बी॰ आई॰ टी॰ सिन्दरी, धनबाद, झारखण्ड
# B.I.T. SINDRI, DHANBAD, JHARKHAND
(Department of Higher & Technical Education)

# ELECTRO-VISION 2022

## DEPARTMENT'S OFFICIAL PUBLICATION

# THIRD EDITION

**PATRON**
Dr. D. K. Singh (Director)

**EDITOR**
Dr. Imteyaz Ahmad

**EDITOR-IN-CHIEF**
Dr. Madan Gopal Tiary (HOD, ECE)

**CO-EDITOR**
Ritesh Kumar (ECE, 2K20)

# From the Director's Desk

*""Success is not final, failure is not fatal, it is the courage to continue that counts!"*

I am elated to know about **"ELECTRO-VISION 2021"**, the departmental newsletter of Department of Electronics & Communication Engineering. This newsletter reflects the unbreakable team work and dedication of the department towards the growth of the institute.

The Department of Electronics & Communication Engineering was established in 1957. It boasts of a unit of learned and dedicated faculty members and sincere staffs who work with great zeal and enthusiasm to provide vibrant and optimum learning environment to the students and help them acquire skills which are required to excel in today's competitive environment.

It has well equipped laboratories, required for undergraduate as well as postgraduate programs. Moreover, it establishes new laboratories as per the need of recent advancements in technologies and also upgrades its laboratories on a regular basis to provide better facilities to its students. In addition to this, the department organizes workshops and training programs not only for the students but also for the esteemed faculties. The department has also organized an international symposium on 5G and beyond for rural upliftment, which has left a golden impression on the global platform of engineering and technology. Due to its dedicated efforts towards the future of its students and the institute, the department has given many legendary alumnae, working in different industries and academia throughout the globe.

With this, I would like to congratulate the whole team of Electronics & Communication Engineering Department including Faculty Members, Non-Teaching Staffs and Students for publishing the Newsletter and wish for their bright and promising future ahead.

**Prof. (Dr.) D.K. Singh**
**Director, BIT Sindri**

# From the HOD's Desk

*""Education is not just about going to an institute and getting a degree. It is about widening the knowledge and absorbing the truth about life."*

I am highly delighted to present the newsletter of our department **"ELECTRO- VISION 2021"** which carves out all the achievements and activities held in the last two academic sessions 2020-2022. The newsletter intends to hold up to view about the various proceedings, functions and happenings in the department.

The department offers a wide range of innovatively designed course structure in four years of B.Tech program which is updated time to time to keep a pace with the upcoming technologies and meet the requirements of the industries and stakeholders as well. Our students provide an ample testimony to the emphasis who have been placed on the industrial needs of our country.

The department believes in serious academic pursuit and encourages rad ical and original thinking which paves the way for creativity and innovative ideas. To motivate the research-oriented thought process, various activities are carried out in domains like VLSI, Communication, Radar, Signal Processing, IoT, Control & Robotics etc. During the entire course, the students are encouraged to have hand-on experience, internship projects with reputed companies. Working on these projects helps them to inculcate teamwork and leadership qualities. They are provided with all the opportunities which ignite their queries and curious mind so that they can provide the combination of creative thinking and theoretical knowledge in whichever field they get into. **"Education is for improving the lives of others and leaving the world better than before."** Believing on this, all the faculty members and students have been working day in and day out with full dedication and efforts.

I congratulate all the faculty members especially **Prof. Imteyaz Ahmad** and their student's team **Ritesh Kumar** and **Shreya Paul** who have taken the initiative and worked hard to produce this newsletter.

I welcome you all to be a part of the journey whose main motto is to attain excellence in education, training and research.

**Prof. (Dr.) M. G. Tiary**
**HOD, ECE**

# INDEX

# ABOUT US

The department was established in the year 1957 with an intake of 30 students. At present department offers a four-year B. Tech degree course with an intake of 56 students and a lateral entry of 06 students. The department has excellent infrastructure and well-equipped laboratories which includes three newly developed advanced labs helping students to groom themselves to the cuttingedge technology. Department also runs a Centre of Excellence Lab in Collaboration with Siemens & Design Tech to provide hands on training on PLC and SCADA not only for department students but also for the student of entire Jharkhand. Department possess dynamic and well-qualified faculty members with expertise in various domains of electronics and communication engineering.

The vision of the department is to be recognized as a center of academic excellence for globally competent, professionally, and socially responsible Electronics & Communication engineers and entrepreneurs. Department organize FDPs and workshops for teaching and non-teaching staff as well as student to give exposure and knowledge in current domain. In the current year the department organized FDP om 5G communication, wireless and mobile communication, DSP and sensors, antenna trends, VLSI chip design, natural chip processing, and IOT. Recently a two day "International Symposium on 5G & Beyond for Rural Upliftment" was jointly organized by the Department of Electronics & Communication Engineering, BIT Sindri

and Department of Electronics Engineering, IIT(ISM) Dhanbad, Jharkhand. The aspiration of the Symposium was to provide a platform for exploring and exchanging ideas among the networked people. It explains how combination of 5G, artificial intelligence, smart platforms and the Internet of Things can allow for embedding artificial intelligence into 5G communication systems for the smarter use of network generated data, the automated enabling of network operators and service providers to adapt to changes in traffic patterns, security risks, and user behavior and thus paving the way towards safe and reliable nextgeneration wireless ecosystems that go beyond the urban area to open the doors to equality in access to knowledge and information technology into the rural regions. In this assessment year, three faculty members of the department has awarded the Ph.D. degree whether the other two faculties have enrolled for Ph.D. program at IIT(ISM) Dhanbad. Moreover, it has also grabbed a MHRD sponsored CRS Project with grant of rupee 3,86,000/-

Students of our department are encouraged to participate and organize various community and development programs through clubs, technical events and social & cultural activities. These activities provide additional exposure to the current development along with enhancing technical, social and cultural knowledge of the students..

# INSTITUTE VISION & MISSION

## INSTITUTE VISION

- To provide valuable human resources for the industry and society through the excellence in technical education and scientific research for the sustainable development.

## INSTITUTE MISSION

- To offer the state of the art Undergraduate, Postgraduate and Doctoral Programs.

- To generate the new knowledge by quality research.

- To undertake the collaborative projects with industries and society.

- To develop human intellectual capacity with its full potential.

- To solve the problems of society through innovation in technology.

# DEPARTMENT VISION & MISSION

## DEPARTMENT VISION

- To be recognized as a center of academic excellence for globally competent, professionally and socially responsible Electronics & Communication engineers and entrepreneurs.

