

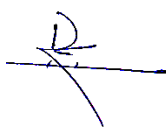
Teerthanker Mahaveer University, Moradabad
TMU College of Engineering
Department of Electronics and Communication Engineering
Minutes of BoS Meeting

A meeting of the Board of Studies was held in the Department of Electronics and Communication Engineering, TMU College of Engineering, on 13/06/2025. The following points were discussed regarding the syllabus and scheme for the existing B.Tech. and M.Tech program of the ECE Department, session 2025-26. The following members were present at the meeting:

1. Prof. R.P.S Gangwar, Professor, EC, Women Institute of Technology, Dehradun (External Expert)
2. Prof. Rakesh Kumar Dwivedi, Professor, Department of CSE (Nominated Member)
3. Dr. Alka Verma, HOD, EC, TMUCoE, TMU, Moradabad (Chairperson, BoS)
4. Dr. Vibhor Kumar Bhardwaj, Assistant Professor, EC, TMUCoE, TMU, Moradabad
5. Mr. Rahul Vishnoi, Assistant Professor, EC, TMUCoE, TMU, Moradabad (Member, BoS)
6. Mr. Neeraj Kumar Kaushik, Assistant Professor, EC, TMUCoE, TMU, Moradabad (Member, BoS)
7. Mr. Prashant Kumar, Assistant Professor, EC, TMUCoE, TMU, Moradabad

List of Agenda Items:

1. To design the Vision and Mission of the Electronics and Communication Engineering Department for the Academic Programs 2025-26.
2. To review and design the Program Educational Objectives (PEOs), Program Outcomes (POs), Program-specific outcomes (PSOs), and Course Outcomes (COs) for the Electronics and Communication Department syllabus of Academic Programs 2025-26.
3. To propose a value-added course, 'Automation with Arduino: From Basics to Real Projects' for BTech students. This can be considered as a summer training, wherever applicable and with a fee of course is decided 2000/- per candidate.



4. To remove the condition of 75% marks in the first year to opt the minor specialization in the B.Tech. Electronics and Communication Engineering Honours Program

5. Discussion and approval of proposed changes in the B.Tech ECE (Specialization in IoT) syllabus of Academic Program 2025-26.

S.No.	Course Name	Course Code	Type of Change
1	Basic Electronics Engineering	EEC111/211	Minor (<20%)
2	Learning by Project Based Entrepreneurial Initiative- 1	BLPBE1201	Minor (<20%)
3	Instrumentation and Measurement lab	EEC362	Minor (<20%)
4	Learning by Project Based Entrepreneurial Initiative-2	BLPBE:401	Minor (<20%)
5	Skill based Practical Training & Presentation	EEC592	Minor (<20%)
6	Learning by Project Based Entrepreneurial Initiative-3	BLPBE1601	Minor (<20%)
7	Project phase 1	EEC798	Minor (<20%)
8	Project phase 2	EEC898	Minor (<20%)

S.No	Name and code of the courses in syllabus 2024-25	Name and revised code of the courses in syllabus 2025-26
1.	Digital Signal Processing, EEC71 1	Digital Signal Processing, EEC515
2.	Digital Signal Processing (Lab), EEC763	Digital Signal Processing (Lab), EEC564
3.	VLSI Design &Technology, EEC811	VLSI Design & Technology, EEC618
4.	VLSI Design &Technology (Lab), EEC862	VLSI Design & Technology (Lab), EEC564
5.	Antenna & Wave Propagation, EEC614	Antenna & Wave Propagation, EEC713
6.	Antenna & Wave Propagation (Lab), EEC662	Antenna & Wave Propagation (Lab), EEC765

7.	Microprocessor & Applications, EEC511	Microprocessor & Applications, EEC815
8.	Microprocessor & Applications (Lab) EEC561	Microprocessor & Applications (Lab) EEC865

6. Introduction and approval of the new specialization: Bachelor of Technology in Electronics & Communication Engineering (Specialization in Artificial Intelligence & Machine Learning) of Academic Program 2025-26.

S. No.	Course Code	Dept.	Title of Course	Contact Hours				Credits	Sem.
				L	T	P	Total		
1.	ECMS01	EC	Introduction to AI and ML	4	1	0	5	5	III
2.	ECMS02	EC	Programming with Python	4	1	0	5	5	IV
3.	ECMS03	EC	Application of AI and ML in Electronics	4	1	0	5	5	V
4.	ECMS04	EC	AI for Signal Processing	4	1	0	5	5	VI
5.	ECMS05	EC	AI for Chip Designing	4	1	0	5	5	VII
			Total				25	25	

7. To replace the Business English (TMUTGE203) course with Communication English Communication-II (TGE203) in the second semester, B.Tech ECE syllabus to maintain the uniformity in the syllabus of English Communication in all the of Engineering. This action has been taken due to the discontinuation of MoU with TCSiON.

