ADITYA ENGINEERING COLLEGE

An Autonomous Institution

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Recognised by UGC under sections 2(f) and 12(B) of UGC Act, 1956

Aditya Nagar, ADB Road, Surampalem - 533437, Near Kakinada, E.G.Dt., Ph:99498 76662

Department of Mechanical Engineering

Date: 20-04-2022

Minutes of the VIII meeting of BOS scheduled on 18-04-2022

The VIII meeting of the BOS (Board of Studies) of ME was held on 18-04-2022 at 10:00 AM in the AjivikaConference Hall, Bill Gates Bhavan, AEC. Dr.Bh.Vara Prasad, Chairperson presided over the meeting.

Agenda 8.1:Welcome address by Chairperson.

Prof Bh. Vara Prasad, BOS chairperson invited the distinguished members of BOS to the VIII BOS Meeting.

Agenda 8.2: Ratification of minutes of the previous Board of Studies meeting

The BOS members have ratified the points discussed in the previous Board of Studies meeting held on 28/09/2021.

Agenda 8.3:Discussion on proposed AR 20 B. Tech Program– V, VI, VII & VIII semesters syllabus and ratification of the same

The BOS members approved the AR **20** B. Tech (ME) V,VI,VII&VIIISemesters syllabus after making the following changes in the proposed syllabi.

- Suggested to keep "Theory of Machines", III edition, Pearson Publication by Thomas Bevan and "Theory of Mechanisms and Machines" I edition, Metropolitan Publication by Jagdish Lal as Reference books in Theory of Machines -II subject.
- Suggested to add "Basics of Jet Propulsion and Rocket Engineering" topic in Unit-V of Thermal Engineering-II subject.
- Suggested to replace "Non-traditional" with "advanced machining Processes" and advised to remove "process parameters" of the advanced processes and also suggested to add "Manufacturing Technology- Metal cutting and machine tools by PN Rao, Tata Mc Grawhill as Reference book in Metal cutting and machine tools subject.

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- Suggested to add "Electrical vehicles" topicin AutomobileEngineering of Professional Elective-Iand also advised to introduce Electrical Vehicles as a separate elective subject.
- Suggested to add "introduction about ceramics" in unit-III of composite materials subject in professional Elective-I.
- Suggested to replace "gas turbines" topic with "hydraulic turbines and compressors"influid engineering subject of Professional Elective-I. Also suggested to change the subject title as "Fluid Machinery" instead of "Fluid Engineering".
- Suggested to introduce "Text Book of Mechanical Vibrations" by J.S.Rao and Rao.V. Dukkipati, II edition, 2012, PHI Publications as Reference book in Mechanical Vibrations subject of professional elective
- Suggested to reduce syllabus of "Automobile Engineering" in Open Elective-I.
- Suggested to add "Indian Scenario" topic in IPR (Mandatory Course).
- Suggested to add "Refrigeration and Air Conditioning"byW.F.Stoecker and J.W.Jones, II edition ,2014, Mc.Graw Hill Publicationsas reference book in Refrigeration and Air Conditioning Subject
- Suggested to change title of the subject from "alternate fuels" to "alternative fuels" in professional elective -III
- Suggested to extend "Design for manufacturing and Assembly" topic to real world topics where product based/ Automobile Engineers are looking nowadays in professional elective -III.
- Suggested to add "strain rate analysis and temperature analysis"in Unit-V in "Experimental stress analysis" subjectof professional elective -IV.
- Suggested to introduce "Mechatronics by Hindustan Machine Tools", I edition,2017,Mc. Graw Hill Publicationsin Mechatronics subject.

Agenda 8.4:Discussion on proposed syllabus for courses in V to VII Semester under AR20 Honors and Minor Degree and ratification of the same.

The BOS members approved the V, VI, VII&VIIISemester under AR20 Honors and Minor Degree syllabus after making the following changes in the proposed syllabi.

