

Sri Sairam Engineering College
Sai Leo Nagar, West Tambaram, Chennai – 600044
Department of Mechanical Engineering

Minutes of the First Board of Studies Meeting

The First Board of Studies (BOS) meeting of the department of Mechanical Engineering was conducted on 15.06.2020 through online mode (ZOOM) at 10.30 (IST). Following members were present.

- | | |
|---|---|
| 1. Dr. M.Loganathan,
Prof, Dept of Mechanical Engg,
Faculty of Engg& Tech.,
Annamalai University,
Annamalai Nagar-608 002. | External stakeholder
(Subject Expert) |
| 2. Dr. Somashekhar S.Hiremath
Assoc.Prof, Dept.of Mechanical Engg.,
IIT-Madras,Chennai-600 036. | External stakeholder
(Subject Expert) |
| 3. Dr. Sridhar Thyageswaran,
Prof,.Dept. of Mechanical Engg
Coimbatore Institute of Technology,
Coimbatore-641 014. | External stakeholder
(University Representative) |
| 4. Dr. D.Devakumar
DGM-Central Quality/Ashok Leyland Ltd.,
Chennai | External stakeholder
(Industrial Expert) |
| 5. Dr.M.B.Shayam Kumar,
Assoc.Prof,School of Mechanical Engg.(SMEC),
VIT University,Chennai-600 127. | External stakeholder
(Alumni Member) |
| 6. Dr. C.Elanchezhian | Internal stakeholder |
| 7. Dr. N.Mani. | Internal stakeholder |
| 8. Dr.V.M.Manickavasagam | Internal stakeholder |
| 9. Dr.K.Venkatraman | Internal stakeholder |
| 10. Dr.L.Saravanakumar | Internal stakeholder |
| 11. Prof. G.Ramakrishnan | Internal stakeholder |
| 12. Dr.B.VijayaRamnath | Chairman, BOS/Mechanical Engg
Professor & Head, Mechanical Engg.,
Sri Sairam Engineering College |

Dr.B.Vijaya Ramnath, Chairman of BOS opened the meeting by welcoming and introducing the external members to the internal members. The chairman placed the agenda for the deliberations and discussions of the members. The following are the deliberations made during the meeting (as per the items of the circulated agenda).

BOS.ME.20.01.01: To review and approve the curriculum and syllabus of UG programme in ME.The members recommended the following:

- a. The credit distribution is not uniform in particular, for laboratory courses. It may be 1.5 credits instead of 1.
- b. Assessment criteria for Skill Enhancement were asked by Dr.Somashekhar S.Hiremath and it was clarified by the Chairman.
- c. There is uneven distribution of design, thermal and manufacturing streams in the elective subjects listed and may be rectified.
- d. The title of the course 3D Modeling and Computer Aided Manufacturing Laboratory was under discussion and finally accepted to have the same name.
- e. The latest courses like IoT, MEMS, Bio-mass may be included.
- f. Inclusion of Internship at 2nd semester itself is not needed. The number of internships may be reduced.
- g. The course name Mechatronics for automation may be changed.
- h. Inclusion of the non-credited course “Constitution of India” in the 6th semester was questioned by Dr.M.Loganathan and finally accepted to include it in the syllabus, since it is mandatory as per AICTE norms.
- i. Computational Fluid Dynamics, an elective course may be moved from 7th semester to 6th semester.
- j. The number of objectives written for all subjects may be uniform.
- k. The topics on control and measurements and microprocessors may be included.
- l. Automobile Engineering courses may be included.
- m. The titles of the course Hybrid vehicles may be changed as the first and last units of the course are not much relevant to that title.
- n. The subject code for the course Engineering Mechanics was discussed. It was accepted as it was offered in the 2nd semester of civil and production with the same syllabus,
- o. The number of textbooks may be limited to a maximum of 2 for each course.
- p. In the course Advanced internal combustion, Engines, basic concepts such as Steering, Ignition may be replaced with advanced topics like Octane number, Cetane Number calculation, Fuel burning characteristics.
- q. In the course Engineering Mechanics the necessity of including the Friction topic was raised but justified.
- r. In the course, mechanical systems design, topics on rivets may be added.
- s. The objectives of the course BSMA101 (Engineering Mathematics-I) may be corrected in order to accommodate a mention on matrices.

