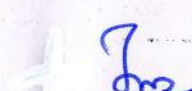


# Madanapalle Institute of Technology & Science

## Department of Mechanical Engineering

The Department of Mechanical Engineering at Madanapalle Institute of Technology & Science (MITS) has conducted Industry Alumni Advisory Board (IAAB) on 19<sup>th</sup> June 2020, 11:00 AM – 2:00 PM. The following internal and external members have attended the meeting.

S. No	Name of the Member	Designation
1	Dr. P Ramanathan	Vice Principal Academics, MITS
2	Dr. T N Sreenivasa	Professor, Dean & Head, Dept. of ME, MITS
3	Dr. P Suryanarayana Raju	Professor, Dept. of ME, MITS (Subject Expert-Thermal Specialization)
4	Dr. Prasanna Kumar DL	Professor, Dept. of ME, MITS (Subject Expert-Thermal Specialization)
5	Dr. S Thamizhmanii	Professor, Dept. of ME, MITS (Subject Expert-Manufacturing and Production Specialization)
6	Dr Senthil Kumar JS	Professor, Dept. of ME, MITS (Subject Expert-Manufacturing and Production Specialization)
7	Dr. Uday Krishna Ravella	Associate Professor, Dept. of ME, MITS (Subject Expert-Material Science Specialization)
8	Mr. M. Hari Prasad	Former Scientist Aeronautical Development Establishment (ADE), Bangalore
9	Dr. R. Thundil Karuppa Raj	Professor & Head VIT, Vellore
10	Mr. Rajesh R. Y.	Assistant General Manager Hyundai R&D, Hyderabad
11	Mr. Shankar Reddy	Scientist DRDO, Hyderabad
12	Mr. Kalyan	Design Engineer Manager ERS Electronic GmbH, Germany

  
Head of the Department

Dept. of ME

Head of the Department

Mechanical Engineering  
Madanapalle Institute of Technology & Science  
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Principal

MITS  
PRINCIPAL

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# Madanapalle Institute of Technology & Science

## Department of Mechanical Engineering

Industry Alumni Advisory Board (IAAB) Minutes of meeting held on  
19<sup>th</sup> June 2020, 11:00 AM – 2:00 PM

### Agenda:

S. No	Topic	Speaker
1	Deans Welcome and Introduction of new members	Dr. T. N. Sreenivasa Dean and Head
2	Brief profile of the Department	Dr. T. N. Sreenivasa Dean and Head
3	Assessment of Programme UG Outcomes and PAC recommendations	Dr. Suryanarayana Raju P Professor
	Discussion on attainment and remedial actions	All
4	Review of student placements	Dr. K V Nagesha Dr. Kulmani Mehar Sr. Assistant Professors
	Discussion on Placements and improving them	All
5	Review of student mentoring program	Dr. V Shankernath Sr. Assistant Professor
	Discussion on mentoring program	All
6	Review of Department Research Activities	Dr. S Baskaran Associate Professor
	Discussion on department research directions	All
7	Review of Teaching & Learning, Extra and Co-Curricular activities and Student Clubs	Dr. Prasanna kumar Duvvi Professor
	Discussion	All
8	Review of UG Curriculum and proposed changes	Dr. Uday Krishna Ravella Associate Professor
	Discussion	All
9	Review of PG Curriculum and proposed changes	Dr. S Thamizhmanii Professor
	Discussion	All
10	Review of Internships and Projects	Dr. R. Prithvirajan Sr. Assistant Professors
	Discussion	All
11	Review of Plans for Engineering Workshop	Dr. P Naresh Sr. Assistant Professor
	Discussion	All
12	Concluding Remarks and Department Road Map	Dr. T. N. Sreenivasa Dean and Head
13	Vote of Thanks	Dr. Senthil Kumar J S Professor

## Resolutions:

1. Greeting from the chair.
2. Welcome note to following guests by Dean and HOD
  - a. Mr. Hari Prasad, Former Scientist Aeronautical Development Establishment (ADE), Bangalore
  - b. Dr. R. Thundil Karuppa Raj, Professor & Head, Automotive Engineering, VIT, Vellore
  - c. Mr. Rajesh Ry, Assistant General Manager, Hyundai R&D, Hyderabad
  - d. Dr. Shankar Reddy, Scientist DRDO, Hyderabad
  - e. Mr. Kalyan, Design Engineer, ERS Electronic GmbH, Germany
3. Introduction and briefing about the Institute by Dean and HOD
4. Presentation about IAAB meeting agenda and outline by Dean and Head
5. Presentation on highlights of the department, organizational chart at department level, expert board of the institute, faculty introduction, department committees, SWOC of the department etc.
6. Presentation on Review of process and results of outcome attainments by Dr. Suryanarayana Raju P
7. 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 PAC
  - g. Solicitation of Advise
8. 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.
9. Mr. Hari Prasad has suggested
  - a. Innovative and modern lab infrastructure will encourage the student participation and motive them.

