

VOLUME 03 · 2024-25

Sanjog

THE LINK BETWEEN THINGS

Communication is more than a channel; it is a design responsibility.

HOD
DR. MRINMOY CHAKRABORTY

CONVENER
DR. SOURAV MOITRA



Prof. (Dr.) Sanjay S Pawar

PRINCIPAL, DR. B.C. ROY ENGINEERING COLLEGE

INSTITUTE VISION

Creativity, innovation and discipline

The institute vision in the ME newsletter calls for a global centre of learning.

INSTITUTIONAL PERSPECTIVE

From the Principal's Desk

A department newsletter is a record of learning in motion. It brings together the questions raised in class, the work done in laboratories, and the conversations that continue through events and research.

The principal's message in the reference Mechanical Engineering newsletter encourages timely articles, more opportunities for contributors, and subjects that interest students and industry alike. Sanjog carries that editorial spirit into the Electronics and Communication Engineering record.

This issue gathers the documented activity of 2024-25 so that readers can follow the department's work and see where the next question might begin.

PRINCIPAL DURING THE REFERENCE PERIOD

Prof. (Dr.) Sanjay S Pawar

Principal identification and portrait: ME News Letter 2025-26, page 1. Text on this page is an editorial summary, not a direct quotation.

EDITORIAL DIRECTION

From the convener's desk

Sanjog is designed as a department record that can be read in more than one way. A student can open it at an event page, a faculty member can turn to the research record, and an external reader can see how the programme connects a laboratory question to a larger engineering context.

This volume gathers the documented activities and publication records for 2024-25. The short essays are written around those records so that the newsletter has a point of view without turning an event title into a claim it does not support.

The issue's editorial lens is **The link between things**. Its pages move from programme purpose to events, from faculty development to research, and then back to the people and cohorts that give the department its scale.

NEWSLETTER CONVENER

Dr. Sourav Moitra



Dr. Sourav Moitra

FACULTY OF ECE · BCREC

ISSUE AT A GLANCE

5 ECE events	86 publication records
33 faculty activities	233 students in represented cohorts

Issue theme

The link between things — Communication is more than a channel; it is a design responsibility.

EDITORIAL RULE

Every record stays close to the supplied source data, no invented numbers.

VOLUME LENS

The link between things

A Record — Gather the supplied exports and photographs.

B Review — Check dates, names and counts against the source.

C Edit — Write the short pieces around the record.

D Publish — Release as an editable issue for the next revision.

SANJOG · DEPARTMENT OF ECE — DR. B.C. ROY ENGINEERING COLLEGE · DURGAPUR



Dr. Mrinmoy Chakraborty

FACULTY OF ECE · BCREC

DEPARTMENT LEADERSHIP

Dr. Mrinmoy Chakraborty

Head of the Department, ECE

DEPARTMENT NOTE

From the HOD's desk

The ECE department works across devices, circuits, communication links, embedded systems and the research methods that connect them. A newsletter is useful when it shows that range without losing the thread between the parts.

For 2024-25, that thread is visible in the record of events and publications. Industry-facing sessions, higher-study conversations, device workshops and research outputs give students several ways to meet the discipline beyond a single course unit.

The department's responsibility is to keep those encounters academic, documented and connected to the programme outcomes. This issue places the PSOs beside the activities so the record can be read as more than a calendar.

HEAD OF THE DEPARTMENT

Dr. Mrinmoy Chakraborty



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Department note

Laboratories, events and a measurable publication record give the 2024-25 volume its spine; the pages that follow keep those records close at hand.

01 / PROGRAMME PROFILE

Why Electronics and Communication Engineering?

The department connects mathematical foundations, electronic devices, communication systems, computation and project practice.

VISION OF THE INSTITUTE

To transform the institution into a global centre of learning through the synergic application of creativity, innovation and discipline.

MISSION OF THE INSTITUTE

01 Create an ideal ambience for learning and growth.

02 Help students inherit value systems and become creative, agile thinkers.

03 Build capabilities among students to lead and work as team players.

04 Develop a symbiotic relationship between institution, society and community.

05 Expand higher learning in technology and management.

Core language

Signals · devices · systems · communication · evidence

Department lens

Learn the fundamentals. Build the interface. Test the result.



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02 / EDUCATIONAL OBJECTIVES AND PSOS

Programme purpose

The programme outcomes are the bridge between a course, a project and the engineer who has to explain the result.

PEO 1

Core proficiency

Build professional competence through fundamentals in Electronics and Communication Engineering and deeper technological knowledge.

PEO 2

Professional development

Develop mathematics, science, management, teamwork, responsibility, professionalism and ethical values.

