recent Trends in Parallel and Distributed Processing Techniques (RTPDP-2021), July 2021
- **Manish, Katiyar D, "Blockchain technology in management of clinical trials: A review of its applications, regulatory concerns and challenges"**, International Journal of Pharmaceutical Sciences and Research, Vol. 12(6), pp 2982-2994, 2021
- **Katiyar D, Manish, "Strategies of traditional systems of medicine combating with the Current pandemic situation of Covid-19"**, International Journal of Pharmaceutical Sciences and Research, Vol 12(8), pp. 2982-2994, June 2021
- **Dishi Saxena, Divyansoo Saxena, Akshit Kumar, Madhur Singh Siwal, Arpita Johri, "Automatic Billing Cart using RFID & Zigbee"**, International Journal of Research & Analytical Reviews, ISSN 2348-1269, Vol 8 (2), June 2021.
- **Devesh Sharma, Aakash Sharma, Akash Tiwari, Abhishek Singh, Arpita Johri, "IoT based Home Security System"**, International Journal of Research & Analytical Reviews, ISSN 2348-1269, Vol 8 (2), May 2021.
- **Harish Pratap Rana, Ankita Singhal, Muskan Mittal, Nanditi Tandon, Mudit Saxena, "Smart Highway"**, Gradiva Review Journal, ISSN 0363-8057, Vol 7 (5), May 2021.
- **Aastha Yadav, Aditi, Utkarsh Yadav, Vartika Rai, Mudit Saxena, "Outdoor Navigation System for Visually Impaired"**, International Journal of Research & Analytical Reviews, ISSN 2349-5138, Vol 8 (2), May 2021.
- **Aastha Yadav, Aditi, Utkarsh Yadav, Vartika Rai, Mudit Saxena, "A Novel Navigation Syetem To Assist Visually Impaired"** Gradiva Review Journal, ISSN 0363-8057, Volume 7 (6), June 2021

BOOK CHAPTERS: -

- **Upasana Sharma, Shruti Parashar, Pratham Jadoun , Piyush Katiyar , Rishabh Varshney, "Iot-Enabled Air Pollution Meter With Digital Dashboard On Smartphone"** Recent Trends in Communication and Electronics, CRC Press, Taylor and Francis Group, ISBN 978-1-032-04572-6, pp. 19-23, 2021
- **Upasana Sharma, Akash Gupta, Swati Khantwal, Vipin Kumar, Vipin Singh, "Soil Moisture Sensor Based Automatic Irrigation Water Pump Controlling System with GSM Technology"** Recent Trends in Communication and Electronics, CRC Press,
- **Pallavie Tyagi et. al, "Bandwidth & Gain Enhancement of Circular MPA Using Twin Layer Stacked Antenna"** Lecture Notes in Electrical Engineering, Volume 756, pp. 605-615, ISBN 978-981-16-0749-3, May 2021.

- **Dheeraj Singh, Tania Gupta et. al** “Implementation of Audio Image Steganography-A Technique to Secure Data”, Lecture Notes on Data Engineering and Communications Technologies, Vol. 62, pp. 579-590, April 2021 Taylor and Francis Group, ISBN 978-1-032-04572-6, pp. 14-18, 2021
- **Md Shahbaz Alam**, “Design of AGC Circuits for Oscillator using Current Conveyor Based Trans-Linear Loops” Taylor and Francis Group, ISBN 978-1-032-04572-6, pp. 349-354, 2021
- **Md Shahbaz Alam, Chhavi Puri, Priyansh Tyagi, Sia Saini, Yash Kumar**, "Monitoring System for Health" Taylor and Francis Group, ISBN 978-1-032-04572-6, pp. 251-255, 2021
- **Md Shahbaz Alam, Gaurav Dwivedi, Abhinav Gangwar, Sachin Rajput, Abdullah**, “Heart Detection and Monitoring by IOT” Taylor and Francis Group, ISBN 978-1-032-04572-6, pp. 88-92, 2021
- **Dr. Priyanka Bhardwaj** published book chapter having title “An Overview of ADAS in the Internet of Vehicles” in book, title “Internet of Vehicles and its Applications in Autonomous Driving” published by Springer Nature, Switzerland, ISSN 2523-3734, <https://doi.org/10.1007/978-3-030-46335-9>.
- **Dr. Priyanka Bhardwaj** published book chapter having title “Implementation and Computational Level Challenges for IoT in healthcare Applications” in book, title “IoT and ICT for Healthcare Applications” published by Springer Nature, Switzerland, ISSN 2522-8595, <https://doi.org/10.1007/978-3-030-42934-8>.
- **Dr. Priyanka Bhardwaj** published book chapter having title “Augmented intelligence and EDGE Computing: Introduction and Trending Features” in book, title “Augmented intelligence Towards Smart Vehicle Applications” published by Taylor & Francis, ISBN 9781003006817, <https://doi.org/10.1201/9781003006817>.

Patents

- **Dr. Sanjay Kumar Singh, Dr. Himani, Ms. Rakhi Kumari, Ms. Shilpa Srivastava, Mr. Rajnesh Kumar**: Published a patent titled “**SMART DIGITAL COLORIMETER**”.
- **Dr. Priyanka Bhardwaj Teggina Math Kotresh, Rajib Ratan Ghosh, Anuj Dhawan**: Published and granted US Patent titled “**BROADBAND OPTICAL MODULATORS**”.
- **Dr. Himani Garg, Ms. Arpita Johri, Ms. Manidipa Roy, Ms. Rakhi Kumari, Dr. Sanjay Kumar Singh**: Published a patent titled “**SYSTEM AND METHOD FOR POLLUTION LEVEL BASED ACTION DETERMINATION**”.
- **Ms. Ranjeeta Yadav, Ms. Geetanjali Raj, Ms. Anjana Bhardwaj, Dr. Sanjay Kumar Singh, Ms. Akansha, Mr. Devesh Sonker**: Published a patent titled “**SYSTEM AND METHOD FOR ROBOT ASSISTING PATIENT**”.
- **Mr. Rajneesh Kumar Singh**: Published a patent titled “**METHOD FOR RESTRICTION OF DOOR OPENING IN MOTOR VEHICLE**”.
- **Dr. Manidipa Roy, Ms. Rakhi Kumari, Dr. Sanjay Kumar Singh, Mohd. Imran Khan**: Published a patent titled “**SIGN LANGUAGE RECOGNITION INTO MULTIPLE LANGUAGES AND TEXT TO IMAGE OUTPUT FOR SIGNS**”.
- **Mr. Rajneesh Kumar Singh**: Published a patent titled “**DEVICE FOR LIFTING AND POSITIONING WHEEL IN AUTOMATIVE VEHICLE**”.

3. EEC (Employability Enhancement Cell)

The Purposes and Outcomes of EEC are:

- EEC members counsel students one by one, discuss their interests and assign them domain.
- To explore new opportunities and technologies.
- To enhance the confidence level of students

- To understand and fulfill the requirements of the industry
- Students are more confident and groomed for placement drives

Step1: - Employability Enhancement Cell (EEC) has been formulated in the Dept. with the following objectives:

- To segregate the students, domain wise depending upon their skills and interest.

- To provide training and guidance to students on the various aspects of building successful a career by meeting the demand of the industries.
- To assist them in exploring new opportunities and new technologies.
- Guide the students in developing skills and job search strategies required to achieve their career objectives.
- To organize various types and levels of in-house training programs and extension programs to achieve the goals.

Step2: - Employability Enhancement Cell (EEC) follows the following procedure to fulfil the above objectives.

- The students get promoted to the Second Year of ECE.
- The EEC gives a presentation to introduce the objectives and procedure of EEC.
- The students fill up an EEC data form in which they write about their interests and the skill set acquired (if any).
- It is followed by counseling and interview session of students by HOD and EEC Members.
- As per their interest, the students are segregated into IT Domain & EC Domain.
 - Microelectronics Domain (SOC based software field)
 - Devices Domain
 - Communication Domain
 - Applications Domain (Embedded and IoT)
 - Sales & Service Domain
 - Operation & Maintenance Domain
 - Public sector and higher education Domain
- After the required training is completely up to the 3rd year, the students are allocated major projects depending upon their selected domain and it is mandatory for them to do at least one publication.

- To prepare projects that are as per recent trends and technology
- To meet the requirements of the industry (Placement Support)
- MoUs with core companies
- Consultancy Projects
- To encourage new Start-ups and Entrepreneurship

In 2020-21, 26 students have been offered confirmed placement in Truechip.

