DR. B.C. ROY SOCIETY ENGINEERING

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING · NBA ACCREDITED



VOLUME 01 · 2022-23

Sanjog

THE YEAR THE SIGNAL BECAME A SYSTEM

Foundations, first measurements and the discipline behind the first prototype.

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 2022-23 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 2022-23. 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 year the signal became a system**. 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

4
ECE events

49
publication records

25
faculty activities

262
students in represented cohorts

Issue theme

The year the signal became a system — Foundations, first measurements and the discipline behind the first prototype.

EDITORIAL RULE

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

VOLUME LENS

The year the signal became a system

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 2022-23, 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 2022-23 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 01

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

23

A measurement is not decoration around a circuit. It is part of the circuit's argument.

4
ECE events

49
publication records

25
faculty activities

262
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 2022-23 record moves from recent trends in electronics to project management, device research and an exposure visit to CSIR-CMERI. The common thread is a widening view of what an electronics engineer needs to observe.

01

DEPARTMENT EVENT · 19 SEP 2022

Recent Trends And Advances In Electronics

Venue: DR. B. C. ROY ENGINEERING COLLEGE, DURGAPUR
Association: Department record

02

INDUSTRY VISIT · 29 NOV 2022

One Day Exposure Visit In CSIR-CMERI, Durgapur

Venue: CSIR-CMERI, DURGAPUR
Association: IIPC

03

TALK / SESSION · 03 FEB 2023

Interactive Session On "What And Why Is Project Management Essential Today? And How It'S Satisfying

Venue: ALBERT EINSTEIN SEMENER HALL, DR. B.C.ROY ENGINEERING COLLEGE, DURGAPUR
Association: IIPC

PHOTO RECORD ↗

04

WORKSHOP · 29 MAY 2023

Workshop On Metamaterial And Metamaterial Assisted Vacuum Electronic Devices

Venue: DR. B. C. ROY ENGINEERING COLLEGE, DURGAPUR
Association: Thinkers in Vacuum Electron Device Group, India

4 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.



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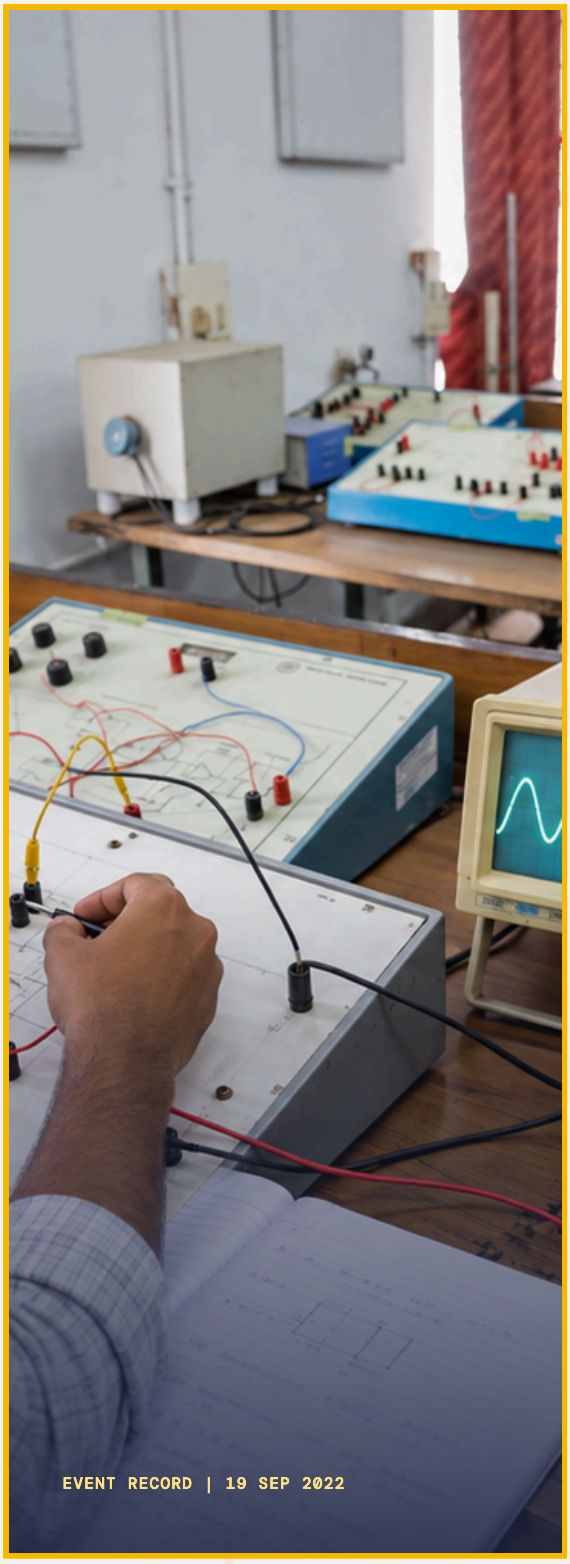
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EVENT RECORD | 19 SEP 2022