## DEPARTMENT MISSION

- To prepare the students for a successful career by blending theoretical knowledge and practical skills with employability and entrepreneurialtraits by offering UG, PG and Doctoral program in different domains of Electronics & Communication Engineering.

- To establish state of art laboratory and research facilities for academic excellence and promotion of quality teaching as well as learning process.

- To inculcate team spirit and leadership qualities and produce socially acceptable engineers with ethical and human values.

- To contribute to the country and the society at large by enhancing the interaction between academia and industries for addressing the need of the mankind.

# FACULTIES INTERACTION

**Dr. Madan Gopal Tiary** received his B.Sc. degree in Physics Honors from R. K. Mission Residential College, Narendrapur, Calcutta University for which he was awarded National Scholarship, B.Tech and M.Tech degree both from Institute of RadioPhysics and Electronics, Calcutta University and PhD degree from Jadavpur University, Jadavpur, West Bengal, India. He is presently serving B.I.T Sindri, Dhanbad, Jharkhand as Professor in the Department of Electronics and Communication Engineering and Sr. Administrative Officer, B.I.T Sindri.



He previously served Asansol Engineering College, Asansol, West Bengal, India in various capacities like Principal, Dean and Head of the Department, ECE etc. He has chaired many seminar, workshop, and conferences. He is also associated with Institution of Engineers (India) Asansol Local Centre where he was previously in the capacity of the Honorary Secretary. His research interest is in the field of Microwave Engineering which includes Microstrip Antenna, Microstrip line etc. He has published more than 25 research papers in International Journals as well as International and national Conferences.
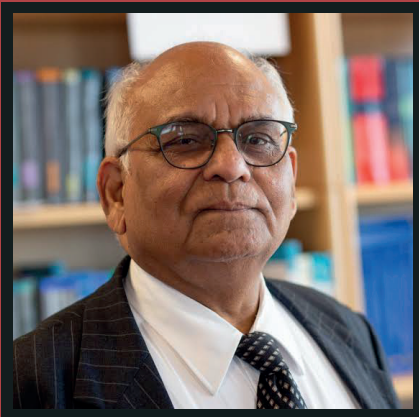


**Dr. Ramjee Prasad** is an Adjunct Professor of BIT Sindri. He received his B.Sc. degree in Electronics and Communications Engineering from BIT Sindri in 1968, followed by the M.Sc. degree and his Ph.D. degree from BIT Mesra, Ranchi in 1970 and 1979 respectively. He is currently playing multiple roles as the founder president of CGC since April, 2016, founder chairman of Global ICT Standardisation Forum for India since 2009, professor of Wireless Information Multimedia Communications since 1999 and the founder director of Centre for PersonKommunikation, Aalborg University, Denmark since 2004.

**Dr. Imteyaz Ahmad** received his master's degree from VJTI, Matunga. Mumbai-19 under Mumbai University, Mumbai, India and Ph.D. degree from BIT Sindri under Vinoba Bhave University, Hazaribagh, India. He is currently an Associate Professor with the department of Electronics and Communication Engineering, BIT Sindri, Dhanbad, India. His current research interests include Bio-instrumentation and Bio-medical signal processing.

**Dr. Amar Prakash Sinha** is involved in teaching and research since 2002, received the M.Tech in Microelectronics degree from Panjab University, Chandigarh, and the Ph.D. degree from IIT (ISM), Dhanbad, India. He is currently Associate Professor in Department of ECE and Nodal Officer, TEQIP, BIT Sindri, Dhanbad, India. His current research interests include Semiconductor Devices, Nanoelectronics, VLSI, IoT and Quantum Computation.

**Dr. Arvind Kumar** is involved in teaching and research since 2003. He received his master from BIT Mersa, Ranchi and Ph.D from BIT Sindri, VBU Hazaribag, in the field of microwave engineering. He has authored more than 15 research papers in different journals and conferences. He is member of IET. He is associated with the department since 16th September, 2006 and having more than 17 years of teaching experience. Moreover, he also has organized one international Symposium and many National level FDP program in the department.
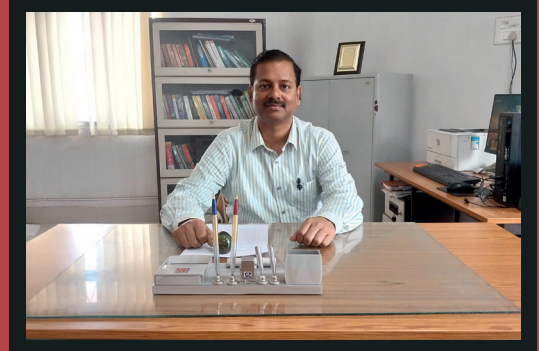




**Mr. Jagveer Singh Verma** is currently working as Assistant Professor in the Department of Electronics and Communication Engineering under TEQIP Phase III project. He bears a total teaching, industrial and research experience of 18 years. He had completed his Bachelor's degree from Nagpur University and Master's degree from Amravati University. Currently he is pursuing his Ph.D. from IIT (ISM) Dhanbad. During his Masters he had achieved the best M. Tech Project award among SAARC includes Analog and Mixed signal design. He had published around 20 research papers in International journals and conferences. He is associated with BIT SINDRI since 4th Jan 2018.

**Dr. Praveen Kr. Sahu**  Dr. Praveen Kumar Sahu received the M.Tech. and Ph.D. degrees from the Department of Electronics Engineering, Indian Institute of Technology, Banaras Hindu University, Varanasi, India, in 2013 and 2020, respectively. He is presently working as an Assistant Professor with the Department of Electronics and Communication Engineering, BIT Sindri, Dhanbad, India. His research interest includes fabrication and characterization of organic/inorganic-based devices for gas sensing applications.

**Mrs. Sangeeta Kumari** received her B.Sc Engineering degree from Maulana Azad College of Engineering and Technology, Patna, Bihar, India in the year 2001 and M.Tech from B.I.T Sindri, Vinoba Bhave University Jharkhand ,India in the year 2009. She had worked as an adjunct faculty at NIFFT Hatia Ranchi. She teaches Microprocessor, Digital Electronics, Basic Electronics, Mobile Communication, RTES, C++, Microwave Engineering and Advanced EMF to undergraduate students. She is Laboratory In charge of Microwave Engineering Lab.