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- Suggested to keep "Introduction to Robotics", II edition,2008, Mc. Graw Hill Publications by S.K.SAHA as reference book in Robotics-Modelling, Analysis& Control) in Pool-II of B. Tech- Honors.

Agenda 8.5: Discussion on the value-added courses to be offered for students and ratification of the same

The members of BOS ratified the various value-added coursesidentified for the students to be offered and suggested to include topics related to thrust areas.

Agenda 8.6: Discussion on the new courses offered in B. Tech (ME) program and ratification of the same

The Members of BOS noted the new courses offered in the B.Tech (ME) program and ratified the same. The percentage of courses introduced in the academic year 2021-2022 for B.Tech (ME) Program is 12.59%. The list of courses introduced is enclosed as Annexure-I.

Agenda 8.7: Discussion on the percentage of syllabus revision done in the B. Tech (ME) and M. Tech (TE)programs and ratification of the same.

The syllabus revisions were done in B. Tech (ME) and M.Tech (TE) programs based on the stakeholders feedback on the curriculum. The BOS members have approved all the syllabus revisions in B. Tech (ME) and M.Tech (TE) programs. The percentage of courses revised in the academic year2021-2022 for B.Tech (ME) program is 38.58% and M.Tech (TE) program is 2%.The list of courses revised is enclosed as Annexure-II.

Agenda 8.8:Discussion on the courses having focus on employability/entrepreneurship/skill development of B. Tech (ME), M. Tech(TE) Programs and ratification of the same.

The members of BOS ratified the courses having focus on employability/entrepreneurship/skill development in B. Tech (ME) and M.Tech (TE) programmes.

Agenda 8.9: Discussion on B. Tech (ME), M. Tech (T.E) programs in which Choice Based Credit System (CBCS) / Elective Course System (ECS) is being implemented and ratification of the same.

The Members of BOS ratified the Choice Based Credit System (CBCS)/Elective Course System that is being implemented in B. Tech (ME) and M. Tech (TE) programs.

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Agenda 8.10: Analysis of stakeholder'sfeedback on Curriculum.

The BOS chairperson presented the feedback on curriculum from stake holders. The BOS members noted the same and approved the feedback on curriculum. The action taken report is enclosed in Annexure III.

Agenda 8.11: Analysis of results of the odd semesters of the academic year 2021-22

The BOS chairperson presented odd semester pass percentage for the A.Y.2021-2022.The BOS members noted the same.

Agenda 8.12: Analysis of student's feedback in the odd semesters of the academic year 2021-22

BOS Chairperson expressed that the student feedback & action taken report process initiated at end of each semester.

Agenda 8.13: Any other item with the approval of Chairperson

NIL

Agenda 8.14: Scheduling of next Board of Studies meeting.

The next BOS meeting is tentatively scheduled in the month of September,2022.

Agenda 8.15:Vote of Thanks

Prof Bh.Vara Prasad, BOS Chairperson presented the vote of thanks.

BOS Chairperson

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Annexure-I

List of New Courses in the Academic Year 2021-22

S. No	Program	Semester	Course Code	Course Name
1	B. Tech (ME)	III	201SC3L03	Java Programming Lab
2	B. Tech (ME)	IV	201SC4L15	Python Programming Lab
3	B. Tech (ME)	V	191ME5E02	Composite Materials
4	B. Tech (ME)	V	191ME5E06	Organizational Behavior
5	B. Tech (ME)	V	191ME6O01	Renewable Energy Sources
6	B. Tech (ME)	V	191ME6O02	Fundamentals of Mechanical Engineering
7	B. Tech (ME)	V	191ME6O03	Supply Chain Management
8	B. Tech (ME)	V	191ME6O04	3D Printing
9	B. Tech (ME)	V	191ME6O05	Entrepreneurship Development and Incubation
10	B. Tech (ME)	V	191PR5P02	Socially Relevant Project
11	B. Tech (ME)	VI	191ME6E13	Alternative Fuels
12	B. Tech (ME)	VI	191ME6E16	Lean Manufacturing
13	B. Tech (ME)	VI	191ME6O06	Solar Energy Utilization
14	B. Tech (ME)	VI	191ME6O07	Basic Thermodynamics and Heat Transfer
15	B. Tech (ME)	VI	191ME6O08	Introduction to Hydraulics and Pneumatics
16	B. Tech (ME)	VI	191ME6O10	Robotics

