



VASAVI COLLEGE OF ENGINEERING (Autonomous)

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DEPARTMENT OF MECHANICAL ENGINEERING

Date: 05.08.2021

Minutes of the twelfth meeting of Board of Studies, Mechanical Engineering Department, held at 2.00 PM on 05.08.2021 (Thursday) online (Microsoft Teams).

Members Present:

Name of the Member	Designation
Dr. T. Ramamohan Rao	Chairman & HOD
Prof. M. Chandra Shekar Reddy	OU nominee
Dr. B. Venkatesham	Subject expert
Dr. Jeevan Jaidi	Subject expert
Dr. A.V.S.S. Kumara Swamy Gupta	Subject expert
Dr. L. Krishnanand	Subject expert
Mr. M. Srikantha Rao	Industry representative
Mr. Ravi Katukam	Alumni
Dr. K.Kishore	Faculty member
Dr. A. Srinivas	Faculty member
Dr. C. Gururaja Rao	Faculty member
Dr. V.K.N.S.N. Moorthy	Faculty member
Mr. K. Srinivasa Rao	Faculty member
Dr. S.Venkataiah	Faculty member
Dr. P. Venkateswara Rao	Faculty member
Dr. P.V.Gopal Krishna	Faculty member
Mr. K.Veladri	Faculty member
Mr. V.B.S. Rajendra Prasad	Faculty member
Dr. J. Anjaneyulu	Faculty member
Dr. P.V.S. Subhashini	Faculty member
Mr. M. Sudhakar	Faculty member
Mr. K.I. Spurgeon	Faculty member
Mr. D. Govinda Rao	Faculty member
Mr. N.B. Samba Murthy	Faculty member
Mr. S. Venkateswarulu	Faculty member
Mr. Md. Lughman	Faculty member
Mr. T. Krishna Chaitanya	Faculty member

Members not present:

Mr. Sanjay Kabra	Alumni
Mr. S. Sreekrishna	Faculty member
Mr. B. Naga Manohar	Faculty member
Mr. B. Sandeep	Faculty member

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Dr. T. Ramamohan Rao, Chairman-BOS welcomed the members and presided over the meeting. The following items on the agenda were taken up for consideration.

1. Confirmation of the minutes of 11th BOS meeting held on 29/07/2020

The Chairman and members reviewed the minutes of eleventh BOS meeting held on 29.07.2020 and then confirmed.

2. Action taken report on the items of 11th BOS meeting held on 29/07/2020

The Chairman presented the action taken report for the suggestions given by the members of 11th BOS. The action taken report is shown in **Annexure-I**.

3. Review of Institute Vision & Mission, Department Vision, Mission, PEOs, PSOs and POs.

a) In the Department Vision statement, It is proposed to use the word "To establish" in place of "To nurture and establish". After revision, the new vision statement is

To establish global leadership in the field of mechanical engineering and develop competent human resources with values and ethics

b) In the Dept Mission statement, It is proposed to retain the word "To nurture ". The vision statement is retained.

To nurture an environment of research, innovation and knowledge through the latest teaching-learning practices in mechanical engineering

4. The Chairman presented the major achievements of the Department for the Academic Year 2020-21 in **Annexure-II**.

5. Review of the following for the BE students to be admitted during 2021-22:

a. Scheme of instruction and examinations from I to VIII semesters.

b. Syllabus for I and II semester courses.

The scheme of instruction and examination for the B.E. Semesters I to VIII and also the syllabus I and II semester courses for the AY 2021-22 were reviewed.

6. Review of the following for the BE students admitted during 2020-21:

a. Scheme of instruction and examinations from III to IV semesters.

b. Syllabus for III and IV semester courses.

The scheme of instruction and examination for the B.E. Semesters III to IV and also the syllabus III and IV semester courses for the AY 2021-22 were reviewed.

7. Review of the following for the BE students admitted during 2019-20:

a. Scheme of instruction and examinations from V to VI semesters.

b. Syllabus for V and VI semester courses.

The scheme of instruction and examination for the B.E. Semesters V to VI and also the syllabus V and VI semester courses for the AY 2021-22 were reviewed.

8. Review of the following for the BE students admitted during 2018-19:

a. Scheme of instruction and examinations from VII to VIII semesters.

b. Syllabus for VII and VIII semester courses.

The scheme of instruction and examination for the B.E. Semesters VII to VIII and also the syllabus VII and VIII semester courses for the AY 2021-22 were reviewed.

9. Review of the following for the ME (ADM) students to be admitted during 2021-22:

a. Scheme of instruction and examinations from I to IV semesters.

b. Syllabus for I and II semester courses.

c. The Open Elective Course (OE) is shifted from III semester to II semester to maintain credit balance in the II semester and the Professional Elective-V is moved from II semester to III Semester.

The scheme of instruction and examination for the M.E.(ADM) Semesters I to IV and also the syllabus I and II semester courses for the AY 2021-22 were reviewed.