05 / EVENT FEATURE

Recent Trends And Advances In Electronics

The event record places this engagement in DR. B. C. ROY ENGINEERING COLLEGE, DURGAPUR, under DEPARTMENTAL EDITORIAL 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
19 SEP 2022

ASSOCIATION
Department record

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 · 29 NOV 2022

One Day Exposure Visit In CSIR-CMERI, Durgapur

Venue: CSIR-CMERI, DURGAPUR
Association: IIPC

02

TALK / SESSION · 03 FEB 2023

Interactive Session On "What And Why Is Project Management Essential Today? And How It'S Satisfying

Venue: ALBERT EINSTEIN SEMENER HALL, DR. B.C.ROY ENGINEERING COLLEGE, DURGAPUR
Association: IIPC

PHOTO RECORD ↗

03

WORKSHOP · 29 MAY 2023

Workshop On Metamaterial And Metamaterial Assisted Vacuum Electronic Devices

Venue: DR. B. C. ROY ENGINEERING COLLEGE, DURGAPUR
Association: Thinkers in Vacuum Electron Device Group, India

DATE	EVENT	LOCATION	CO-HOST / ASSOCIATION
19 SEP 2022	**Recent Trends And Advances In Electronics** Department event	DR. B. C. ROY ENGINEERING COLLEGE, DURGAPUR	-
29 NOV 2022	**One Day Exposure Visit In CSIR-CMERI, Durgapur** Industry visit	CSIR-CMERI, DURGAPUR	IIPC
03 FEB 2023	**Interactive Session On "What And Why Is Project Management Essential Today? And How It'S Satisfying** Talk / session	ALBERT EINSTEIN SEMENER HALL, DR. B.C.ROY ENGINEERING COLLEGE, DURGAPUR	IIPC
29 MAY 2023	**Workshop On Metamaterial And Metamaterial Assisted Vacuum Electronic Devices** Workshop	DR. B. C. ROY ENGINEERING COLLEGE, DURGAPUR	Thinkers in Vacuum Electron Device Group, India



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07 / FACULTY DEVELOPMENT AND PROFESSIONAL ACTIVITY

Faculty learning is part of the department record

The supplied professional-activities export records 25 ECE entries for this academic year. The list includes FDPs, seminars, workshops, short-term programmes and related learning activity.