PEO 3

Lifelong learning

Adapt to a changing society through higher studies, quality research and careers in industry or entrepreneurship.

PROGRAMME-SPECIFIC OUTCOMES

Three questions for every project

PSO 1

Engineering knowledge and analysis

Analyze engineering problems relevant to Electronics and Communication Engineering by applying basic sciences, engineering mathematics and engineering fundamentals.

PSO 2

System design

Design electrical, electronic and communication systems containing devices, software and hardware by applying analytical knowledge and modern tools.

PSO 3

Society, environment and professional practice

Apply contextual knowledge to assess societal, environmental, health, safety, legal and cultural issues with professional ethics and work effectively in multidisciplinary projects.

ASSESSMENT RULE

Every PSO is answered with coursework, project and laboratory evidence.

PROGRAMME LENS

Objectives, outcomes and activities are read together, not separately.

03 / CONTENTS AND YEAR AT A GLANCE

Inside Volume 03

This issue follows the reference newsletter's rhythm: leadership, programme purpose, events, faculty development, publication record, department profile and closing notes.

08 Events and academic engagements

11 Faculty development and professional activity

14 Publications, patents and research themes

20 Student and project context

22 Faculty desk and department profile

24 Sources and editorial credits

25

A communication link is successful only when the receiver can act on the message with the right context.

5
ECE events

86
publication records

33
faculty activities

233
students in represented cohorts

Data sources: events (1).xlsx, PUBLICATIONS exports, faculty.csv, supplied student-batch workbooks and the Mechanical Engineering newsletter reference issue.



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04 / EVENTS

Academic year at a glance

The 2024-25 record connects the department to VLSI engineering, robotics and automation at CSIR-CMERI, industry-academia orientation, project management and the opportunity landscape around analog VLSI.

01

DEPARTMENT EVENT · 16 AUG 2024

Interested For Industry Academia Connect Program And Carrier Opportunity For Newly Admitted Students

Venue: D M AUDITORIUM
Association: IIPC & Induction Program Cell

02

INDUSTRY VISIT · 04 SEP 2024

Industry Visit & Participation In The Robotics And Automation Lab Of CSIR CMERI, Durgapur

Venue: CSIR CMERI, DURGAPUR
Association: IIPC

03

DEPARTMENT EVENT · 03 OCT 2024

Generational Transformations In VLSI Engineering

Venue: XILINX LAB, ECE DEPARTMENT
Association: IEEE Student Branch

PHOTO RECORD ↗

04

DEPARTMENT EVENT · 27 FEB 2025

Voice Of The Students With Project Management Institute (PMI) West Bengal Chapter

Venue: ALBERT EINSTEIN HALL OF DR. B.C.ROY ENGINEERING COLLEGE, DURGAPUR
Association: IIPC & Carrier Council Cell

PHOTO RECORD ↗

05

DEPARTMENT EVENT · 28 JUN 2025

Canvas-Lms

Venue: ADVANCED PROTOTYPE LABORATORY, ECE
Association: Department record

5 ECE records

Dates, locations, associations and photo-record links are taken from the supplied event workbook.