10. Review of the following for the ME (ADM) students admitted during 2020-21:

- a. Scheme of instruction and examinations from III and IV semesters.
- b. Syllabus for III and IV semester courses.

The scheme of instruction and examination for the M.E.(ADM) Semesters III and IV and also the syllabus III and IV semester courses for the AY 2021-22 were reviewed.

11. The following suggestions were also recommended by the BOS members.

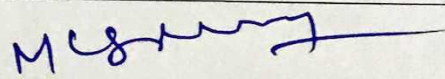
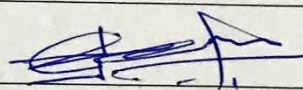
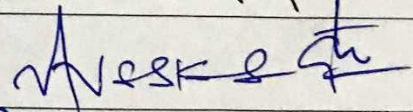
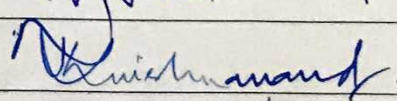
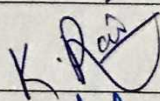
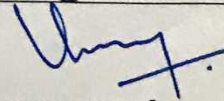
- a) In the Department Vision statement, It is proposed to use the word "To establish" in place of " To nurture and establish".
- b) In the Dept Mission statement, It is proposed to retain the word "To nurture "
- c) In R-21-III sem scheme of BE, in "Principles of Data structures" both theory and lab, it is proposed to have Data structures through Python programming. But the Chairman explained that the Python programming course is available as an open elective separately.
In the R-21 scheme of B.E., the following open elective courses are proposed in the III sem (Introduction to Unmanned Aerial Vehicles) and in the VI sem (Alternative Fuels and Energy Systems).
- d) In R-21 scheme of BE, It is suggested that pass percentage should justify shifting the course "Thermodynamics" from III sem to II sem.
- e) In R-21 scheme of BE, for the justification of combining and shifting the courses
 - i) Introduction to Programming (Isem)
 - ii) Programming for Engineers (IIsem)to IIIsem, the chairman explained that these courses will help lateral entry students during the placement. "Programming Lab" course also shifted to Sem-3 from sem-2.
- f) In R-21 scheme of BE, the courses on Materials Engineering theory and Lab are shifted from Sem-3 to Sem-1.
- g) IN R-21 scheme of BE, the courses "CAD/CAM" and "CAD/CAM Lab" are shifted from Sem-6 to sem-5 to enable students to carry out the Theme based Projects in Sem-6 using the concepts of CAD/CAM.
- h) In R-21 scheme of BE, It is suggested that shifting of the course " Introduction to Entrepreneurship Course" to Sem-I may be too early , the chairman mentioned that it is a mandatory course with zero credits and also, there are some advanced OE courses on Entrepreneurship offered by HSS dept in subsequent semesters.
- i) In R-21 scheme of BE, The course "Thermodynamics" is shifted from Sem-3 to Sem-1.

The courses "Applied Thermodynamics" and "Applied Thermodynamics Lab" are shifted from Sem-4 to Sem-3. Similarly the courses, "Thermal Turbo machines " theory and lab are shifted from Sem-7 to Sem-6.

In Thermodynamics course, It is proposed that Unit-4 on Pure substances to keep at Unit-2 before First law of Thermodynamics. This was not recommended as these concepts are too early.

- j) In the OE course of BE "Heat Transfer in Electronic Systems" , It is proposed to change the title of Unit-II as Heat Transfer: Conduction and Unit-III as Heat Transfer : Convection.
- k) It is proposed to introduce a course on Design Thinking for Mechanical Engineering students.
- l) In the R-19, R-20 and R-21 schemes of BE, the course "Mini Project" is proposed to be replaced with "Programming for Mechanical Engineers Lab", to strengthen the programming skills.
- m) In continuation to the point no. l, in the R-20 and R-21 scheme of BE, the lab course "Programming for Mechanical Engineers Lab" in Sem-5 and "Theme based project" in Sem-6 are proposed to be introduced Sem End Exam (SEE) evaluation.
- n) In the R-21 scheme of BE, a new course "Industrial Engineering" of 2 credits is introduced in Sem-7 under "Professional Core" category.
- o) In R-21 scheme of ME, It is suggested that the OE course "Introduction to Composite materials" may be renamed as "Composite Materials".
- p) In R-21 scheme of ME, It is suggested that the course FET to be renamed as "FE methods".
- q) In R-21 scheme of ME, It is proposed that the course " An Introduction to Nano Science and Technology" may be renamed as "Nano Science and Technology".
- r) In R-21 scheme of ME, It is proposed that the course "Metallurgy of metal casting and Welding" is to be renamed as "Metallurgy of Casting and Welding"

The meeting concluded with a vote of thanks to the Chair.