Webinar-Series on A pathway for preparing budding Engineers to unlock corporate world options

The Industrial Collaboration Cell of the Department of Electronics & Communication Engineering at ABES Engineering College, Ghaziabad organized a **Webinar-series** (comprising of 15-Webinars) on the topic “**A pathway for preparing budding Engineers to unlock corporate world options**” from 19th May 2021 to 17/07/2021.

The Webinar-series was scheduled for the students of B.Tech Third year ECE. The above program was conducted by a group of Industrial professionals from the devices field, SOC-based software field, IT field etc. These professionals represented various renowned groups such as Cadence, Capgemini, Cognizant, HCL, Infosys, TCS, NTT data, Truechip, Synopsis, Cisco, Tech, Mahindra etc.

The prime objective of the Webinar-series includes: Discussion of company profiles, criteria for selection in a specific company.

- Discussion of guidelines/required technical skillset and written test preparation techniques/format.
- Detailing students regarding various techniques for company-centric interviews.
- Discussion of various job profiles offered by various companies and their relevance for ECE students.

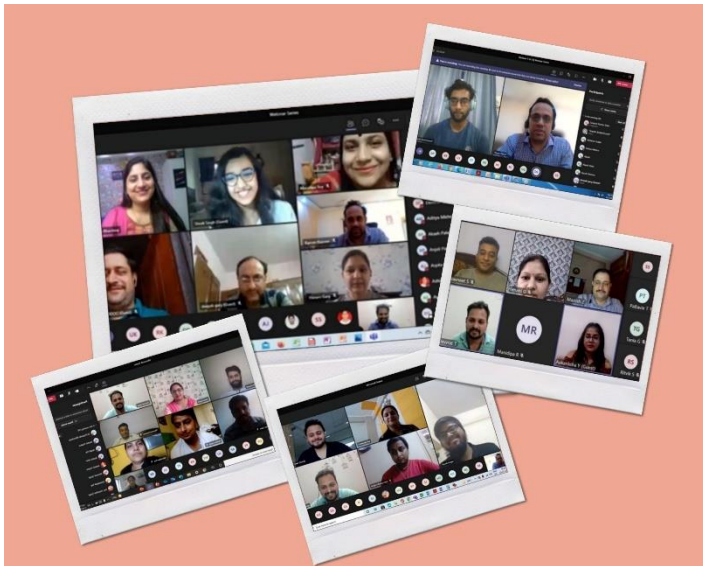
The target audience developed an insight into the available career options and opportunities offered by the corporate world. Furthermore, the audience precisely understood the interview techniques and cracking various written tests of various companies.

4. Industry Connect Program

The Purposes & Outcomes of IARC are:

To build the gap between Industry and academia with the help of the following fields: -

Sr. No.	Date	Resource Person	Designation /Company
1	19/05/2021	Mr. Kunal Tyagi	Software Engineer, Capgemini
2	22/05/2021	Ms. Shivangi Arora	Sr. Academic Mentor, Extramarks Education India Pvt. Ltd.
3	29/05/2021	Ms. Shruti Singh	Data Analyst, Ernst & Young Global Limited
4	29/05/2021	Mohd. Imran Khan	Design Specialist Engineer, Infosys Limited.
5	12/06/2021	Mr. Divyansh Bhatt	Senior Software Developer, NTT Data Global Delivery service.
6	12/06/2021	Mr. Sparsh Jindal	Design Engineer, Truechip.
7	19/06/2021	Ms. Akanksha Yadav	Assistant System Engineer, TCS
8	19/06/2021	Mr. Shubham Kumar	Program Analyst Trainee, Cognizant Technology Solutions
9	26/06/2021	Mr. Ayush Dixit	SoC Modelling Engineer, Circuitsutra
10	26/06/2021	Mr. Bhargav Kaushik	Software Engineer, HCL Technologies.
11	03/07/2021	Mr. Kanchit Sharma	Software Engineer, Qualcomm.
12	03/07/2021	Mr. Prabhash Tiwari	Embedded Software Engineer, VVDN Technologies Pvt. Ltd.
13	10/07/2021	Mr. Prakhar Srivastava	Senior software Developer ,Fiserv.
14	10/07/2021	Mr. Satyam Malik	Layout Engineer, Elbrus Labs Pvt. Ltd.
15	17/07/2021	Mr. Akshat Aggarwal	Associate Engineer, Nagarro.



Webinar-series “A pathway for preparing budding Engineers to unlock corporate world options”

MoU

A Memorandum of Understanding between two companies for starting a new business is a legally binding agreement that is on paper. It is essentially a handshake on paper that displays each party's intent to agree or do business with one another. We are always seeking to establish an official partnership with the industries and research organizations. That helps our students in terms of industrial exposure and placements.

- Automation Engineers. A.B.PVT.Ltd
- Marvel Innovative systems & Technology
- Aim Electronics
- Optimum Viking Satcom (India) Pvt Ltd
- RSA power Pvt. Ltd.
- Strolar Pv Mounting Solutions
- System Infra Pvt Ltd. New Delhi

- The Tag Factory, Noida
- Intex Tech. Ltd., Gurugram



MoU with OPTIMUM VIKING SATCOM



MoU with System Infra Pvt Ltd.

Industrial Visit

- Deki Electronics Pvt Ltd, Noida on 07/02/2020.



Deki Electronics Pvt Ltd, Noida

5. EDAC (Electronic Design & Consultancy Cell)

The Purposes & Outcomes of EDAC are:

- The purpose of EDAC is the Design & development of products based on ideas received from industries.
- Offering commercially viable solutions best suited for industries in terms of cost, optimization & technological edge keeping in view various quality parameters.
- Offering project consultancy to those industries that cannot afford to set up R & D centers on their own, due to monetary constraints thereby promoting industrial development.
- Creating an in-house ecosystem encouraging industrial exposure to students' product development at the college level to make them industry-ready and globally competent.
- EDAC has successfully commissioned several consultancy projects.

Dr Himani Garg, Ms. Rakhi Kumari, Ms Manidipa Roy, Mr. Navneet Sharma, Ms Shilpa Srivastava, Mr. Rajneesh, Mr. Rajkumar & Mr. Sanjay Sharma has successfully completed and delivered two consultancy projects namely "**Systems and methods for calibration of PH meter**" and "**Smart Colorimeter**" to AIM Electronics & Scientific Co. AIM Electronics & Scientific Co. was established in the year 1980, located at Ambala Cantt and is a top player in the field of Scientific Instrument Manufacturers.



Projects Delivered in 2020-21 under COE Optical, Antenna and Microwave Engineering Lab

S.No	Name of the project received	Client	Consultancy fee charged	Faculty/Staff Members Involved
1	Fabrication of Antenna Array	MJP Rohilkhand University, Uttar Pradesh	700/-	<u>Coordinator & Mentor</u> 1.Dr. Priyanka Bhardwaj 2. Dr. Manidipa Roy <u>Core-Members</u> 1.Mr. Navneet Sharma 2.Ms.Rakhi Kumari <u>Staff-members</u> 1.Mr.Raj Kumar 2.Mr.Amit Kumar
2	Design of Multiband Resonator Antenna using Dielectric Resonator	IP University, Delhi	4000/-	
3	Design of Multiband Antenna using DRA	IP University, Delhi	5000/-	

6. Electronics ICU

Electronic ICU (For the consultancy projects, provided by different companies and for R&D purposes)

The Purposes & Outcomes of Electronic ICU are:

- To cater to the servicing requirements of electronic equipment of various labs running in ABES EC.
- Troubleshooting and component-level fault diagnosis of electronic equipment.
- Execution of funded projects obtained from various Governments and Non-Government agencies.
- Development of prototypes of various suggested solutions for different agencies.
- All the job of repairing any equipment is to be done in an electronic ICU

7. In House Training

Continuous technical training is crucial for any institution to improve the technical competence of its students. Professionally trained employees can assist the management and propose new ways to develop their companies to operate at a lesser cost or provide new and more competitive services. To achieve that the EEC team of the ECE Dept. along with the Center of Building Skills and Employability (CBSE) conducted in-house

training programs frequently to bridge the gap between theory and practical scenarios. Technical Training through ECE Dept. and CBSE helps organizations to hire pre-trained resources from ABES Engineering College.