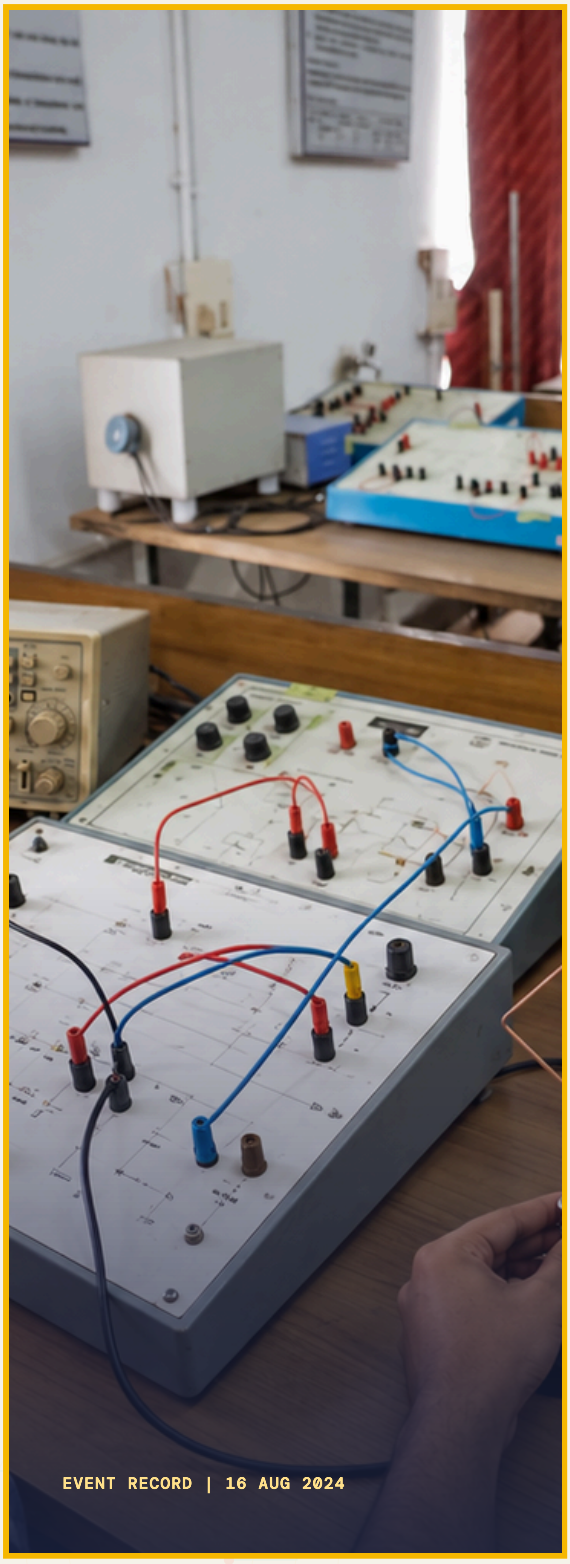
How to read this calendar

Each card carries the venue, the hosting association and the photo record link; together they show the academic year as a sequence of encounters, not a list.

Board note

The board and the table below carry the same workbook fields: date, title, venue and association.

SANJOG · DEPARTMENT OF ECE — DR. B.C. ROY ENGINEERING COLLEGE · DURGAPUR


EVENT RECORD | 16 AUG 2024

05 / EVENT FEATURE

Interested For Industry Academia Connect Program And Carrier Opportunity For Newly Admitted Students

The event record places this engagement in D M AUDITORIUM, under DEPARTMENTAL SEMINAR WORKSHOP ORGANIZING COMMITTEE.

Its value in the newsletter is not a claim about outcomes that are not documented here. It is a clear marker of the department's working range: students and faculty met a topic, a tool or a professional context that sits beyond the routine lecture sequence.

Read beside the programme outcomes, the event becomes a prompt for the next question: what should a student be able to analyse, design or communicate after encountering this topic?

DATE
16 AUG 2024

ASSOCIATION
IIPC & Induction Program Cell

EVENT LENS

What motivated the session, what it used, what it left behind.

RECORD RULE

Only the supplied event workbook fields are printed.

06 / EVENTS CONTINUED

From the calendar to the lab

Three more records from the year, arranged as a visual event board.

01

INDUSTRY VISIT · 04 SEP 2024

Industry Visit & Participation In The Robotics And Automation Lab Of CSIR CMERI, Durgapur

Venue: CSIR CMERI, DURGAPUR
Association: IIPC

02

DEPARTMENT EVENT · 03 OCT 2024

Generational Transformations In VLSI Engineering

Venue: XILINX LAB, ECE DEPARTMENT
Association: IEEE Student Branch

PHOTO RECORD ↗

03

DEPARTMENT EVENT · 27 FEB 2025

Voice Of The Students With Project Management Institute (PMI) West Bengal Chapter

Venue: ALBERT EINSTEIN HALL OF DR. B.C.ROY ENGINEERING COLLEGE, DURGAPUR
Association: IIPC & Carrier Council Cell

PHOTO RECORD ↗

DATE	EVENT	LOCATION	CO-HOST / ASSOCIATION
16 AUG 2024	**Interested For Industry Academia Connect Program And Carrier Opportunity For Newly Admitted Students** Department event	D M AUDITORIUM	IIPC & Induction Program Cell
04 SEP 2024	**Industry Visit & Participation In The Robotics And Automation Lab Of CSIR CMERI, Durgapur** Industry visit	CSIR CMERI, DURGAPUR	IIPC
03 OCT 2024	**Generational Transformations In VLSI Engineering** Department event	XILINX LAB, ECE DEPARTMENT	IEEE Student Branch
27 FEB 2025	**Voice Of The Students With Project Management Institute (PMI) West Bengal Chapter** Department event	ALBERT EINSTEIN HALL OF DR. B.C.ROY ENGINEERING COLLEGE, DURGAPUR	IIPC & Carrier Council Cell
28 JUN 2025	**Canvas-Lms** Department event	ADVANCED PROTOTYPE LABORATORY, ECE	-



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07 / FACULTY DEVELOPMENT AND PROFESSIONAL ACTIVITY

Faculty learning is part of the department record

The supplied professional-activities export records 33 ECE entries for this academic year. The list includes FDPs, seminars, workshops, short-term programmes and related learning activity.