**Mr. Aditiya Kumar** received his B.E. degree in Electrical Engineering from GITS, Gwalior in 2017 and the M. Tech degree in Energy Management rom DAVV (School of Energy & Environment) in 2020. He is currently working as assistant professor in the department of ECE and teaches Basic Electronics and Renewables (Solar & Bio-Gas). His research interests include solar PV and EV.
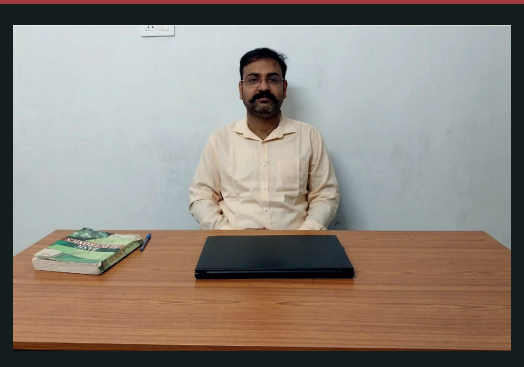
**Dr. Prashant Kr. Singh** received his B. Tech degree in electronics and telecommunication engineering from COER, Roorkee in 2007 followed by his M.E. degree in wireless communication and Ph.D. degree from BIT Mesra, Ranchi in 2012 and 2018 respectively. He is currently working as an assistant professor in the department of ECE and has teaching experience of almost fourteen years. He has also served as an assistant director at State Forensic Science Laboratory (SFSL), Hotwar, Ranchi, has been the holder of several administrative positions and is a potential reviewer of various journals and different publications.

**Mr. Nishant Kumar** received his B. Tech degree from B. Tech degree in Electronics and Communications Engineering from Biju Patnaik University of Technology, Bhubaneswar in 2012 and his M. Tech in communication and networks from NIT Rourkela in 2015. He has also served as Core Network Transmission Engineer at Bharat Sanchar Nigam Limited (BSNL) for almost five years. He is currently working as assistant professor and has teaching experience of almostseven years. His publication works include several international conferences and a journal on dual port cognitive radio..

**Gunjan Gandhi** received his B.E. degree in Electronics and Telecommunication Engineering from BIT Durg in 2009 and his M. Tech degree in Telecommunication Technology and Management from IIT Delhi in 2012. He is currently working as an assistant professor in the department of ECE and has teaching experience of almost ten years. His publication works consist of several international journals. His research interests include the field of telecommunication.
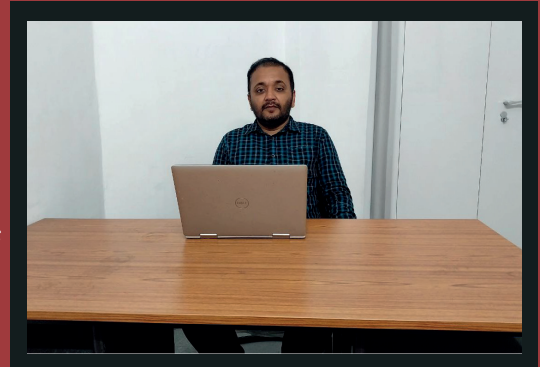




**Mrs. Minu Manjari** received her B.E degree in Electronics and Communication Engineering from Turba institute of Engg. & Technology, Bhopal and her M. Tech degree in control system from B.I.T Sindri, VBU. She is currently working as an Assistant Professor in the department of ECE and has an experience of twelve years of teaching in several colleges. She has also been the part of a symposium on regulation and policy for power sector. Her research interests include the field of control system.
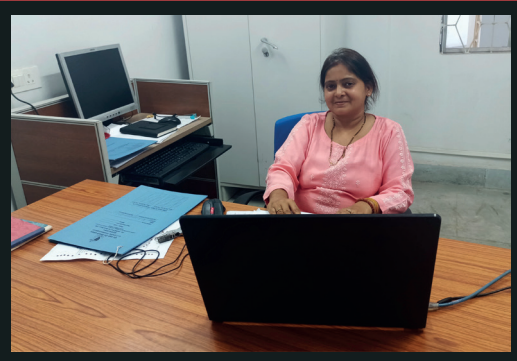
# TECHNICAL STAFF

**Mr. Vivek Dehri** received his diploma in electronics engineering from BIT Mesra Ranchi. He is currently working as Instructor in the department of electronics and communication engineering BIT Sindri. His interest field in the hardware and software laboratory: digital electronics, basic electronics, analog electronics, multisim, autodesk eagle software,arduino,pcb design, soldering, desoldering. He previously worked as Senior Techinician in the department of electronics and communication engineering BIT Extension Centre Patna. He is currently pursuing degree from IEI Kolkata.



**MR. VIVEK DEHRI**
(LAB INSTRUCTOR)

# FACULTY PUBLICATION

| Authors | Title/ Topic of Paper | Name of Journal | Publication Year |
|---|---|---|---|
| Dr. Imteyaz Ahmad | Smart Attendance Monitoring System with Computer Vision Using IOT | Journal of Mobile Multimedia River journal | 2021 |
| Dr. Imteyaz Ahmad | Digital Control and Readout of MEMS Gyroscope Using Second Order Sliding Mode Control | IEEE Sensors Journal | 2022 |
| Dr. Imteyaz Ahmad | Aliasing phenomenon and its effect in digital signal processing | International Conference on Nanoelectronics | 2022 |
| Dr. Imteyaz Ahmad | Base Line Wander, Power Line Interference Noise Suppression and QRS Detection in ECG Signal | IJRASET | 2020 |
| Dr. Imteyaz Ahmad | Base Line Wander, Breathing, Power Line Interference Noise Suppression and QRS Detection | International Journal of Computer Applications | 2020 |
| Dr. Imteyaz Ahmad | A Time Domain Method for Calculation of Heart Rate Variability | International Journal of Computer Applications | 2020 |
| Dr. Imteyaz Ahmad | A review of QRS detection by differentiation method | IJREITSS | 2020 |
| Dr. Imteyaz Ahmad | QRS Detection for Heart Rate Monitoring | International Journal of Electrical Engineering and Technology | 2020 |
| Dr. M.G.Tiary | A Multiband Antenna using Plus Shaped Fractal like Element and Stepped Ground Plane. | International Journal of RF and Microwave Computer Aided Engineering, Wiley | 2020 |
| Dr. M.G.Tiary | UWB Mono Pole Antenna with Dual Band Notched Characteristics | International Journal of Microwave Optical Technology Letter, Wiley | 2020 |
| Dr. M. G. Tiary | A Multiband antenna using plus-shaped fractal-like elements and stepped ground plane | International Journal of RF and Microwave Computer Aided Engineeringthis | 2020 |

