





Department of Mechanical Engineering.

Minutes of the meeting and action taken report of Board of Studies (BoS)

- 2020 held on 23rd August 2020, 10:00 AM - 3:30 PM.

Members of the Board of Studies for the Academic Year 2020-2021

S.No.	Name of the member	Composition as per the UGC - Autonomous guidelines	Designation & Address.
1	Dr. T. N. Sreenivasa 	Head of the Department concerned (Chairman)	Professor, HoD & Dean, Dept. of Mechanical Engineering, MITS.
	Dr. G. Hasinath Goud 	Subject Expert - Design Specialization.	Professor & COE, Department of Mechanical Engineering, MITS.
	Dr. P. Suryanarayana Raju 	Subject Expert - Thermal Specialization.	Professor, Department of Mechanical Engineering, MITS.
	Dr. S. Thammiah 	Subject Expert - Manufacturing & Production Specialization	Professor, Department of Mechanical Engineering, MITS.
	Dr. Anil Kumar Emadabathuni	Expert in subject nominated by Academic Council.	Associate Professor, IIT-Tirupathi anil@iittp.ac.in 0877 2500 387
	Dr. B. Venkatesham	Expert in subject nominated by Academic Council	Associate Professor, IIT-Hydr venkatesham@iith.ac.in +91 (40) 23016110
	Dr. N. N. Kishore	One expert to be nominated by the vice-chancellor from a panel of six recommended by the college principal	Professor, IIT-Tirupathi nnk@iitk.ac.in 0877 2503012
	Mr. Kashinath M. pathasetty	Representative from Industry/ Corporation sector/allied area relating to placement	Head-VAC- Application Support Group, Ace Designers Limited kashinathp@acedesigners.com +91 98440 48876

Mr. D. Anand Swaroop Kumar	One postgraduate mentors- ous alumnus to be nominated by the Principal	Product and Application Engineer, CBRE South Asia Pvt. Ltd. ananddonepudi@gmail.com Mob: 9962992272
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Agenda :-

1. Welcome and introduction of new members by Dr. T.N Sreenivasa, Dean and Head, at 10:00 AM (5 min)
2. Brief profile of the Department by Dr. T.N Sreenivasa, Dean and Head, at 10:05 AM (15 min).
3. Assessment of Programme UG outcomes and PAC recommendations by Dr. Suryanarana Raju P., Professor, at 10:20 AM (15 min).
4. Discussion on attainment and remedial actions, at 10:35 AM (15 min)
5. Review of student placements by Dr. Kulmani Mehar, Sr. Assistant Professor, at 10:45 AM (5 min)
Discussion on placements and improving them, at 10:50 AM (10 min)
6. Review of student mentoring program by Dr. V Shankarath, Sr. Assistant Professor, at 11:00 AM (5 min)
Discussion on mentoring program, at 11:05 AM (10 min)
7. Review of Department Research Activities, Dr. S. Baskaran, Associate Professor, at 11:15 AM (10 min).
Discussion on department research directions, at 11:25 AM (10 min)
8. Teaching & Learning, Extra and Co-curricular activities, and Student clubs in the Department by Dr. Prasanna Kumar Durvi, Professor, at 11:35 AM (15 min)
Discussion T&L and student activities at 11:50 AM (10 min)
9. Review of student projects and internships by Dr. R. Prithivirajan, Sr. Assistant Professor, at 12:00 PM (5 min).
Discussion on projects and internships in the Department, at 12:05 PM (10 min)
10. Review of UG curriculum, IAAB Recommendations and proposed changes by Dr. Uday Krishna Ravella, Associate Professor, at 12:15 PM (25 min). Discussion on UG curriculum, at 12:40 PM (50 min)

BREAK (1:30 PM - 2:00 PM)

10. Review of PG Curriculum and proposed changes by Dr. S. Tharishamani, Professor
2:00 PM (20 min)
Discussion on PG Curriculum - at 2:20 PM (20 min)
11. Review of plans for Engineering workshop by Dr. P. Naresh, Sr. Assistant
Professor, at 2:40 PM (5 min)
Discussion on workshop at 2:45 PM (5 min)
12. Overall Recommendations of BoS by External members, at 2:50 PM (20 min)
13. Concluding Remarks and Department Road map by Dr. T.N. Sreenivasa, Dean
and Head, at 3:10 PM (10 min).
14. Vote of Thanks by Dr. T.N. Sreenivasa, Professor and Head at 3:20 PM.