33
RECORDED ACTIVITIES

13
FACULTY CONTRIBUTORS

4
ACTIVITY TYPES

23 JUN 2025

Memristor And Its Applications In Neuromorphic Computations

IIT Dhanbad

19 MAY 2025

Integrating AI With IoT For Secure And Intelligent Computing

Department of Computer Science and Engineering (Artificial Intelligence and Machine Learning), Institute of Engineering and Management, Newtown in association with HRDC, IEM-UEM Group

03 MAY 2025

Quantum Computing

Centre for Development of Advanced Computing, Hyderabad & Indian Institute of Technology, Roorkee with the support of Ministry of Electronics and Information Technology, Government of India.

Why it belongs here

Faculty development changes what enters the classroom: a new tool, a sharper example, a better test or a question that deserves research time.



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08 / PROFESSIONAL ACTIVITY REGISTER

Selected faculty development records

Selected entries from the supplied professional_activities.csv export.

DATE	ACTIVITY	ORGANIZER	LOCATION
28 APR 2025	**Recent Trends In Artificial Intelligence, Machine Learning And VLSI Design And Development** FDP	E & ICT Academy, NIT Warangal In Association with Dr. B. C. Roy Engineering College, Durgapur, West Bengal Sponsored by Ministry of Electronics and Information Technology (MeitY), GOI	online (NIT Warangal and Dr. B. C. Roy Engineering College, Durgapur)
03 APR 2025	**Certification Of Completion On Rtl-Architect Jumpstart** FDP	Synopsys online Learning and Certification	Online
06 MAR 2025	**Invitation As A Judge For Technical Fest - Techsutra-2K25** WORKSHOP	Dr. B. C. Roy Polytechnic, Dr. Meghnad Saha Sarani, Bidhannagar Durgapur,Paschim Bardhaman Pin-713206	Dr. B. C. Roy Polytechnic, Dr. Meghnad Saha Sarani, Bidhannagar Durgapur,Paschim Bardhaman Pin-713206
06 MAR 2025	**Executive Member (Ec) Of Ieee Sight Of Kolkata Section** STP	IEEE Sight of Kolkata Section	IEEE Kolkata Section
13 JAN 2025	**Advanced Pedagogy And Classroom Delivery Enhancement Techniques In Higher Education** FDP	Electronics & ICT Academy (Under Ministry of Electronics and Information Technology (MeitY), Govt. of India) Indian Institute of Technology Guwahati, Assam, MCA Department, DR. B. C. Roy Engineering College	MCA Department, Dr. B. C. Roy Engineering College, Durgapur
13 JAN 2025	**Advanced Pedagogy And Classroom Delivery Enhancement Techniquesin Higher Education** FDP	E&ICT Academy IIT Guwahati	Dr. B.C.ROY ENGINEERING COLLEGE, DURGAPUR
06 JAN 2025	**Programming In Python** STP	SWAYAM	Programming in Python By Dr. Rizwan Rehman, Dibrugarh University
31 AUG 2024	**Ieee India Council Professional Mentoring Program** SEMINAR	IEEE India Council Industry Academia Young Professionals Committee [IAYPC]	Virtual mode-IEEE India Council
08 AUG 2024	**Resource Person In Aicte-Vaani Scheme At Dr. B. C. Roy Polytechnic On "Recent Advancements In The Field Of Next Gen Communications** SEMINAR	AICTE-and Dr. B. C. Roy Polytechnic	Dr. B. C. Roy Polytechnic, Dr. Meghnad Saha Sarani, Bidhannagar Durgapur,Paschim Bardhaman Pin-713206

Records are listed as supplied. Dates and organizer names are not expanded beyond the export.



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09 / PROFESSIONAL ACTIVITY REGISTER

More learning outside the timetable

The second register page keeps the year visible as a sequence of people, topics and institutions.

