

Dr. AIT mech/ 308/13/06/16

09.06.2016

To
The Principal
Dr. AIT
Bangalore -560056

Respected Sir,

Sub: List of BOS members for the ensuing academic year – Regarding

With reference to the above subject please find the list of Board of Studies members for the department of mechanical engineering for the year 2016-17.

Thanking You,

Copy to: Dean (Academic) for kind information

Desai
Yours Sincerely, 9/6
Department of Mechanical Engineering
Dr. Ambedkar Institute of Technology
Bangalore - 560 056

Dean (A)
9/6/16

| | | |
|-------------------------|--|--------------|
| Dr. Shrishail B Kakkeri | skaks0167@yahoo.co.in | 98442 10534 |
| Dr. J M Mallikarjuna | jmallikarjun@iitm.ac.in | 094449 31941 |
| Dr. Joel Hemanth | joelhemanth@hotmail.com | 94805 42335 |
| Dr. S M Murugendrappa | smm@nitk.ac.in | 9343889072 |
| Dr. B M Rajaprakash | bmruvce@yahoo.co.in | 94488 56163 |
| Dr. H K Rangavittala | hkrv.bmsce@gmail.com | 94814 52552 |
| Mr. Srilal Sreedhar | sreelal@gtre.drdo.in | 99800 16442 |
| Mr. Manjunath | manjunathp@nal.res.in | 94490 81634 |
| Mr. Vinayak Swadi | vinayak.swadi@gmail.com | 92434 44540 |
| Mr. Raja Hussain | rajahussain.me.et@msruas.ac.in | 99012 93640 |

Department of Mechanical Engineering, Dr.Ambedkar Institute of Technology, Bangalore - 560 056

BOARD OF STUDIES MEMBERS

Academic Year: 2016-17

| Department | Chairman (HOD) | External subject experts | VTU nominee | Industry representative | Alumni with PG degree | Internal faculty members with various specialisations (UG) | Total |
|------------|--------------------|---|---|---------------------------------------|--|--|-------|
| Mechanical | Dr. L Chandrasagar | Dr.J M Mallikarjun, IITM-Chennai | Dr.Shrishail B Kakkeri, SVCE-Bangalore | Dr.Srilal Sreedhar, GTRB-Bangalore | Mr.Raja Hussain, MSRUAS- Bangalore | Dr.B Ravindra | |
| | | Dr.Joel Hemanth, HMST-Tumkur | | Dr.Manjunath, NAL-Bangalore | | Dr.K M Purushothama | |
| | | Dr.Murugendrappa, NITK, Surathkal | | Mr.Vinayak Swadi, TCS-Bangalore | | Dr.K M Narayanappa | |
| | | Dr.B M Rajaprakash UVCE-Bangalore (co-opted member) | | | | Prof.S K Jagadeesh | |
| | | | | | | Prof.N.Shashikanth | |
| | | | | | | Dr.T N Raju | |
| honarium | 2000 | 4+1 | 2000 | 3 | 1 | 6 | 16+1 |
| TA | nil | first class train | nil | nil | nil | nil | 0 |
| DA | 250 | 1000 | 250 | 750 | 250 | 1500 | 4000 |
| Sub-Total | 2250 | 9000 | 2250 | 6750 | 2250 | 10500 | 33000 |

Dr. Arif Meen/364/01/07/16

Submitted w/c. Dean

Please find enclosed Copy of BOS proceedings, Curriculum design, Scheme and Syllabus for the year 2016-17 from Mechanical Engineering Department.

Arif Meen
Professor & Head
Department of Mechanical Engineering
Dr. Ambedkar Institute of Technology
Bangalore - 560 056

MECHANICAL ENGINEERING DEPARTMENT

Dr.Ambedkar Institute of Technology, Bangalore – 560056

BOARD OF STUDIES MEETING (UG) HELD ON 20th JUNE 2016

RESOLUTIONS

After detailed deliberations suggested changes were incorporated in the curriculum design, scheme and syllabus for the ensuing academic year 2016-17.

- | | | | | |
|----------------------------|---|--|---|------------------|
| 1. Curriculum Design | - | 04 years (1 st to 8 th semester) | - | 04 sheets |
| 2. Scheme & Syllabus | - | 01 st year | - | Pages 001 to 008 |
| 3. Scheme & Syllabus | - | 02 nd year | - | Pages 009 to 044 |
| 4. Scheme & Syllabus | - | 03 rd year | - | Pages 045 to 087 |
| 5. Scheme & Syllabus | - | 04 th year | - | Pages 088 to 146 |
| 6. Institutional Electives | - | odd/even semester | - | Pages 147 to 156 |

VISION AND MISSION OF THE INSTITUTE

VISION

To create Dynamic, Resourceful, Adept and Innovative Technical professionals for meeting global challenges.

