

# Sri Venkateswara College of Engineering

(Autonomous - Affiliated to Anna University)

Pennalur, Sriperumbudur Tk - 602 117

27.09.2021

## **Minutes of Meeting of Board of Studies for Faculty of Mechanical and Automobile Engineering held on 18.09.2021**

The meeting of Board of Studies for Faculty of Mechanical and Automobile Engineering was held on 18.09.2021 at 10.30 am through online in Google Meet platform (Meeting ID: <https://meet.google.com/enj-rmpz-xae>).

### **Members attended:**

Sl. No.	Name with Designation and Address	Category
1	Dr. J. Venkatesan Professor & Head Department of Automobile Engineering, SVCE	Chairman
2	Dr. S. Vengadesan Prof./ Applied Mechanics, IITM, Chennai	Expert Member 1
3	Dr. K. Ramesh, Professor Department of Mechanical Engineering Government College of Technology, Coimbatore - 641 013	University Nominee
4	Mr. I. Meenakshi Sundaram, CTO Amalgamations Component Group, Chennai	Industrial Expert
5	Mr. L. Pasupathi, Divisional manager - Digital Organization Tractors and Farm Equipment Limited, Chennai - 600 011	Industrial Expert
6	Dr. Rino Nelson, Assistant Professor Indian Institute of Information Technology, Design and manufacturing, Kancheepuram (Dist) - 600 127	PG meritorious Alumnus
7	Dr. S. Ramesh Babu Professor & Head Department of Automobile Engineering, SVCE	Member
8	All faculty members of Faculty	Members

At the start of the meeting Dr. J. Venkatesan, Chairman and Dr. S. Ramesh Babu, HoD-MEC welcomed the members of Board of Studies.

All the members except Dr. M. Senthil Kumar, Professor & Head, Department of Automobile Engineering, Madras Institute of Technology, Chennai participated in the online meeting. Dr. M. Senthil Kumar expressed his inability to attend the meeting due to his personal work.

### **Agenda**

1. Approval of the previous minutes
2. Discussion on introduction of Regulations 2022
3. Approval of the curriculum for I Year UG and PG Programs under R2022

### **1. Approval of previous minutes**

Chairman read the previous meeting minutes that was held on 17<sup>th</sup> April 2021 and all the members unanimously approved the minutes.

### **2. Discussion on introduction of new Regulations 2022**

Dr. J. Venkatesan, Chairman briefed the development of new Regulations 2022. He also said that the draft Regulations 2022 has been prepared with the input of academic experts and Academic Committee of SVCE and the same is going to be placed to Academic Council on 27.09.2021 for discussion and its approval. He continued that the content of the Regulations 2022 will be explained to the members of BoS in the next meeting.

### **3. Approval of curriculum for I Year UG and PG Programs under R2022**

- Dr. J. Venkatesan, Chairman and Dr. Ramesh Babu, HoD/MEC presented the draft curriculum under R2022 for I and II Semesters of B.E. Automobile Engineering, B.E. Mechanical Engineering, M.E. Mechatronics and M.E. Industrial Automation and Robotics.
- Dr. S. Ramesh Babu said that the common subjects like Engineering Physics, Engineering Chemistry, Programming for Problem Solving, and Engineering Practices Laboratory are made program oriented in the new curriculum and in view of this Engineering Physics was named as Engineering Physics I (for Artificial Intelligence and Data Science, Computer Science and Engineering, Electrical and Electronics, Electronics and Communications and Information Technology), Engineering Physics II (for Automobile, Civil and Mechanical branches) and Engineering Physics III (for Biotechnology and Chemical Engineering). Similarly, Engineering Chemistry was named as Engineering Chemistry I, Engineering Chemistry II and Engineering Chemistry III for different groups of branches. Dr. J. Venkatesan, Chairman recalled that these changes are incorporated in the new curriculum as per the suggestions from members of various BoS.
- Dr. K. Ramesh, University Nominee objected to have titles Engineering Physics II and Engineering Chemistry II without Engineering Physics I and Engineering Chemistry I in the earlier semesters. He requested to change the title of these subjects.

**Note:** In this regard, Dr. A. Bhaskaran, Chairman, BoS for Science and Humanities was informed about this issue by Dr. J. Venkatesan and Dr. A. Bhaskaran has amended the subject names as Applied Physics instead of Engineering Physics I, Engineering Physics instead of Engineering Physics II, Technical Physics instead of Engineering Physics III, Applied Chemistry instead of Engineering Chemistry I, Engineering Chemistry instead of Engineering Chemistry II, Technical Chemistry instead of

Engineering Chemistry III. The amendment was informed to members of BoS through mail on 25.09.2021 and the members accepted the suggested titles.