Resolutions :-

1. Greetings from the Chairman, BoS Dr. T.N. Sreenivasa
2. Greetings and welcome note by the Principal Dr. C. Yuvaraj
3. Introduction to the Department of Mechanical Engineering by the Dean and
HOD, Dr. T.N. Sreenivasa.
4. Welcoming the BoS members and briefing the affiliations of the external
members.
5. All the external members of BoS expressed their greetings
6. Dean and HOD presented the profile and legacy of the Mechanical Engineering
Department.
7. Dean and HOD presented the highlights of the department, Organizational
chart at department level, faculty introduction, department com-
mittees, SWOC and road map for three years of the department.
8. Presentation on process and results of outcome attainments (OBE) by
Dr. Suryanarana Raju.P
9. Discussion on Outcome Based Education (OBE)
 - a. Introduction to OBE
 - b. Outcomes of UG programme
 - c. Compliance of Curriculum with outcomes
 - d. Assessment of outcomes (COs and POs)
 - e. Results of Assessment and Actions Taken
 - f. Recommendations of PAC.

g. Solicitation of Advise.

h. Seeking guidance on improving the strategies for improving OBE, suggestions to improve PEOs, PSOs, suggestions for improving attainment of outcomes and review of PAC recommendations.

10. Presentation on review of student placements by Dr. Kulmani Mehar

a. Placements 2020

b. Year wise placements

c. Placements completion both COE and IT

d. Action plan for placements

e. Career support opportunities

f. APSSDC SIEMENS TSDI

11. Presentation on Student Mentoring System by Dr. V Shankernath

a. Professional guidance

b. Career advancement

c. Advice on course work

d. Responsibilities of mentor

e. Role of Head of the Department

f. Mentoring activities

g. Mentor mentee form and mentor system in Toyota

12. Presentation on Department Research Activities by Dr. S. Baskaran

a. Research highlights

b. Funded projects (Major & Minor)

c. Consultancy

d. Patents

e. Student High Action Research Program (SHARP)

f. Project laboratories and facilities

g. Faculty publications and rewards

h. Intellectual meet

i. Seeking suggestions to improve research activities like funding projects, collaborative research, patent and consultancy.

13. Presentation on Teaching-Learning Process and Student Activities by Dr. Prasanna Kumar Dixvi

a. Teaching-Learning Process

- b. Exam evaluation scheme.
 - c. Mechanical Engineering Laboratories
 - d. Student clubs.
 - e. Student Co-Curricular and Extracurricular Activities.
14. Presentation on Review of Internships and Projects by Dr. R. Parthivraj
- a. Projects and Internships process
 - b. In-house projects
 - c. Full semester Internships.
 - d. International Internships
 - e. Quality of projects & Theses
 - f. Outcome from projects and internships
15. Presentation on Review of UG Curriculum and proposed changes by Dr. Uday Krishna Ravella.
- a. Curriculum is designed based on outcome based education, as recommended by NBA.
 - b. Curriculum preparation, Credit distribution
 - c. Curriculum structure of I and II years.
 - d. Structure and syllabus of all III and IV year courses including Discipline Electives and Open Electives.
 - e. Discussion on a new course 'Engineering Analysis' in III year with a new regulation and L-T-P-C distribution of 2-0-2-3.
 - f. Introducing a 'Comprehensive' handbook which could be used in lecture, tutorials as well as exams for all analytical courses
 - g. Open Elective-I and in III year I semester, Discipline Elective-II in III year II Semester and Open Elective-III in IV year I Semester, will be offered through MOOCs platforms.
 - h. CAD/CAM course in III year II Semester is also proposed to be offered with an L-T-P-C distribution of 2-0-2-3 by integrating theory and practical sessions. Change made in syllabus: Removed two units from the R14 syllabus and introduced more hands-on topics like generating and loading the code in a CNC machine and machining the component.
 - i. Thermal Engineering in III year II Semester is also proposed to

be offered with an L-T-P-C distribution of 2-0-2-3 by integrating theory and hands-on problem solving using computer programming with MATLAB/Python.

j. Proposed Discipline Elective - II, III and Open Elective - II courses.

k. Introducing Mechanical Skills Laboratory and Robotics Laboratory.

l. Introducing virtual laboratory with zero credit.

m. Scheme for IV year I Semester:

i. Engineering metrology in IV year I semester proposed to be offered with an L-T-P-C distribution of 2-0-2-3.