- INDUSTRIAL AUTOMATION PLC & ELECTRO PNEUMATICS
- RF AND MICROWAVE DEVICES
- SIGNAL PROCESSING USING NI-LABVIEW
- VLSI DESIGN AND TECHNOLOGY
- EMBEDDED SYSTEMS AND IOT
- ANALOG AND DIGITAL ELECTRONICS

8. Faculty & Staff Development Activities

GUEST LECTURES

- **Dr. R.P. Pushkar** [Senior Lecturer & Chief Co-ordinator (Hon.) of ASPEUS Prayagraj,] delivered a lecture to all faculty, staff and students on “**Acupressure & color therapy to boost immunity and oxygen**” on 18th June 2021.
- **Mr. Rohit Phutela** [Manager Marketing & Technical Services, Automation Engineers. B

- Pvt. Ltd] delivered a lecture to students of 3rd Year and 4th year on topic **“A Revolution in Manufacturing - Industrial Automation”** on 18th March 2021.
- **Rahul Pathak** [Expert, Artificial Intelligence & Deep Learning] delivered a lecture to faculty and staff in a faculty seminar on **“Artificial Intelligence”** on 1st July 2020.
 - **Mr. Shashank Joshi** [Technical Architect, Technical Excellence Group] delivered a lecture to faculty and staff in a faculty seminar on **“Prediction using Graph Modelling”** on 2nd July 2020.
 - **Mr. Ravi Kumar Mathur** [Assistant Director-General, National Telecommunication Institute for Policy Research Innovation & Training (NTIPRIT), Ministry of Communications, Ghaziabad] delivered a lecture to faculty and staff in a faculty seminar on **“Introduction to Blockchain”** on 3rd July 2020.
 - **Ms. Niyoti Saxena** [Data Engineer, Bizmetric] delivered a lecture to faculty and staff in faculty seminar on **“Journey from College to Corporate”** on 4th July 2020.
 - **Mr. Rajat Bansal** [Design Engineer, KeenHeads Technologies, Pvt. Ltd] delivered a lecture to faculty and staff in faculty seminar on **“Design to Manufacturing in VLSI”** on 5th July 2020.
 - **Mr. Piyush Ranjan** [Research Scholar, Indian Institute of Science, Bangalore] delivered a lecture to faculty and staff in faculty seminar on **“Research Opportunities after GATE in India's Premiere Institutions”** on 6th July 2020.
 - **Ms. Aayushi Jain** [Senior Consultant, Adobe Systems India] delivered a lecture to faculty and staff in faculty seminar on **“Business Intelligence and Analytics”** on 7th July 2020.
 - **Mr. Sharad Maurya** [Director, Career Voyage Consulting], **Mr. Ankur Sharan** [Director, 4Track Learning], **Ms. Golda Malhotra** [Country Manager, FRENCH EMBASSY IN INDIA, NPLUSI Engineering Consortium] delivered lecture to faculty and staff in faculty seminar on **“Study Abroad- Global Opportunities after Engineering”** on 8th July 2020.
 - **Ms Geetika Singh** [A & MS Layout Engineer, Synopsys] delivered a lecture to faculty and staff in faculty seminar on **“CMOS Standard Cell Design and PPA Concept”** on 10th July 2020.
 - **Mr Sunil Pandey** [Senior Analog Design Engineer, Intel, Bangalore] delivered a lecture to faculty and staff in faculty seminar on **“Design & Analysis of Low noise Amplifier (LNA) for Ultra-Wideband Applications”** on 11th July 2020.
 - **Dr. Anju Khandelwal** [SRMS College of Engineering & Technology, Bareilly], **Dr. Vikrmaditya Dave** [Deptt. Of Electrical Engineering, CTAE, MPUT, University, Udaipur], **Dr. Vishal Kaushik** [Deptt. of Computer Engineering, Petroleum & Energy Studies University, Dehradun], **Dr. Yogesh V. Hote** [Associate Professor, Deptt. Of Electrical Engineering, IIT Roorkee], **Dr. Madhu Jain** [Associate Professor, Deptt. Of Mathematics, IIT Roorkee] delivered a lecture in National Seminar on **“Use of Scientific Terminology in Higher Education”** in association with Commission for Scientific and Technical Terminology, Ministry of Human Resource Development, Government of India, New Delhi on 21st and 22nd July 2020.
 - **Mr. Shivam Rai** [Analyst, GlobalLogic Tech. India Pvt. Ltd., Gurgaon] delivered a lecture to faculty and staff in Online Alumni Interaction Program on **“Industry Insights & Career Opportunities”** on 24th December 2020.

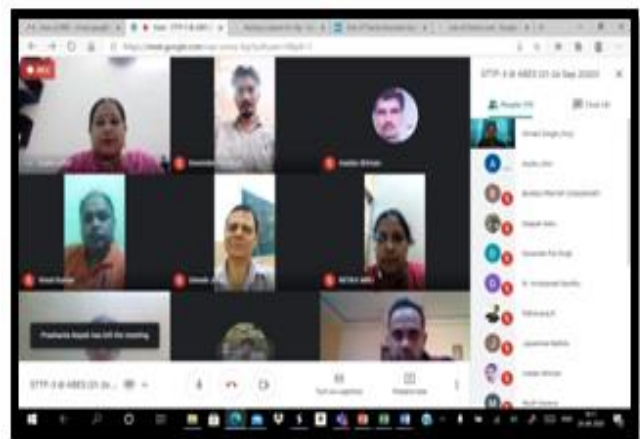
WORKSHOPS

- Workshop on **“Combating stress over life in this pandemic time”** on 24th May 2021.
- Workshop on **“Advanced Application of Antenna Design & Fabrication Using HFSS”** on 11th January 2021

- Workshop on **Vector Network Analyzer (VNA)** on 2nd Dec, 2020.
- Workshop on **Computational Simulation tool (RF & Microwave)** on 4th Dec, 2020.
- Workshop on **PCB machine** on 7th Dec, 2020.



Workshop on PCB machine



Faculty Development Program (FDPs)

- FDP on **"Analog IC Design using CADENCE EDA tools"** on 2nd Dec, 2020.
- FDP on **"Digital ASIC Design using CADENCE EDA tools"** on 2nd Dec, 2020.
- FDP on **"FPGA Design and Implementation on Xilinx tools"** on 2nd Dec, 2020.
- FDP on **"Design and simulation of semiconductor devices"** on 2nd Dec, 2020.



REQUIZA CLUB

- **Requiza** the Technical Society of Department of Electronics & Communication Engineering in association with the **Indian Society of Technical Education (ISTE)** successfully organized **"Buzz-In-1"** a Quiz Competition on 17th, 18th, and 19th June 2021 for the students of B.Tech of all Branches.

9. Funding

The purpose of the funding cell is to fetch projects from Industries, MSME, DST, AKTU and Government-funded projects. With the help of funding, different curriculum labs are modernized like communication lab, VLSI lab etc. and new advanced labs are developed like WSN, Wireless sensor network, RF and Microwave etc.

Recently Applied Projects

- Smart home automation control by eye blinking signals and steady-state visually evoked potential
- Monitoring and Mitigation of hazardous waste in the biosphere
- Recent trends in communication and networking with hands-on NS 3 and Netlist
- Vigyan mela for under privileged/ EWS children
- Constitution of children's forum for scientific research and innovation

10. Student Achievements

RESULT: -

- Final year student, Nandini Final year student, **Aanchal Chauhan** (Session 2020 – 2021, Odd), secured **1st** rank having **9.04** SGPA in B-Tech (ECE) at the college level.
- Final year student, **Aditi** (Session 2020 – 2021, Odd), secured **2nd** rank having **8.96** SGPA in B-Tech (ECE) at the college level.
- Third year student, **Shristi** (Session 2019-2020, Odd), secured **1st** rank having **8.73** SGPA in B-Tech (ECE) at the college level.
- Third year student, **Pratibha Singh** and **Sanskriti Srivastava** jointly (Session 2019-2020, Odd), secured **2nd** rank having **8.68** SGPA in B-Tech (ECE) at the college level.
- Second year student, **Sakshi Gupta** (Session 2019-2020, Odd), secured **1st** rank having **9.18** SGPA in B-Tech (ECE) at the college level.
- Second year student, **Devanshi Chauhan** (Session 2019-2020, Odd), secured **2nd** rank having **9.0** SGPA in B-Tech (ECE) at the college level.