MISSION

- To offer state-of-the-art undergraduate, postgraduate and doctoral programmes in the fields of Engineering, Technology and Management.
- To generate new knowledge by engaging faculty and students in research, development and innovation.
- To provide strong theoretical foundation to students, supported by extensive practical training to meet the industry requirements.
- To instill moral and ethical values with social and professional commitment.

VISION AND MISSION OF THE DEPARTMENT

VISION

To provide quality technical education in mechanical engineering with emphasis on research, sustainable technologies and entrepreneurship for the global requirement.

MISSION

- To impart in-depth knowledge in basic and applied areas of Mechanical Engineering with professional values to have a successful career.
- To provide state-of-the-art infrastructure and laboratories for academics and promoting research and development.
- To make collaboration with industries and research organizations for funded projects and consultancy with a main focus on industry-institute interactions and joint research.
- To impart moral and ethical values with an awareness of societal impact through co-curricular activities.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEO 1: Graduates to have a sound comprehensive knowledge to pursue successful career in Mechanical Engineering.

PEO 2: Graduates to have sufficient knowledge in specialized areas of Mechanical Engineering such as Materials, Design, Manufacturing and Thermal engineering to promote research and development through innovation.

PEO 3: Graduates to have a better ability to solve mechanical engineering problems related to the industrial requirements through extensive practical training.

PEO 4: Graduates to have moral and ethical values with societal commitment and engage in independent and life-long learning through membership to professional societies.

GRADUATE ATTRIBUTES (GAs) as defined by NBA

- 1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization for the solution of complex engineering problems
- 2. Problem analysis:** Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
- 3. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate

consideration for public health and safety, and cultural, societal, and environmental considerations.

- 4. Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- 5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities, with an understanding of the limitations.
- 6. The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- 7. Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- 8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- 9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 10. Communication:** Communicate effectively on complex engineering activities with the engineering community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- 11. Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- 12. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

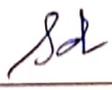
PROGRAMME OBJECTIVES (POs)

At the end of the programme, the graduates will be able to:

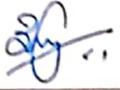
- a. Apply the knowledge of basic sciences and engineering specialization to solve mechanical engineering problems.
- b. Analyze complex mechanical engineering problems by using first principles of mathematics and engineering sciences.
- c. Design mechanical components and develop solutions for complex engineering problems to meet the specific needs by considering the issues of safety, culture, society and environment.
- d. Use research-based knowledge and research methods to conduct investigations of complex mechanical engineering problems and provide valid conclusions.
- e. Use modern engineering techniques, skills and tools to model and predict various mechanical engineering activities.
- f. Understand the responsibilities of professional engineering practice to assess the issues related to society, health, safety, law and culture.
- g. Consider the impact of engineering solutions on environment and the need for sustainable development.
- h. Follow the norms of engineering practice and commit to professional ethics and responsibilities.
- i. Work as an individual and as a team member or leader in a team of diverse knowledge and in multidiscipline areas of mechanical engineering.
- j. Communicate effectively with his/her colleagues in the engineering community and also with the society at large.
- k. Apply the principles of engineering, management and finance to manage projects in various disciplines of mechanical engineering.
- l. Engage in independent and life-long learning as a consequence of changes in technology.

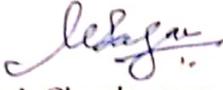
| | | |
|---|---|---------------------------------------|
|  |  | |
| Dr. J M Mallikarjun ITM-Chennai | Dr. Murugendrappa S M NITK, Surathkal | Dr. B M Rajaprakash UVCE-Bangalore |

| | | |
|---|---|---|
|  |  |  |
| Dr. H K Rangavittala BMSCE-Bangalore | Dr. Joel Hemanth, HMSIT-Tumkur | Dr. Shrishail B Kakkeri SVCE-Bangalore |

| | | |
|---|---|---|
|  |  |  |
| Dr. Srilal Sreedhar GTRE-Bangalore | Dr. Manjunath NAL-Bangalore | Mr. Vinayak Swadi TCS-Bangalore |

| | | |
|---|---|--|
|  | |  |
| Dr. B Ravindra (Machine Design stream) | Dr. K M Purushothama (Machine Design stream) | Dr. K M Narayanappa (Manufacturing stream) |

| | | |
|---|---|--|
|  | |  |
| Prof. S K Jagadeesh (Thermal stream) | Prof. N. Shashikanth (Allied stream) | Dr. T N Raju (Manufacturing stream) |


Dr. L Chandrasagar
Chairman, BOS (UG)

Dr. M N Hegde
Dean (Academic)

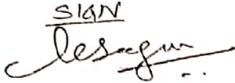
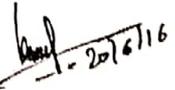
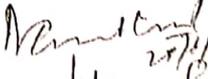
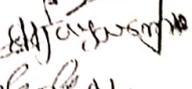
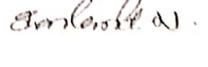
Dr. C NanjundaSwamy
Principal

B.O.S. Meeting.