DATE	ACTIVITY	ORGANIZER	LOCATION
03 MAY 2025	**Quantum Computing** STP	Centre for Development of Advanced Computing, Hyderabad & Indian Institute of Technology, Roorkee with the support of Ministry of Electronics and Information Technology, Government of India.	Centre for Development of Advanced Computing, Hyderabad & Indian Institute of Technology, Roorkee.
15 JAN 2025	**Design And Analysis Of VLSI Subsystems** FDP	NPTEL - IIIT BANGALORE	ONLINE
15 JAN 2025	**Cmos Digital VLSI Design** FDP	NPTEL - IIT ROORKEE	ONLINE
15 JAN 2025	**Python For Data Science** FDP	NPTEL - IIT MADRAS	ONLINE
29 JUL 2024	**Innovation In Recent Trends And Research Applications On Computing And Informatics** FDP	Haldia Institute of Technology, Haldia.	Haldia Institute of Technology, Haldia.
29 JUL 2024	**Innovations And Future Trends In Industrial Systems And Instrumentation: An FDP On Cutting Edge Technology And Application** FDP	Department of Electrical Engineering (NBA Accredited), Dr. B. C. Roy Engineering College, Durgapur.	Dr. B. C. Roy Engineering College, Durgapur
15 JUL 2024	**VLSI Design Flow: Rtl To Gds** FDP	NPTEL (IIIT DELHI)	ONLINE
15 JUL 2024	**System Design Through Verilog** FDP	NPTEL (IIT GUWAHATI)	ONLINE
15 JUL 2024	**Research Methodology** FDP	NPTEL (IIT MADRAS)	ONLINE

ACTIVITY LENS

Tools, pedagogy, emerging technology and professional practice.

EDITORIAL RULE

Only records present in the supplied export are counted.

Register rule

The second register page keeps the year visible as a sequence of people, topics and institutions; short lists stay short rather than padded.

10 / PUBLICATION RECORD

Research in print

The publication exports give this issue a measurable research section. The cards below count ECE records by category for 2024-25.

JOURNAL ARTICLES	CONFERENCE PAPERS	BOOK CHAPTERS	ARTICLES	PATENTS
24	20	02	01	06
RECORDS	RECORDS	RECORDS	RECORDS	RECORDS

What the numbers contain

Across the four categories, the record moves between antennas, signal processing, embedded systems, AI, healthcare instrumentation, VLSI, communications and related engineering applications. The titles are varied; the common discipline is the need to state a problem clearly and defend a method.

> **A communication link is successful only when the receiver can act on the message with the right context.**



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INDEX NOTE

Counts come from the publication export, grouped by the field supplied with each record.

READING RULE

Titles stay as exported; no venue or index is added where the record has none.

11 / JOURNAL ARTICLES

Journal record

24 journal-article records are mapped to 2024-25 in the supplied export.

DATE	TITLE / CONTRIBUTOR	VENUE
28 JUN 2025	**Metamaterial Inspired Partial & Defected Ground Based Low Profile Dual Band Printed Antenna For Vehicular Communication And Multi-Standard Applications** Sri Soumendra Pain · Scopus	Tanz Research Journal
15 JUN 2025	**A Predictive AI Framework For Proactive Pollution Control And Environmental Protection** Sri Samujjwal Ray · Scopus	International Journal of Environmental Sciences
01 JUN 2025	**Metamaterial Inspired Partial & Defected Ground Based Low Profile Dual Band Printed Antenna For Vehicular Communication And Multi-Standard Applications** Dr. Tapas Mondal · Scopus	Tanz research journal
21 MAY 2025	**Hybrid Deep Learning Models In Image Classification: Integrating Cnns With Attention, Capsule Networks, And Graph Neural Networks** Sri Nilkamal Bhunia · Scopus	Journal of Information Systems Engineering and Management
07 MAY 2025	**Stub-Based Higher Order Harmonics Suppression For Upper W-Lan Band Microstrip Patch Antenna** Sri Moloy Mukherjee · Scopus	Journal of Neonatal Surgery
05 MAY 2025	**Stub-Based Higher Order Harmonics Suppression For Upper W-Lan Band Microstrip Patch Antenna** Sri Surajit Batabyal · Scopus	Journal of Neonatal Surgery
05 MAY 2025	**Stub-Based Higher Order Harmonics Suppression For Upper W-Lan Band Microstrip Patch Antenna** Smt. Subhadra Debroy · Scopus	Journal of Neonatal Surgery

JOURNAL ARTICLES **24** ECE FACULTY RECORDS



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INDEX TYPES

SCI, SCIE, Scopus and ESCI labels are printed exactly as exported.

COVERAGE

Journal records mapped to this academic year only; earlier years stay in their own volume.

12 / CONFERENCE PAPERS

Conference record

Conference entries show where ECE research meets peer discussion, technical communities and applied problems.