- Mittal (Session 2019 – 2020), secured 1st rank having 9.05 YGPA in B-Tech(ECE) at the college level.
- Final year student, Rashika Shukla (Session 2019-2020), secured 2nd rank having 9.03 YGPA in B.Tech(ECE) at the college level.
- Third year student, Nandini Tandon (Session 2019-2020), secured 1st rank having 9.25 YGPA in B.Tech(ECE) at the college level.
- Third year student, Nandini Chaudhary (Session 2019-2020), secured 2nd rank having 9.15 YGPA in B.Tech(ECE) at the college level.
- Second year student, Shivani Singh (Session 2019-2020), secured 1st rank having 8.9 YGPA in B.Tech(ECE) at the college level.
- Second year student, Pratibha Singh (Session 2019-2020), secured 2nd rank having 8.88 YGPA in B.Tech(ECE) at the college level.



ACHIEVERS: -

- **Shivangi Aggarwal** of **2018-22** batch had achieved **5 Star** in **Python** in **Hackerrank**.
- **Shivangi Aggarwal** of **2018-22** batch has completed **practical task modules in: Crack Leaked Password Database** under **Engineering Virtual Program of Forage** from June –July 2021.

- **Shivangi Aggarwal** of **2018-22** batch has completed a **Machine Learning Workshop** from **Coding Blocks**.
- **Shivam Srivastava** of **2018-22** batch has completed a Short-Term Course on “**Data Analytics and Predictive Technologies**” organized by **I-DAPT HUB Foundation, IIT (BHU), Varanasi** during 5th to 10th July 2021.
- **Shivam Srivastava** of **2018-22** batch has completed **practical task modules in: Crack Leaked Password Database** under **Engineering Virtual Program of Forge** from June –July 2021.
- **Utkarsh Goel** of **2019-23** batch has secured **37th** rank in **Technical Writing Event of Geeks for Geeks**.
- **Aditya Saxena** of **2018-22** batch has successfully completed Certification Course on **Artificial Intelligence + Machine Learning** from **IIT Kanpur**
- **Govind Sharma, Akshay Mishra, Sumit Agrahari & Rishabh Panday** qualified GATE examination (2019-2020).
- **Aiman Rehman** qualified IELET examination (2019-2020).

EXTRA-CURRICULAR ACTIVITIES

- **Team of Shadaj Tiwari** got 1st position in Battle of Bands & Band Wars in Dr A.P.J. Abdul Kalam Arts and Cultural Fest 2020 (Zonal and State) for Cultural activities at University level.
- **Team of Swati Khantwal** got 1st position in Poster making in Dr A.P.J. Abdul Kalam Arts and Cultural Fest 2020 (Zonal and State) for Cultural activities at University level.
- **Team of Swati Kushwaha** got 1st position in Poster making in Dr A.P.J. Abdul Kalam Arts and Cultural Fest 2020 (Zonal and State) for Cultural activities at University level.
- **Team of Shailendra Kumar** got 3rd Position in 4X100m Relay Inter College Sport Fest in KIET 1 for sports activities at University level.
- **Team of Anushka Yadav** got 1st position in 4X100m Relay in VIT, Gautam Budh Nagar, Dr

A.P.J. Abdul Kalam Sports Fest 2020 (Zonal and State) for sports activities at University level.

- **Team of Keyuri Gupta** got 3rd position in College League in Jaipuria Institute of Management for cultural activities at College level.
- **Team of Anirudh** got 1st Position in Football in All India Sport Fest in IMS College for sports activities at University level.
- **Team of Anushka Yadav** got 3rd position in 4X400m Relay in Dr A.P.J. Abdul Kalam Sports Fest 2020 (Zonal and State) for sports activities at University level.
- **Team of Anushka Yadav** got 1st position in 4X100m Relay in BBNIT, Lucknow, Dr A.P.J. Abdul Kalam Sports Fest 2020 (Zonal and State) for sports activities at University level.
- **Team of Anushka Yadav** got 1st position in 4X100m Girls Relay Race in RANN,2020 in KIET Ghaziabad for sports activities at University level.
- **Team of Anushka Yadav** got 1st position in 4X100m Girls Relay Race in Harcourt Butler University for sports activities at University level.
- **Anushka Yadav** got 2nd position in 200m Athletics in Dr A.P.J. Abdul Kalam Arts and Cultural Fest 2020 (Zonal and State) for sports activities at University level.
- **Shailendra Kumar** got 1st Position in Long Jump in Inter College Sport Fest in KIET for sports activities at University level.
- **Anushka Yadav** got 3rd position in 100m Race in RANN,2020 in KIET Ghaziabad for sports activities at University level.
- **Anushka Yadav** got 1st position in 200m Race in RANN,2020 in KIET Ghaziabad for sports activities at University level.
- **Anushka Yadav** got 2nd (Runner Up) position in 100m Race in Harcourt Butler

University for sports activities at University level.

- **Shailendra Kumar** got 1st Position in 100m Race in Sports Sub Council in Harcourt Butler University for sports activities at University level.
- **Shailendra Kumar** got 1st Position in Long Jump in Sports Sub Council in Harcourt Butler University for sports activities at University level.

11. Faculty Achievements

AWARDS

- **Dr. Priyanka Bhardwaj**, has been felicitated with "**Maulana Abdul Kalam Azad, Excellence award of Education 2020**" by Honorable Chairman AICTE **Prof. Anil D. Sahasrabudhe** at **NCERT, New Delhi** and she is one among the 33 faculty members from all over India receiving this award in 2020.
- **Dr. Himani Garg**, Professor, Department of Electronics & Communication Engineering, ABESEC received "**Best Teacher Award 2020**" by AKTU Lucknow.
- **Ms. Ranjeeta Yadav** received a **Certificate of Appreciation from Texas Instruments** for the successful completion of NPTEL MOOC course on "**TI Embedded System Design using MSP430 MCU 2020**".



**Maulana Abdul Kalam Azad, Excellence award
Best Teacher Award by AKTU**



**Certificate of Appreciation from Texas
Instruments NPTEL MOOC**

YOUTUBE SERIES

- **Mr. Dheeraj Singh** completed lecture series on "**Network Analysis & Synthesis**" for AKTU Digital Education Channel on YouTube.
- **Ms. Rakhi Kumari** completed lecture series on "**Optical Communication**" for AKTU Digital Education Channel on YouTube.



PhD AWARDED

- **Dr. Manish Zadoo:** Completed his PhD Degree from **Faculty of Engineering & Technology, Mewar University Gangrar Chittorgarh, Rajasthan**. His Thesis Title is **Microstrip Filter Design Using Periodic Defects in Microstrip Circuits**.
- **Dr. Manidipa Roy:** Completed her PhD Degree from **Guru Gobind Singh Indraprastha University, New Delhi**. Her Thesis Title is **Some investigations on techniques to suppress surface wave propagation in circularly polarized microstrip patch antenna**.
- **Dr. Devvrat Tyagi:** Completed his PhD Degree from **NERIST, Arunachal Pradesh**. His Thesis Title is **Design and Development of Classifier for Detection and Identification of Quality ECG Signals**.
- **Dr. Ashish Gupta:** Completed his PhD Degree from **NERIST, Arunachal Pradesh**. His Thesis Title is **A Novel Design and Performance Analysis of IoT Based Intelligent Sensor Node for Intensive Care Unit Using Labview**.

CERTIFICATIONS (NPTEL, COURSERA etc.)

- **Dr. Raman Kapoor:** Completed Certification course on **Introduction to VHDL (Udemy)** on 13th May 2021
- **Mr. Deepak Garg:** Completed NPTEL course on **Effective Engineering Teaching in Practice and Patent Drafting for Beginners**.
- **Dr. Raman Kapoor:** Completed NPTEL course on **Semiconductor Devices and Circuits**.
- **Ms. Ranjeeta Yadav:** Completed COURSERA course on the **Arduino Platform and C Programming**.

As a Resource Person

- **Dr. Priyanka Bhardwaj:** Served as a **Resource Person** for the FDP on **Emerging Trends in**

Electronics and Communication Engineering at **BVCOE, New Delhi** from 12th to 16th July 2021.

- **Dr. Raman Kapoor:** Served as a **Resource Person** for the FDP on **Analysis of CMOS Integrated Circuit** organized by the **Department of Electronics and Communication Engineering, Chitra University, Punjab** from 26th to 30th August 2020.

Staff Development Program (SDPs)

- SDP conducted by **Ms. Ranjeeta Yadav, Mr. Rajnesh Kr. Singh, Mr. Shailendra Bisariya and Mr. Sanjai Sharma** as a resource person on **“Embedded Systems and O&M”** from 2nd to 23rd Nov, 2020.
 - The objective of this training is to improve the performance of lab staff and make them compatible to work for consultancy & funded project work in the department.
- SDP conducted by **Mr. Shailendra Bisariya, Mr. Hitesh Tomar and Mr. Parmender Singh** as a resource person on **“Basics of Computer”** conducted from 1st to 10th October 2020.
 - This program will be beneficial to those who are lacking in the computer domain and not comfortable to operate the same.