30/06/2016.

Dr. L. Chandrasegar HOD. MED. whole heartedly invited all the members for the B.O.S meeting.

- 1) Vinayak Sauri External B.O.S member requested to include servomotors & linear guideways to be included in EME (ME14).
 - 2) The corrections needed for all the subjects were noted down. & the same should be incorporated in the final final points (Syllabus copy).
 - 3) The course objectives, course outcome must be carefully defined with respect to the vision-mission of the department and institute.
 - 4) The subject operations Research must be included as core subject for mechanical department students & Hydraulics & pneumatics must be considered as elective subject.
 - 5) The committee received the entire syllabus from 1st year to final year and the final syllabus (Curriculum, syllabus, COs & POs & PEI) must be submitted immediately after the meeting.
- Members present.

- | | | | |
|----------------------------|--|------------------------|---|
| 1) Dr. L. Chandrasegar. | <u>SIGN</u>  | 12) Dr. T. N. Raju. |  |
| 2) Dr. B. Ravindra. |  | 13) Vinayak Sauri. |  |
| 3) Dr. Murugendrasappa. |  | (Alumni of BIT) MED | |
| 4) Dr. Shreshail Kakkeri |  | 14) Manjunath P. (HAB) | Head, Propulsion Div. NAL, Bangalore |
| 5) Dr. V. Arun Kumar. |  | 15) Dr. Rajaprakash | Prof. MED LVCE |
| 6) Dr. K. M. Narayanappa. |  | | |
| 7) Dr. K. M. Purushottama. |  | | |
| 8) A. S. Jayasam. | | | |
| 9) N. Bhashi Kanth |  | | |
| 10) T. Sainath. | | | |
| 11) S. K. Jagadeesh |  | | |

SCHEME AND SYLLABUS FOR ADMISSION BATCH 2016-17

| FOR 2016 BATCH - 1 st SEMESTER CHEMISTRY CYCLE | | | L | T | P | C |
|---|---------------|--|---|---|---|-------------|
| 1 | MA11* | ENGINEERING MATHEMATICS - I * | 3 | 2 | 0 | 4.0 |
| 2 | CH12 | ENGINEERING CHEMISTRY | 4 | 0 | 0 | 4.0 |
| 3 | CS13 | COMPUTER CONCEPTS & PROGRAMMING | 4 | 0 | 0 | 4.0 |
| 4 | ME14/ ME24 | ELEMENTS OF MECHANICAL ENGINEERING | 4 | 0 | 0 | 4.0 |
| 5 | EC15 | BASIC ELECTRONICS | 4 | 0 | 0 | 4.0 |
| 6 | CSL16 | COMPUTER CONCEPTS & PROGRAMMING LABORATORY | 0 | 0 | 2 | 1.0 |
| 7 | CHL17 | ENGINEERING CHEMISTRY LABORATORY | 0 | 0 | 2 | 1.0 |
| 8 | CV18 | ENVIRONMENTAL SCIENCE | 2 | 0 | 0 | 2.0 |
| 9 | EN19 | FUNCTIONAL ENGLISH | 2 | 0 | 0 | 2.0 |
| FIRST SEMESTER TOTAL CREDITS | | | | | | 26.0 |

| FOR 2016 BATCH - 1 st SEMESTER PHYSICS CYCLE | | | L | T | P | C |
|---|-----------------|---|---|---|---|-------------|
| 1 | MA11* | ENGINEERING MATHEMATICS - I | 3 | 2 | 0 | 4.0 |
| 2 | PH12 | ENGINEERING PHYSICS | 4 | 0 | 0 | 4.0 |
| 3 | CV13 | ELEMENTS OF CIVIL ENGINEERING | 4 | 0 | 0 | 4.0 |
| 4 | MEL14/ MEL24 | COMPUTER AIDED ENGINEERING DRAWING | 2 | 0 | 4 | 4.0 |
| 5 | EE15 | BASIC ELECTRICAL ENGINEERING | 4 | 0 | 0 | 4.0 |
| 6 | MEL16/ MEL26 | WORKSHOP PRACTICE | 0 | 0 | 2 | 1.0 |
| 7 | PHL17 | ENGINEERING PHYSICS LABORATORY | 0 | 0 | 2 | 1.0 |
| 8 | CI18 | CONSTITUTION OF INDIA & PROFESSIONAL ETHICS | 2 | 0 | 0 | 2.0 |
| 9 | KA19 | KANNADA | 2 | 0 | 0 | 0.0 |
| FIRST SEMESTER TOTAL CREDITS | | | | | | 24.0 |
| FIRST YEAR TOTAL CREDITS | | | | | | 50.0 |