8. Discussion and approval of proposed changes in the M.Tech (Machine Learning & Data Science) syllabus of Academic Program 2025-26.

S.No.	Course Name	Course Code	Type or Change
1.	Optimization Methods in Data Analytics	MDS212	Minor (<20)

9. Inclusion of certain topics semesters wise to support tinkering lab courses

10. Inclusion of Stakeholders Feedback &ATR

11. AAA Audit 2024-25 Proforma (All Criteria)- Signed report [IQAC Coordinator]

12. Any other matter with the permission of chair.

The following points were discussed in BoS:

1.The Vision and Mission of the Department of Electronics and Communication Engineering were presented by the Head of the Department. The framed statements were thoroughly discussed, and both the external expert, nominated member and BoS members expressed their agreement and approval.

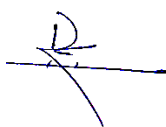
2.The M.Tech and B.Tech syllabus for the academic session 2025-26 was discussed in detail. The framed Program Educational Objectives (PEOs), Program Outcomes (POs), Program Specific Outcomes (PSOs), and Course Outcomes (COs) presented by the Head of the Department were reviewed and approved by the external expert and BoS members.

3.A value-added short-term course titled '**Automation with Arduino: From Basics to Real Projects**' was proposed by the Head of the Department, along with a detailed syllabus, course fee (₹2000/- per candidate), course banner, and certificate format as provided in **Annexure 1**. The Board of Studies members and the external expert reviewed and agreed to the introduction of the course. However, the expert recommended involving an industry professional as a resource person to enhance the practical quality and industrial relevance of the course.

4.The proposal to remove the condition of securing 75% marks in the first year as an eligibility criterion for opting for the minor specialization in the B.Tech. Electronics and Communication Engineering Honours Programme was discussed. The external expert and BoS members approved the modification to ensure that a greater number of students can avail the opportunity to pursue the Honours Programme

5.The proposed changes in the B.Tech Electronics and Communication Engineering (Specialization in IoT) syllabus for the Academic Program 2025-26 were discussed and approved with the following key points:

a) In accordance with the directive to integrate the newly established Tinkering Lab into the curriculum, minor revisions (less than 20%) were made by embedding Tinkering Lab components into relevant lab courses. This initiative aims to ensure that all newly admitted students gain early and hands-on exposure to the lab environment. The inclusion of specific topics, as suggested, is detailed in **Annexure 2**. The modifications were reviewed and approved by the external expert and BoS members.



b) Certain subject labs with the following codes — EEC711, EEC763, EEC811, EEC862, EEC614, EEC662, EEC511, and EEC561 — were shifted to different semesters. The new code is provided in **Annexure 3**. The external expert and BoS members approved the semester reallocation. However, the expert advised verifying the subject codes with the Controller of Examinations (CoE) to avoid any ambiguity.

6. The Department of Electronics and Communication Engineering proposed the introduction of a new specialization titled "**Bachelor of Technology in Electronics & Communication Engineering (Specialization in Artificial Intelligence & Machine Learning)**" under the Academic Program 2025–26. This specialization is designed in response to the growing significance of Artificial Intelligence and Machine Learning in the field of electronics and communication, aiming to prepare students with future-ready, interdisciplinary skills.

This initiative aligns with the vision of the **National Education Policy (NEP) 2020**, which promotes:

- Integration of emerging technologies into higher education curricula.
- Multidisciplinary and flexible academic structures.
- Enhanced skill development to improve employability and innovation.

The proposal, along with detailed curriculum structure, objectives, and justification, was presented by the Head of the Department. All related details are provided in **Annexure 4**. After thorough discuss, the external expert and BoS members reviewed and **unanimously approved** the introduction of this new specialization with suggestion to verifying the subject codes with the Controller of Examinations (CoE) to avoid any ambiguity.

7. The proposal to replace the course Business English (TMUTGE203) *with* English Communication–II (TGE203) in the second semester of the B.Tech ECE (specialization IOT/AI & ML) syllabus was presented to maintain uniformity in the English Communication curriculum across all branches of Engineering. This change has been necessitated due to the discontinuation of the MoU with TCS iON, under which the Business English course was previously offered. The justification for this change, along with relevant course details, is provided in **Annexure 5**. After a thorough review, the external expert and BoS members agreed and approved the replacement of the course.