SDP on Embedded Systems and O&M



D

SDP on Basics of Computer

- **Mr. Hitesh Tomar:** Attended 5 days **SDP** on **Fundamental of CorelDRAW** at **ME Department of ABES Engineering College** from **22nd to 26th February 2021.**
- **Mr. Pramendra Singh:** Attended 5 days **SDP** on **Office, Excel and online so far handling** from **1st to 5th February 2021.**
- **Mr. Pramendra Singh:** Attended 4 days **SDP** on **Circuit Theory to Practical Solution Lab with Multisim** from **8th to 11th February 2021.**
- **Mr. Pramendra Singh:** Attended 5 days **SDP** on **Fundamental of Corel DRAW** at **ME Department of ABES Engineering College** from **22nd to 26th February 2021.**

FDPS ATTENDED OUTSIDE ABES

- **Mr. Deepak Garg:** Attended one-week **FDP** on **WSN & IoT** at **Sharda university Greater Noida** from **18th to 22nd January 2021.**
- **Dr. Himani Garg:** Attended one-week **FDP** on **AICTE Training and Learning (ATAL) Academy Internet of Things (IoT)** at **Amal Jyothi College of Engineering, Koovappally, Kerala**, from **11th to 15th January 2021.**
- **Dr. Himani Garg:** Attended one-week **FDP** on **Research confront and document Typesetting using Latex 202X** at **ABESIT, Ghaziabad**, from **25th January to 1st February 2021.**
- **Dr. Priyanka Bhardwaj:** Attended one-week **FDP** on **Emerging trends and research challenges in next-generation wireless network** at **Kongunadu**

College of Engineering and Technology, from **22nd to 27th February 2021.**

- **Dr. Priyanka Bhardwaj:** Attended one-week **FDP** on **Emerging trends and challenges in VLSI mixed-signal processing for fourth industrial revolution- Phase III** at **Kongunadu College of Engineering and Technology, Trichy** from **22nd to 27th April 2021.**
- **Dr. Priyanka Bhardwaj:** Attended one-week **FDP** on **Emerging trends in Electronics and Communication Engineering** at **Bharati Vidyapeeth's College of Engineering, New Delhi** from **12th to 16th July 2021.**
- **Dr. Manish Zadoo:** Attended 5 days **FDP** on **Green Technology & Sustainability Engineering** at **GBU, Greater Noida**, from **19th to 23rd January 2021.**
- **Mr. Ajay Suri:** Attended one week **FDP** on **Research confront and document Typesetting using Latex 202X** at **ABESIT, Ghaziabad**, from **11th to 16th January 2021.**
- **Mr. Ajay Suri:** Attended 5 days **FDP** on **Green Technology & Sustainability Engineering** at **GBU, Greater Noida**, from **19th to 23rd January 2021.**
- **Ms. Ranjeeta Yadav:** Attended one week **FDP** on **AICTE Training and Learning (ATAL) Academy Online FDP on IoT and Robotics** at **KIET Group of Institutions, Ghaziabad, UP, India**, from **21st to 25th June 2021.**
- **Ms. Rakhi kumari:** Attended one-week **FDP** on **AICTE Training and Learning (ATAL) Academy Internet of Things (IOT)** at **Amal Jyothi College of Engineering, Koovappally, Kerala**, from **11th to 15th January 2021.**
- **Ms. Rakhi kumari:** Attended one week **FDP** on **Research confront and document Typesetting using Latex 202X** at **ABESIT, Ghaziabad**, from **25th January to 1st February 2021.**
- **Ms. Tania Gupta:** Attended one week **FDP** on **AICTE Training and Learning (ATAL) Academy Online FDP on Internet of Things (IoT)** at **KLE DR. M. S. Sheshgiri College of Engineering & Technology Belagavi**, from **1st to 5th February 2021.**

- **Ms. Tania Gupta:** Attended one week FDP on **AICTE Training And Learning (ATAL) Academy Online FDP on Data Sciences** at Kongunadu College of Engineering and Technology, Trichy from 25th to 29th January 2021.
- **Mr. Shahbaz Alam:** Attended 5 days FDP on **Advances in renewable energy & smart grid integration** at Amity University, Noida, from 31st May to 4th June 2021.
- **Ms. Surekha:** Attended one week FDP on **Wireless sensor Networks & IoT** at sharda university Greater Noida from 18th to 22nd January 2021.
- **Ms. Surekha:** Attended 2 days FDP on **ICT tools in learning and skill development** at S S Polytechnic College, Udaipur, from 26th to 27th May 2021.
- **Ms. Khushbu Bansal:** Attended one week FDP on **Wireless sensor Networks & IoT** at sharda university Greater Noida from 18th to 22nd January 2021
- **Ms. Khushbu Bansal:** Attended one week FDP on **AICTE Training and Learning (ATAL) Academy Online FDP on "Internet of Things (IoT)"** at Mizoram University from 1st to 5th February 2021.
- **Ms. Khushbu Bansal:** Attended one week FDP on **AICTE Training and Learning (ATAL) Academy Online FDP on "Internet of Things (IoT)"** at University of Hyderabad from 8th to 12th February 2021.
- **Ms. Khushbu Bansal:** Attended two-week FDP on **Emerging Trends and Challenges in VLSI Mixed-Signal Processing for Fourth Industrial Revolution** at Kongunadu College of Engineering and Technology, Trichy from 8th to 20th February 2021.
- **Ms. Khushbu Bansal:** Attended one week FDP on **Emerging Trends and Research Challenges in Next Generation Wireless Networks** at Kongunadu College of Engineering and Technology, Trichy, from 29th March to 3rd April 2021.
- **Ms. Khushbu Bansal:** Attended two-week FDP on **FDP on System Design Methodologies for Embedded, IoT, AI, & HPC using Intel FPGA** at Electronics & ICT Academy Supported by Ministry of Electronics and Information Technology (MeitY), Govt. of India Indian Institute of Technology Guwahati, from 19th to 30th April 2021.
- **Dr. Ashish Gupta:** Attended 5 days FDP on **Internet of Things and Applications in 5G** at Easwari Engineering College, Tamil Nadu, from 5th to 10th January 2021.
- **Dr. Ashish Gupta:** Attended one week FDP on **Research confront and document Typesetting using Latex 202X** at ABESIT, Ghaziabad, from 25th January to 1st February 2021.
- **Mr. Manish:** Attended one week FDP on **Geoinformatics and web technologies** at ATAL FDP, at Banasthali vidyapith, from 18th to 22nd May 2021.
- **Mr. Manish:** Attended one week FDP on **BIM Using REVIT** at APSSDC, Andhra Pradesh, from 24th to 29th May 2021.
- **Mr. Manish:** Attended one week FDP on **IoT and Robotics** at ATAL FDP, at KIET, Ghaziabad, from 21st to 26th June 2021.
- **Ms. Upasana Sharma:** Attended one week **e-Workshop on Advanced MATLAB and its Application (AdMAT -21)** at IIIT kota , from 2nd to 7th February 2021
- **Ms. Pallavie Tyagi:** Attended two-week FDP on **System Design Methodologies for Embedded, IoT, AI, & HPC using Intel FPGA** at Electronics & ICT Academy Supported by Ministry of Electronics and Information Technology (MeitY), Govt. of India Indian Institute of Technology Guwahati from 19th to 30th April 2021.
- **Ms. Pallavie Tyagi:** Attended one week FDP on **Wireless Sensor Network and IoT** at sharda university Greater Noida from 18th to 22nd January 2021
- **Ms. Pallavie Tyagi:** Attended one week FDP on **AICTE Training and Learning (ATAL) Academy Online FDP on Internet of Things (IoT)** at Knowledge Institute of Technology, Tamilnadu from 1st to 5th February 2021.
- **Ms. Pallavie Tyagi:** Attended two-week **Workshop on Emerging Trends and Challenges in VLSI Mixed-Signal Processing for Fourth Industrial Revolution** at Kongunadu College of Engineering and

Technology, Trichy from 8th to 20th February 2021.

