Department of Electrical Engineering

Date: 01/12/2025

MVPS's KBT College of Engineering, Nashik

Department of Electrical Engineering

Minutes of Third Board of Studies (BOS) Meeting

Date of Meeting:29th November 2025
Time:10.30 a.m. to 5.15 p.m.
Venue: Department of Electrical Engineering

Agenda of the Meeting

Agenda 1: Welcome & Opening Remarks

Agenda 2: Acknowledgment of Outgoing BOS Chairman and CDT Members

Agenda 3: Confirmation of Minutes of the Second BOS Meeting (10/01/2025)

Agenda 4: Presentation of Action Taken Report (ATR) on BOS-2

Agenda 5: Statutory Requirement – Introduction of Mandatory Course "Introduction to Cyber Security" (4 Credits) as per SPPU/AICTE/UGC Guidelines

Agenda 6: Presentation & Approval of FY & SY Exit Policy

Agenda 7: Discussion & Finalization of Curriculum Structure (2024 Pattern) – Semester V & VI & Course Contents (Semester V & VI) – PCC, PEC and Honors Courses by Course Coordinators.

Agenda 8: Presentation of Draft for Final Year B.Tech (Semester VII & VIII) Structure for Member Suggestions.

Agenda 9: Other Points

Agenda 10: Vote of Thanks.

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Department of Electrical Engineering

Minutes of the Meeting

Attendance Summary: The attendance of all members is recorded separately and filed in the department record. The following members were present physically and few are online mode:

Members Present (Offline Mode):

Dr. S. S. Khule – Nominee of Hon. Vice-Chancellor, Professor & Head, Dept. of Electrical Engineering, Matoshri College of Engineering & Research Centre, Nashik

Dr. Manoj Rathi – Industry Representative, Founder & Director, Research Centre for Sustainable Solutions Pvt. Ltd., Nashik

Mr. Purushottam Kulkarni – Alumni Representative, Owner, Juvik Solutions Pvt. Ltd., Nashik

Dr. Y. P. Patil – Chairman, Board of Studies & Head, Department of Electrical Engineering, KBTCOE, Nashik

Department Faculty Members (BOS Members):

Ms. V. P. Harak – Assistant Professor

Mr. P. V. Joshi – Assistant Professor

Mr. Y. S. Bhavsar – Assistant Professor

Ms. M. B. Rajole – Assistant Professor

Ms. A. V. Tidke – Assistant Professor

Ms. K. S. Zope – Assistant Professor

Mr. R. B. Aware – Assistant Professor

Member Present (Online Mode)

Dr. Mrs. R. V. Sarwadnya – Subject Expert, Associate Professor & Head, Dept. of Instrumentation Engineering, SGGS Institute of Engineering & Technology (Deemed University), Nanded

Members Absent (with intimation)

Dr. R. N. Awale – Subject Expert, Deputy Director (Professor), Dept. of Electrical Engineering, VJTI, Mumbai

Dr. Mrs. A. G. Thosar – Subject Expert, Professor, Electrical Engineering Department, COEP Technological University, Pune

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Agenda No.	Discussion	Decision	Responsibility	Target Date
Agenda 3.1	**Welcome & Opening Remarks:** The meeting commenced at **10:30 a.m.** (hybrid mode). Mr. P.V. Joshi welcomed BOS members, introduced agenda items and emphasized objectives: (a) finalise TY curriculum for Sem V & VI; (b) review FY/SY exit policy; (c) statutory course inclusion; (d) plan Sem VII & VIII draft. The atmosphere was cordial and interactive with full participation.	**Noted.** The Chair requested the proceedings to continue as per agenda and asked presenters to restrict initial presentations to key decisions and changes.	Mrs. V.P. Harak Program Coordinator to circulate attendance and agenda file.	Immediate (Circulation: same day)
Agenda 3.2	**Acknowledgement of Outgoing BOS Chairman and CDT Members:** **Dr. Y. P. Patil** formally acknowledged the significant contributions of the outgoing BOS Chairman, **Dr. B. J. Parvat**, including his role in establishing foundational practices for FY & SY curriculum development and documentation. **Dr. Y.P. Patil acknowledge** and thanks to all course design team (CDT) members from various institutes for their valuable guidance, time-time suggestions for curriculum contents development in behalf of Dept of Electrical Engineering, Nashik.	Recorded and Noted with Appreciation	Department / HoD (for record)	Completed on 29 Nov 2025
Agenda 3.3	**Confirmation of Minutes of BOS-2 (10/01/2025):** The previously circulated Minutes of Meeting (BOS-2) and the corresponding Action Taken Report were reviewed. **Dr. Y. P. Patil** confirmed that all suggested corrections and modifications had been incorporated.	**Decision / Resolution Approved:** The Minutes of BOS-2 were approved and confirmed by BOS members. The updated ATR will be shared with all BOS members.	BOS Chairman (Dr. Y. P. Patil) / Academic Coordinator (Ms. V.P. Harak) to file MoM.	Immediate (file & circulate within 3 days)
Agenda 3.4	**Action Taken Report (ATR) on BOS-2:** **Dr. Y. P. Patil** summarized ATR: SY structure implemented; PCC syllabi for Sem III/IV reviewed and validated; TY draft circulated. Members asked clarifications on implementation status.	**Decision/Resolution: Accepted: ATR approved and marked as *Resolved.*** To be uploaded to departmental records and the academic office.	Curriculum Team (Dept.) to upload ATR and supporting docs to repository.	05 Dec 2025
Agenda 3.5	**Statutory requirement: 'Introduction to Cyber Security' (4 Credits):** Dr. Y. P. Patil presented the statutory compliance requirements mandated by AICTE, UGC, and NEP 2020. He informed the members that the course *'Introduction to Cyber Security'* already existed in the SY B.Tech curriculum as a 2-credit course. As per the updated statutory guidelines, this course must now be offered as a 4-credit	**Decision / Resolution: Approved.** The revised 4-credit course will continue under OE-2 (Semester IV) with an updated credit structure and assessment scheme. No modifications are required in the existing course content.	Course Coordinator for Cyber Security to update the credit structure in the syllabus templates, ensure compliance with statutory requirements, and	Updated credit structure & assessment plan to be uploaded by **05 Dec 2025.**