- All the members welcomed having basic science subjects related to branch of study.
- Dr. S. Vengadesan, Professor from IITM said that the subject Biology for Engineers is offered in IITM as Life Sciences offered by Centre for Integrative Biology and Systems Medicine. He requested to find possibility of changing the name as Life Sciences. He welcomed the inclusion this course in the curriculum.
- Members asked the developments happening in the departments for past one year and HoD/MEC replied that the Centre for Electric Vehicle Research is being developed by Department of Automobile Engineering also a hybrid vehicle will be available within this academic year. And he said that 3D Printing Laboratory and Robotics Laboratory have been developed by Department of Mechanical Engineering. He continued that these facilities can be used by students and faculty members of all the departments.
- HoD/MEC explained the following subjects for UG programs to be approved by BoS for Faculty of Mechanical Engineering.
  1. Engineering Drawing (Common to AE, MR & ME)
  2. Engineering Graphics (Common to BT & CH)
  3. Technical Drawing (Common to AD, CS, EE, EC & IT)
  4. Engineering Mechanics (Offered to ME)
  5. Manufacturing Processes (Offered to ME)
  6. Basic Automobile Laboratory (Common to AE)
  7. Basic Mechanical Laboratory (Common to AE, BT & CH)
  8. Basic Civil and Mechanical Engineering Laboratory (Common to CE, EE & EC)
  9. Computer Aided Drafting Laboratory (Common to AE & MR)
  10. Production Drawing Laboratory (Offered to ME)
  11. Manufacturing Processes Laboratory (Offered to ME)
- Mr. Meenakshi Sundaram, CTO from Amalgamations Component Group opined that only 2 credits could be given to the subjects Communicative English and Technical English in order to allot more credits for core subjects. Dr. J. Venkatesan replied that more importance is given to English language in view of improving communication skills of students from rural background and Tamil medium.
- Mr. Meenakshi Sundaram also requested to revisit the credits given to Environmental Science and Engineering. He suggested to give only 2 credits. He requested to increase the credits for core laboratory courses from 1.5 to 2 so that the students will have a

greater number of practical hours. HoD/MEC replied that the credits for certain courses are mandated by AICTE as its model curriculum.

- HoD/MEC explained the following subjects for M.E. Mechatronics to be approved by BoS for Faculty of Mechanical Engineering.
  1. Sensors and Signal Conditioning
  2. Control Systems Design
  3. Drives and Actuators for Automation
  4. Robot Control and Programming
  5. Modeling Simulation and Control System Laboratory
  6. Sensors and Signal Conditioning Laboratory
  7. Technical Seminar
  8. Machine Design and Product Development
  9. Mechatronics System design
  10. Machine Vision System
  11. Micro Controller and PLC
  12. Research Methodology and IPR
  13. Automation Laboratory
  14. Machine vision Laboratory
- For a query regarding Professional Electives offered for M.E. Mechatronics by Dr. Ramesh, University Nominee, Dr. Ramesh Babu replied that the complete curriculum will be presented to BoS in the next meeting.
- Dr. Ramesh Babu, HoD/MEC presented the curriculum of M.E. Industrial Automation and Robotics and said that there is no change in the curriculum as the course was started only during the academic year 2020-21. However, there will be new subject code under new Regulations 2022.
- BoS accepted the subjects included in First and Second Semesters of UG and PG programs of Faculty of Mechanical Engineering under new curriculum.
- Mr. Meenakshi Sundaram said that a 4-week online course related to Research methodology and IPR is being conducted by IIM Kozhikode. He requested to add that as the reference for the subject “Introduction to Research Methodology and IPR” of M.E. (Industrial Automation and Robotics). Dr. Ramesh Babu said that the students are permitted for credit transfer and for taking online courses. If it is 8 week course by IIMK, it can be considered for credit transfer or as an online course as per the Regulations.

- Dr. S. Vengadesan requested Mr. Meenakshi Sundaram to share the link related to online course offered by IIMK to get further details in view of using it for IITM students.
- Mr. Meenakshi Sundaram explained the features of Elsevier owned **Knovel** - a browser-based calculation tool with a collection of hundreds of ready-to-use equations to solve the problems faster. He suggested to add Knovel in the references for relevant subjects in the curriculum.
- Dr. Rino Nelson from IIITDM expressed that many universities asking the Ph.D students to undergo Research Methodology Course offered by them even though the scholar has completed such a course previously in other universities. But Dr. S. Vengadesan said that IITs are not compelling the scholars to do the course once again.
- HoD/MEC said that good students have joined M.E. (Industrial Automation and Robotics) course and requested Mr. L. Pasupathi and Mr. I. Meenakshi Sundaram to support the students of M.E. (Industrial Automation and Robotics) and they have assured to support in all possible ways.
- Mr. Meenakshi Sundaram suggested to add the subject “Data Acquisition System” in M.E. Mechatronics as elective. He also suggested to have both theory and practical components in the subject. HoD/MEC replied that they are planning to procure a Data Acquisition system like one which is available at NTTF Bangalore. Mr. Meenakshi Sundaram suggested a company named IPETRONIK for data acquisition system. He also said that he will help in getting the system at a cheaper rate.

**Resolutions:**

1. It was resolved to incorporate suggestions wherever possible in the new curriculum of all UG and PG programs.
2. It was resolved to approve the curriculum for I and II Semesters of B.E. Automobile Engineering, B.E. Mechanical Engineering, M.E. Mechatronics and M.E. Industrial Automation and Robotics under Regulations 2022.



**Chairman-BoS**

(Dr. J. Venkatesan)