- **Ms. Pallavie Tyagi:** Attended 3 days' **Workshop on CeNSE DBT Nano-biotechnology Alliance familiarization** at IISc. Bangalore from 11th to 13th January 2021.
- **Mr. Deepak Garg:** Attended one week FDP on **WSN and IOT** at Sharda University, Greater Noida from 26th November to 1st December 2020.
- **Mr. Deepak Garg:** Attended one week FDP on **Internet of Things and Data Analytics** at **JSSATE NOIDA, U.P, INDIA** from 17th to 23rd November, 2020.
- **Dr. Priyanka Bhardwaj:** Attended six days FDP on **Technological Advancement in Environment friendly materials and processing** sponsored by TEQIP at Kaithyaar College of Engineering, Bihar from 20th July to 25th July 2020.
- **Dr. Priyanka Bhardwaj:** Attended six days AICTE-ISTE Sponsored online induction program on **Machine learning and pattern recognition** from 21st Dec to 26th Dec, 2020.
- **Dr. Raman Kapoor:** Attended five days FDP on **Modeling, Simulation and Fabrication of Future Nano-electronic Devices and Sensors (MSFNS'20)** at NIT Calicut from 24th to 28th August 2020.
- **Dr. Raman Kapoor:** Attended four days FDP on **Solar Cell Simulation using Open-Source TCAD Software (SCAPS)** at Chitkara University, Punjab from 22nd to 25nd July, 2020.
- **Ms. Ranjeeta Yadav:** Attended five days **AICTE Training and Learning (ATAL) Academy Online FDPs on Internet of Things (IoT)** at **Inderprastha Engineering College** from 14th to 18th December 2020.
- **Ms. Ranjeeta Yadav:** Attended five days **AICTE Training and Learning (ATAL) Academy Online FDPs on Internet of Things (IoT)** at **SRM Institute of Science and Technology** 7th to 11th December 2020.
- **Ms. Upasana Sharma:** Attended two six days FDPs on **Artificial Intelligence & 5G**

Communication Technology at **Poornima College of Engineering, ISI-6, RIICO Institutional Area, Sitapura, Jaipur (Rajasthan)** from 5th to 10th October 2020 and 26th to 31st October 2020.

- **Ms. Ranjeeta Yadav:** Attended one week FDP on **Internet of Things and Data Analytics** at **JSSATE NOIDA, U.P, INDIA** from 17th to 23rd November, 2020.
- **Ms. Upasana Sharma:** Attended one week FDP on **Internet of Things and Data Analytics** at **JSSATE NOIDA, U.P, INDIA** from 17th to 23rd November, 2020.
- **Ms. Anjana Bhardwaj:** Attended one week FDP on **Internet of Things and Data Analytics** at **JSSATE NOIDA, U.P, INDIA** from 17th to 23rd November, 2020.
- **Ms. Geetanjali Raj:** Attended one week FDP on **Internet of Things and Data Analytics** at **JSSATE NOIDA, U.P, INDIA** from 17th to 23rd November, 2020.
- **Mr. Dheeraj Singh:** Attended one week FDP on **Nascent Methodologies, Challenges and Realms of Research** at Delhi Technological University, Delhi from 3rd to 7th October 2020.
- **Mr. Dheeraj Singh:** Attended one week FDP on **Nanoelectronics Devices and Circuits Design** at NITTTR, Chandigarh from 6th to 10th July, 2020.
- **Ms. Geetanjali Raj:** Attended one week FDP on **Nanoelectronics Devices and Circuits Design** at NITTTR, Chandigarh from 6th to 10th July, 2020.
- **Ms Shilpa Srivastava:** Attended eight days FDP on **Antenna Design and Simulation** at KIET, Ghaziabad from 14th to 22nd December, 2020.
- **Mr. Shailendra Bisariya:** Attended one-week online FDP on **Nanoelectronics Devices and Circuits Design** at NITRR Chandigarh from 6th to 10th July 2020.

- **Mr. Manish Zadoo:** Attended one week FDP on **Nanoelectronics Devices and Circuits Design** at NITTR Chandigarh from 6th to 10th July 2020.
- **Mr. Manish Zadoo:** Attended five days FDP on **Internet of Things** at IPEC Ghaziabad from 14th to 18th December 2020.
- **Ms. Tania Gupta:** Attended one week FDP on **Machine Learning Through Python** at SCRS, India from 24th to 28th August 2020.
- **Mr. Ajay Suri:** Attended four days FDP on **Mobile Robotics and Internet of things** at Poornima College of Engineering, Jaipur from 16th to 19th September 2020.
- **Mr. Sanjeev Kumar Saini:** Attended six days FDP on **Data Science with Python** at AKGEC, GHAZIABAD from 2nd to 7th November 2020.
- **Mr. Sanjeev Kumar Saini:** Attended two weeks FDP on **Machine Learning** at E & ICT Academy, IIT Kanpur from 8th to 19th August 2020.
- **Mr. Devvrat Tyagi:** Attended ten days FDP on **Wireless Communication Technology for IOT** at IIT Guwahati & IIT Patna from 27th July to 7th August 2020.
- **Mr. Ashish Gupta:** Attended ten days FDP on **Wireless Communication Technology for IOT** at IIT Guwahati & IIT Patna from 27th July to 7th August 2020.
- **Mr. Ashish Gupta:** Attended five days FDP on **Internet of Things (IoT)** at ATAL-academy: AICTE, National Institute of Electronics and Information Technology (NIELIT)-Gangtok from 21st to 25th December 2020.
- **Mr. Deepak Garg:** Attended one week FDP on **IoT (ATAL)** at IIIT Allahabad from 7th to 11th December 2020.

12. Placement

The Initiatives taken by the Department to improve Placement Statistics are:

- Students are being encouraged as well as monitored by their respective mentors to submit

their resume on the “Career” options on the website of core companies of ECE domain.

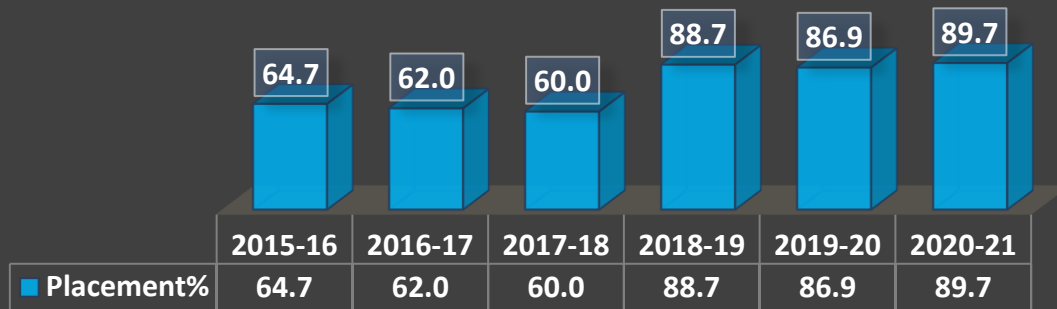
- Final year students are being encouraged to create LinkedIn Account so that they may connect to the people of their domain.
- Motivate the students about Recruiters and educate them about the work culture, domain and skill set required for such type of company.
- Preparing, updating, and regularly tracking of students with the help of Placement Tracker, formulated and devised in the department to keep the students on track of placement and getting reviews and feedback about every drive.
- Arrangement of company-specific technical and aptitude training for shortlisted students in association with SEEP and CBSE.
- Interaction of pre-final year students with already placed students for motivation and briefing.



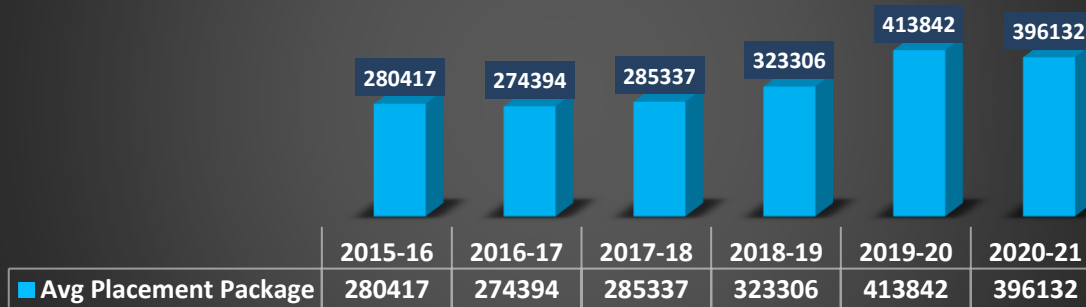
Department Placement Initiative

The Department's target is to have 100% placement but due to some reasons there remain some unplaced students. To cover this unplaced student's gap, the dept. has initiated by its own to place the unplaced students through its own linkages. This step will help the unplaced students to get the Placement.