| Authors | Title/ Topic of Paper | Name of Journal | Publication Year |
|---|---|---|---|
| Dr. Arvind Kumar | IoT based energy efficient agriculture field monitoring and smart irrigation system using nodeMCU | Journal of Mobile Multimedia River journal | 2021 |
| Dr. Imteyaz Ahmad | UWB monopole antenna with dual-band-notched characteristics | Microwave and Optical Technology Letters | 2020 |
| Dr. Praveen Kr. Sahu | Polymer/Graphene oxide nan composite thin film for NO2 sensor: An in situ investigation of electronic, morphological, structural, and spectroscopic properties | Scientific Reports | 2020 |
| Dr. Praveen Kr. Sahu | MoS2 Assisted Self-Assembled Poly(3-hexylthiophene) Thin Films at an Air/Liquid Interface for High-Performance Field-Effect Transistors under Ambient Conditions | The Journal of Physical Chemistry C | 2020 |
| Dr. Amar P Sinha | Self Consistent Quantum Mechanical Modelling of QCA | IJIRSET | 2020 |
| Dr. Amar P Sinha | Effect of Shape of Quantum Dots on the Energy Levels of Electrons | IJMRSET | 2020 |
| Dr. Amar P Sinha | Controlled NOT GATE using Quantum Dots | IJAREEIE | 2020 |
| Dr. Amar P Sinha | Process Selection of Photolithography in VLSI | IJIRCCE | 2020 |
| Dr. Amar P Sinha | Simple Quantum Mechanical Modeling of Single Electron Fault in QCA | IJIRSET | 2020 |
| Dr. Amar P Sinha | Base Line Wander, Breathing, Power Line Interference Noise Suppression and QRS Detection in Scilab | IJCA | 2020 |

| Authors | Title/ Topic of Paper | Name of Journal | Publication Year |
|---|---|---|---|
| Dr. Prashant Kr Singh | Design of Novel Radial Folded Microstrip Patch Antenna for WiMAX Application | International Conference on Computational Techniques and Applications | 2022 |
| Dr. Prashant Kr Singh | Dual-Band Stop Filter with Controllable StopBands Based on Defect in Shunt Radial Stub | International Conference on Computational Techniques and Applications | 2022 |
| Dr. Prashant Kr Singh | RF Front-End BandPass Filters for GPS Receiver | Fourth International Conference on Microelectronics, Computing and Communication Systems | 2020 |
| Dr. Prashant Kr Singh | Thin-Film Photovoltaic Devices with Asymmetric | Low-Dimensional Nanoelectronic Devices Publisher | 2022 |
| Dr. Prashant Kr Singh | Charge Storage Mechanism in Proteotronic Capacitors | Low-Dimensional Nanoelectronic Devices Publisher | 2022 |
| Dr. Prashant Kr Singh | A Survey on Antennas for IIoT Application | Industrial Internet of Things Technologies and Research Directions Publisher | 2022 |
| Dr. Prashant Kr Singh | Design and Simulation of Microstrip Antenna for Terahertz Applications | Generation, Detection and Processing of Terahertz Signals Publisher | 2022 |
| Dr. Prashant Kr Singh | High-Sensitive Terahertz Biosensors | Advanced Materials for Future Terahertz Devices, Circuits and Systems Publisher | 2021 |
| Dr. Prashant Kr Singh | Terahertz Antennas for Future Communications | Advanced Materials for Future Terahertz Devices, Circuits and Systems Publisher | 2021 |
| Dr. Prashant Kr Singh | Possibilities of 5G and its Application in Rural India | International Symposium on 5G & Beyond for Rural Unlifment. | 2020 |

# SEMINAR AND FDP ATTENDED

| Faculty Name | Title/ Topic of Event | Organized By | Year |
|---|---|---|---|
| Dr. M.G.Tiary | Faculty Development Program on Digital Transformation in Teaching Learning Process | IIT Bombay BIT Sindri | 2020 |
| Dr. M.G.Tiary | Workshop onDesign and Analysis of Microwave Systems using ANSYS HFSS | BIT Sindri | 2020 |
| Dr. M.G.Tiary | Professional Development Training | IIM Visakhapatnam | 2020 |
| Dr. M.G.Tiary | Professional Development Training | IIM Trichi | 2021 |
| Dr. M.G.Tiary | Workshop on Examination Reforms | AICTE | 2021 |
| Dr. M.G.Tiary | Workshop on Plan for Promoting Jharkhand as Cyber Defense Corridor of the world | JUT Ranchi | 2022 |
| Dr. Imteyaz Ahmad | Digital Transformation in Teaching Learning Process | IIT Bombay BIT Sindri | 2020 |
| Dr. Imteyaz Ahmad | Workshop onDesign and Analysis of Microwave Systems using ANSYS HFSS | BIT Sindri | 2020 |
| Dr. Amar P Sinha | Digital Transformation in Teaching Learning Process | TEQIP, SWAYAM | 2020 |
| Dr. Amar P Sinha | ATAL FDP on "Internet of Things" | AICTE TEQIP BIT SINDRI | 2020 |
| Dr. Amar P Sinha | Design and Analysis of Microwave Systems using ANSYS HFSS | TEQIP BIT SINDRI | 2020 |
| Dr. Amar P Sinha | ATAL FDP on "Cloud Technology" | AICTE TEQIP BIT SINDRI | 2020 |

| Faculty Name | Title/ Topic of Event | Organized By | Year |
|---|---|---|---|
| Dr. Amar P Sinha | ATAL FDP on 'Quantum Computing' | AICTE TEQIP BIT SINDRI | 2021 |
| Mr. Jagveer Singh Verma | FDP on Research Methods | IIM Bodh Gaya | 2021 |
| Mr. Jagveer Singh Verma | Materials & Manufacturing: Insights to Modern Technologies | BIT Sindri | 2020 |
| Dr. Praveen Kumar Sahu | • Attended STTP on "Induction Phase - I | NITTTR, Bhopal | 2020 |
| Dr. Praveen Kumar Sahu | • Attended STTP on "Induction Phase - II | NITTTR, Bhopal | 2020 |
| Dr. Prashant Kr Singh | Two-week Virtual Short term course on "Research Trends in Electronics and Communication Engineering | UCET, HazaribagI | 2021 |
| Dr. Prashant Kr Singh | Two-days webinar on "Image Processing using MATLAB | UCET, Hazaribag | 2020 |
| Dr. Prashant Kr Singh | One week workshop on "Research Trends in Microwave Devices and Antennas | UCET, Hazaribag | 2020 |
| Dr. Prashant Kr Singh | Training on "Forensic Engineering & Instrumentation" | Central Forensic Science Laboratory, Kamrup, Assam | 2022 |
| Dr. Prashant Kr Singh | Professional Development Training Programme (Virtual Mode) for TEQIP Institutions | IIM, Kozhikode | 2020 |