- t. As per AICTE norms, the number of hours and credits may be fixed for the course ESGE101 (Engineering Graphics) .
- u. The course BSMA101 (Engineering Mathematics-I) may cover the topics on ordinary differential equations of first order.
- v. In the course HSEN201 (Technical English-II), some portions may be added to develop English listening and comprehension skills from television and /or radio programmes.
- w. The number of COs written may match with the number of COs listed in the CO-PO mapping table. The number COs may be uniform.
- x. The course MEPC302 (Basic Thermal Sciences) may be allotted a tutorial hour and credit may be made as per norms.
- y. For the course MEPC402 the title may be changed into Engineering materials- Metallurgy and practice.
- z. The title of the course MEPC402 may be changed to match with the contents as Metrology, Measurement and Computer Aided Inspection.
- aa. Repetition of some topics like Rankine cycle may be avoided in the course MEPC404 (Applied Thermal Sciences).
- bb. The title of the elective course product design, development and innovative design may be changed to suit its contents.
- cc. Students may be provided with the basic concepts of refrigeration and air-conditioning in order to do experiments in the same area.
- dd. The title of the elective course Energy harnessing technology may be changed into power plant technology.
- ee. The name of the course 3D printing and sustainable manufacturing for industry 4.0 may be changed in accordance with the contents as 3D printing and sustainable design.
- ff. In both the courses, Project phase-I and project phase II, students may work in groups to enable them to work on problems having sufficient scope and depth. Project Phase-II may be the continuation of project phase-I.
- gg. The course New and Renewable energy sources may be renamed as Renewable energy sources. It may be moved into an open elective list.
- hh. The elective course Surface Engineering for wear and corrosion resistance of materials may be renamed into wear, corrosion and surface protection of materials.
- ii. The course Industrial safety and terotechnology may be named as Industrial safety and maintenance engineering to more suit the contents.
- jj. Courses like Operation Research may be included.
- kk. Open electives listed may be opted by students from other branches only and not by mechanical branch students in order to avoid any kind of repetition of course or any part of the contents.

Based on the suggestions given by the members, the Chairman of BOS told that those fruitful suggestions would be incorporated appropriately in the curriculum and syllabi.

BOS resolved to recommend the following to the Academic Council for further approval.

- a) Syllabus for core courses of B.E. Mechanical Engineering Programme as enclosed in Annexure- 1.
- b) List of Professional and Open Elective Courses in B.E. mechanical Engineering Programme as enclosed in Annexure -2.

BOS.ME.20.01.02: To review and approve the syllabus of courses offered to PE. The members reviewed syllabus of the following courses offered to Production Engineering and resolved to approve the same.

BOS resolved to recommend the following to the Academic Council for further approval.

1. 20MEPC303-Engineering Metallurgy
2. 20MEPC402-Metrology, Measurements and Computer Aided Inspection
3. 20MEPL401-Metrology and Measurements Laboratory
4. 20MEPC502-Robotics
5. 20MEPL502-Kinematics and Dynamics Laboratory
6. 20MEPC603-Mechatronics
7. 20MEPC701-Finite Element Analysis
8. 20MEPL701-Computer Aided Simulation and Analysis Laboratory
9. 20MEEL504-Non Traditional Machining Techniques
10. 20MEEL604-Non Destructive Testing and Evaluation
11. 20MEEL608-Product Life Cycle Management
12. 20MEEL703-Process Planning and Cost Estimation
13. 20MEEL803-Micro Electro Mechanical Systems (MEMS)

List of Courses offered for PE and other departments in Annexure- 3.