BOS Chairperson

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Annexure-II

List of Courses Revised in the Academic Year 2021-22

S. No	Program	Semester	Course Code	Course Name
1	B. Tech (ME)	IV	201ME4T04	Theory of Machines-I
2	B. Tech (ME)	V	191ME5E03	Fluid Engineering
3	B. Tech (ME)	V	191ME5E04	Mechanical Vibrations
4	B. Tech (ME)	VI	191ME6E08	Mechatronics
5	B. Tech (ME)	VI	191ME6E12	Additive Manufacturing
6	M. Tech (TE)	II	192TE2E13	Jet Propulsion & Rocket Engineering
7	M. Tech (TE)	III	192TE3E19	Convective Heat Transfer

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Annexure III

Action Taken Report on Stakeholders Feedback in the Academic Year 2021-22

S. No	Agenda Item No.	Stakeholders Recommended	Action Taken
1	8.3	In automotive, Technology is advancing day by day from conventional to hybrid, knowledge on electric usage must be known.	As suggested, introduction to electric vehicles will be introduced based on the discussion made.
2	8.10	Capability to acquire and apply fundamental principles of engineering is needed.	As per suggestions Internship is made mandatory and thereby the students should take the industry training.
3	8.3	Suggested to involve advanced manufacturing topics, where product based/ Automobile Engineers are looking nowadays in the curriculum.	According to the suggestions and discussions made, Design for Manufacturing and Assembly will be added to the curriculum.
4	8.10	A clear understanding on the material must be known to perform research.	As per suggestion received, introduction about ceramics will be introduced in the composite materials.
5	8.10	Due to the tremendous growth in theIT industry it is better to get known to programming related subjects.	As per suggestions, SOC (Skill Oriented Course) will be introduced to the curriculum.
6	8.3	It is better that students have knowledge on the cutting edge technologies.	According to the suggestion received, additive manufacturing will be introduced to the curriculum based on the discussions made.

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7	8.10	Every students to understand the basic principles of engineering and the introduction of biological concepts so that they can effectively interact to concern for providing solutions to the problems related to bio systems.	As suggested, biology for engineers willbe introduced into the curriculum.
8	8.10	It is better to have Knowledge on power plant operations and its working.	As per the suggestions, course on powerplant economics will be introduced.
9	8.4	It is better student have knowledge on the computer science related subjects during their graduation.	As per the suggestions and discussion made with the experts, BOS and Professionals, Honours and Minor degree programs will be introduced based on the students choice.
10	8.8	Better to add technical oriented courses so that student may be industry ready and can perform the project well.	As per suggestion, Technical courses such as CATIA, ANSYS and Solid edge will be taught in association with APSSDC.
11	8.12	Advancements in industries and job opportunities in the core must be known.	As per suggestion, seminars and workshops will be conducted in association with T2 and product based companies and global engineers.
12	8.10	Better to perform projects on the real time applications for better employment.	As per suggestions, it will be planned to discuss with the M.Tech coordinator and project guides for the implementation of experimental and analytical projects.

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13	8.10	Better to learn advanced courses for knowledge enhancement.	As per the suggestion received, student will be encouraged to take SWAYAM courses in accordance with discussion with deans.
14	8.10	For better placement in the companies, problem solving skills and performance of the student needs to be enhanced.	As per the feedback, AICTE and college will implement to get the access of PARAKH – SLAP to practice exams online for the placement.
15	8.12	Better to provide more technical sessions, webinars on the advanced topics.	As suggested, industrial orientation sessions from industry experts and global engineers will be initiated.

BOS Chairperson

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