

SESHASAYEE INSTITUTE OF TECHNOLOGY

(Government Aided Autonomous Institution)

Tiruchirappalli – 620 010.



Department of Mechanical Engineering

(Autonomous & Accredited Programme)

MINUTES OF THE PROGRAMME ADVISORY COMMITTEE

DATE : 04-10-2024

TIME : 02.30 P.M.

VENUE : CONFERENCE HALL, S.I.T., Tiruchirappalli

MINUTES OF PROGRAMME ADVISORY COMMITTEE MEETING
CONDUCTED ON 04-10-2024, Friday.

MEMBERS PRESENT:

01.	Dr.V.G.Ravindhren B.E., M.E., Ph.D., Principal, S.I.T., Tiruchirappalli -620 010.	Chairperson
02.	Dr.G.Vairamani B.E., M.E., Ph.D., H.O.D.-i/c. /Mech., S.I.T	Convener
03.	LM.Subramaniyan B.E., DGM-R&D (Rtd.), BHEL, Tiruchirappalli.	Member
04.	Dr. A.Zahir Husain B.E., M.E., Ph.D., Senior Section Engineer, Central Workshop, Golden Rock, Workshop, Ponmalai, Tiruchirappalli.	Member
05.	Dr.S.Kannadasan B.E., M.E., Ph.D., H.O.D./Mechanical, Government Polytechnic College, Srirangam, Tiruchirappalli.	Member
06.	Dr.T.Karthikeyan B.E., M.E., Ph.D., Professor & Dean (Accreditation), Department of Mechanical Engineering, J.J. College of Engineering and Technology, Ammappettai, Tiruchirappalli -620 009.	Member
07.	Dr.S.Murugan B.E., M.E., Ph.D., Lecturer/Mech., S.I.T.	Member
08.	T.Jayakumar, B.E., Lecturer/Mech., S.I.T.	Member
09.	K.Raveenthara, B.E., Lecturer/Mech., S.I.T.	Member
10.	M.Rengasamy, B.E., M.E., Lecturer/Mech., S.I.T.	Member
11.	V.Vijayan, B.E., M.E., Lecturer/Mech., S.I.T.	Member
12.	S.Jaikrishnan, B.E., Lecturer/Mech., S.I.T.	Member
13.	A.Jainschristopher, B.E., M.E., Lecturer/Mech., S.I.T.	Member

Minutes of PAC meeting held on 04-10-2024 at 2.30 pm in the
"Conference Hall" of SIT.

The Program Advisory Committee (PAC) meeting was convened on 04-10-2024, at 2:30 p.m. in the 'Conference Hall' at Seshasayee Institute of Technology, Tiruchirappalli, to discuss and finalize the curriculum outline and syllabus content for the 'G-Scheme, Regulation.' The meeting began with a welcome address by Dr.G.Vairamani, H.O.D.-i/c., Department of Mechanical Engineering, SIT, followed by the self-introductions of the members. The HOD briefly outlined the objectives of the meeting."

The minutes of the meeting are as follows,

1. The procedure followed to frame the syllabus was explained, and the purpose of the meeting was also conveyed to the members.
2. The modifications made in the revised syllabus were explained.
3. A previous comparison of the curriculum outlines of three different schemes—namely, the 'DOTE N-Scheme,' 'SIT F-Scheme,' and the existing 'DOTE R-2023 Regulation' syllabus—along with the proposed 'SIT G-Scheme draft syllabus,' was sent to the members for their perusal.
4. The changes made to the curriculum outline in the 'SIT G-Scheme draft syllabus' were explained with suitable justification.
5. The details of the topics added to the 'DOTE R-2023 Regulation' syllabus and the 'SIT G-Scheme draft syllabus' were presented."

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The committee members suggested that topics on the latest advanced technologies should be taught, while basic fundamental skills and fundamental engineering should not be omitted. By considering this strategy, the committee members initiated their discussions.

The committee members discussed and carefully examined all the subjects to align the syllabus with the latest technological developments and to meet the expectations of employers. The following valid points were suggested by the committee members for implementation

First Term and Second Term:

The Committee members reviewed the previously finalized First Term and Second Term "G-Scheme syllabus" and suggested to continue the same "G-Scheme syllabus".

THIRD TERM:

❖ The following topics are suggested to add in the **Manufacturing Process**.

- The topic "Moulding machines" may be included in the Foundry Technology.
- Submerged arc welding and Plasma arc welding, MAG welding may be included in the Welding Technology.
- Pre-sintering process, Secondary operation may be added in the Powder metallurgy.

❖ The following topics are suggested to add in the **Strength of Materials**.

- Mechanical properties of materials may be included in the Selection of material.
- Shore hardness of plastics by Durometer in the hardness test practical exercise.
- Composite bar, Temperature stress and strain may be included in Elastic constants and Strain energy.

✚ The Subject Machine Tool Technology may be shifted to FOURTH TERM to shift the Metrology and Measurements subjects to THIRD TERM. This modification is carried out to ensure balance workshop practice in both THIRD TERM and FOURTH TERM.