10. Dr. R. Thundil Karuppa Raj has suggested

- a. Continuous Assessment Test (CAT-1&2) which are open book (textbook and notes in their own hand writing-no photocopies) will encourage the student to read textbooks.
- b. Psychology of the student should be addressed-mentoring and student counselling are the keys. Full time counsellor with expertise in psychology.
- c. Well performing students could be exempt from attendance requirement.
- d. Faculty communication skills and other trainings should be taken up through either online or in-person programmes. Do not force the faculty but let the demand come from them for this.

11. Presentation on Review of student placements by Dr. K V Nagesha and Dr, Kulmani Mehar

- a. Placements 2020
- b. Placements year wise
- c. Placement companies both core and IT companies
- d. Action plan for placements
- e. Career Support Opportunities
- f. APSSDC SIEMENS TSDI

12. Dr. Shankar Reddy has suggested

- a. Focus on Govt. sector placements
- b. Motivate the students to attend Govt. sector through GATE
- c. Provide global recognized certification programs which can help to get placements.
- d. Arrange frequent interaction with industry experts, IIT, NIT professors to motivate students towards placement, internships and research grants.

13. Dr. R. Thundil Karuppa Raj has suggested

- a. Train to attract industry establish labs
- b. Invite guest lecture by industry persons
- c. Make that Industry internship is compulsory

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

- a. Professional guidance
- b. Career advancement

- c. Course work specific
  - d. Responsibilities of Mentor
  - e. Role of Head of the Department
  - f. Mentoring Activities
  - g. Mentor mentee form and mentor system in Toyota
15. Dr. R. Thundil Karuppa Raj has commented that mentor system is wonderful. You have done a great step towards improvement of mentor mentee system. Further in future you made it in online also.
16. 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
17. Discussion on research activities and seeking suggestions to improve Research activities like funding projects, collaborative research, patent and consultancy.
18. Mr. Hari Prasad has suggested
- a. Don't concentrate only on DST-SERB, UGC and also try for other funding agencies
  - b. Show your proposals to experts and get it correct
  - c. Don't submit continuously
  - d. Concentrate product oriented project proposals
  - e. Involve some students into work
  - f. Provide separate team to make proposals
19. Dr. R. Thundil Karuppa Raj has suggested
- a. Congratulations for funds received
  - b. Apply for other funding agencies like DRDO, ISRO etc.
  - c. Don't disappoint with success rate
  - d. Go for proposals in design and thermal stream

- e. Apply for GCRM, global proposals
  - f. Give minimum load for researchers
  - g. Apply for young scientist awards, ECR award
  - h. Before submitting the proposal get suggestions from experts
  - i. Improve publications by faculty and students
  - j. Organize an International conference at MITS and convert it into journals
  - k. Provide travel fund for the faculty who are good in research to showcase their talent in abroad. With this we may get good international funding projects and MITS can invite international persons to explore their knowledge.
20. Dr. Shankar Reddy has suggested
- a. Number of participants in SHARP should be increased
  - b. Don't look for Govt. sector funding agencies, so many private funding agencies and industries are there for funding
  - c. Have regular touch with industry persons and know industry problems. BHEL, Bel, NAL, HAL etc. are waiting for research proposals
21. Presentation on Teaching-Learning Process and Student Activities by Dr. Prasanna Kumar Duvvi
- a. Teaching-Learning Process
  - b. Evaluation scheme at exams
  - c. Mechanical Engineering Laboratories
  - d. Student clubs
  - e. Student Co-Curricular and Extracurricular Activities
22. Dr. R. Thundil Karuppa Raj has suggested
- a. C++, python can also teach by mechanical faculty for better understanding
  - b. Mathematics related subjects, Coding by python and mat lab can also teach by mechanical faculty
  - c. Go for CFD as per PAC suggestion
  - d. In the exams first 90 minutes go for close book exam and next 90 minutes go for open book exam. But faculty should not ask remembering level questions.
  - e. You can also encourage the centre of excellence for autonomous vehicle and cyber physical systems from mechanical.