	course. The ATR indicated that the syllabus had already been drafted earlier; only the credit allocation and assessment weightage were revised by the Course Chairman to comply with the new statutory norms. No changes were proposed in the core syllabus content.		submit the revised syllabus to the Academic Council through the HoD	
Agenda 3.6	**FY & SY Exit Policy (NEP 2020):** Dr. Y. P. Patil informed the members that, as per the Academic Council records, the FY Exit Policy under NEP 2020 had already been approved in the Second Academic Council meeting. However, since this policy was not formally placed or approved in the earlier BOS-2 meetings, it is essential to obtain BOS approval at this stage to ensure procedural completeness and proper academic documentation. **Dr. Y.P. Patil** then presented the detailed FY & SY Exit Policy structure, including the components of VSEC, Internship, and Mini-Project. Members reviewed the complete framework and offered the following observations: **Dr. S. S. Khule** suggested that students exiting after FY or SY due to medical or financial constraints must be provided with practical skill-oriented training to enhance employability. **Dr. Manoj Rathi** emphasized that the titles of VSEC courses should be meaningful, industry recognizable, and free from ambiguity. He further asked whether these courses would be comparable to ITI-level certifications. **Dr. Manoj Rathi** also recommended making hands-on laboratory training compulsory for all exit-level students. **Dr. S. S. Khule** enquired about the nature of certification to be issued upon SY exit. **Dr. Y. P. Patil** clarified that, as per NEP 2020 provisions, a Certificate will be awarded after FY Exit and a Diploma after SY Exit. Members reviewed the proposed teaching scheme and evaluation structure for VSEC & Internship at FY Exit (8 credits) and SY Exit (8 credits) and recommended strengthening the evaluation components for better industry alignment.	**Decision/Resolution:** **Approved with minor modifications:** a) VSEC evaluation shall follow a **Continuous Comprehensive Evaluation** (CCE) system to reflect practical and skill-oriented outcomes for exit-level learners. b) The Internship can carry 6 credits at exit level (distributed across FY + SY), with mandatory components: Industry mentor feedback report Student presentation (PPT) before the departmental committee Detailed internship report Internal + External evaluation rubric c) Titles of VSEC/Exit courses shall be revised to industry-aligned and recognizable names (as recommended by Dr. Manoj Rathi). Titles of VSEC courses will be finalized and placed in the next Academic Council meeting. d) Lab-based skill training shall be integrated into the exit pathways, especially for students exiting due to financial/medical constraints (as suggested by Dr. S.S. Khule & Dr. Manoj Rathi). e) Certification structure will be confirmed by	Exit Policy Committee (HoD + Mr. P. V. Joshi, Mr. Y. S. Bhavsar, Mrs. V. P. Harak and Examination Cell to confirm the award process.	Exit Policy draft: **05 Dec 2025** Final publication: **20 Dec 2025**