25
RECORDED ACTIVITIES

9
FACULTY CONTRIBUTORS

3
ACTIVITY TYPES

29 MAY 2023

Metamaterial And Metamaterial Assisted Vacuum Electronic Devices

ECE Dept. BCREC

29 MAY 2023

Workshop On "Metamaterial And Metamaterial Assisted Vacuum Electronic Devicec

ECE Department, Dr. B. C. Roy Engineering College, Durgapur

29 MAY 2023

Workshop On Metamaterial And Metamaterial Assisted Vacuum Electronic Devices

Department of Electronics & Communication Engineering

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
29 MAY 2023	**Metamaterial And Metamaterial Assisted Vacuum Electronic Devices** WORKSHOP	ECE Dept. BCREC	BCREC
29 MAY 2023	**Workshop On "Metamaterial And Metamaterial Assisted Vacuum Electronic Devicec** WORKSHOP	ECE Department, Dr. B. C. Roy Engineering College, Durgapur	Dr. B. C. Roy Engineering College, Durgapur
29 MAY 2023	**Workshop On Metamaterial And Metamaterial Assisted Vacuum Electronic Devices** WORKSHOP	Department of Electronics & Communication Engineering	Dr BC Roy Engineering College (BCREC), Durgapur
06 FEB 2023	**FDP On "Fast Emerging Research Domain For Future Trends Of Advanced Computation"** FDP	Dr. B. C Roy Engineering College, Durgapur	Dr. B. C Roy Engineering College, Durgapur
19 SEP 2022	**Recent Trends And Advances In Electronics** FDP	ECE Dept. BCREC	BCREC
19 SEP 2022	**FDP On " Recent Trends And Advances In Electronic** FDP	ECE Department, Dr. B. C. Roy Engineering College, Durgapur	Dr. B. C. Roy Engineering College, Durgapur
19 SEP 2022	**FDP On " Recent Trends And Advances In Electronics** FDP	Department of Electronic and Communication Engineering, Dr. B.C. Roy Engineering College, Durgapur	Durgapur
19 SEP 2022	**Recent Trends And Advances In Electronics** FDP	Department of Electronics & Communication Engineering , BCREC	Dr. B. C. Roy Engineering College, Durgapur
15 JUL 2022	**Hardware Modelling Using Verilog** FDP	NPTEL (IIT KHARAGPUR)	ONLINE

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



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A Collect
Take the professional-activity records as supplied.

B Match
Map each record to this academic year.

C Print
Keep organizer and location fields unchanged.

D Check
Recount before the issue is released.

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
29 MAY 2023	**Metamaterial And Metamaterial Assisted Vacuum Electronics Devices** FDP	ECE Department, Dr. B.C.Roy Engineering College, Durgapur and Thinkers in Vacuum Electron Devices group	Durgapur
27 MAR 2023	**Introduction To Machine Learning And Deep Learning** FDP	NITTTR, Kolkata	NITTTR, Kolkata
19 DEC 2022	**Recent Advancement In Smart Grid And Renewable Energy** FDP	Department of Electrical Engineering, BCREC and the Institutes of Engineers (IEI), Durgapur Local Chapter	Dr. B. C Roy Engineering College, Durgapur
18 DEC 2022	**Recent Trends And Advances In Electronics** FDP	ELECTRONICS AND COMMUNICATION DEPARTMENT	DR. B.C. ROY ENGINEERING COLLEGE
01 DEC 2022	**Software Engineering In Agile World** SEMINAR	TCS	Durgapur
19 SEP 2022	**Recent Trends And Advances In Electronics** FDP	Dr. B.C.Roy Engineering College, Durgapur	Durgapur
22 AUG 2022	**Advancements Of Cyber Security** FDP	Department of CSE, Dr. B. C Roy Engineering College, Durgapur	Dr. B. C. Roy Engineering College, Durgapur
22 AUG 2022	**Advancements Of Cyber Security** FDP	Dr B C Roy Engineering College	Durgapur
28 JUL 2022	**Recent Innovation In Antennas And Rf Frontend Systems For 5G** FDP	Department of Electronics and Communication Engineering, CBIT Hyderabad and ARK Infosloution Pvt. Ltd	CBIT Hyderabad

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 2022-23.