# CLASSROOMS

The least of the work of learning is done in the classroom. As it is rightly said "Every great journey begins in a classroom", the classrooms of our department have also witnessed a great deal of successful beginnings. From the days when blackboard and long desks were used in a classroom till today when smart and digital learning is on its peak our classrooms have changed themselves with changing time. With the changing technologies our classrooms are now well furnished with standard desks, white board, green boards, projectors, smart boards and LED screens and Digital Podium. These classrooms provide a great environment of learning with almost all the technologies required by a student to understand things better.
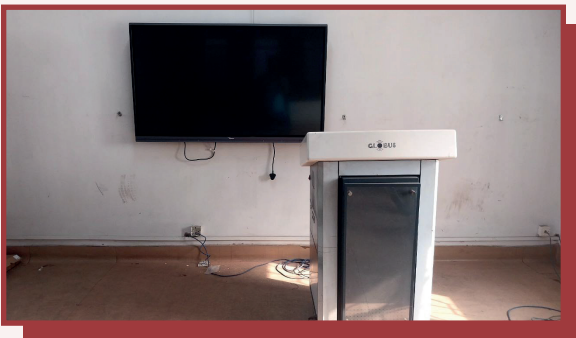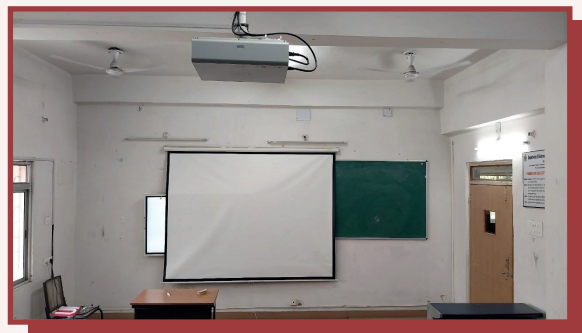
# LABORATORIES

"Without laboratories, people of Science are Soldiers without arms."

Different laboratories under the Electronics and Communication Engineering Department are as follows:

01 Basic Electronics Lab

02 Analog Electronics Lab

03 Analog Communication Lab

04 Digital Electronics Lab

05 Digital Signal Processing Lab

06 Microwave Engineering Lab

07 Basic Electronics Lab

08 Optical Fiber Comm. Lab

09 Digital Communication Lab

10 VLSI Lab

11 Antenna Design Lab

12 Internet of Things (IOT) Lab

13 CEDT/Project Lab

14 Simulation Lab

# GLIMPSES OF LABORATORIES
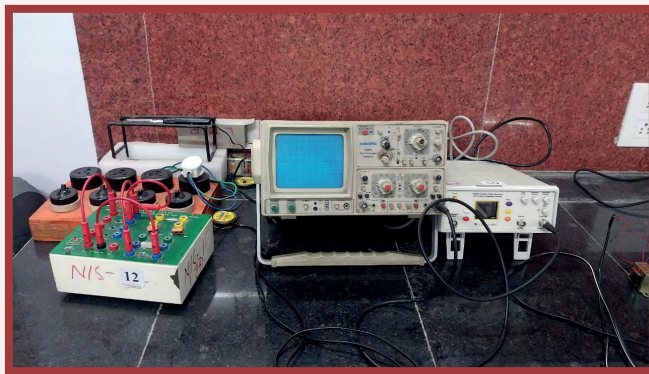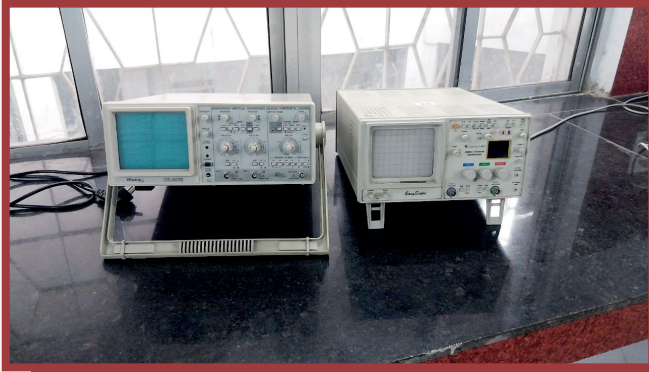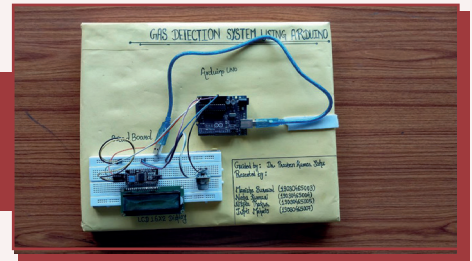
# STUDENT'S CONTRIBUTION & ACHIEVEMENTS

## ◆ INTERNSHIPS

An internship is the best way to gain work experience as a student. Internships gives students the valuable practical experience needed along with theoretical knowledge.

| Name of the Student | Roll No | Name of the Company | Duration |
|---|---|---|---|
| Ritesh Kumar | 2006041 | Signimus Technologies | 4 Weeks |
| Ritesh Kumar | 2006041 | Cerebro Kids | 4 Weeks |
| Ritesh Kumar | 2006041 | Milo Doctors | 4 Weeks |
| Jasmine Christina Kachhap | 2006028 | Banao Technologies | 26 Weeks |
| Aman Kumar | 2006009 | SHAPEAI | 26 Weeks |
| Binod Munda | 2006021 | Coding Ninja | 26 Weeks |
| Binod Munda | 2006021 | The Sparks foundation | 4 Weeks |
| MANISHA KUMARI | 2006033 | Udany edutech private limited | 26 Weeks |
| Vijay Lowad | 2006056 | TATA STEEL | 8 Weeks |
| SUBHAM SWARUP | 2006050 | THE SPARKS FOUNDATION | 4 Weeks |
| Kheya Rani Das | 2106023 | Pirsquare digital solutions | 26 Weeks |
| Aayushi Singh | 2206001D | MastersBuddy | 8 Weeks |
| Aayushi Singh | 2206001D | Muskurahat Foundation | 8 Weeks |
| Aniket Sinha | 2106007 | Oasis infotech | 4 Weeks |
| Pawan Kumar | 2106031 | Feynn Labs | 8 Weeks |
| Neelaabh Sinha | 2106028 | IIT(ISM) Dhanbad | 4 Weeks |

# STUDENT'S CONTRIBUTION & ACHIEVEMENTS

## ◆ BEST PROJECTS

Projects are all about applying the technical knowledge in shaping a real-life project. Developing a project not only enhances team management and communication skill but also improves time management of an individual. It helps to learn professionalism, mannerism, and code of conduct of a company to land in the dream jobs. It is about choosing out project on the mastered skill and giving the best efforts there.Here are some of the best projects by students of ECE department:

**01**   GAS Detection System using ARDUINO

**02**   Environment Sensing and Monitoring Explorer BOT Using ESP32
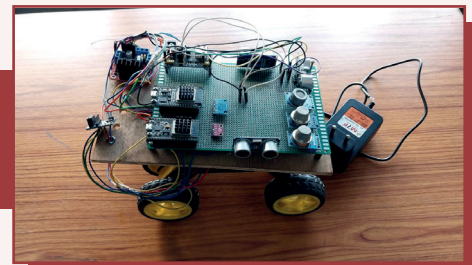
**03**   Automatic Fan with PIR sensor and DHTII sensor
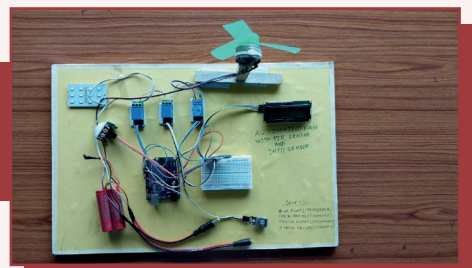
**04**   IOT Based E-Wallet canteen management system
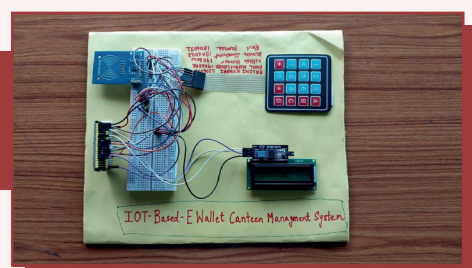
# STUDENT'S CONTRIBUTION & ACHIEVEMENTS

### ◆ GATE SCORE

GATE, Graduate Aptitude Test in Engineering is a national level exam that primarily tests the comprehensive understanding of various undergraduate subjects in engineering. Its score is used to seek admission to Master's and Doctoral programs. Furthermore, many Public Sector Undertakings (PSUs) have been using the GATE score in their recruitment process. Our students of ECE department are also not behind to leave their footprints by scoring great in the GATE Exam.

| NAME OF THE STUDENT | REG. NO | AIR | GATE SCORE |
|---|---|---|---|
| KUMARI TANNU PRIYA | 19030460049 | 403 | 687 |
| HARSH TIWARI | 19030460016 | 547 | 662 |
| RITWIK ANAND | 19030460032 | 3751 | 442 |
| RAJA BABU | 19030460027 | 4068 | 430 |
| PRAYANSHU SINGH | 19030460026 | 5411 | 384 |
| SHUBHADA MANDAVI | 19030460042 | 10743 | 277 |
| ADARSH ANAND | 20030460003 | 7806 | 326 |
| AMAN KUMAR | 20030460008 | 4879 | 401 |
| ANAND KUMAR | 20030460010 | 13449 | 243 |
| ARYAN KUMAR | 20030460017 | 4068 | 430 |
| MD FAIZAN YUSUF | 20030460035 | 11072 | 272 |

# STUDENT'S CONTRIBUTION & ACHIEVEMENTS

◆ **PLACEMENT RECORDS**

| SL. NO. | NAME OF THE STUDENT | ROLL NO | NAME OF THE COMPANY |
|---------|---------------------|---------|---------------------|
| | Batch - 2018-22 | | |
| 01 | SACHIN KUMAR SINHA | 1806040 | YAMAHA MOTORS |
| 02 | ADITAYA BURNWAL | 1806008 | SIFY TECHNOLOGIES |
| 03 | ANNU KUMARI | 1806010 | SIFY TECHNOLOGIES |
| 04 | KUMAR ANUPAM | 1906004D | SIFY TECHNOLOGIES |
| 05 | DIVYANSHU RAJ | 1806015 | SIFY TECHNOLOGIES |
| 06 | SATYA PRAKASH | 1806043 | SIFY TECHNOLOGIES |
| 07 | RINA KUMARI | 1806037 | SIFY TECHNOLOGIES |
| 08 | FARID RAZA | 1906008D | SIFY TECHNOLOGIES |
| 09 | GOVIND KUMAR YADAV | 1806017 | SIFY TECHNOLOGIES |
| 10 | ADARSH KUMAR SINHA | 1806007 | TCS DIGITAL |
| 11 | ANNU KUMARI | 1806010 | TCS DIGITAL |
| 12 | ABHISHEK PANDEY | 1806004 | TCS NINJA |
| 13 | ADITYA BURNWAL | 1806008 | TCS NINJA |
| 14 | DEVANSHU RAJ | 1806014 | TCS NINJA |
| 15 | SHAILESH ANAND | 1806053 | KANTAR ANALYTICS |
| 16 | PRIYANSHU MISHRA | 1806035 | DELOITTE USI |
| 17 | SHASWAT ANAND | 1806044 | DELOITTE USI |
| 18 | ADITI VIDUSHI | 1806054 | TATA STEEL |
| 19 | SHAILESH ANAND | 1806053 | GOOGLE |
| 20 | VISHAL RAJAK | 1806052 | TCS DIGITAL |
| 21 | ANUSHKA PRASAD | 1806055 | TCS NINJA |
| 22 | HARSH SINHA | 1806018 | TCS NINJA |
| 23 | MD RAGHIB AHMAD | 1806024 | TCS NINJA |