8. The proposed changes in the M.Tech (Machine Learning & Data Science) syllabus for the Academic Program 2025–26 were discussed, with specific reference to the course MDS212, which was reframed to provide greater clarity and alignment with current academic and industry requirements. The revision was carried out after analyzing feedback received from students, faculty members, employers, and professional experts. The details of the revised syllabus and feedback analysis are provided in **Annexure 6**. The external expert and BoS members reviewed the proposed changes and approved the revised syllabus. However, the expert also suggested that feedback from parents be included in future curriculum revisions to ensure a more holistic perspective.

9. The inclusion of certain topics semester-wise to support the Tinkering Lab courses was discussed earlier under Agenda 2(a). The external expert and BoS members had reviewed and agreed to the proposed inclusions as part of the minor syllabus revisions for the Academic Program 2025–26.

10. The Head of the Department briefed that the Stakeholders' Feedback and Action Taken Report (ATR) of the ECE Department has been submitted to the IQAC. The IQAC Coordinator confirmed the receipt of the document

11. The Head of the Department briefed that the AAA Audit 2024–25 Proforma (All Criteria) of the ECE Department has been duly submitted to the IQAC. The IQAC Coordinator confirmed the receipt of the document and acknowledged the submission during the meeting.

12. (i) Under "Any other matter with the permission of the Chair," the external expert suggested that the department may consider introducing a B.Tech program with specialization in VLSI, along with Postgraduate and Postgraduate Diploma programs in the same domain in the future. The suggestion was made in light of the rapid advancements and increasing industry demand in the field of VLSI, which holds significant potential for Electronics and Communication Engineering students. The expert further advised that, moving forward, the NEP 2020 framework should be taken into consideration while designing and restructuring the syllabus, to ensure alignment with national education goals, promote flexibility, skill integration, and industry relevance.



- (ii) The BoS members recommended the replacement of the term 'With Honors in' to “with specialization in” for Data Science offered by the Department of ECE for the academic session 2025-26. Additionally, the BoS members agreed to award a certificate of minor specialization to students who successfully earn 20 additional credits. Hereby credit of specialization courses should be revised from 5 credit to 4 credit, to maintain the uniformity among all the programs.
- (iii) The BoS Expert suggested to change in credit of minor specialization courses from 5 credit to 4 credit.

Minor Specialization-: Internet of Things (IoT)

S. No.	Course Code	Dept.	Title of Course	Contact Hours				Credits	Sem.
				L	T	P	Total		
1.	TMUTGE301	EC	Design Thinking	3	1	0	4	4	III
2.	TMUTGE401	EC	Practical Approach to Cybersecurity	3	1	0	4	4	IV
3.	ECI514	EC	Applied Nano-electronics	3	1	0	4	4	V
4.	ECI615	EC	Embedded System Design Using ARM	3	1	0	4	4	VI
5.	ECI714	EC	IoT and its Applications using Raspberry Pi	3	1	0	4	4	VII
			Total				20	20	

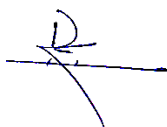
The syllabus of BTech ECE (specialization IOT/AI & ML) and of MTech (ML & DS) of session 2025-26, with above mentioned points being incorporated, is attached in **Annexure 7 and 8** respectively.

The meeting ended with a vote of thanks.



Dr. Alka Verma

HoD, Department of ECE



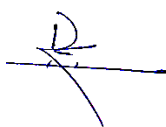
Prof. R.P.S. Gangwar

WIT, Dehradun



Prof. R. K. Dwivedi

Dean, FOE

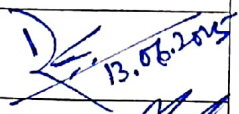
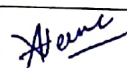
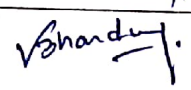
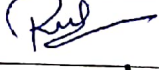
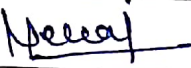






College of Engineering
Attendance Sheet for BoS

Date: 13/06/2025

Department of Electronics & Communication Engineering
Attendance Sheet

S. No.	External Expert/Chairperson/Faculty Name	Designation	Signature
1	Prof. R.P.S Gangwar	External Expert, Professor	
2	Prof. Rakesh Kumar Dwivedi	Nominated Member, Professor	
3	Dr. Alka Verma	Chairperson, Associate Professor	
4	Dr. Vibhor Kumar Bhardwaj	Member, Assistant Professor	
5	Mr Rahul Vishnoi	Member, Assistant Professor	
6	Mr. Prashant Kumar	Assistant Professor	
7	Mr. Neeraj Kaushik	Assistant Professor, Member	

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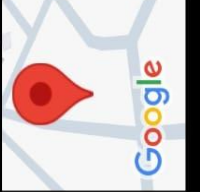


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