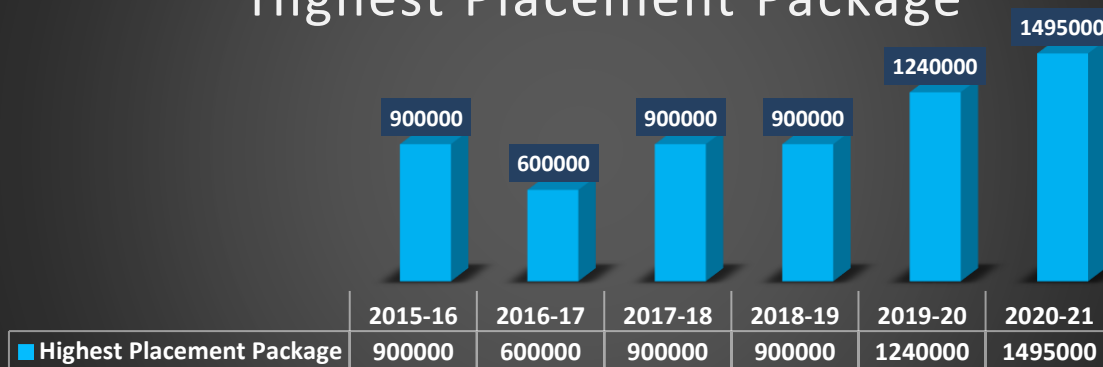
Placement %



Avg Placement Package



Highest Placement Package





Advisory Board

The Advisory Board is an informal group of experts who are consulted on various matters to do with Open Knowledge activities, strategy & operations but hold no legal responsibility for the organization. The concept of the Departmental Advisory Board (DAB) is based on a belief in the importance and value of shared leadership. Management, administration, Faculty members, parents & students work together to share advice and suggestions regarding departmental policies in accordance with the mission and vision of the department. The primary function of the advisory board is to provide advice & assistance to achieve the same.

Members of the Advisory Board

Prof. (Dr.) Sanjay Kr. Singh (HOD ECE, Director ABESEC)
Prof. (Dr.) D.S Chauhan (Vice Chancellor, GLA University, Mathura)
Dr. Arti Noor (Director, CDAC Noida)
Prof. Sampat Kumar V (Associate Dean, AKTU)
Prof.(Dr.) B.K Kaushik (Associate Professor, IIT Roorkee)
Prof.(Dr.) D. Vaithiyanathan (HOD (ECE), NIT Delhi)
Prof.(Dr.) Sajai Vir Singh (Associate Professor, IIIT Noida)
Mr. Navneet Kumar (System Application Engineer, Synopsis, Noida)
Mr. Dushant Kumar (Director, System Infra Solution PvtLtd)
Mr. Hemant Vats (Researcher, IMEC, Belgium, Neuen)
Mr. V.C. Gaur, (Director, Optimum Viking Satcomm (India) Pvt. Ltd.)



Academic Collaboration

Collaboration always pays off to learn and experience new technologies for both the partners. Academic and research collaboration is a very valuable tool that not only accelerates the progress but also enhances the quality of the work and extends the repertoire of the partners. Academic collaboration is beneficial to the faculty and students in learning new teaching tools and to increase the breadth of their knowledge and learning different approaches to solving a problem. The Department of ECE at ABES Engineering College always strives for academic collaborations with renowned universities and research centers across the country. The faculty members of the Dept. have been working together with the well reputed academicians from the leading universities/institutes/research organizations for their research:



Industrial Collaboration

Collaboration between universities and industries is critical for skills development (education and training), the generation, acquisition and adoption of knowledge (innovation and technology transfer) and the promotion of entrepreneurship (start-ups and spin-offs). Academic-industry collaboration can also expand the relevance of research carried out in public institutions and foster the commercialization of public R&D outcomes. The benefits of Academia-industry collaboration are also evident in developing countries. ABES EC plays an active role in bridging the gap between industry and academia. Dept. of ECE believes collaboration with industries as an important and strategic mission. Collaboration ensures that classroom and textbook knowledge is being disseminated to the society. Industrial collaboration is a key access for ECE students to practice research and innovation agenda in the business community. In the recent past Dept. of ECE has tied up with the following companies and list is going on -





Words from Alumni

PREETI ANAND

It was a great experience studying at ABES Engineering College, a memory to cherish for a lifetime. My experience at ABES was full of learning and grooming. It gave me an opportunity to meet different kinds of people from around the world and learn many things from them. I am thankful to all the faculty, mentors and the entire ECE department for providing us with quality education. I am also grateful to CCPD cell for organising placements in this pandemic and helping me to get placed in Contata Solutions. Overall, it was a great experience and lifetime memory at ABES. If you want to make a career in ECE I would highly recommend you join ABES Engineering College



KASHIKA GARG

I am placed in Infosys Ltd. at 3.6lpa as a System Engineer, Capgemini at 3.8lpa as a Software Engineer, Tata Consultancy Services at



3.97lpa as a Software Engineer, HCL at 2.6lpa as a Software Engineer

Currently, I am working in Infosys as a System Engineer and I want to give a big thanks to all faculties, mentors and all ECE departments, CCPD cell of my college for helping us a lot in placement and for guiding us. My 4 years at ABES Engineering College can't be described in some words, they were truly amazing, and I will never forget that time in my lifetime. My college helped me in each aspect to groom myself and made me believe in myself that I can achieve everything that I have dreamt of. If you want to make a career in ECE I would highly recommend you join ABES Engineering College.

NISHTHA GHAI

Placed at Infosys Ltd. at 3.6 lpa as System Engineer, Wipro at 3.5 lpa as Project Engineer, currently working as System Engineer in Infosys. It was truly a great experience of 4 years studying at ABES Engineering College, one of the most renowned colleges. It gave me several opportunities to improve myself whether it is in the field of learning or grooming. I am thankful to all the faculty, my mentors and the entire ECE Department who helped me at each step to



achieve what I have achieved today. Really thankful to our CCPD cell for the placement drives they organized, they were truly very helpful. It will be great, and I will highly recommend you start your career at ABES Engineering College.

NITIKA SHARMA

I cherish the moments spent under the guidance of eminent faculty members and my dear friends. Thank you for helping me shape my career. Despite being involved in many other activities like being a sports captain I was still able to score good marks in my academics and got placed in renowned companies this all happened due to the support of faculty members.



LEOUS GEORGE

I am so happy to be a part of an Institution that feels like a family. They have pushed me to achieve whatever I wanted to. Without people like them, my dreams would have remained dreams. I'm thankful for their love and support. I was able to get success in both academics and sports. Due to their support only, I was able to achieve medals in various football tournaments and got placed in a very renowned company.



DIVYA MISHRA

At present, I am working in Capgemini as a

Software Engineer, and I am very delighted to share my experience as every day I get to learn new services and technologies which lead to an increment in my career profile graph. For this, I would like to thank the ECE department and CCPD department as my bachelor's degree at ABES Engineering College in the ECE branch consisted of much projects-based evaluation and faculty connection.



The mentors helped me to enhance my academic and interpersonal skills through various training. Also, Employability Enhancement Cell (EEC) and Industry-Academia Relationship Cell (IARC) have put in all the efforts to groom us and make us corporate professionals. It was a wonderful experience.

PRANAVI YADAV

(Tata Consultancy Services as Assistant System Engineer at 3.36 LPA and Fiserv as Software Engineer at 2.9LPA)

The foundation of my career was laid at ABES Engineering College. Four years of B. Tech were challenging and made me stronger as a person. The switch from a student phase to the corporate world was not easy but fun. I'm elated to be a part of this great institution. I owe my success to my hard work, my parent's constant boost, consistent efforts, and guidance of the faculties, ECE department, and the placement cell.



INTERVIEW

Mr. KUNAL TYAGI

Currently, I am working in CAPGEMINI as a "Software Engineer" on **JAVA** **ANGULAR** technology on **DISNEY PARK AND RESORTS PROJECT**.



Q-1 In which companies are you placed and what is the domain of your job?

I am placed in the following companies during my placement session with the profile --

- CAPGEMINI [SOFTWARE ENGINEER]
- INFOSYS [DIGITAL SYSTEM ENGINEER]
- HCL [ANALYST]
- VIVO INDIA PVT.LTD [Production Engineer]
- CERTYBOX Pvt.Ltd [BUSINESS DEVELOPMENT ASSOCIATE]
- PEOPLE STRONG [CONSULTANT]
- BYJUS [BUSINESS DEVELOPMENT ASSOCIATE]

Q-2 How did the college help you with the placements?