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		Exam Department/AC as per NEP guidelines: FY Exit: Certificate SY Exit: Diploma f) The updated teaching scheme and evaluation pattern for FY Exit (8 credits) and SY Exit (8 credits) shall be included in the final Exit Policy document.		
Agenda 3.7a	**Process for TY Curriculum Preparation (steps & validations):** The Board reviewed the **structured process** for preparation, review, and finalisation of the Third Year (TY) Curriculum, as presented by **Dr. Y. P. Patil**. Dr. Patil explained each step in detail, beginning with Academic Council approval and departmental planning by the HoD, followed by nomination of Course Coordinators, syllabus drafting, internal review by faculty, external expert validation, and culminating in final presentation before the Board of Studies (BOS). **Dr. S. S. Khule, Dr. Manoj Rathi, and Mr. Purushottam Kulkarni** examined the workflow and expressed that the multi-level validation structure ensures: Academic rigor and quality, Regulatory compliance (AICTE/SPPU/NEP 2020), and Alignment with current industry needs. They also reaffirmed that after BOS approval, the curriculum is forwarded to the **Academic Council** for final **approval/ratification** prior to institutional implementation.	**Decision/Resolution:** **Accepted. Resolved:** As no modifications were suggested, the Board approved this workflow as the standard procedure for all future curriculum development and revision activities of the department.	HoD / Academic Coordinator to circulate the approved workflow and complete coordinator assignments (if pending).	Circulation & coordinator assignment: 05 Dec 2025
New Agenda 3.7b	**Review of TY and B.Tech Curriculum Structure:** Dr. Y. P. Patil presented the proposed **Third Year (TY) and Final Year (B.Tech) Curriculum Structure** for Board review. He detailed the semester-wise placement of PCC, PEC, VSEC, and MDM courses, along with credit distribution across Semesters V to VIII. Dr. S. S. Khule, Dr. Dr. Manoj Rathi, and Mr. Purushottam Kulkarni examined the structure and offered inputs to ensure academic continuity, correctness of prerequisites, and industry readiness.	**Decision/Resolution:** **Approved with revisions.** **Resolved that:** **Power Electronics** shall be placed in **Semester V** as part of the core curriculum. **Power System Operation and Control** shall be implemented in **Semester VI** to ensure continuity with system engineering concepts.	**HoD (Dr. Y. P. Patil):** Forward the revised structure to the BOS members and the Academic Council, and coordinate overall consolidation of the curriculum documents. **Academic Coordinator:**	Circulation to BOS Members: **03 Dec 2025** Submission to Academic Council: **04 Dec 2025**

	During the discussion, the following key structural aspects were reviewed: Placement of **Power Electronics** in **Semester V** to provide foundational exposure to converter and inverter concepts required for subsequent courses such as Electrical Drives, Renewable Energy Systems, and Electric Mobility. Inclusion of **Power System Operation and Control** in **Semester VI** to maintain continuity after Power System Engineering and strengthen system-level analytical progression. Verification of **Professional Elective (PEC)** baskets to ensure proper sequencing and availability of specialization-oriented pathways including Embedded Systems, Renewable Energy Systems, Signal Processing, Machine Design, and Smart Grid Systems. Replacement of the earlier VSEC structure with **Simulation Tools for Electrical Engineering** to strengthen students' exposure to modern engineering software tools relevant to electrical system modeling and analysis. Validation of credit distribution, practical load balance, and prerequisite mapping across Semesters V to VIII. Members carefully reviewed the revised structure and confirmed that the updated placement of courses improves academic flow, prerequisite alignment, and technical depth. All members agreed that the proposed structure enhances: Academic rigor Industry alignment Logical course progression Compliance with AICTE and NEP 2020 guidelines	**Professional Elective (PEC) baskets** shall be finalized with appropriate sequencing and prerequisite linkage. **Simulation Tools for Electrical Engineering** shall be implemented as **VSEC-4** to enhance practical exposure to modern electrical engineering tools. The finalized structure shall be incorporated into the curriculum documents and forwarded to the Academic Council for further approval.	Circulate the approved and revised structure to all stakeholders (faculty, examination cell, curriculum committees, and administrative office). **Course Mapping Committee**: *(HoD + All Faculty)*: Prepare the prerequisite matrix, ensure correct mapping of PCC, PEC, labs, across semesters, and validate structural coherence. External Experts: To be consulted wherever required for verifying depth alignment, especially for advanced and specialization-dependent courses.	
New Agenda 3.7c	**Presentation & Review of detailed TY B.Tech Courses:** **Semester V** **1. PCC: Electrical Machines–II** **Presented by: Mr. Y. S. Bhavsar** Mr. Y. S. Bhavsar presented the detailed syllabus of PCC: **Electrical Machines–II**, outlining the core topics including three-phase synchronous generators, voltage regulation methods, synchronous motor characteristics, single-phase induction motor	**Decision / Resolution:** After detailed deliberations and academic discussions, the Board of Studies reviewed the proposed curriculum structure and detailed syllabi of Third Year B.Tech Electrical Engineering (Semester V	**Responsibility** The following responsibilities were assigned for implementation of the approved curriculum: **Head, Department of Electrical Engineering**	**Target Date** Incorporation of BOS suggestions in TY course syllabi: **Within 7 days of BOS approval** Preparation of finalized