ii. Introducing a new course Machine Learning in Mechanical Engineering with an L-T-P-C distribution of 2-0-2-3.

iii. Proposed Discipline Elective - IV, V and Open Elective - III courses.

iv. Proposed Thermal Engineering, Mechatronics Lab and Project work - I.

n. Scheme for IV year II Semester:

i. Proposed Project work - II and Discipline Elective - VI and Open Elective IV courses.

o. Presented the list of Discipline Electives offered in different streams such as Manufacturing, Thermal, Industrial Engineering, Energy Science & Technology, Design Engineering.

p. New courses will be added to Discipline Electives as and when required based on the evolving needs of the industry.

q. Offering new elective courses on industrial & automobile battery systems, Solar energy for process heat & power generation, energy auditing, Design and analysis of welded structures, design of pressure vessels & Piping Systems, Internet of Manufacturing things, Industrial Organization & management, Tool and Die design, Industrial Corrosion & Tribology and Design Thinking & Innovation.

r. Presented the list of Open Electives offered, Open Electives - I & III are offered on MOOCs platform.

s. Presented comparison of proposed MITS R18 Vs AICTE model Curriculum.

t. Introducing Minor programs in Mechanical Engineering: proposed courses for Minor degrees in Electrical Vehicles, Energy Engineering.

Mechatronics, Nano Technology, Digital Manufacturing and proposed structure for Engineering Entrepreneurship.

14. Only those students with CGPA 8 and above (for General Category) and CGPA 7 (for SC/ST) are eligible to apply for Minor programs and to get Minor degree, student should earn 20 Credits: 6 Courses of 3 Credits each & One lab with 2 Credits.

15. Introducing Honors program in Mechanical Engineering: proposed courses offered for Honors Program, 5 courses of 3 Credits each and Mini projects 5 Credits.

* The student has to opt two courses out of four in III B.Tech I Semester. Similarly, has to opt in III B.Tech II Semester.

* The student has to opt one course out of four in IV B.Tech I Semester.

* Proposed one mandatory project work in IV B.Tech I Semester.

16. Dr. Uday Krishna Ravella presented recommendations of TAAB and changes made in curriculum post TAAB meeting.

17. Suggestions made by Dr. N N Kishore.

i. Provide more freedom to the students so that they have more choice in selecting the elective courses.

ii. For so many courses Tutorial is very important. So, incorporate for some courses.

iii. Introduce vibrations lab along with a theory course on the topic.

iv. Train students with theory and problems to qualify in GATE.

v. Composite materials can be offered as Open elective.

18. Suggestion made by Dr. E Anil Kumar Emadabathuni

i. Discussion on regulations of Minor programs.

19. Suggestion made by Mr. D Anand Swaroop Kumar.

i. Interchange mechanical skill lab with manufacturing technology lab so that students have the required theoretical knowledge before starting the lab.

20. Suggestions made by Dr. Venkatesam B.

i. Incorporate mechanical instrumentation laboratory.

ii. Offer 3D Printing course as Open elective.

21. Suggestions made by Mrs. Kasinath Patnasetty.

- i. Record the student engagement in curricular activities using daily activity reports.
- ii. Create groups with half of the students from rural and half from urban background and give tasks to them and analyse their analytical skills.
- iii. Form a think tank with department faculty to discuss the impact of Artificial Intelligence on future of conventional Mechanical Engineering.

22. Presentation on Review of PG Curriculum and proposed changes by Dr. S. Thamizhmani.

- a. Structure of R-20 AMS Curriculum.
- b. Discipline Electives.
- c. Seeking suggestions on the courses mentioned in the presentation.
- d. Placement of the courses is accepted by the TAAB members.
- e. Suggestions for improvement.

23. Suggestions made by Dr. NN Kishore.

- i. Offer PG open elective courses to UG students.

24. Suggestion made by Mrs. Kasinath Patnasetty.

- i. Give a chance to students to interact with industry and society to identify needs of industry and society and maintain a library with the reports on such projects.

25. Presentation on Review of Plans for Engineering Workshop by Dr. P. Narish.

- a. History of workshop
- b. Trades available in workshop
- c. Proposed new trades: Changing the syllabus according to the new trends/current trends.
 - i. House wiring ii. Computer Hardware iii. Introduction to Automation.

d. Proposed plans for modernization of central workshop.