DATE	TITLE / CONTRIBUTOR	VENUE
20 JUN 2025	**A Quarter Mode Siw (Qmsiw) Cavity Based Band Pass Filter (BPF) For 5G Wireless Applications** Smt. Keka Hajra · Scopus	1st Int. Conf. on Radio Frequency Comm. and Networks (RFCoN)
18 JUN 2025	**A Quarter Mode Siw (Qmsiw) Cavity Based Band Pass Filter (BPF) For 5G Wireless Applications** Dr. Sourav Moitra · Scopus	RFCON 2025
05 APR 2025	**Low-Pdp 7:3-Counter With Novel Multi-Threshold 2:1-Multiplexer** Dr. Tribeni Prasad Banerjee · Scopus	IEEE Conference on Devices for Integrated Circuit (DevIC)
05 APR 2025	**Low-Pdp 7:3-Counter With Novel Multi-Threshold 2:1-Multiplexer** Dr. Aloke Saha · Scopus	2025 IEEE Devices for Integrated Circuit (DevIC)
05 APR 2025	**Low-Pdp 7:3-Counter With Novel Multi-Threshold 2:1-Multiplexer,** Dr. Mrinmoy Chakraborty · Scopus	IEEE Conference on Devices for Integrated Circuit (DevIC),
08 MAR 2025	**Investigation On Different Array Configurations Of Microstrip Antenna At 28 Ghz** Dr. Aritra Bhowmik · Scopus	2025 IEEE 14th International Conference on Communication Systems and Network Technologies (CSNT)
31 JAN 2025	**Siw Antenna With Cavity Backed Feature And Integrated Connected U Slot For Satellite Application Band** Dr. Mrinmoy Chakraborty · Scopus	2025 8th International Conference on Electronics, Materials Engineering & Nano-Technology (IEMENTech)
19 DEC 2024	**Indoor-Outdoor GNSS Performance Across Various Android Smartphones** Smt. Moutusi Mondal · SCI	2024 IEEE 21st India Council International Conference (INDICON)
15 DEC 2024	**Improving The Performance Of Block Sparse Set-Membership Pnlms Algorithm Using L1 Norm** Sri Nilkamal Bhunia · SCI	CALCON 2024

CONFERENCE OUTPUT IN THIS ISSUE

20 records

Venue, index and contributor fields are retained where present in the supplied publication export.

VENUE RULE

Venue, index and contributor fields are retained exactly where the export supplies them.

COVERAGE

Only conference records mapped to this academic year are printed.

13 / BOOK CHAPTERS AND ARTICLES

Long-form contributions

Book chapters and article records add another scale to the department's research presence.

Book chapters · 02

DATE	TITLE / CONTRIBUTOR	VENUE
29 MAY 2025	**Area Efficient Lightweight Cipher System Implementation For Edge Device** Dr. Tribeni Prasad Banerjee	Bio-Inspired Computing of Springer Nature
19 JAN 2025	**AI In Vocational Education And Training: Technologies And Applications** Dr. Abhijit Banerjee	Transforming Vocational Education and Training Using AI

Articles · 01

DATE	TITLE / CONTRIBUTOR	VENUE
28 JUN 2025	**Integrating Notch Filtering And Statistical Methods For Improved Cardiac Diagnostics Using Matlab** Dr. Tribeni Prasad Banerjee	Electrical Engineering and Systems Science of Cornell University

A blank title or incomplete venue field has not been replaced with invented copy.



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Register note

A thin table is a real count, not a layout failure: only records mapped to this academic year are printed.

COVERAGE

Book chapters appear here; journal and conference records stay on their own register pages.

NEXT VOLUME

New chapters enter the register as the supplied export provides them.

5	86	33	233
ECE events	publication records	faculty activities	students in represented cohorts

14 / PATENTS AND APPLIED RESEARCH

Ideas that leave the paper

Patent records in the supplied export point to applied work across healthcare, IoT, energy, safety and assistive systems.

20 JUN 2025

A System And Method For The Development Of IoT Based Smart Helmet For The Mining Personnel

Dr. Anirban Chattopadhyay
PUBLISHED

Patent number not recorded

02 JUN 2025

Solar Powered Smart Umbrella

Sri Tapas Roy
Accepted

461028-001

25 APR 2025

Machine Learning Algorithms For IoT: Powering Intelligent Systems

Sri Samujjwal Ray
Published

17/2025

25 APR 2025

Machine Learning Algorithms For IoT: Powering Intelligent Systems

Sri Moloy Mukherjee
Published

17/2025

25 NOV 2024

Solar Power Based Hydrogen Cooking Oven

Sri Tapas Roy
Status recorded in export

432222-001

27 AUG 2024

AI Based Healthcare Device For Diagnosing Abdominal Diseas

Smt. Moutusi Mondal
Published

6385812

06 patent records mapped to this academic year in the supplied ECE export.



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15 / RESEARCH THEMES

Four research lanes

The publication titles form a readable map of the department's research interests. The lanes below are an editorial grouping of the records, not a new institutional classification.

01

VLSI and devices

Circuits, filters, adder design, metamaterials and device-level questions.

