Government College of Engineering
Station Road, Osmanpura, Aurangabad – 431 005

Phone : (0240) 2366101, 111,221 Fax : (0240) 2332835
Web – http://www.geca.ac.in

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Minutes of BOS (Electrical Engineering) Meeting

Online meeting of the Board of Studies (Electrical) was held on 15/2/2023 at 3.30 pm. Following members attended the online meeting.

1. Dr. S. P. Ghanegaonkar, Chairperson
2. Dr. N. Chaudhary, (Principal, SPIT,Mumbai), Member, Online
3. Dr. Vishwanath (Professor, NIT Warangal), Member, Online
4. Mr. Prasad Kokil, Member, offline
5. Dr. V. S. Deolankar, Member, offline
6. Dr. V. A. Kulkarni, Member
7. Dr. N.J. Phadkule, Member
8. Dr. S. M. Shinde, Member
9. Dr. S. S. Kulkarni, Member(I/c Curriculum)
10. Prof, Shrikant Mopari
11. Prof. W. A. Gavhane, Member

Following was agenda of meeting
Item No. 1:
Confirmation of last minutes of meeting
Item No. 2: Approval to change professional electives in structure of SY B. Tech to Final Year (Electrical Engineering)
Item No. 3:
Approval to detailed syllabus of T Y.B Tech (Electrical) 2023-24 onwards
Item No. 4:
Approval to equivalence of TY-B. Tech courses (Electrical Engineering)
Item No. 5:
Approval to minor variation in syllabus of EEES1001 Fundamentals of Electrical Engineering of FY B. Tech(Proposal by Prof. S. S. Mopari)
Item No. 7:
Any other point with permission of chairperson

The meeting was started by welcoming all honorable members by Chairperson Dr. S. P. Ghanegaonkar.

Item No. 1: Confirmation of last minutes of meeting
Dr. S. S. Kulkarni presented the minutes of the last meeting to honorable BOS members for confirmation. The suggestions given by honorable members have been incorporated in the SY BTech syllabus and minutes of the last meeting are confirmed by BOS.

Item No. 2: Approval to minor changes in structure of SY- Final Year B. Tech (Electrical Engineering)
Chairperson discussed minor changes in names of a few Laboratory Courses such as removal of Circuit Simulation laboratory course (from professional Elective II). Dr. B. N. Chaudhary suggested including a vertical basket of electives in various areas of electrical engineering like Power Systems, Powering Electronics etc.

Dr. B. N. Chaudhary gave a strong opinion to include **Lab Industrial Electric systems**. Further Shri Prasad Kokil and Dr. V. S. Deolankar suggested keeping **Lab Estimation and Testing** Course or Lab Industrial Electric systems course in the basket of Professional Elective II which has commercial importance. All the members agreed for the same unanimously. Prof. Vishwanathan is of the opinion to include Lab Switch mode Power conversion if constraints of department permit it.

- **Item No. 3: Approval to detailed syllabus of T Y.B Tech (Electrical) 2023-24 onwards**