	modeling, and special-purpose machines relevant to industry applications. During the review: **Dr. S. S. Khule** suggested incorporating **generalized machine theory, d–q modeling concepts**, and an introductory exposure to **Permanent Magnet Synchronous Machines (PMSM)** fundamentals to strengthen the analytical base. **Dr. Manoj Rathi** recommended ensuring continuity between theoretical modeling and practical applications, particularly in relation to modern machine control and electric mobility systems. Members agreed that these additions would enhance mathematical rigor and improve alignment with advanced power electronics and electric drive-related courses offered in higher semesters. The syllabus was approved with suggested enhancements. **2. PCC: Power System Engineering** **Presented by: Ms. M. B. Rajole** Ms. M. B. Rajole presented the detailed syllabus for PCC: **Power System Engineering**, highlighting key units such as transmission-line modeling, performance analysis of transmission systems, per-unit system representation, load-flow studies, and symmetrical and unsymmetrical fault analysis. During the review: **Mr. Purushottam Kulkarni** recommended refining the sequencing of technical topics—particularly ensuring a smoother conceptual transition from physical system representation to analytical sections such as load flow and fault calculations. **Dr. S. S. Khule** suggested clearly specifying prerequisite mathematical foundations such as phasor analysis, network modeling, and matrix methods to improve student readiness. Members agreed that the course title **Power System Engineering** appropriately reflects the analytical nature of the syllabus and maintains continuity with earlier system-level courses. The course was approved with sequencing refinements.	and VI) under the **2024 Pattern**. The Board carefully examined: Course titles and structure Course objectives and outcomes Unit-wise syllabus contents Practical components and evaluation schemes Alignment with **AICTE Model Curriculum** and **NEP 2020 guidelines** Integration of modern technologies and industry-relevant topics Continuity with previous semester courses Scope for higher-level academic progression After incorporating the suggestions made during the meeting, the Board **resolved to approve the revised syllabus of all Third Year B.Tech Electrical Engineering courses (Semester V and Semester VI)** for implementation. Further, the Board recommended ensuring academic continuity toward advanced and application-oriented courses in subsequent semesters, to strengthen employability, research readiness, and industry alignment. The approved syllabus shall be implemented from: **Academic Year 2026–27** subject to approval by the Academic Council.	To incorporate all approved suggestions in the finalized syllabus documents. To prepare clean and formatted final copies of all course syllabi. To coordinate submission of the approved syllabus to the Academic Council for further approval. To ensure proper documentation of Course Design Team (CDT) reviews and supporting records. **Course Chairmen** To finalize unit-wise contents as per BOS recommendations. To update laboratory manuals and teaching resources accordingly. To prepare course files and implementation plans before the commencement of the academic session. **Department Academic Coordinator** To verify curriculum structure alignment with credit distribution norms. To maintain official documentation	clean syllabus copy: **Within 10 days of BOS approval** Submission to Academic Council: **As per Academic Council schedule** Upload of approved syllabus on institute website: **Before commencement of AY 2026–27** Preparation of course files and laboratory manuals: **Before start of Semester V (AY 2026–27)**

	3. PCC: Power Electronics **Presented by: Ms. A. V. Tidke** Ms. A. V. Tidke presented the revised syllabus for PCC: **Power Electronics**, outlining coverage of power semiconductor devices, controlled rectifiers, DC–DC converters, and inverter circuits used in industrial and renewable energy applications. During the review: **Dr. Manoj Rathi** recommended positioning this course in **Semester V** to provide early exposure to converter fundamentals supporting subsequent courses such as Electrical Drives, Renewable Energy Systems, and Electric Mobility. He further suggested: Inclusion of **Current Source Inverters (CSI)** to provide balanced inverter coverage Expansion of **DC–DC converter topologies**, including modern converter configurations Inclusion of **isolated converter concepts** such as Flyback topology Adoption of **standard references such as Ned Mohan** to maintain conceptual rigor **Dr. S. S. Khule** supported the repositioning of the course and emphasized that early exposure to power electronics strengthens students' readiness for drive and control applications in later semesters. Members unanimously agreed that shifting the course to Semester V improves prerequisite sequencing and enhances academic continuity. The course was approved with modifications and placement in **Semester V:** **4. PEC: Design of Renewable Energy Systems** **Presented by: Mr. R. B. Aware** Mr. R. B. Aware presented the syllabus for PEC: **Design of Renewable Energy Systems**, outlining system-level modeling and performance analysis of renewable energy sources including solar photovoltaic systems and wind energy conversion systems. During the review: **Dr. Manoj Rathi** suggested strengthening the course by including case-based examples		related to curriculum revision. To coordinate with the Dean Academics for uploading the approved syllabus to the institute website.	

