

Chandigarh Engineering College – CGC, Landran, Mohali

*(An Autonomous Institution, NAAC Accredited, NBA Accredited, Affiliated to I.K. Gujral
Punjab Technical University, Kapurthala)*

Department of Electronics & Communication Engineering

Minutes of the Board of Studies (BoS) Meeting

1. Meeting Details

- **Date:** 22.05.2025
- **Time:** 10.30 AM to 12.30 PM
- **Venue:** HoD office, ECE Department, Block-01
- **Mode:** Physical
- **BoS Meeting No.:** 1st

2. Attendance, preferably in tabular form

Chairperson:

S.No.	Name and Affiliation	Designation in the BoS
1.	Dr. Vinay Bhatia, Professor & Head-ECE, CEC-CGC	Chairperson

External Members:

S.No.	Name and Affiliation	Designation in the BoS
1.	Dr. R.K. Bansal, Professor, MRSPTU, Bathinda (Expert nominated by the VC of IKGPTU)	Member
2.	Dr Rajesh Khanna, Professor, ECE Department, Thapar Institute, Patiala (Subject Expert)	Member
3.	Dr. Sunil Agrawal, Professor, UIET, PU, Chandigarh (Subject Expert)	Member
4.	Dr. Surinder Saini, Senior Principal Scientist, Indo- Swiss Training Centre, CSIO, Chandigarh (Representative from Industry)	Member
5.	Mr. Manjot Singh, Microsoft Solutions, Mohali (Alumni)	Member

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Internal Members:

S.No.	Name and Affiliation	Designation in the BoS
1.	Dr. Ankur Singhal, Professor-ECE, CEC-CGC	Member (BoS Convener)
2.	Dr. Sukhdeep Kaur, Professor-ECE, CEC-CGC	Member
3.	Dr. Deepak Dhadwal, Assoc. Prof.-ECE, CEC-CGC	Member
4.	Dr. Shalley Bakshi, Asstt. Prof.-ECE, CEC-CGC	Member
5.	Ms. Rachna Manchanda, Asstt. Prof.-ECE, CEC-CGC	Member
6.	Ms. Preeti Bansal, Asstt. Prof.-ECE, CEC-CGC	Member
7.	Dr. Simarpreet Kaur, Asstt. Prof.-ECE, CEC-CGC	Member
8.	Mr. Ankit Mondal (UG Student)	Member
9.	Ms. Jaspreet Kaur (PG Student)	Member

Members Absent (with or without intimation):

Nil

3. Agenda Items**Item No. 1: Welcome note by the chairperson, BoS.**

The Chairperson opened the session with a welcoming address to the members of Board of Studies, fostering a spirit of collaboration and mutual respect for the discussions ahead. The address underscored the importance of innovation, academic excellence, and continuous improvement in shaping the institution's future. Strategic priorities for the upcoming academic term were clearly outlined, with a strong emphasis on interdisciplinary initiatives, curriculum enhancement, and research-driven teaching practices. The Chairperson encouraged members to engage proactively, contribute constructively, and embrace a shared vision for transformative education. Recognizing the evolving demands of the academic landscape, the address called for agility, inclusivity, and a commitment to student-centered learning.

Item No. 2: Introduction of BoS Members.

1. The chairperson introduced all the External as well as Internal Board of Studies Members during his address.

Item No. 3: Brief Overview of Autonomy Status.

1. The Chairperson started the meeting with brief overview of autonomy status of the institution. He stated that Chandigarh Engineering College – CGC, Landran, Mohali, has been conferred the autonomous status from UGC vide letter number F.2-10/2023 (AC-Policy) dated 02-01-2025 and subsequently endorsed by the affiliating university IKGPTU vide letter no. IKGPTU/REG/NF/CD/57, dated 05/03/2025 for 10 years starting from 2025-26.

Item No. 4: To consider and approve the Study Scheme, Course Codes and Syllabus of Basic Electrical Engineering (Theory and Lab), for First Semester of B.Tech and M. Tech. program for the Academic year 2025-26.