❖ This subject may be shifted from the FOURTH TERM and the following topics are suggested to add in the **Metrology and Measurements**.

- Error and types of error may be included in the Linear Measurement.
- Vernier Depth Guage may be included in the Linear Measurement.
- Thermo electric pyrometer, Optical pyrometer may be included in Temperature measurement.

❖ The following topics are suggested to add in the **Industrial Drives and control**.

- Preparation of notes about Auto-Transformer may be included in the "Suggested list of students activity".

❖ The following topics are suggested to add in the **Production Drawing and Modeling**.

- Geometric Tolerances may be included in Geometric Dimensioning and Tolerances.

- ❖ The following topics are suggested to add in the **Workshop Practices**.
 - TIG welding of Lap Joint may be included in the welding practical.
 - MIG welding of T-Joint may be included in the welding practical.
 - Gouging operation may be explain in the students activity
 - Welding of S.S. metal by TIG welding may be explain in the students activity
- ❖ Magnetic Particle test, Die penetrant test and Liquid penetrant test prescribed in the "Advanced Welding Technologies" in the sixth term were included in this subject.

FOURTH TERM:

- ❖ The following topics are suggested to add in the **Advanced Manufacturing Technology**.
 - Wire cut EDM process may be included in Unconventional machining processes.
- ❖ The following topics are suggested to add in the **Fluid Mechanics**.
 - Pitot tube, Piezo meter and Rotameter may be included in the Fluid Dynamics and Fluid Kinematics .
 - Classification of pumps may be included in the in the Hydraulic Machines.
 - Acceleration Head, Slip and negative slip may be added in the Reciprocating pumps.
 - Cavitation may be included in the Centrifugal pump.
 - Jet pump and submergible pump may be include in the Hydraulic Machines.
- ❖ The following topics are suggested to add in the **Heat Power Engineering**.
 - Dual combustion cycle may be included in Air Cycle.
 - The definitions of Compression ratio, Air-fuel ratio, Specific fuel consumption may be included in the I.C. Engines.
 - New topic about the Formation and Properties of Steam may be included in this subject.
 - New topic about the STEAM BOILERS may be included in this subject.
 - New topic about the STEAM Condenser may be included in this subject.
 - New topic about the THERMAL POWER PLANT may be included in this subject.

- ✚ The Subject “Machine Tool Technology” may be shifted from THIRD TERM to shift the Metrology and Measurements subjects to THIRD TERM. And also to ensure balance workshop practice in both THIRD TERM and FOURTH TERM.

- Shaper, Planer and Slotter may be included in this subject. Principle of operation only.
- Semi-Automatic lathe and Automatic lathe topic may be included in the suggested list of students activity.

FIFTH TERM:

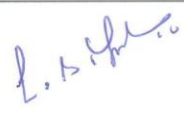



- ❖ The following topics are suggested to add in the **Elements of Machine Design**.
 - Preparation of notes about ISO, DIN, JASO, ASTM, ASME, ANSI, JIS, AFNOR standards.
- ❖ The following topics are suggested to add in the **Refrigeration and Air conditioning**.
 - Types of Air-Conditioners may be included in the Air Conditioning.
- ❖ The following topics are suggested to add in the **Automobile Technology**.
 - Sliding mesh gear box may be included in Gear Box.
- ❖ The following topics are suggested to add in the **Innovation& Start-Up**.
 - Design registration may be included in Incubation Clubs, IPR, Patents and Copyrights.

SIXTH TERM:

- ❖ The following topics are suggested to add in the **Advanced Welding Technologies**.
 - As per “DOTE R-2023 Regulation”, this subject is a Practicum type and end exam with Practical Exam. But, this subject is modified as Theory subject to include the following topics.

Hence, the practical exercises on TIG welding, MIG welding, Magnetic Particle test, Die penetrant test and Liquid penetrant test prescribed in this subjects in “DOTE R-2023” syllabus were included in the Third Term Workshop Practice.
 - Friction stir welding may be added in the Special Welding Process.

- Heat Affected Zone, Arc blow, Types of metal transfer, weld bead geometry, weld metal solidification, weld decay, dilution may be added in the Metallurgy of Welding.
- Welding of dissimilar metals, problems in dissimilar welding may be included in the Weldability of Metals and Plastics.
- Stages of weld inspection, Inspection before welding, during welding and after welding. Destructive testing of weld and Non-destructive testing of may be added in the Inspection and Testing of Welds.

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CONCLUSION

The above modifications were included immediately and circulated to the members for confirmation. The members also examined, confirmed, and approved the modifications made to the final draft of the syllabus.

Finally, Sri.S.JaiKrishnan, Lecturer of Mechanical Engineering, proposed a vote of thanks to the invitees for contributing their valuable suggestions for the development of Technical Education in general and the growth of our students in particular.

PRINCIPAL

HEAD-i/c Mech.Engg.

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