	focusing on real-world renewable energy installations and grid integration practices. **Dr. S. S. Khule** recommended incorporating basic system-sizing calculations and performance estimation techniques to improve students' understanding of design methodologies. Members agreed that the course aligns well with sustainability-focused engineering education and supports emerging renewable energy technologies. The course was approved with recommended improvements. **5. PEC: Microcontroller & Embedded Systems** **Presented by: Dr. Y. P. Patil** Dr. Y. P. Patil presented the revised syllabus of PEC: **Microcontroller & Embedded Systems**, highlighting architecture of modern microcontrollers, interfacing techniques, communication protocols, and embedded application development. He informed the Board that the syllabus had been reviewed with expert inputs from **Dr. A. K. Joshi**, Associate Professor, Cummins College of Engineering for Women, Pune. During the review: **Dr. Manoj Rathi** appreciated the inclusion of modern embedded platforms such as ESP32 and recommended strengthening practical exposure through real-time interfacing experiments. **Mr. Purushottam Kulkarni** emphasized including communication protocols such as MQTT and JSON-based data exchange methods to enhance real-world application relevance. Members noted that the revised syllabus reflects contemporary embedded system trends and supports development of IoT-based engineering applications. The syllabus was approved with suggested enhancements. **6. PEC: Signals & Systems** **Presented by: Ms. K. S. Zope** Ms. K. S. Zope presented the syllabus for PEC: **Signals & Systems**, covering continuous-time and discrete-time signal analysis, convolution methods, Fourier			

	analysis, and system response characterization. During the review: **Dr. S. S. Khule** emphasized the importance of strengthening mathematical clarity and recommended reinforcing prerequisite knowledge in differential equations and transform methods. **Dr. Manoj Rathi** suggested aligning the course content with subsequent advanced courses such as Digital Signal Processing to maintain conceptual continuity. Members agreed that this course provides essential analytical foundations required for signal processing, control, and communication-related applications. The course was approved with minor refinements. **Semester VI:** **7. PCC: Control Systems** **Presented by: Ms. V. P. Harak** Ms. V. P. Harak presented the revised syllabus of PCC: **Control Systems**, outlining the major units covering mathematical modeling of dynamic systems, time-domain and frequency-domain analysis, stability assessment techniques, and PID controller design. During the review: **Dr. S. S. Khule** suggested introducing the course beginning from fundamental principles to ensure smooth transition from earlier network-based system modeling. **Dr. Manoj Rathi** recommended integrating simulation-based learning using software platforms such as **Scilab** or equivalent tools to strengthen visualization and practical interpretation of system response. **Mr. Purushottam Kulkarni** emphasized including practical controller applications and real-world examples to enhance industry relevance. Members agreed that the proposed modifications strengthen conceptual clarity and improve alignment between theoretical and practical aspects. The syllabus was approved with suggested refinements. **8. PCC: Power System Operation & Control**			

	Presented by: Ms. M. B. Rajole Ms. M. B. Rajole presented the syllabus for PCC: **Power System Operation and Control**, highlighting topics such as economic load dispatch, load-frequency control, power system stability fundamentals, and operational strategies for interconnected systems. During the review: **Dr. Manoj Rathi** recommended inclusion of numerical examples and real-world operating scenarios to enhance understanding of power system control mechanisms. **Dr. S. S. Khule** suggested positioning this course after Power System Engineering to maintain continuity in system-level learning. **Mr. Purushottam Kulkarni** emphasized strengthening operational case studies related to modern power networks. Members agreed that the placement of this course in Semester VI provides a logical continuation from analytical power system studies. The course was approved with recommended improvements. **9. PEC: Electrical Machine Design** **Presented by: Mr. Y. S. Bhavsar** Mr. Y. S. Bhavsar presented the syllabus for PEC: **Electrical Machine Design**, outlining design principles related to magnetic circuits, electrical loading, thermal considerations, and mechanical design aspects of electrical machines. During the review: **Dr. S. S. Khule** recommended strengthening the course by explicitly incorporating **thermal design methodologies** and insulation classification practices. **Dr. Manoj Rathi** suggested including introductory exposure to **Finite Element Method (FEM)** tools for field analysis to improve students' familiarity with modern design tools. Members agreed that these enhancements would improve understanding of real-world machine design practices. The course was approved with recommended modifications. **10. PEC: Smart Grid Systems**			

	Presented by: Ms. A. V. Tidke Ms. A. V. Tidke presented the syllabus for PEC: **Smart Grid Systems**, covering smart grid architecture, advanced metering infrastructure (AMI), communication technologies, and grid modernization strategies. During the review: **Dr. Manoj Rathi** suggested inclusion of **islanded operation of microgrids** and differentiation between smart grids and microgrids to prevent conceptual confusion. **Dr. S. S. Khule** recommended refining the scope of microgrid-related topics to maintain the primary focus on smart grid technologies. Members observed that microgrids serve as building blocks of modern smart grids and agreed that the content should be clearly structured to avoid overlap with other courses. The course was approved with minor refinements. **11. PEC: Advanced Embedded Systems** **Presented by: Dr. Y. P. Patil** Dr. Y. P. Patil presented the syllabus for PEC: **Advanced Embedded Systems**, highlighting ARM-based system architecture, peripheral interfacing, real-time operating systems, and hardware–software co-design concepts. He informed the Board that the syllabus was developed with expert consultation from **Dr. A. K. Joshi**, Associate Professor, Cummins College of Engineering for Women, Pune. During the review: **Dr. Manoj Rathi** appreciated the inclusion of real-time operating system (RTOS) concepts and suggested strengthening practical exposure through multi-tasking application examples. **Dr. S. S. Khule** recommended ensuring continuity with the Microcontroller & Embedded Systems course to maintain prerequisite alignment. Members noted that the course strengthens real-time application development skills and supports embedded system design competencies. The syllabus was approved with suggested enhancements.			