Prof. M. Chandra Shekar Reddy OU Nominee	
Dr. Jeevan Jaidi Subject Expert-2	
Dr. B. Venkatesham Subject Expert-1	B. Venkatesham
Dr. A.V.S.S. Kumara Swamy Gupta Subject Expert-3	
Dr. L. Krishnanand Subject expert-4	
Mr. M. Srikantha Rao Industry representative	M. Srikantha Rao
Mr. Ravi Katukam Alumni	
Dr. T. Ramamohan Rao Chairman, BOS	

Annexure-I

S. No.	Suggested points in 11 th BOS	Action taken
1.	It is proposed to delete CBCS from AICTE model curriculum.	Deleted
2.	Advanced Fluid Mechanics is proposed to be shifted from PE-4 to PE-1	Implementing from R20 Scheme onwards
3.	It is proposed to include ISO9000, Reliability Engineering topics in Professional Electives – Industrial Engineering category.	Implemented
4.	It is proposed to have MOUs with DRDO, DRDL, RCI, ARCI etc.	MOUs executed with Adroitec Solutions Pvt. Ltd., Avishkar Industries, CIM Technologies etc.
5.	It is also proposed to include a topic on Drones in B.E. program.	Planning to introduce a new course in drone technologies as open elective / professional elective.
6.	It is proposed to include industry favorite topics like machine learning in B.E. program by 2 to 3 percent.	IOT and machine learning based projects have implemented in the year 2020-21.
7.	In Machine Drawing subject P/D hours to be allotted.	Allotted
8.	In Mini Project and Theme Based Project, SEE hours to be zero.	Implemented
9.	It is proposed to give suitable title for B.E. (ME) honors program in Robotics.	The title was given by AICTE
10.	The titles of Robotics-I and Robotics-II to be given specific titles.	Basics of Robotic Engineering and Robotics and Control are the new titles
11.	There should not be a minimum bar of 20 students for B.E. honors program.	This will be referred to Academic Council Meeting
12.	Honors program should not mandate paper publication but a project can be given with suitable number of credits.	Paper publication was not made mandatory, project with 3 credits introduced.
13.	The title of Industrial Automation course in B.E. honors program to be changed to Industry 4.0	Title changed
14.	It is proposed to increase the credits to 68 for M.E. program from 67 credits.	Implemented
15.	It is proposed to suggest a suitable title for Metallurgy of Metal Casting and Welding course in M.E.	Metallurgy of Casting and Welding

Major Achievements of the Department (AY 2020-21)					
AICTE sanctioned a research project titled "Investigations on Non-Linear, Fatigue and Fracture Behaviour of Elastomers and Composite Materials" under Research Promotion Scheme (RPS) during the financial year 2020-21. Sanctioned amount of Rs. 21,29,412/-					
Three National Level FDPs and one National Level Webinar in the AY 2020-21 through online mode.					
<ul style="list-style-type: none"> FDP on "Innovations in Product Design, Precision Engineering and Optimization" during 10-14 Aug. 2020 FDP on "Recent Trends in Turbomachines" during 14-18 Sept. 2020 FDP on "Research Avenues in Thermal Engineering" during 25-30 July 2021 Webinar on Industry 4.0 on 2nd Sept. 2020 by Dr. N. Arunachalam, IIT Madras, Chennai 					
18 faculty and 48 students pursued the Coursera certifications during the Academic Year 2020-21.					
Faculty and students publications (in AY 2020-21)					
<ul style="list-style-type: none"> International Journals - 22 papers International Conferences - 01 paper 					
MoU with Industries:					
Adroitech Solutions Private Limited, Hyderabad					
Consultancy works executed to the following companies in the Academic Year 2020-21					
<ul style="list-style-type: none"> M/s. Vijaya Engineering Works, Balanagar, Hyderabad M/s. Light Speed AI, Hyderabad 					
New equipments added in the Department					
<ul style="list-style-type: none"> 3D Printing machine : Hyral Hydra 16 AS – Built up volume 400 X 300 X 250 3D Scanner : Einscan pro 2X – Resolution of 50 microns point cloud data NI Data acquisition system : 4 channel ($\pm 50g$, 100 mV/g) 					
A new Project Lab established for fabrication of SAE Supra, Baja and ASME HPVC vehicles and Mini, Theme Based and Final year projects.					
21 students completed their Project in industries - RCI, DRDL, BDL, Elmot Alternators Pvt. Ltd., and Perfect Profiles in the academic year 2020-21.					
Placements : 64.20% as on July 2021; Highest pay package – 7.0 lacs pa;					
Higher studies: 15 students got admissions in USA and UK for Higher studies					
Result Analysis (%) AY 2020-21					
Section	I sem	III sem	V sem	VII sem	VIII sem
Mech. Sec.A	Result awaited	50.00	60.29	72.46	99.25
Mech. Sec.B	Result awaited	68.66	55.00	81.54	

Photographs taken during 12th Board of Studies (BOS) Meeting of Mechanical Engineering Department.

