

## Department of Mechanical Engineering

Minutes of the meeting of Board of Studies (Bos) - 2021 held on

1<sup>st</sup> March 2021 at 10 AM - 12 PM.

Members of the Board of Studies for the Academic Year 2020-21

S.No.	Name of the member	Composition as per the UGC Autonomous guidelines	Designation & Address.
1.	Dr. P. Suryanarayana Raju	Head of the Department concerned (chairman)	Professor & HoD, Department of ME, MITS.
2.	Dr. G. Hasinath Gowd	Subject Expert - Design Specialization	Professor & COE, Department of ME, MITS.
3.	Dr. P. Suryanarayana Raju	Subject Expert - Thermal Specialization	Professor & HoD, Department of ME, MITS.
4.	Dr. S. Thamizhmani	Subject Expert - Manufacturing & Production Specialization	Professor, Department of ME, MITS.
5.	Dr. Anil Kumar Emadebathuni	Expert in Subject nominated by Academic Council.	Associate Professor, IIT-Tirupathi anil@iitk.ac.in, 98772500387
6.	Dr. B. Venkatesam	Expert in Subject nominated by Academic Council.	Associate Professor, IIT-Hyderabad venkatesham@iith.ac.in +91 (40) 23016110
7.	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, 08772503012
8.	Ms. Kshinath M patrabetty	Representative from Industry/corporation sector/allied area relating to placement.	Head-VAS - Application Support Group Ace Designers Limited, kshinathp@acedesigners.co.in, +91 9844048676
9.	Mr. D. Arand Swarup Kumar	One PG meritorious alumnus to be nominated by the principal	Product and Application Engineer, SBB South Asia Pvt. Ltd. aranddonesubi@gmail.com, 9962992272

## Agenda:-

1. Welcome and introduction of new members by Dr. P. Suryanarayana Raju, Professor & Head, at 10:00 AM (5 min)
2. Brief profile of the Department by Dr. P. Suryanarayana Raju, Professor & Head (15 min)
3. Assessment of programme UG outcomes and PAC recommendations by Dr. Suryanarayana Raju, P, Professor & Head (15 min)  
Discussion on attainment and remedial actions, at (15 min).
4. Review of UG curriculum, Discussion on UG curriculum, at (50 min)
5. Overall recommendations of BOS by External members (20 min)
6. Concluding remarks and Department Road map by Dr. P. Suryanarayana Raju, Professor, & Head, (10 min).
7. Vote of Thanks by Dr. P. Suryanarayana Raju, Professor & Head, Dept. of ME, NITS.

## Resolutions:-

1. Greetings from the chairman, BOS Dr. P. Suryanarayana Raju.
2. Introduction to the Department of Mechanical Engineering by the Dr. P. Suryanarayana Raju Professor & Head.
3. Welcoming the BOS members and briefing the affiliations of the external members.
4. List of BOS members.
  - i. Dr. N. N. Kishore, Professor, Dept. of ME, ~~IIIT~~ IIT Tirupati and JNTU A Nominee.
  - ii. Dr. E. Anil Kumar Erradebathuni, Associate Professor, Dept. of ME, IIT Tirupati
  - iii. Dr. Venkatesam B, Associate Professor, Dept. of Mechanical and Aerospace Engineering, IIT Hyderabad
  - iv. Mr. Kasinath Patrasetty, Head, VAS Application Support, Ase Designers Ltd Bangalore.
  - v. Mr. D. Anand Swaroop Kumar, Product and Application Engineer, CBRE South Asia Pvt. Ltd.
5. All the external members of BOS expressed their greetings.
6. Dr. P. Suryanarayana Raju - According to APSCHE all the autonomous institutions have to maintain uniformity in credits of R20 curriculum, starting with the academic year 2021.
7. Mr. Kasinath Patrasetty has suggested that curriculum should be designed to make students SME's ready.
8. Presentation on proposed changes in R20 UG curriculum exclusively for first year by Dr. Uday Krishna Ravella.



a. Curriculum is designed based on outcome based education, as recommended by NBA.

b. Curriculum structure of all four years.

c. Curriculum preparation, Credit distribution.

Year-Semesters	Distribution of Credits.	
	R18	R20.
I-I	17	19.5
I-II	21	19.5
II-I	20.5	21.5
II-II	22.5	21.5
III-I	22	21.5
III-II	20	21.5
IV-I	19	23
IV-II	18	12
Total number of Credits	160	160

d. Scheme of I year - I Semester

R18.

S.No.	Course Name	L	T	P	C	Category.
1	Engineering Calculus	3	1	0	4	BS
2	Engineering Physics	3	1	0	4	BS
3	Basic Electrical Engineering	3	0	0	3	ES
4	Programming for Problem Solving (Python)	2	0	2	3	ES
5	Physics Laboratory	0	0	3	1.5	BS
6	Electrical Engineering Lab.	0	0	3	1.5	ES
Total = 17						

R20.

S.No.	Course Name	L	T	P	C	Category.
1	Mathematics - I	3	1	0	4	BS
2	Physics	3	1	0	4	BS
3	Basic Electrical Engineering	3	1	0	4	ES
4	Programming for Problem Solving (Python)	2	0	3	3.5	ES
5	English Communication Laboratory	0	0	2	1	HUM

6. Physics Laboratory 0 0 3 1.5 BS

7. Electrical Engineering Laboratory 0 0 3 1.5 ES

Total = 19.5

e. Scheme of I year - II Semester.