	12. PEC: Electric Mobility **Presented by: Mr. P. V. Joshi** Mr. P. V. Joshi presented the syllabus for PEC: **Electric Mobility**, covering EV architecture, battery technologies, motor selection, charging systems, and vehicle control strategies. During the review: **Dr. Manoj Rathi** suggested strengthening coverage of **Battery Management Systems (BMS)**, including definitions, functional roles, and performance parameters. He also recommended inclusion of **State of Charge (SOC)** and **State of Health (SOH)** estimation methods. **Mr. Purushottam Kulkarni** emphasized including block diagram representation of EV architecture for improved conceptual clarity. Members agreed that these modifications would significantly improve technical depth and industry alignment. The course was approved with recommended additions. **13. PEC: Condition Monitoring & Diagnostics of Electrical Equipment** **Presented by: Ms. M. B. Rajole** Ms. M. B. Rajole presented the syllabus for PEC: **Condition Monitoring & Diagnostics of Electrical Equipment**, covering predictive maintenance methods, fault detection techniques, and health monitoring of electrical equipment. During the review: **Dr. S. S. Khule** suggested inclusion of practical diagnostic techniques and monitoring tools used in industrial maintenance. **Dr. Manoj Rathi** recommended integrating case-based learning using real-world equipment failure scenarios. Members agreed that the course enhances maintenance-oriented engineering knowledge and supports reliability engineering practices. The course was approved with suggested refinements. **14. PEC: Digital Signal Processing** **Presented by: Ms. K. S. Zope**			

	Ms. K. S. Zope presented the syllabus for PEC: **Digital Signal Processing**, outlining discrete-time signal analysis, digital filter design, spectral analysis, and real-time signal processing applications. During the review: **Dr. S. S. Khule** emphasized strengthening prerequisite alignment with Signals & Systems to ensure conceptual readiness. **Dr. Manoj Rathi** recommended inclusion of simulation-based experiments to enhance visualization of filter responses. Members agreed that the course supports modern signal processing applications relevant to communication, control, and instrumentation domains. The syllabus was approved with suggested improvements. **15. VSEC-4: Simulation Tools for Electrical Engineering** **Presented by: Mr. Y. S. Bhavsar** Mr. Y. S. Bhavsar presented the proposed VSEC course titled **Simulation Tools for Electrical Engineering**, designed to provide hands-on exposure to software tools used in electrical system modeling and analysis. During the discussion: **Dr. Manoj Rathi** appreciated the introduction of simulation-based learning and recommended inclusion of guided laboratory exercises involving electrical system modeling and analysis. **Dr. S. S. Khule** suggested strengthening assessment through project-based assignments using simulation environments. **Mr. Purushottam Kulkarni** highlighted that proficiency in simulation tools enhances employability and improves readiness for engineering design and analysis tasks. Members agreed that the introduction of simulation tools strengthens modern engineering competency and aligns with industry expectations. The course was approved as **VSEC-4** for Semester VI.			
Agenda 3.7d	**Laboratory Strengthening & Hardware emphasis:** **Dr. S. S. Khule** emphasized that **TY laboratory courses must prioritise hardware-based experiments** rather than	**Decision/Resolution:** BOS approved mandatory hardware-based experiments in TY laboratories wherever	Lab Planning Team (HoD + Lab In-Charge + Purchasing) to prepare detailed	Equipment lists & budget submission: **01 Dec 2025**;