02

Antennas and communication

Microstrip antennas, GNSS, wireless systems, phased arrays and connected mobility.

03

AI, signal and data

Signal fusion, prediction, image compression, reinforcement learning and analytics.

04

Healthcare and society

Biomedical signals, monitoring, assistive devices, safety and human context.

A Question
Name the real problem.

B Method
Choose evidence that can answer it.

C Result
Show what changed.

D Limit
State where it stops working.

Research rule

The four lanes are an editorial grouping of the exported titles; they help a reader find a thread without inventing a new department classification.

EVIDENCE LENS

Every lane above resolves to records printed on the register pages of this issue.

NEXT STEP

New records enter the register first; the lanes are revised only after that.

16 / STUDENT CONTEXT

The cohort is part of the story

Student names are not printed as a public roll list here. The supplied batch workbooks are used to keep the issue anchored to the size and progression of the student community.

BATCH REGISTER

2020–2024

STUDENTS REPRESENTED

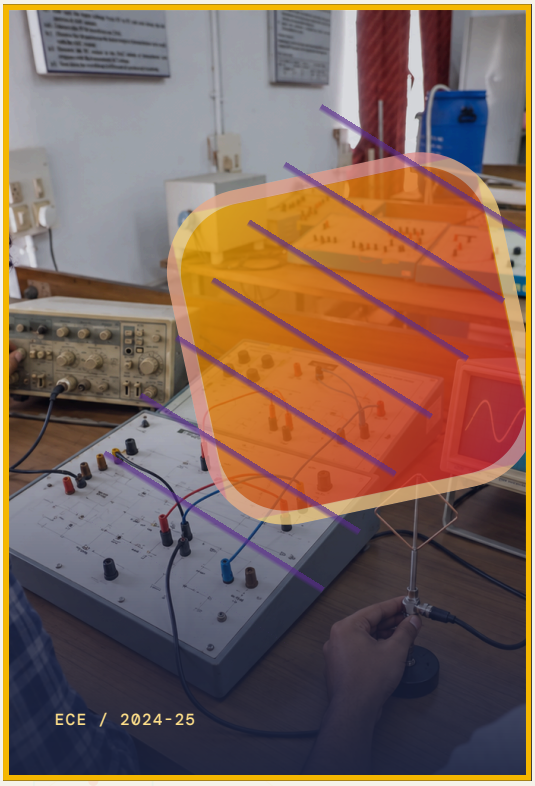
106

BATCH REGISTER

2021–2025

STUDENTS REPRESENTED

127



ECE / 2024-25

STUDENT-FACING EDITORIAL

Learning becomes visible when a project has a boundary.

A project gives a student a boundary: a sensor to read, a signal to clean, a link to stabilise or a device to explain. The boundary makes decisions visible. It also makes teamwork necessary, because the circuit, the code, the report and the demonstration cannot be separated for long.

The event and publication records in this volume provide different routes into that practice. A workshop can supply a new tool; a visit can add context; a paper can show how a narrow question is defended.

Cohort note

The counts above come from the supplied batch workbooks: they describe who the issue is written for, not a ranking of any student or batch.

A Read
Start from the supplied batch workbook.

B Count
Take the cohort size the workbook states.

C Context
Set the count beside events and publications.

D Revise
Update only when the workbook changes.

17 / FEATURE ARTICLE

Communication begins where noise enters

The useful question is not whether a link works once. It is what the link does when the environment stops cooperating.

Noise is not only an electrical disturbance. It can be attenuation, congestion, a poorly chosen sampling rate, an ambiguous alert or a missing context around the data. The engineering response begins with naming which kind of uncertainty is present and which part of the system can absorb it.

A reliable link is therefore a chain of choices. The source decides what deserves to be measured. The channel decides what can travel. The receiver decides what can be trusted. The application decides what action is justified. Each choice narrows the distance between a signal and a useful decision.

This is why communication projects benefit from a wider design review. Range and throughput matter, but so do safety, privacy, energy use, accessibility and maintenance. The system is connected to its users long before it is connected to a network.

PROJECT TRANSLATION

Four ways to begin

01 **Measure**
Start with a signal, a reference and a question.

02 **Connect**
Define the source, channel and context around the message.

03 **Compute**
Make the algorithm answer a physical requirement.

04 **Account**
Test the edge case and state the limitation.

A communication link is successful only when the receiver can act on the message with the right context.

DESIGN LENS

Purpose, power, enclosure and test plan are design decisions, not afterthoughts.

EDITORIAL RULE

Interpretive essays are labelled; the record pages stay with the source data.

18 / FACULTY DIRECTORY

The people at the desk

Faculty names and designations are taken from the supplied faculty.csv file. Contact details are kept out of this public layout.