JOURNAL ARTICLES	CONFERENCE PAPERS	BOOK CHAPTERS	ARTICLES	PATENTS
06	15	02	00	01
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 measurement is not decoration around a circuit. It is part of the circuit's argument.**



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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

6 journal-article records are mapped to 2022-23 in the supplied export.

DATE	TITLE / CONTRIBUTOR	VENUE
18 APR 2023	**An Investigation Of The Relationship Between The Cme And The Geomagnetic Storm** Dr. Anirban Chattopadhyay · SCIE	Astronomy and Computing
01 APR 2023	**An Investigation Of The Relationship Between The Cme And The Geomagnetic Storm** Dr. Khondekar Mofazzal Hossain · SCI	Astronomy and Computing
14 JAN 2023	**Multifractal Cross-Correlation Analysis Between Cme And Planetary K-Index Time Series** Dr. Anirban Chattopadhyay · SCIE	Astronomische Nachrichten
02 JAN 2023	**Multifractal Cross-Correlation Analysis Between Cme And Planetary K-Index Time Series** Dr. Khondekar Mofazzal Hossain · SCI	AstronomischeNachrichten
11 AUG 2022	**Evaluating Pdop In Multi-GNSS Environment** Smt. Keka Hajra · Other	IETE Journal of Research
22 JUL 2022	**Fault Signature Identification For Bldc Motor Drive System-A Statistical Signal Fusion Approach** Dr. Tribeni Prasad Banerjee · Scopus	Systems and Control

JOURNAL ARTICLES **06** 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.

A Collect — Take journal records from the export.

B Match — Map each record to this academic year.

C Print — Keep index and venue fields as supplied.

D Check — Recount before the issue is released.

12 / CONFERENCE PAPERS

Conference record

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

DATE	TITLE / CONTRIBUTOR	VENUE
03 MAY 2023	**Neuroevolution-Based Hyperparameter Tuning For Reinforcement Learning In Sdn Computation Offloading** Dr. Abhijit Banerjee · Scopus	7th IET Smart Cities Symposium (SCS 2023)
09 APR 2023	**Semicircular-Shaped Dual-Band Mimo Antenna For Wideband Sub-6 Ghz Wireless Applications** Dr. Aritra Bhowmik · Scopus	2023 IEEE 12th International Conference on Communication Systems and Network Technologies (CSNT), Bhopal, India
07 APR 2023	**One Dimensional Chaotic Map Implementation In Fpga Board For Image Encryption** Sri Pradipta Sarkar · Scopus	2023 IEEE Devices for Integrated Circuit (DevIC)
07 APR 2023	**One Dimensional Chaotic Map Implementation In Fpga Board For Image Encryption** Dr. Anup Kumar Das · Scopus	Devices for Integrated Circuit (DevIC)
07 APR 2023	**Minimally Coupled E-Shaped Dual-Band Antenna For Wireless Applications** Dr. Aritra Bhowmik · Scopus	2023 IEEE Devices for Integrated Circuit (DevIC), Kalyani, India
07 APR 2023	**Implementation Of The Quantum Bcd-To-Excess-3 Code Converter Using New Quantum Reversible Circuit Block** Dr. Aritra Bhowmik · Scopus	2023 IEEE Devices for Integrated Circuit (DevIC), Kalyani, India
07 APR 2023	**Input Variable Bypass Or Ivb Technique For Logic Functions Simplification** Dr. Aritra Bhowmik · Scopus	2023 IEEE Devices for Integrated Circuit (DevIC), Kalyani, India
07 APR 2023	**Novel 32Nm Cmos Ternary 3'S Complement Generator** Dr. Aloke Saha · Scopus	2023 IEEE Devices for Integrated Circuit (DevIC)
07 APR 2023	**One Dimensional Chaotic Map Implementation In Fpga Board For Image Encryption** Dr. Aloke Saha · Scopus	2023 IEEE Devices for Integrated Circuit (DevIC)

CONFERENCE OUTPUT IN THIS ISSUE

15 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
13 MAR 2023	**Secure Cryptography Using Chaotic Algorithm** Dr. Anup Kumar Das	Novel Research and Development Approaches in Heterogeneous Systems and Algorithms

Articles · 00

DATE	TITLE / CONTRIBUTOR	VENUE

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.