## ◆ PLACEMENT RECORS

| SL. NO. | NAME OF THE STUDENT | ROLL NO | NAME OF THE COMPANY |
|---|---|---|---|
| 24 | RASHI GOYAL | 1906011D | TCS NINJA |
| 25 | SATYA KUMARI | 1806042 | TCS NINJA |
| 26 | SHITAL SAKSHI | 1806046 | TCS NINJA |
| 27 | SUBHABRATA ROY | 1806056 | TCS NINJA |
| 28 | SURAJ ORAON | 1806050 | TCS NINJA |
| 29 | SUSHMITA MANDAL | 1906007D | TCS NINJA |
| 30 | AJAY KR. RAJAK | 1806009 | CHANDRAYAAN – A SCIENCE RANKER |
| 31 | NANDANI KUMARI | 1806025 | LEARNING ROUTES |
| 32 | ANSHU KUMARI | 1806012 | TREDENCE ANALYTICS |
| 33 | ABHINAV PRAKASH | 1806002 | TREDENCE ANALYTICS |
| 34 | DEVANSHU RAJ | 1806014 | AMAZON |
| 35 | AAMIR ALAM | 1806001 | WIPRO LIMITED |
| 36 | ABHINAV PRAKASH | 1806002 | WIPRO LIMITED |
| 37 | ABHISHEK KUMAR | 1806003 | WIPRO LIMITED |
| 38 | ANSHAY ADHAYAYN | 1806012 | WIPRO LIMITED |
| 39 | ANSHU KUMARI | 2006041 | WIPRO LIMITED |
| 40 | SUBHABRATA ROY | 1806056 | WIPRO LIMITED |
| 41 | SATYA KUMARI | 1806042 | TECH MAHINDRA |
| 42 | ANSHAY ADHAYAYN | 1806011 | TECH MAHINDRA |
| 43 | SUBHARATA ROY | 1806056 | TECH MAHINDRA |
| 44 | NIKHIL KUMAR | 1806027 | DEEVIA SOFTWARE |
| 45 | ANSHU KUMARI | 1806012 | TATA STEEL |
| 46 | SUSHMITA MANDAL | 1906007D | RINEX TECHNOLOGIES |
| 47 | ADITAYA BURNWAL | 1806008 | SAMSUNG |
| 48 | KRISHNA MODI | 1806021 | HEXAWARE TECHNOLOGIES |
| 49 | ROHIT KUMAR | 1806039 | HEXAWARE TECHNOLOGIES |
| 50 | POOJA KUMARI | 1806030 | COGNIZANT (GENC NEXT) |
| 51 | RAMGOPAL HEMBRAM | 1806036 | COGNIZANT (GENC ELEVATE) |
| 52 | SHIKHA RANI | 1806045 | COGNIZANT |

## ◆ PLACEMENT RECORS

| SL. NO. | NAME OF THE STUDENT | ROLL NO | NAME OF THE COMPANY |
|---|---|---|---|
| 53 | ADARSH KUMAR SINHA | 1806007 | SAMSUNG |
| 54 | ANSHAY ADHAYAYN | 1806011 | SAMSUNG |
| 55 | ABHISHEK PANDEY | 1806004 | EDELWEISS GIC |
| 56 | ABHISHEK SOREN | 1806006 | ERICSSON |
| 57 | SANDEEPA TOPPO | 1806041 | ERICSSON |
| 58 | ABHISHEK RANJAN | 1806005 | HOLCIM GROUP-ACC & AMBUJA |
| 59 | RINA KUMARI | 1806037 | HOLCIM GROUP-ACC & AMBUJA |
| 60 | CHAHAT RAJ | 1806013 | HOLCIM GROUP-ACC & AMBUJA |
| 61 | FARID RAZA | 1906008D | HOLCIM GROUP-ACC & AMBUJA |
| 62 | SHITAL SHAKSHI | 1806046 | HOLCIM GROUP-ACC & AMBUJA |
| 63 | RASHI GOYAL | 1906011D | HOLCIM GROUP-ACC & AMBUJA |
| 64 | GAURAV KUMAR | 1806016 | SCHNEIDER ELECTRIC |
| 65 | SATYA KUMARI | 1806042 | INFOR |
| 66 | HARSH SINHA | 1806018 | INFOR |
| 67 | SHIKHA RANI | 1806045 | ADANI ENTERPRISES |
| 68 | DIVYANSHU RAJ | 1806015 | ADANI ENTERPRISES |
| 69 | ANUSHKA PRASAD | 1806055 | SCHLUMBERGER |
| 70 | ANNU KUMARI | 1806010 | SCHLUMBERGER |
| 71 | SUDHA TUDDU | 1806049 | TATA POWER |
| 72 | JAGRITI KUMARI | 1806019 | QSPIDERS |
| 73 | CHAHAT RAJ | 1806013 | SAMSUNG |
| 74 | POOJA KUMARI | 1806030 | SAMSUNG |
| 75 | ADARSH KUMAR SINHA | 1806007 | INFOSYS |
| Batch - 2019-23 | | | |
| 01 | DIVYA SHARMA | 1906015 | TATA STEEL LTD. |
| 02 | SANGITA MURMU | 1906041 | TATA STEEL LTD. |
| 03 | SHUBHADA MANDAVI | 1906046 | TATA STEEL LTD. |
| 04 | SHUBHADA MANDAVI | 1906046 | TATA STEEL LTD. |
| 05 | HARSH TIWARI | 1906018 | AAKASH BYJU'S |

## ◆ PLACEMENT RECORS

| SL. NO. | NAME OF THE STUDENT | ROLL NO | NAME OF THE COMPANY |
|---|---|---|---|
| 06 | CHANDAN KUMAR GUPTA | 1906058 | AAKASH BYJU'S |
| 07 | AVINASH KUMAR | 1906011 | AIR INDIA |
| 08 | SHASHWAT TIWARI | 1906044 | AIR INDIA |
| 09 | RAVI KUMAR | 1906056 | AIR INDIA |
| 10 | NIKITA THAKUR | 2006007D | AIR INDIA |
| 11 | AJAY MANJHI | 1906001 | CAPGEMINI |
| 12 | AMRITANSHU SATYAM | 1906003 | CAPGEMINI |
| 13 | ANJALI BAXLA | 1906006 | CAPGEMINI |
| 14 | GAURAV KUMAR | 1906016 | CAPGEMINI |
| 15 | KHUSHI GROVER | 1906022 | CAPGEMINI |
| 16 | NITISH KUMAR | 1906026 | CAPGEMINI |
| 17 | PRAYANSHU SINGH | 1906029 | CAPGEMINI |
| 18 | RAVI RAUTU BODRA | 1906033 | CAPGEMINI |
| 19 | SATYAM | 1906043 | CAPGEMINI |
| 20 | ZEESHAN ASHRAF | 1906051 | CAPGEMINI |
| 21 | AMOL ANSHUMAN | 1906054 | CAPGEMINI |
| 22 | JWALA CHANDRA PANDEY | 1906057 | CAPGEMINI |
| 23 | UPENDRA PRASAD MAHTO | 1906061 | CAPGEMINI |
| 24 | TRIPTI MAHATO | 2006008D | CAPGEMINI |
| 25 | RISHAV KUMAR | 1906034 | DEEVIA SOFTWARE |
| 26 | ANAND KUMAR | 1906004 | EXAVALU |
| 27 | RAJA BABU | 1906030 | EXAVALU |
| 28 | SAGAR RAJ | 1906062 | EXAVALU |
| 29 | HIMANSHU JAISWAL | 1906019 | GLOBALLOGIC HITACHI |
| 30 | ANKIT KUMAR GUPTA | 1906060 | HCL |
| 31 | NEERAJ KUMAR | 1906055 | JAI BALAJEE |
| 32 | JOY MARANDI | 2006004D | JAI BALAJEE |
| 33 | SHUBHAM SINGH | 1906047 | JSW STEELS |
| 34 | TANIYA KUMARI | 1906049 | JSW STEELS |