	relying mainly on simulation tools. He highlighted this especially for *Power Electronics*, *Electric Vehicles*, and *Industrial Automation* labs. **Dr. Manoj Rathi** supported this and added that **students should demonstrate at least one hardware-based experiment during external evaluations**, ensuring hands-on competence. **Mr. Purushottam Kulkarni** suggested that for certain courses, especially *Machine Design* and *Drives*, etc using departmental equipment or small experimental kits should be made **mandatory**. **Dr. Manoj Rathi** recommended strengthening existing labs with **updated experimental kits** (DC–DC converters, motor control boards, VFD modules, PLC panels) to align with revised TY syllabi.	feasible and sanctioned lab kit upgrades Departments will **upgrade and standardize lab kits** as per revised syllabi for Power Electronics, EV, Industrial Automation, Drives, and Machine Design.	equipment lists and tentative budgets; Finance/Principal for approval.	
Agenda 3.8a	**Draft for Final Year B.Tech (Semester VII & VIII) Structure for Member Suggestions** Dr. Y. P. Patil, Head & BOS Chairman, clarified that the discussion on the Final Year B.Tech (Semester VII & VIII) structure is being taken up along with TY approval to ensure proper vertical alignment of courses. He emphasized that certain TY electives and PCCs must lead seamlessly into advanced Final Year courses, and hence the sequence, prerequisites, and elective tracks need to be logically structured in advance. Dr. Y. P. Patil then presented the preliminary draft of proposed course titles for Semester VII and VIII including PCC courses. **Future Academic Progression (Final Year B.Tech) and Course Continuity** During the deliberations, Dr. Manoj Rathi discussed the importance of maintaining **vertical academic progression** from Third Year to Final Year B.Tech Electrical Engineering and same opinion by Dr. S.S. Khule and Mr. Purushottam Kulkarni. The Board noted that certain advanced and application-oriented domains introduced at the Third-Year level may be further extended in subsequent semesters to strengthen technical depth and industry alignment. In this context: Members discussed the possible continuation of advanced topics such as **Industrial Automation**,	**Decision/Resolution:** The Board accepted the suggestions in principle and approved revising the draft structure for Semester VII and VIII electives accordingly. The restructuring will include shifting *Industrial Automation* to Semester VI, incorporating *Advanced Control Engineering*, and considering *Power Quality* and *High Voltage Engineering* as suitable electives for Semester VII. It was agreed that the updated draft will be presented in the upcoming BOS meeting, where the final course titles, detailed contents, and any additional modifications will be finalized after getting inputs from Course Design Team.	**Responsibility:** Dr. Y. P. Patil and the Department Team shall incorporate the approved course revisions and update the final year BTech curriculum document accordingly, taking into account the suggestions provided by the external experts (CDT members).	30 June 2026 (Tentative)

	Power Quality, **Advanced Control Engineering**, **Energy Management**, and **Advanced Power System Technologies** into higher-level electives during the Final Year of the programme. It was observed that detailed structuring and placement of such advanced courses shall be finalized in **subsequent Board of Studies meetings**, based on academic requirements, credit distribution, and emerging industry needs. Members emphasized maintaining continuity between foundational Third Year courses and advanced application-oriented courses to support **research readiness, employability, and industry integration**. The Board acknowledged the importance of long-term academic planning and recommended that these future academic progressions be considered during the preparation of Final Year curriculum frameworks.			
Agenda 3.9a	**Any other points** **a) Honours Track Suggestions:** **Presented by: Dr. Y. P. Patil** **Discussion:** **Dr. Manoj Rathi** proposed developing an Honours track in Electric Vehicles (EV), emphasizing rapid industry growth, emerging technologies, and alignment with NEP's multidisciplinary approach. **Dr. S. S. Khule** recommended introducing an Honours stream in Smart Grid & Emerging Power Systems, highlighting the need for skills in automation, IEC standards, and AI-enabled grid operations for future utilities. **Mr. Purushottam Kulkarni** suggested an Honours specialization in Energy Management & Audit, noting increasing industry demand for certified professionals in energy audits, conservation, and efficiency optimization. The Board agreed that Honours tracks **may be explored** in the above three domains (EV / Smart Grid / Energy Management) and as per the guidelines given by SPPU, Pune.	**Decision/Resolution:** Honours track **approved for proposal**, integrating EV, Smart Grid, and Energy Management domains, providing students with advanced, industry-relevant specialization opportunities. Department will finalize and submit the Honours Track contents as per suggestions from CDT members to AC for further approval.	HoD (BOS Chairman)+Dept Academic Coordinator and Faculty members	**Final proposal (if feasible): 05 Dec 2025**
Agenda 3.9b	**b) TY Exit Policy:** **Presented by: Dr. Y. P. Patil** Dr. Y. P. Patil briefed the Board on the requirement to introduce a Third-Year Exit	**Decision/Resolution:** The Board approved the introduction of a dedicated TY Exit Policy with the	HoD (Chairman)+Dept Faculty	**Final proposal (if feasible): 04 Dec 2025**

	Pathway aligned with NEP 2020 and University regulations. He highlighted that students exiting after the third year should earn the B.Voc. (Electrical Engineering) – Level 5.5 Certificate, for which additional skill-based credits are mandatory. **Dr. S. S. Khule** emphasized that the TY Exit module must be *practice-intensive* and must not duplicate the FY and SY Exit courses. He recommended that the VSEC should develop industry-ready skills such as commissioning procedures, equipment testing, and safety compliance. **Dr. Manoj Rathi** suggested focusing on competencies required by panel manufacturing units, maintenance departments, EPC contractors, and testing agencies, ensuring the TY Exit students are job-ready from Day 1. **Mr. Purushottam Kulkarni** added that the course should include realistic field-oriented tasks, standard checklists, and exposure to smart protection devices, as these are standard in modern installations. He also stressed documenting testing procedures and maintaining commissioning logbooks as essential skills. Members reviewed FY/SY exit courses to avoid repetition and agreed that the TY Exit must be oriented towards **advanced electrical installation, commissioning, and system testing**, directly supporting employability and vocational progression.	following VSEC and practical components: **Electrical Testing, Commissioning & Smart Panel Integration Lab**		
Agenda 3.9c	**c) Internship & Project:** **Dr. Manoj Rathi** raised the key question regarding the **semester placement of the internship** and whether the duration should be **3 months or 6 months** to match actual industry feasibility. He highlighted that longer internships improve employability but require alignment with Academic Council norms. **Dr. S. S. Khule** asked for clarity on **weekly industry contact hours** and how **attendance or engagement** would be recorded when students work off-campus. He stressed that the internship model must ensure meaningful industrial exposure without compromising academic continuity. **Dr. Manoj Rathi** pointed out the need to **strengthen the Project Laboratory,** including availability of essential hardware,	**Decision/Resolution:** BOS approved creation of standardized internship and project framework covering duration, weekly engagement, lab strengthening, and in-house project guidelines covering: **Internship duration and placement** (3 vs. 6 months) — to be aligned with university calendar. **Weekly industry engagement** and documentation norms. **Project Lab strengthening plan** (equipment, space, hours).	Internship Committee (HoD +Internship Incharge+Project Incharge)	Final framework: Tentative Date **10 April 2026**