4
ECE events

49
publication records

25
faculty activities

262
students in represented cohorts

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.

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.

26 OCT 2022

An Ultra-Wideband Antenna And Process Of Fabrication Of The Antenna

Dr. Mrinmoy Chakraborty
Granted

409866

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



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Applied research

Each patent record points to applied work that left the paper: healthcare, IoT, energy, safety and assistive systems.

COVERAGE

Only records mapped to this academic year are counted here.

READING RULE

Status and number are printed exactly as exported.

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

2018–2022

137

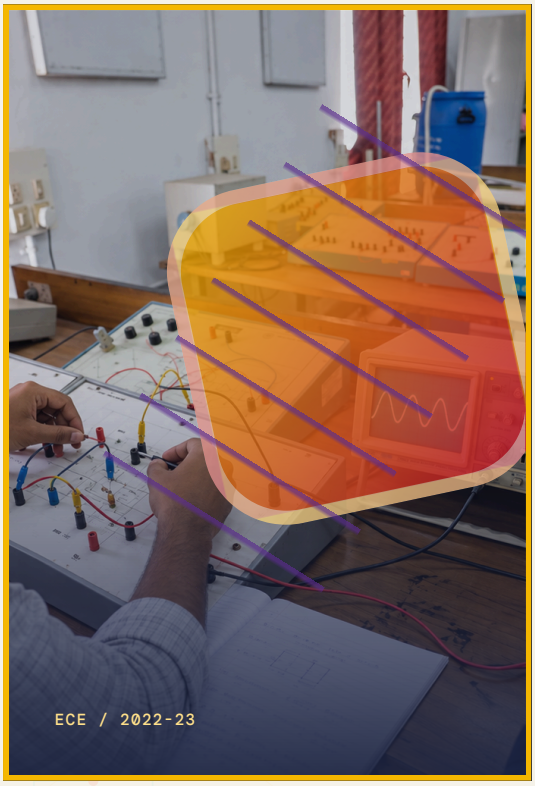
STUDENTS REPRESENTED

BATCH REGISTER

2019–2023

125

STUDENTS REPRESENTED



ECE / 2022-23

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

Reading a signal before trying to improve it

Every system begins as an observation. The better the observation, the less guesswork the design needs.

An oscilloscope does not tell an engineer what a signal means. It shows what is present at one point, at one time, under one set of conditions. That limitation is useful. It forces the designer to ask where the probe is connected, what the ground reference is, whether the source is loaded and whether the trace is stable enough to trust.

Those questions are small, but they are not elementary. They are the beginning of engineering judgement. A clean sine wave can hide a bad connection; a noisy trace can reveal a real interaction between a circuit and its environment. Measurement turns intuition into a record that another person can check.

The first working prototype therefore has two outputs: the behaviour of the circuit and the explanation of the behaviour. Both belong in the lab notebook. A drawing, a measured value and a sentence about what changed can save more time than another hour of blind adjustment.

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 measurement is not decoration around a circuit. It is part of the circuit's argument.**

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

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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

02	DEPARTMENTAL EDITORIAL COMMITTEE
01	TRAINING, MOOCS, HIGHER STUDIES
01	DEPARTMENTAL SEMINAR WORKSHOP ORGANIZING COMMITTEE

Associations and co-hosts

02	IIPC
01	Thinkers in Vacuum Electron Device Group, India

4 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

Assembly rule

Committee and co-host fields are counted as exported; where a field is blank the issue prints a note instead of a guess.

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 year the signal became a system

Department of Electronics & Communication Engineering

Dr. B.C. Roy Engineering College, Durgapur

VOLUME 01 · 2022-23

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