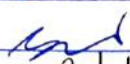
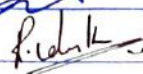
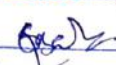

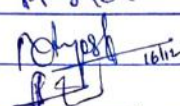
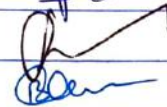
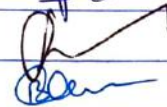
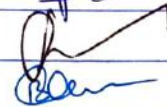


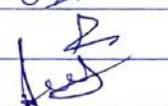
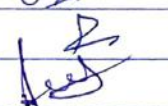
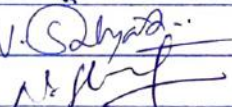



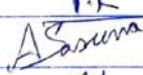
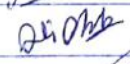






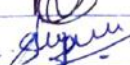
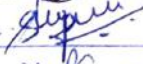

- i. Apprentice Training Activities: These apprenticeship trainees are engaged with the approval of Regional Directorate Apprentice Training (RDAT) for ITI students and board of apprenticeship training for diploma students.

- ii. Certificate will be provided after successful completion of the training program.
 - iii. Socially relevant projects.
 - iv. Central fabrication facility (CFF)
26. Suggestion made by Mr. D Anand Swagobop Kumar
- i. Include cloud storage technology in workshop
27. Suggestions made by Dr. NN Kishore.
- i. Implement hands on experience to J B.Tech students by giving projects during induction program.
 - ii. Encourage final year students to do interdisciplinary projects.
28. Suggestions made by Mr. Kashinath Patrasetty.
- i. Give small examples on industry related problems and challenges to introduce industry terminology in workshop.
 - ii. Adopt an IIT college.
 - iii. Encourage students to work on some interdisciplinary projects.
29. Suggestions made by Dr. Venkatesam B.
- i. Encourage students to form interdisciplinary teams for doing projects and provide facilities and support to them for participating in competitions.
 - ii. Add introduction to Mechatronics.
 - iii. In labs encourage the individual students to record video of experiment conduction along with the description of apparatus, experimental procedure and its applications, and faculty should use these videos in evaluation.
30. Suggestion made by Dr. E Anil Kumar Emadabathuni
- i. Provide awareness to students on emerging trends in future.
31. Suggestion made by Dr. NN Kishore.
- a. Introduce projects and term papers for as many courses as possible
 - b. Conduct annual meetings with curriculum committee to assess the continuous process of curriculum revision and to address any required corrective actions.
32. Concluding remarks by external members of BoS

33. Dean requested BOS members for approval to include student members into BOS as observers.

34. Vote of thanks and closing points by Dean and HoD Dr. T.N. Sreenivasa and expressed gratitude to external members of BOS on behalf of Mechanical Engineering Department, MITS for their presentations and valuable suggestions.

Faculty Present :-

1. Dr. Prasanna Kumar Duvvi : D.L. Prasanna Kumar
2. Dr. Senthil Kumar Jc : 
3. Dr. Uday Krishna Ravella : 
4. Dr. S. Baskaran : 
5. Dr. T. Arun : 
6. Dr. G. Mallikarjunachari : G.M. Chary
7. Dr. R. Parthivi Rajan : 16/12/23
8. Dr. K.V. Nagesha : 
9. Dr. P. Sivaiah : 
10. Dr. D. Yuvarajan : 
11. Dr. B. Chakraborty : 
12. Dr. P. Narech. :
13. Dr. Arun Nelloppan T. : 
14. Dr. Muralidhar Singh M. : 
15. Dr. Vinod Kumar Singh : 
16. Dr. Ashish Agarwal : 
17. Dr. V. Shanker nath : V. Sahyad...
18. Dr. N. Shiva Kumar : 
19. Dr. Kulmani Mehar : 
20. Dr. Anshuman Das : 
21. Dr. Pawan Kumar : P.K. 
22. Dr. Ankit Sonera : 
23. Dr. Ali Abbas : 
24. Dr. Tukin Deshamukhya : 
25. Dr. P. Pratap Naidu : 
26. Dr. Harman Phadatar : 
27. Mr. Manu Ravuri : 
28. Mr. Rajesh Pujari : 
29. Mr. H. Raghavendra : 
30. Mr. Mudassir Khar : 
31. Mr. P. Meghasyam : P.M. 
32. Mr. G.S. Vijay Kumar : 

33. Mr. D. Venugopal : D Venugopal

34. Mr. G. Lokender :

35. Mr. Mohammed Yaseen Kotwal : M Yaseen

36. Mr. N. Siva Balaji : N Siva Balaji

37. Mr. M. Revantha Kumar : M Revantha Kumar



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