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1. Resolved that the course code and course name as presented in the meeting is recommended for the subjects: Basic Electrical Engineering (Theory & Lab).
2. It is recommended that the nomenclature and contents to be modified include concepts of electronics engineering by Dr. R.K.Bansal (Professor, MRSPTU) and Dr. Rajesh Khanna (Professor, TI, Patiala). Based on this observation the new name for the subject recommended and approved is as follows:
 - a) Subject Name: Basic Electrical and Electronics Engineering (BEEE)
Subject Code: 25C1ECU-101
 - b) Subject Name: Basic Electrical and Electronics Engineering Lab (BEEE Lab)
Subject Code: 25C1ECU-111
3. Resolved to approve the study scheme and syllabus of Basic Electrical and Electronics Engineering (Theory & Lab) by the members after the discussion.
4. Detailed syllabus: After the discussion and recommendation on the Basic Electrical and Electronics Engineering theory syllabus as suggested by of Dr. Sunil Agrawal (Professor, PU) and Mr. Manjot Singh (Alumni), it was decided that the following changes to be incorporated:
 - a) The unit nomenclature has been revised from modules to units, based on discussions with Board of Studies.
 - b) In **Unit 1**, a new topic, Star-delta transformation has been added to facilitate easier understanding of circuits.
 - c) In **Unit 2**, No changes have been made to the topics.
 - d) In **Unit 3**, the contents have been restructured with the discussion of external members of BoS and unanimously the topics from Unit 4 have been added to Unit 3;
 - Components of LT Switchgear: Switch Fuse Unit(SFU), Miniature Circuit Breaker (MCB), MCCB, Earth Leakage Circuit Breaker (ELCB),
 - Types of Wires and Cables, Earthing.
 - Types of Batteries, Important Characteristics for Batteries.In addition to this, excluded topics as suggested by Dr. R.K. Bansal (Professor, MRSPTU) and Dr. Surinder Saini (Senior Principal Scientist, CSIO) from the unit are
 - Auto-transformer and three-phase transformer connections
 - Generation of rotating magnetic fields, Construction and working of a three-phase induction motor, Significance of torque-slip characteristic, Loss components and efficiency.
 - Single-phase induction motor, Construction, working of separately excited DC Motor.The topic the need for transformers and the construction and working of single-phase transformers have been reframed to provide clearer understanding between ideal and practical transformers. These removed topics involve complex mathematical analysis and are not essential for ECE students in higher semesters.
 - e) In **Unit 4**, following the discussion with the external members of Board of Studies, the topic of contactors has been excluded, as it is more relevant to industrial systems and better suited for specialized courses. The unit has been renamed from Electrical Installations to Introduction to Electronic Devices which include the topics of
 - Diode
 - BJTs
 - Sensors
 - Upcoming trends in electronics
 - f) In Basic Electrical and Electronics Engineering Lab four experiments are excluded:
 - To verify series and parallel resonance in AC circuits
 - To connect measuring analog and digital instruments to measure current, voltage, power and power factor.
 - Study of starters for (i) DC motor (ii) Induction motor and

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- Calibration of energy meter is not included in theory.

The first experiment requires advanced understanding which might be complex for beginners; the second experiment includes measuring instruments that are being used in majority BEEE lab experiments, while the third and fourth experiment is not included in theory.

g) In BEEE lab, twelve experiments have been selected from sixteen experiments and students need to perform ten experiments in total. These changes have been made judiciously in the syllabus as suggested by the external members.

h) The Basic Electrical and Electronics Engineering Lab have been restructured as per the updated BEEE theory syllabus.

5. Resolved that the course code and course name for M.Tech. ECE as presented in the meeting is recommended for the subjects:

a) Subject Name: Advanced Communication Networks

Subject Code: 25C1ECP-101

b) Subject Name: Wireless and Mobile Communication

Subject Code: 25C1ECP-102

c) Subject Name: Programme Elective I

Subject Code: 25C1ECP-PE1-XX

- Wireless Sensor Networks
- Optical Networks
- Statistical Information Processing

d) Subject Name: Programme Elective II

Subject Code: 25C1ECP-PE2-XX

- Cognitive Radios
- RF and Microwave Circuit Design
- Information Theory and Coding
- Fuzzy Logic & Systems
- Optical Communication Systems

e) Subject Name: Advanced Communication Networks Lab

Subject Code: 25C1ECP-111

f) Subject Name: Wireless and Mobile Communication Lab

Subject Code: 25C1ECP-112

g) Subject Name: Research Methodology and IPR

Subject Code: 25C1ECP-103

h) Subject Name: Audit Course I

Subject Code: 25C1ECP-AC-XX

i) Subject Name: Antennas and Radiating Systems

Subject Code: 25C1ECP-201

j) Subject Name: Advanced Digital Signal Processing

Subject Code: 25C1ECP-202

k) Subject Name: Programme Elective III

Subject Code: 25C1ECP-PE3-XX

- Satellite Communication
- Internet of Things
- Neural Networks
- Voice and Data Networks

l) Subject Name: Programme Elective IV

Subject Code: 25C1ECP-PE4-XX

- Nano-Electronics
- MIMO System
- Programmable Networks – SDN, NFV
- Evolutionary Algorithms
- Queuing Theory