	testing equipment, and dedicated project hours so that students who cannot secure industry projects can still complete high-quality in-house projects. **Dr. S. S. Khule** emphasized that **students undergoing industry training/internship** should be **evaluated properly**. Each student must **prepare a PPT summarizing learning outcomes** and **present it before faculty**. **Dr. Manoj Rathi & Mr. Purushottam Kulkarni** recommended that the **faculty/department collect feedback** from the industry expert supervising the student's training/internship to ensure assessment authenticity and quality. **Dr. S. S. Khule** suggested reviewing the **credit allocation**, proposing **2 credits for regular upper-semester project work** and **6 credits for the internship**, ensuring alignment with academic credit requirements.	**Clear guidelines** on industry vs. in-house project execution.		
Agenda 3.9d	**d)** Minor editorial suggestions on course titles and sequencing were made; no new substantive items. **e)** The Chair noted that certain curriculum-related clarifications and document updates often require immediate response before Academic Council submission. To streamline communication, the Chair permitted members to share their inputs through official email and, additionally, via phone/WhatsApp communication whenever urgent coordination is required.	**Decision/Resolution:** **Noted.** Editorial corrections shall be incorporated by the respective course coordinators before the final upload. The Board also agreed to adopt the suggested communication approach for time-sensitive coordination.	Course Coordinators / Program Coordinator	**05 Dec 2025**
Agenda 3.10	**Vote of Thanks.** Meeting concluded with vote of thanks.	**Recorded.** Vote of Thanks delivered by **Mr. Y. S. Bhavsar**, faculty member.	Mr. Y. S. Bhavsar (for records)	Completed (29 Nov 2025)

Conclusion

The Chairman expressed sincere gratitude to all BOS members and faculty participants for their valuable inputs, academic insights, and constructive suggestions, which significantly contributed to the enhancement of the curriculum. The collaborative discussions ensured alignment with academic standards, regulatory requirements, and industry relevance.

The meeting concluded with a vote of thanks delivered by Mr. Y. S. Bhavsar.

Meeting Adjourned at: 05:15 p.m.

MVPS's KBT COLLEGE DEPT. OF ELECTRICAL ENGG. NASHIK-422003

Decisions:

1. **TY & Proposed Draft of B.Tech Curriculum Structure:** Courses revised and replaced as per BOS suggestions; corrected placements, PEC validations, and sequencing adjustments implemented.
2. **FY & SY Exit Policy:** Approved with modifications – Certificate for FY exit, Diploma for SY exit, VSEC evaluation under CCE, mandatory lab-based skill training, and proposed internship structure can be suitable.
3. **Introduction to Cyber Security (4 Credits):** Approved statutory compliance change; 2-credit course revised to 4 credits under OE-2 (Semester IV).
4. **Honours Tracks:** BOS approved exploration of Honours tracks in Electric Vehicles, Smart Grid & Emerging Power Systems, and Energy Management & Audit as per SPPU guidlines. HoD instructed to dept academic coordinators for feasibility, inputs and credit alignment and final submissions.
5. **TY Exit Policy:** BoS approved the framework for Third-Year Exit with B.Voc award (Level 5.5).
6. **Laboratory Strengthening & Hardware-based Experiments:** Mandatory hands-on experiments approved for relevant TY labs; lab kit upgrades sanctioned.
7. **Internship & Project Framework:** Standardized framework approved covering duration, weekly engagement, lab support, and in-house project guidelines.
8. **Circulation & Approval:** Revised TY & Proposed Draft of B.Tech structure, updated MoM, and all supporting documents to be circulated to BOS members and submitted to Academic Council for approval and subsequent publication.

01/12/2025
Ms. V.P. Harak
Academic Coordinator

MVPS'S KBT COLLEGE DEPT. OF ELECTRICAL ENGG. NASHIK-422013

01/12/2025
Dr. Y. P. Patil
Chairman, Board of Studies

Chairman
BoS, Electrical Engineering
MVP'S KBT College of Engineering
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