BOS.ME.20.01.03: To review and approve the syllabus of Engineering Graphics and Engineering Practices Laboratory offered to all branches.

The members reviewed syllabus of the following courses offered to all branches and resolved to approve the same.

BOS resolved to recommend the following to the Academic Council for further approval.

1. 20ESGE101-Engineering Graphics
2. 20ESGE101-Engineering Practices Lab

List of Courses offered to all the departments for first year in Annexure- 3.

BOS.ME.20.01.04:To review and approve the syllabus of courses offered to IT

The members reviewed the syllabus of the following courses offered to IT and resolved to approve the same.

BOS resolved to recommend the following to the Academic Council for further approval.

1. 20MEPC702-Robotics and Applications

List of Courses offered for IT and other departments in Annexure- 3.

BOS.ME.20.01.05: To review and approve the syllabus of courses offered to EIE and ICE

The members reviewed the following syllabus of courses offered to EIE and ICE and resolved to approve the same.

BOS resolved to recommend the following to the Academic Council for further approval.

1. 20ESME301-Applied Thermodynamics and Fluid Dynamics

List of Courses offered for EIE and ICE departments in Annexure- 3.

BOS.ME.20.01.06: To review and approve the curriculum and syllabus of PG Programme in specialization in CAD/CAM:

The members reviewed the following syllabus of courses offered to M.E CAD/CAM and resolved to approve the same.

BOS resolved to recommend the following to the Academic Council for further approval.

- a. The elective, optimization in Design may replace the course Applied Mathematics for engineers. To compensate this, an additional elective may be added in the list of 2nd semester electives.
- b. CAD based content with FEA approach may be added into the course Advanced finite element analysis.
- c. The hour break-up and credits for the course Innovative Design project may be corrected.
- d. Advanced Finite Element Analysis of I semester and Mechanical vibrations may be swapped.
- e. The credit break up for the course Research Methodology may be corrected
- f. Additional elective subjects may be added in elective I list and which may be more related to CAD/CAM.
- g. The number of units of the course PCDEL105 (Integrated Mechanical Design) may be changed similar to other courses.
- h. The course Advanced Mechanics of materials of I semester, Vehicle

Aerodynamics in the 5th semester elective list and Nanomaterials and Nanotechnology the 6th semester elective list may be replaced with more relevant courses.

Syllabus for core and professional elective courses of M.E. CAD/CAM under Mechanical Engineering Programme as enclosed in Annexure 4.

In the concluding remarks, the chairman stated that the (reduction of credits in UG and PG Curriculum and other) recommendations suggested by the members would be considered.

Meeting then ended with a vote of thanks by Dr.V.M.Manickavasagam, Assoc. Professor/Mech.

Dr. M.Loganathan,
Prof., Dept of Mechanical Engg.,
Faculty of Engg and Tech,
Annamalai University,
Annamalai Nagar-608002

Dr.SomasekharS.Hiremath
Assoc.Prof, Dept.of Mechanical Engg.,
IIT- Madras., Chennai-600 036

Dr. SridharThyageswaran,
Prof.Dept. of Mechanical Engg.
Coimbatore Institute of Technology.
Coimbatore-641014

Dr.D.DevaKumr
DGM-Central Quality/Ashok Leyland Ltd.,
Chennai.

Dr.M.B.Shayam Kumar
Assoc.Prof, Dept.of Mechanical Engg (SMEC)
Vellore Institute of Technology University, Chennai-600 127

Dr.C.Elanchezian
Prof/ Dept. of Mech. Engg.,
Sri Sairam Engineering College,
West Tamabarm,Chennai-44

Dr.N.Mani
Prof/ Dept. of Mech. Engg
Sri Sairam Engineering College
West Tamabarm,Chennai-44

Dr.V.M.Manickavasagam
Assoc. Prof/ Dept. of Mech.Engg.
Sri Sairam Engineering College,
West Tamabarm,Chennai-44