23. Dean requested for VIT course file to share with MITS.
24. Mr. Hari Prasad has suggested that most of the industries are working with MATLAB so that you can incorporate MATLAB as subject along with software.
25. Presentation on Review of Plans for Engineering Workshop by Dr. P Naresh
  - a. History of Workshop
  - b. Trades for exercises
  - c. Proposing Trades: Changing the syllabus according to the new trends/current trends
    - i. House Wiring
    - ii. Computer Hardware
    - iii. Introduction to Automation
  - d. Apprentice Training Activities: These apprenticeship trainers are engaged with the approval of Regional directorate Apprenticeship Training (RDAT) for ITI students and board of apprenticeship training for diploma students.
  - e. Certificate will be provided after successful completion of the training program
  - f. Social relevant activities
  - g. Central fabric Facility (CFF)
26. Mr. Hari Prasad has suggested
  - a. Regarding new courses in workshop, along with house wiring you can also include machine wiring, industrial electrification, how to do wiring for single house and for apartment and for industry etc.
  - b. What are the infrastructure required to setup the lab, cost for it and whether your management can able to invest or not.
  - c. For apprenticeship, the certification your providing should be valuable when compare to other certification agencies.
  - d. Give at least one month training for them to get certificate and you can certify them as a certified contractor.
  - e. You can add computer and mobile hardware
  - f. For industrial and automation, the intake people minimum qualification is diploma and above. PLC, SCADA etc are essential things in syllabus
27. 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. Scheme of I, II year
- d. Scheme of III Year, offering one new course Design thinking & product innovation which is recommended by AICTE and also APSHEC
- e. Introducing virtual laboratory with zero credit
- f. Scheme of all IV years, Discipline Electives, Open Electives
- g. Offering new courses industrial & automobile battery systems, Solar energy or 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.
- h. Courses offered for Honors Program, 5 courses of 3 Credits each and Mini projects 5 Credits
- i. Courses offered for Minors degree in Mechatronics, Hybrid & Electrical Vehicles, Mechanical Engineering, 6 Courses of 3 Credits each & One Lab with 2 Credits
- j. Proposed MITS R18 Vs AICTE

28. Mr. Hari Prasad has suggested

- a. Please look the proper mapping of 18ME108 and 18ME207. The theory subject and practical should relevant.
- b. In III Year I Sem 18ME110 only there welded structure is given no where there riveted joints structures. So, you have to add riveted joints structures
- c. In 18ME402 don't confine to industry and automotive battery systems go for some other applications of batteries.
- d. Dr. Suryanarayana Raju P requested to suggest a textbook to frame syllabus for batteries.
- e. The Tool & Die design is confine to metallic material tools only but it doesn't show anything for non-metallic material tools.
- f. You can add plastic die design and moulds for plastic materials
- g. Suggested new subject intelligent manufacturing to add in UG



- h. Change Additive manufacturing name as Digital manufacturing and you can add Auto Desk Fusion360 into it.
29. Presentation on Review of Internships and Projects by Dr. R Prithivirajan
- a. Projects and Internships Process
  - b. In House Project
  - c. Full Semester Internships
  - d. International Internships
  - e. Quality of project & Thesis
  - f. Outcome from projects and internships
30. Mr. Hari Prasad has suggested
- a. Internal guide should visit industry and maintain good relation with industry
31. Presentation on department Road Map by Dean and HOD Dr. T N Sreenivasa
32. Mr. Hari Prasad has suggested that incorporate autonomous vehicles into road map and come up with your own expertise core areas and establish it to attract industry.
33. Presentation on Review of PG Curriculum and proposed changes by Dr. S Thamizhmanii
- a. Structure of curriculum
  - b. Discipline Electives
  - c. Seeking suggestions for
    - i. the courses mentioned in the presentation is meeting the requirements for AMS
    - ii. placement of the courses are acceptable by the IAAB members
    - iii. Suggestions for improvement
34. Mr. Hari Prasad has suggested
- a. Re think on the difficulty of attending the classes by the student who are doing project in industry.
35. Conclusion and closing points by Dean and Head Dr. TN Sreenivasa
36. Vote of Thanks by Dr. Senthil Kumar JS
- a. Expressed gratitude to IAAB members on behalf of Mechanical Engineering Department, MITS for their presentations and valuable suggestions.

  
Dr. T N Sreenivasa  
Professor, Dean &  
Head of the Department  
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