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- m) Subject Name: Antennas and Radiating Systems Lab
Subject Code: 25C1ECP-211
- n) Subject Name: Advanced Digital Signal Processing Lab
Subject Code: 25C1ECP-212
- o) Subject Name: Mini Project
Subject Code: 25C1ECP-213
- p) Subject Name: Audit Course II
Subject Code: 25C1ECP-AC-XX
- r) Subject Name: Elective V
Subject Code: 25C1ECP-PE5-XX
 - MEMS and NEMS
 - Pattern Recognition and Machine Learning
 - Remote Sensing
- s) Subject Name: Open Elective I
Subject Code: 25C1ECP-OE1-XX
 - Business Analytics
 - Industrial Safety
 - Operations Research
 - Cost Management of Engineering Projects
 - Composite Materials
 - Waste to Energy
- t) Subject Name: Dissertation Phase I
Subject Code: 25C1ECP-DS1
- u) Subject Name: Dissertation Phase II
Subject Code: 25C1ECP-DS2
- 6. No change has been made in scheme and syllabus for M.Tech-ECE, as IKGPTU M. Tech. ECE scheme and syllabus is in line with AICTE Model Curriculum syllabus and necessary changes have already been incorporated. Further, the subjects and the syllabus are still relevant in industry and academia.
- 7. Resolved to approve the study scheme and syllabus of M.Tech ECE (Theory & Lab) by the members after the discussion.

Item No. 5: Continuation of IKGPTU Study Scheme and syllabus of Existing programmes of 2022, 2023 and 2024 Batch.

1. Resolved to approve the study scheme and syllabus of IKGPTU Study Scheme and syllabus of Existing programmes of 2022, 2023 and 2024 Batch by the members after the discussion.

Item No. 6: Discussion on Course Outcomes (COs)

1. Valuable inputs solicited from the members, following a thorough discussion, the presented Course Outcomes (COs) were approved for Basic Electrical and Electronics Engineering (Theory & Lab) and M.Tech ECE subjects.

Item No. 7: Incorporation of Feedback received from stakeholders.

1. Inputs from members of BoS are incorporated in curriculum.

Item No. 8:- Discussion / Suggestions on Textbooks, Reference Books.

1. Resolved to implement the changes in books in Basic Electrical and Electronics Engineering by the members after the discussion.

Item No. 9: Any other point with the permission of the Chair No.

Vote of Thanks

The Chairman of the Board of Studies expressed deep gratitude to all members for their hard work and collaborative approach in shaping the scheme and syllabus of Basic Electrical and Electronics Engineering (Theory and Lab) and M.Tech. ECE subjects. He acknowledged the valuable input, thoughtful discussions, and strong dedication shown by the team, which played a vital role in creating a curriculum that reflects global standards and responds to the changing expectations of learners and other stakeholders.

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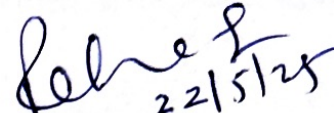
He concluded by praising the collective knowledge and teamwork that led to this accomplishment, and shared his confidence in the board's ongoing commitment to advancing academic goals and future initiatives.

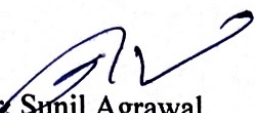
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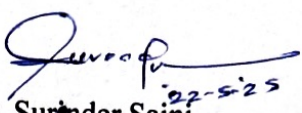

Chairperson, BOS


Name: Dr. Vinay Bhatia
Designation: Chairperson
(Signature with Date)

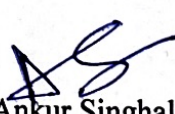

Dr. R.K. Bansal,
Professor, MRSPTU,
Bathinda
(Signature with Date)

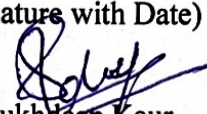

Dr. Rajesh Khanna,
Professor, ECE Department,
Thapar Institute, Patiala
(Signature with Date)



Dr. Sunil Agrawal,
Professor, UIET, PU,
Chandigarh
(Signature with Date)

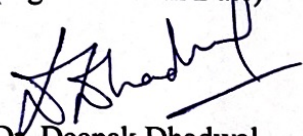

Dr. Surinder Saini,
Senior Principal Scientist,
Indo-Swiss Training Centre,
CSIO, Chandigarh
(Signature with Date)



Mr. Manjot Singh,
Microsoft Solutions, Mohali
(Alumni)
(Signature with Date)

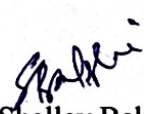

Dr. Ankur Singhal,
Professor-ECE, CEC-CGC
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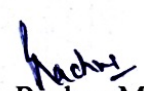

Dr. Sukhdeep Kaur,
Professor-ECE, CEC-CGC
(Signature with Date)



Dr. Simarpreet Kaur,
Asstt. Prof.-ECE, CEC-CGC
(Signature with Date)

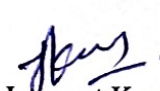

Dr. Deepak Dhadwal,
Assoc. Prof.-ECE, CEC-CGC
(Signature with Date)


Ms. Preeti Bansal,
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