## ◆ PLACEMENT RECORS

| SL. NO. | NAME OF THE STUDENT | ROLL NO | NAME OF THE COMPANY |
|---|---|---|---|
| 35 | VINAY PRAKASH | 1906050 | JSW STEELS |
| 36 | NEHA KUMARI | 2006006D | L&T |
| 37 | ZISHAN AHMAD | 1906052 | NARAYANA |
| 38 | PRABHAT GUPTA | 1906059 | NARAYANA |
| 39 | NUSRAT PRAVIN | 1906027 | Q SPIDER |
| 40 | PRATIMA KUMARI | 1906028 | Q SPIDER |
| 41 | SALONI KUMARI | 1906038 | Q SPIDER |
| 42 | SHRUTI ANSHUMALI | 1906045 | Q SPIDER |
| 43 | SAPNA KUMARI | 1906042 | SLB PITC |
| 44 | ANISHA MURMU | 1906005 | TCS - NINJA |
| 45 | KUMAR SHASHWAT | 1906023 | TCS - NINJA |
| 46 | KUMARI MAHIGRA BEDIA | 1906024 | TCS - NINJA |
| 47 | RAVI KUMAR | 1906032 | TCS - NINJA |
| 48 | SALONI KUMARI | 1906037 | TCS - NINJA |
| 49 | SWATI RAJ | 1906048 | TCS - NINJA |
| 50 | MANISHA BURNWAL | 2006001D | TCS - NINJA |
| 51 | SANA  NOWSHAD | 1906039 | YAMAHA MOTORS |

# CLUBS & SOCIETIES

## – Students of ECE Dept. are actively involved in following clubs of the Institute.

### CULTURAL CLUBS & SOCIETIES

◆ **PRAYAAS INDIA** is a Non-Governmental Organization providing free and high-quality education to underprivileged children living in slums and villages near college campus. The whole management of the organization is handled by college students. Presently more than 800 children are getting free education. Apart from two-hours evening classes, meritorious of them are admitted in good private schools for formal education. Prayaas is a charitable organization in the service of underprivileged and poor children.

◆ **ARTS CLUB** is one of the oldest Students Cultural Society at BIT Sindri. It has a long rich tradition of Art and Culture. It provides a platform to Bitians to exhibit their hidden talents.Arts Club is quite popular in BIT due to its popular stage shows and cultural programs. It not only helps in preserving our rich art and cultural heritage, but entertains BIT during the hard and busy academic life.

◆ **ECO CLUB** ECO Club is an environment-cum- socio-cultural club of BIT Sindri established in the year 1992. This club works towards the upliftment of the environment and poor section of society. ECO Club runs plantation and cleanliness drives in BIT Sindri. We are known for hosting mega annual events like Vidur Utsav, ECO Enthusia, etc. We encourage afforestation by organising events like Van Mahotsav and Smriti Taru. ECO club works to increase awareness of the environment.

◆ **GRS** Gandhi Rachnatmak Samiti is a socio cum cultural club functional in Birsa Institute of Technology, Sindri. Its motto is "No call is greater than public service." GRS facilitates students with different opportunities to develop their communication and social skills by participating in various events and activities. It was established in 1969 and is one of the oldest and most prestigious clubs of BIT Sindri.

◆ **LEO CLUB** LEOs are results-oriented individuals with extensive leadership experience in highly competitive environments. We utilize and create opportunities for personal, professional, and institutional growth. Our success depends on a spirit of deep collaboration and a talented community of diverse individuals determined to make the most out of an opportunity to develop leadership skills by gaining hands-on experience from conducting social and cultural events.

◆ **LITERARY SOCIETY** Literary Society is the literature-cum-cultural club of the college that serves as a forum for students to communicate their opinions, ideas, and new perspectives. The club intends to help students enhance their speaking and listening abilities and leadership skills that aid in personality development. The Literary Society organizes events regularly to promote awareness about diverse cultures and social concerns and challenges students to extend their limits.

◆ **PAINTING WINGS** Painting Wing is one of BIT Sindri's well-known clubs. Each year, we try to create a vibrant and colorful atmosphere on campus through our unique and immersive activities. We make life at BIT Sindri more colorful, fun, and fascinating by organizing events such as street painting, wall painting, Rangoli making, caricature, clay modeling, body painting, oil painting, and so on.

◆ **SPORTS CLUB** The Sports Club of BIT Sindri, established in 1960, is a prestigious club. Currently, it is under the guidance of Professor R.K. Verma, the Professor In-charge of the Sports Club. Our main events are SPARDHA and PRATIDWANDA. We also organise Inter-branch tournaments for both girls and boys.

### TECHNICAL CLUBS

◆ **HnCC** Hackathon and Coding Club is the official coding and development club of BIT Sindri. Being the most prestigious technical club of our institution, we provide a gateway that allows students to gain assistance and mentorship to enhance their coding, design, and creative ability. We have conducted and administered many events with Dinesh Kumar Prabhakar Sir as our Professor-in-charge. We have done it all, from hackathons and monthly happenings like BitCode and Linux drive to informative sessions. HnCC looks forward to organizing more engaging and thrilling events in the future.

◆ **IETE** Students' Forum is a techno-management club established in the year 2007. The club aims to empower the youth through technical education and skill development. We conduct many webinars, seminars, and competitions based on web development, competitive programming, and other technical domains. Some significant events conducted by the club are Hacklane, Udyamita, Explicar, Inquiztive, Encipher, Insight, Byte the Bits, and Tech expo. We organize Tech Udbhav, our Annual Techno-Management Fest.

◆ **ISTE** Students' Chapter BIT Sindri is a nationally affiliated techno-management society registered with ISTE New Delhi. With the motto of holistic development, ISTE Students' Chapter focuses on the personality development and enhancement of technical and managerial skills of its members to meet the modern competitive era.

◆ **MODEL CLUB** is the official techno-management club established by the BIT administration in the early 60s to hone the scientific mindset and exemplify the technical prowess of the institute. The organization is inherently associated with the diffusion of science and technology in would-be technocrats. Concentrated solely on the BIT Sindri campus, Model Club strives to sync the college with the latest technological trends through Tech-Events, Workshops, Seminars, and Talk-shows.

# ELECTRO-VISION 2022

## DEPARTMENT'S OFFICIAL PUBLICATION