	Dr. Tapas Mondal	Associate Professor
	Smt. Moutusi Mondal	Assistant Professor
	Smt. Keka Hajra	Assistant Professor
	Sri Samujjwal Ray	Assistant Professor
	Sri Pradipta Sarkar	Assistant Professor
	Sri Surajit Batabyal	Assistant Professor
	Sri Moloy Mukherjee	Assistant Professor
	Sri Tapas Roy	Assistant Professor
	Dr. Aritra Bhowmik	Assistant Professor
AS	Dr. Aloke Saha	Professor
	Dr. Mrinmoy Chakraborty	Associate Professor
	Dr. Sourav Moitra	Associate Professor
	Sri Nilkamal Bhunia	Assistant Professor
	Dr. Tribeni Prasad Banerjee	Associate Professor
KM	Dr. Khondekar Mofazzal Hossain	Vice Principal & Professor
	Dr. Anup Kumar Das	Assistant Professor
	Smt. Subhadra Debroy	Assistant Professor
SP	Sri Soumendra Pain	Assistant Professor
DC	Smt. Dipta Chaudhuri	Assistant Professor
	Dr. Anirban Chattopadhyay	Assistant Professor
	Dr. Abhijit Banerjee	Associate Professor
RR	Dr. Ramkrishna Rakshit	Assistant Professor

HOD Dr. Mrinmoy Chakraborty CONVENER Dr. Sourav Moitra DEPARTMENT Electronics & Communication Engineering

DIRECTORY RULE

Designations follow the supplied faculty export; photographs are the official BCREC portraits.

OFFICE HOURS

Departmental contact details are shared through the college office, not printed here.

SANJOG · DEPARTMENT OF ECE DR. B.C. ROY ENGINEERING COLLEGE · DURGAPUR

19 / DEPARTMENT PROFILE

How the record is assembled

The event and activity exports show a department working through committees, co-hosts, labs, seminar rooms, industry sites and higher-study conversations.

Event committees

03	DEPARTMENTAL SEMINAR WORKSHOP ORGANIZING COMMITTEE
01	TRAINING, MOOCS, HIGHER STUDIES
01	PROJECT COMMITTE

Associations and co-hosts

01	IIPC & Induction Program Cell
01	IIPC
01	IEEE Student Branch
01	IIPC & Carrier Council Cell

5 documented ECE events

Each event card in this issue points back to the supplied workbook. The newsletter keeps the record human-readable without changing the source fields.



DIGITAL SYSTEMS LAB



ANALOG CIRCUITS LAB



COMMUNICATION LAB



VLSI DESIGN CENTER

A Collect
Take committees and co-hosts from the event export.

B Count
Group the fields exactly as supplied.

C Print
Show a note where a field is blank.

D Check
Recount before the issue is released.

WHERE RECORDS LIVE

Events, activities, publications and cohorts each keep their own supplied export.

WHAT CHANGES NEXT

Verified photographs and captions can be added without touching the counts.

20 / EDITORIAL RECORD

Sources and credits

This volume is designed to be revised as verified photographs, student project notes and approved departmental messages become available.

PRIMARY SOURCES

Records used in this issue

- events (1).xlsx, filtered to Department = ECE.
- PUBLICATIONS exports: journal articles, conferences, book chapters, articles, patents and professional activities.
- faculty.csv, filtered to Department = ECE.
- Student batch workbooks used only for cohort counts.
- Mechanical Engineering newsletter PDF used as the structural and page-rhythm reference.
- Official BCREC ECE webpage images used as visual references for the generated project imagery.

EDITORIAL METHOD

What has been kept visible

Dates, titles, venues, contributors, counts and source links remain close to the records that supplied them. Interpretive articles are labelled as editorial pieces. Missing fields are not replaced with invented details.

Sanjog

Department of Electronics & Communication Engineering
Dr. Sourav Moitra · Convener
Dr. Mrinmoy Chakraborty · HOD

Prepared as an editable HTML newsletter layout. Add approved event photographs, student project captions and final institutional messages before public release.

NEXT REVISION

Verified photographs, project captions and approved messages can be added without changing the layout.

CONTACT

Department of Electronics & Communication Engineering, Dr. B.C. Roy Engineering College, Durgapur.

A Collect
Gather photographs and captions as they are approved.

B Verify
Check each record against its source file.

C Credit
Name the source beside every printed figure.

D Revise
Rebuild the issue; the layout keeps its structure.



DR. B.C. ROY SOCIETY ENGINEERING

Sanjog

The link between things

Department of Electronics & Communication Engineering

Dr. B.C. Roy Engineering College, Durgapur

VOLUME 03 · 2024-25

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