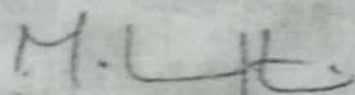
Dr.K.Venkatraman
Assoc. Prof/ Dept. of Mech.Engg
Sri Sairam Engineering College
West Tamabarm,Chennai-44

Dr.L.Saravanakumar
Assoc. Prof/ Dept. of Mech.Engg
Sri Sairam Engineering College,
West Tamabarm,Chennai-44

Prof.G.Ramakrishnan
Assoc. Prof/ Dept. of Mech.Engg
Sri Sairam Engineering College
West Tamabarm,Chennai

Dr.B.Vijaya Ramnath,
Chairman, BoS/Mechanical Engg.
(Professor& Head/Mechanical Engg.)

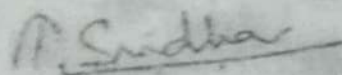
Meeting then ended with a vote of thanks by Dr. V.M. Manickavasagam, Assoc. Professor/Mech.



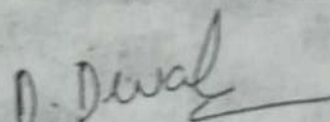
Dr. M. Loganathan,
Prof., Dept of Mechanical Engg.
Faculty of Engg and Tech,
Annamalai University,
Annamalai Nagar-608 002.



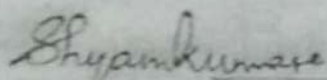
Dr. Somasekhur S. Hiremath
Assoc Prof. Dept of Mechanical Engg.
IIT - Madras, Chennai-600 036



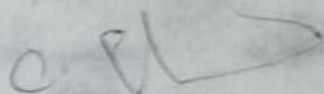
Dr. Sridhar Thyageswaran,
Prof. Dept. of Mechanical Engg.
Coimbatore Institute of Technology
Coimbatore-641 014.



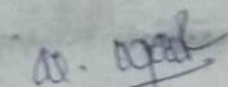
Dr. D. Deval Kumar
DGM-Central Quality Ashok Leyland Ltd.,
Chennai.



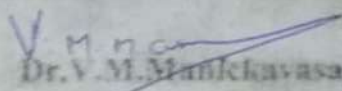
Dr. M.B. Shayam Kumar
Assoc. Prof. Dept. of Mechanical Engg (SMEC)
Vellore Institute of Technology University, Chennai-600 127.



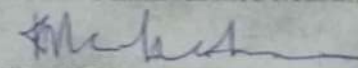
Dr. C. Elanchezian
Prof. Dept. of Mech. Engg.,
Sri Sairam Engineering College,
West Tambaram, Chennai-44



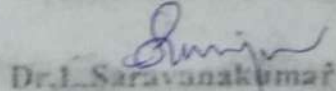
Dr. N. Mani
Prof. Dept. of Mech. Engg.
Sri Sairam Engineering College,
West Tambaram, Chennai-44



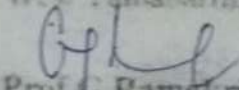
Dr. V.M. Manickavasagam
Assoc. Prof. Dept. of Mech. Engg.
Sri Sairam Engineering College,
West Tambaram, Chennai-44



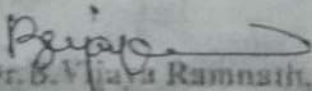
Dr. K. Venkatraman
Assoc. Prof. Dept. of Mech. Engg.
Sri Sairam Engineering College,
West Tambaram, Chennai-44



Dr. I. Saravanakumar
Assoc. Prof. Dept. of Mech. Engg.
Sri Sairam Engineering College,
West Tambaram, Chennai-44



Prof. G. Ramakrishnan
Assoc. Prof. Dept. of Mech. Engg.
Sri Sairam Engineering College,
West Tambaram, Chennai-44.



Dr. B. Vijaya Ramnath,
Chairman, BOS Mechanical Engg.
(Professor & Head Mechanical Engg.)
Sri Sairam Engineering College,
West Tambaram, Chennai-44.