R18

S.No.	Course Name	L	T	P	C	Category.
1	Professional English	2	0	2	3	HUM
2	Linear Algebra, Complex Variables and ordinary Differential Equations.	3	1	0	4	BS
3	Engineering Chemistry	3	0	0	3	BS
4	C Programming and Data Structures	3	0	0	3	ES
5	Engineering Graphics.	2	0	3	3.5	ES
6	Engineering Chemistry Lab	0	0	3	1.5	BS
7	C Programming and Data Structures lab	0	0	3	1.5	ES
8	Workshop Practice.	0	0	3	1.5	ES

Total = 21

R20

S.No.	Course Name	L	T	P	C	Category.
1	Professional English	2	1	0	3	HUM
2	Mathematics - II	3	0	0	3	BS
3	Engineering Chemistry	3	0	0	3	BS
4	C programming and Data Structures	3	0	0	3	ES
5	Engineering Graphics	2	0	2	3	ES
6	Chemistry Laboratory	0	0	3	1.5	BS
7	C Programming and Data Structures lab	0	0	3	1.5	ES
8	Engineering Workshop	0	0	3	1.5	ES

Total = 19.5

f. Syllabus of Mathematics-II & English Communication Laboratory will be sent to the BOS Members, once BOS meeting of the respective departments is finalized.



### 9. Suggestions made by Mr. Kasinath Patnasetty.

- i. Appreciated about English communication lab; he stated that it will make big difference especially in the students who are coming from rural areas.
  - ii. Other than regular curriculum without interrupting your time and process, what students can do an extra in the college have to monitor and complement them. This research can also done by some professors and publish in newsletter or articles.
10. Dr. Suryanarayana Raju P. has introduced our students Mr. Kalyan and Mr. Praveen, who are involved in the BOS meeting as observers.
11. Dr. Uday Krishna Ravella presented the syllabus of Engineering workshop.

#### List of Trades:-

1. Carpentry (Cross half lap Joint and Miter Joint)
  2. Fitting (Square and 'V' fit)
  3. Turning (Ball pen hammer and handles)
  4. Forging (S hook L hook)
  5. Tin Smithy (Square tray)
  6. Plumbing (Wash basin and simple connection)
  7. Foundry (Solid and Split pattern)
  8. Welding (Arc and Gas welding)
  9. Fabrication of plastic components (Pen stand)
  10. Metrology (Internal and External dimension)
  11. Composite Material Sample preparation (Demo only)
  12. Introduction of Power Tools and CNC (Demo only)
  13. Introduction to 3D Printing (Demo only)
12. Apart these, we wanted to add few more trades like basic home electrical and IT hardware.
13. Suggestions made by Mr. Kasinath Patnasetty
- i. All trades are very essential and make sure that student should know the importance and applications of all the trades
  - ii. you can give more weightage to the some trades like metrology turning, welding etc.



- iii. Give some extra time to the students to practice more based on their interest.
- iv. Teach the process of 3D printing and how to handle the 3D software.
- v. Mechanical Engineering student must know about the basic electricals and computer hardware.
14. Suggestions made by Dr. B. Venkatesham.
- i. Knowing, Implementing and practicing are the three aspects to be covered.
  - ii. Give the priority based on stream and branch.
15. Dr. Uday Krishna Ravella presented the syllabus of Engineering Graphics Course.
16. Suggestions made by Mr. Kasinath Patnasetty.
- i. When students are practicing on the drawing, you can have at least ten basic varieties of drawings which are used in final drawing in a industry. For example: engine valve, crankshaft, cylinder case drawings etc.
  - ii. Make your lab more virtual.
17. Dr. Uday Krishna Ravella presented the syllabus of Mathematics-I course and this course has no changes.
18. Dr. Uday Krishna Ravella presented the syllabus of Mathematics-II Course
19. Suggestions made by Dr. B. Venkatesham.
- i. Prefer applied mathematics than the fundamental math.
  - ii. Choose the syllabus in the view of student learning point of view and student should not feel that the course is tough.
20. Suggestions made by Mr. Kasinath Patnasetty.
- i. Implement Mobile lab to create an awareness and motivation towards engineering.
21. Concluding remarks by external members of BoS.
22. Dr. P. Suryanarayana Raju has requested BoS members for approval through emails.
23. Vote of thanks and closing points by HOD, Dr. P. Suryanarayana Raju and expressed gratitude to external members of BoS on behalf of Mechanical Engineering Department, MITS for their presentations and valuable suggestions.

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Faculty Present:-

S.No.	Name of the Faculty.	Signature.
1	TVVLRan	Zna
2.	Dr. Mallikarjunachari G	G.M.Chary



## Faculty Present :-

S.No.	Name of the Faculty	Signature
1.	Pujari Rajesh	P.Rajesh
2.	P. Sivaiah	P. Sivaiah
3.	Mohd Yousef. K	Mohd Yousef. K
4.	Malkarajunachari. G	G. Mohan
5.	Shanmukha Sundaram V.R.	m.s.s
6.	Dr k. Mehar	ky