The college itself provides us with lots of opportunities to show our skills and talent and that is only the factor that will boost our personality and confidence because if you have a lot of skills and talent but do not have a platform or opportunity to showcase that will nothing to use.

Q-3 What kind of questions were you asked during the interviews and how did you answer them?

I have attended approx. 40+ interviews in most common question every interviewer asked are: -

1. Tell me about yourself?

Always make your introduction very strong and whatever you defined in your introduction is always unique and catchy taglines.

Example= Use INDUSTRIAL EXPOSURE in place of INTERNSHIP.

2. Project management

Project explanation in a very brief manner. Project team management. [problem faced during final year project]

3. Extra curriculum activities and your roles and responsibility

4. Technical question related to your skill mention in your resume.

Q-4 What was your preparation mechanism for an interview?

My preparation mechanism for an interview is like my confidence by giving lots of interviews and rejections.

I always try to involve myself in every activity which makes me confident.

After giving lots of interviews I found how to present myself in the front interviewer and my way of explanation and also I always try to only provide that information which I want the interviewer asks a question.

Q-5 Did you face any difficulties during the placement drive?

Yes, initially my morale is down because another student is placed in the very initial stage but after that, I realize that we don't need to pull down our confidence it's better to be placed later but with our satisfaction in the meantime develop your personality. Less opportunity to interact with senior to know

about his / her experience.

Q-6 what message would you like to give your juniors to achieve their goals?

- Try to involve yourself in different extra curriculum activities including sports.
- Try to improve your management skill which includes (Time, event, project, work)
- Do what you like the most which automatically gives a boost mark on your resume.
- Try to gain knowledge of the current problem in societies.

Ms. AKANSHA SINGH

Currently, I am working in CAPGEMINI as a "Software Engineer" on JAVA ANGULAR technology on DISNEY PARK AND RESORTS PROJECT.



Q-1 In which companies are you placed and what is the domain of your job?

I placed in two companies, both are from sales,

- Certybox private Ltd
- Toppr technologies

Q-2 How did the college help you with the placements?

College helped us a lot during our placement times, regular aptitude classes, mock

interviews and Personality development lectures were arranged so that we could perform better in tough situations.

Q-3 What kind of questions were you asked during the interviews and how did you answer them?

As an individual I didn't follow any mechanism or hard steps for interviews, I followed the instructions of my mentor to present myself with confidence and to answer every question with confidence that is it.

Q-4 What was your preparation mechanism for an interview?

During the time of an interview, the question was not tough, every interviewer just wants to know about your personality and Aurora and asked similar personality-based questions. College trained us well in every aspect, so it was quite easier for me to face an interview.

Q-5 Did you face any difficulties during the placement drive?

Mental pressure and Right decision to sit in the company which is meant for you are the two things which are big obstacles.

Q-6 what message would you like to give your juniors to achieve their goals?

Stay confident, stay calm, choose wisely, and follow instructions of your mentor.

Articles by Faculty Members & Students

Design of Compact Hexagonal Shaped Multiband Antenna for Wearable and Tumor Detection Applications

Mr. Navneet Sharma

A compact multiband antenna for frequency bands of 2.45 GHz (ISM), 3.3 GHz (5G), and 5.8 GHz (ISM) is proposed. A modified Complementary Split Ring Resonator (CSRR) and cross-shaped stub are introduced in a hexagonal radiator to achieve triple-band operation including both ISM bands applications of 2.45 GHz, 5.8 GHz, and WiFi/WLAN. The stubs in the radiator also improve the bandwidth and impedance matching of the antenna. The 10 dB impedance of the proposed antenna varies from 2.43 GHz to 2.64 GHz, 3.02 GHz to 3.85 GHz, and 4.88 GHz to 6.82 GHz. The antenna is analyzed on a human phantom model for wearable applications, where simulated SAR and theoretically calculated SAR are 0.3251W/kg and 0.3299W/kg, respectively. The antenna is used on a human breast model for cancer detection applications, where the SAR value is used to analyze and validate the performance of the antenna; therefore, the antenna has effectively worked for biomedical and wearable applications.

Circularly Polarized Antenna for ISM (5.8 GHz), Satellite Communications and UWB Applications

Mr. Navneet Sharma

A compact and dual-band circularly polarized antenna with the resonant frequency of 5.8GHz (ISM) and 7.6 GHz is proposed for biomedical, satellite and specific UWB applications. The 10 dB impedance bandwidth (IBW) of the antenna varies from 5.55 GHz to 5.94 GHz and 6.78 GHz to 8.78 GHz. The tilted arc-shaped radiator is used to perturb the current which is responsible for the lower frequency band as well as

circular polarization with the axial ratio extending from 5.77 GHz to 5.93 GHz, which covers 41% of the lower frequency band. The antenna is analyzed for wearable applications on a three-layer skin phantom model and the SAR value obtained is 0.2 W/Kg with a Source power of 10mW, which is below the maximum permissible limit of 1.6W/Kg.

Smart Medical Robotic Kit

Devesh Sonker, Akanksha, Ranjeeta Yadav

The system is designed to keep a track of the patient's vitals as well as the medication he is provided by monitoring the dosage, timings and providing medication. The autonomous robot has a medication box for this purpose; it also receives the user's commands as well as his vitals, the user has a heart rate monitoring sensor and a body temperature measurement sensor on a wrist band which is connected to the main controller and is connected with the help of an independent server, the vitals and the medication can be tracked with the help of an application for smartphones and various measures which can be taken to improve patient's health and the system uses the data to predict future hazards using the data accumulated in the database from the wrist band.

Education during the COVID-19 pandemic

Ms. Paridhi Pandey

The COVID-19 pandemic has disrupted education systems globally, affecting the most vulnerable learners the hardest. It has increased inequalities and exacerbated a pre-existing education crisis. Prioritizing education as a public good is crucial to avoid a generational catastrophe and driving a sustainable recovery. To be more resilient, equitable and inclusive, education systems must transform, leveraging technology to benefit all learners and building on the innovations and partnerships catalyzed throughout this crisis.

Within countries, the impact of COVID-19 has also

affected individual students differently. Wherever assessments have taken place since the onset of the pandemic, they suggest widening gaps in both opportunity and achievement. Historically vulnerable and marginalized students are at an increased risk of falling further behind.

Countries used a variety of resources to support students'. Learning while they were unable to come to school, including Instructional packages (textbooks, worksheets, and printouts), Radio education, educational television, and online instructional Resources. Countries usually used several tools to Reach the largest proportion of students possible. In the OECD And partner countries, online platforms were the most popular Tool used during school closures.

As we enter the COVID-19 recovery phase, it will be critical to Reflect on the role of educational systems – and particularly Vocational education – in fostering resilient societies. The global Health crisis and the lockdown that followed have brought to the fore professions that have often been taken for granted, Renewing our awareness of their value to society. This has helped restore a sense of esteem for those workers who have worked relentlessly during this time to keep economies afloat. The outlook is very uncertain. But, if anything, the pandemic Has exposed our vulnerability to crises and revealed how Precarious and interdependent the economies we have built Can be. Disruptions on the scale we have just witnessed are Not limited to pandemics, but may also result from natural, Political, economic, and environmental disorders. Our capacity to react effectively and efficiently in the future will hinge on governments' foresight, readiness, and preparedness. Through their role in developing the competencies and skills needed for tomorrow's society, education systems will need to be at the heart of this planning. This includes rethinking How the economy should evolve to guard against adversity, and defining the skills, education and training required to support it. This also means working in close collaboration with other government sectors and the private sector to increase the attractiveness and labor-market prospects of certain Professions, including those considered paramount for the Common good. Real change often takes place in deep crises, and this moment Holds the possibility that we won't return to the status quo When things return

to "normal". While this crisis has deeply Disruptive implications, including for education, it does not Have predetermined outcomes. It will be the nature of our collective and systemic responses to these disruptions that will determine how we are affected by them. In this sense, the pandemic is also a call to renew the Commitment to the Sustainable Development Goals. Ensuring that all young people can succeed at School and develop the knowledge, skills, attitudes, and values that will allow them to contribute to society is at the heart of the global agenda and education's promise to our future Society. The current crisis has tested our ability to deal with Large-scale disruptions. It is now up to us to build as its legacy A more resilient society.