- Dr.S. S. Kulkarni put detailed syllabus of T Y.B Tech (Electrical) 2023-24 onwards, for discussion.
- All members unanimously approved syllabus of Control System I (Th & Lab) , Digital circuits (Th & Lab), Power system II (Th & Lab), Control system II(Th)
- Prof. Deolankar suggested incorporating the Design of CT in transformer design, while Shri Prasad Kokil recommended adding the topic design optimization and cost optimization in the syllabus of **Electrical Machine design**, Dr. S. M. Shinde agreed to incorporate the suggestions given by honorable members.
- Prof. Chaudhary suggested giving more thrust to futuristic battery, their applications. Shri Prasad Kokil and Dr. Deolankar also mentioned the need of battery management systems, charging of battery in the syllabus of Energy storage systems. All members agreed to include these suggestions in the syllabus of **Energy Storage Systems**.
- Shri Prasad Kokil suggested to modify Unit IV, V of **Utilization of Electrical Energy** subject to meet modern traction.
- Dr. S. P. Ghanegaonkar agreed to include applications of Optimization in the last unit of syllabus related to Electrical Engineering in the syllabus of **Optimization Techniques**.
- Shri Prasad Kokil suggested inclusion of HV tests in **Electrical Measurement** course whereas in **laboratory course** to have practicals on measurements done by CRO. Dr. Deolankar agreed the same. BOS accepted and assured about its implementation.
- Prof. Vishwanathan gave suggestions to change the title of Unit V Modern controllers as Advanced controllers.
- Dr. Chaudhary suggested not to restrict the contents of Microcontroller to 8051 and its applications accordingly Dr. S. S. Kulkarni modified the syllabus of **Microcontroller and its applications** such that some experiments and assignments will be designed to cover different microcontrollers like ATMEGA/ PIC series etc.
- For the Power **Electronics** syllabus, Prof. Vishwanathan gave suggestions to change the title of Unit I as Characteristics of Switching devices. He, as well as Prof. B. N. Chaudhary also suggested to give thrust on IGBT, MOSFET based circuits, gate drive circuits, signal conditioning required for voltage and current in Unit IV, V. They also reiterated to include buck-boost converter in DC-DC Converter. BoS unanimously agreed for the same and accordingly theory and practical courses of Power Electronics will be modified.
- For the Machine **Learning** course, there was detailed discussion regarding the prerequisite of this course. Dr. B N Chaudhary suggested statistics, data structures and algorithms as the prerequisites. Shri Prasad Kokil was of the opinion not to have any specific prerequisite because this course is considered as the basic course in Machine Learning.
- For the Lab **RET** course, Shri Prasad Kokil and Dr. Deolankar suggested including experiments on efficiency of solar cells and giving practical and commercial exposure. Further they also recommended if possible including / designing, some experiments on Fuel cells. Dr. S. M. Shinde agreed to modify the syllabus accordingly.
- BoS approved the syllabus of Lab High Voltage Engineering and Lab IoT unanimously.

Item No. 4:
Approval to equivalence of TY-B. Tech courses (Electrical Engineering)
Equivalence of T.Y.B. Tech courses (Electrical Engineering) old CBCS courses are accepted unanimously.

Item No. 5:
Approval to minor variation in syllabus of EEES1001 Fundamentals of Electrical Engineering and EEES1002 Lab Fundamentals of Electrical Engineering of FY B. Tech (Proposal by Prof. S. S. Mopari)
BOS unanimously approved the minor variations in contents of EEES1001 Fundamentals of Electrical Engineering (theory and practical). **Further one tutorial is added for the subject by removing the credit from Electrical Workshop which is of 2 credits.**

Dr. B N Chaudhari and all other BoS members strongly recommended that 'Basics of Electrical Engineering' should be made mandatory for all other branches because all engineering branches require knowledge of basics of electrical systems in one or the form. BEE course is compulsory for all branch students in all renowned institutes such as IITs, NITs , state Govt. Engineering colleges and also as per AICTE model curriculum.

BoS members were surprised to see the inclusion of **Engineering Mechanics** as **mandatory** course for all engineering branch students which is not the case in other renowned institutes and in AICTE model curriculum.

Item No. 6:
Approval for online PG dissertation viva voce / Progress seminar of research scholar
With fewer students in MTech courses BoS gave approval to conduct online PG dissertation viva voce / Progress seminars of research scholars as per UGC PhD Viva-voce by university are also conducted in online modes.

Item No. 7:
Any other point with permission of chairperson

- In present final year syllabus, BoS permitted the inclusion of '**Optimization Techniques'** subject in group of **Professional Elective I** and inclusion of **'Electrical Power Distribution Systems'** subject in group of **Professional Elective III**.

Following faculty members, interacted during meeting for (their) subjects
i) Dr. S. P. Ghanegaonkar, Power System –II (Th & Lab), Utilization of Electrical Energy
ii) Dr. V. A. Kulkarni , Lab HVE
iii)Dr. N. J. Phadkule, Machine Learning(Th & Lab), Lab IoT
iv) Dr. S. M. Shinde, Electrical Machine Design-I(Th) & Lab RET
v) Dr. S. S. Kulkarni, Control System I (Th & Lab),Digital Circuits(Th & Lab), Control System II(Th), Microcontroller & Applications (Th & Lab)
vi) Prof. S. S. Mopari, Power Electronics(Th & Lab)

Dr. S. S. Kulkarni thanked all members for sparing valuable time and giving suggestions in revising the curriculum.

Dr. S. P. Ghanegaonkar
Head of Electrical Engineering Department