SCHEME AND SYLLABUS FOR ADMISSION BATCH 2015-16

| FOR 2015 BATCH - 3 rd SEMESTER | | | L | T | P | C |
|---|----------|--------------------------------------|---|---|---|-------------|
| 1 | MA31* | ENGINEERING MATHEMATICS – III * | 3 | 2 | 0 | 4.0 |
| 2 | ME31 | FLUID MECHANICS | 4 | 0 | 0 | 4.0 |
| 3 | ME32 | BASIC THERMODYNAMICS | 4 | 0 | 0 | 4.0 |
| 4 | ME33 | MECHANICS OF MATERIALS | 4 | 0 | 0 | 4.0 |
| 5 | ME34 | MANUFACTURING PROCESS – I | 4 | 0 | 0 | 4.0 |
| 6 | ME35 | METROLOGY & MEASUREMENTS | 3 | 0 | 0 | 3.0 |
| 7 | MEL36 | COMPUTER AIDED MACHINE DRAWING | 2 | 0 | 4 | 4.0 |
| 8 | MEL37 | MANUFACTURING PROCESS LABORATORY – I | 0 | 0 | 2 | 1.0 |
| 9 | MEL38 | METROLOGY & MEASUREMENTS LABORATORY | 0 | 0 | 2 | 1.0 |
| THIRD SEMESTER TOTAL CREDITS | | | | | | 29.0 |
| FOR 2016 BATCH - 3 rd SEMESTER (lateral entry) | | | | | | |
| 1 | MADIP31* | ADVANCED MATHEMATICS – I | 4 | 0 | 0 | 4.0 |

| FOR 2015 BATCH - 4 th SEMESTER | | | L | T | P | C |
|---|----------|--|---|---|---|--------------|
| 1 | MA41* | ENGINEERING MATHEMATICS – IV | 3 | 2 | 0 | 4.0 |
| 2 | ME41 | TURBO MACHINES | 4 | 0 | 0 | 4.0 |
| 3 | ME42 | APPLIED THERMODYNAMICS | 4 | 0 | 0 | 4.0 |
| 4 | ME43 | KINEMATICS OF MACHINES | 4 | 0 | 0 | 4.0 |
| 5 | ME44 | MANUFACTURING PROCESS - II | 4 | 0 | 0 | 4.0 |
| 6 | ME45 | MATERIAL SCIENCE & METALLURGY | 3 | 0 | 0 | 3.0 |
| 7 | MEL46 | MATERIAL TESTING LABORATORY | 0 | 0 | 2 | 1.0 |
| 8 | MEL47 | MANUFACTURING PROCESS LABORATORY -II | 0 | 0 | 2 | 1.0 |
| 9 | MEL48 | FLUID MECHANICS & MACHINERY LABORATORY | 0 | 0 | 2 | 1.0 |
| FOURTH SEMESTER TOTAL CREDITS | | | | | | 26.0 |
| SECOND YEAR TOTAL CREDITS | | | | | | 55.0 |
| CUMULATIVE CREDITS | | | | | | 105.0 |
| FOR 2016 BATCH – 4 th SEMESTER (lateral entry) | | | | | | |
| 1 | MADIP41* | ADVANCED MATHEMATICS – II | 4 | 0 | 0 | 4.0 |

| SCHEME AND SYLLABUS FOR ADMISSION BATCH 2014-15 | | | | | | |
|---|--------|---|---|---|---|-------------|
| FOR 2014 BATCH - 5 th SEMESTER | | | L | T | P | C |
| 1 | HS03** | MANAGEMENT & ENTREPRENEURSHIP | 4 | 0 | 0 | 4.0 |
| 2 | ME51 | DESIGN OF MACHINE ELEMENTS- I | 4 | 0 | 0 | 4.0 |
| 3 | ME52 | DYNAMICS OF MACHINES | 4 | 0 | 0 | 4.0 |
| 4 | ME53 | HEAT TRANSFER | 4 | 0 | 0 | 4.0 |
| 5 | ME54 | COMPUTER AIDED DESIGN & MANUFACTURING | 4 | 0 | 0 | 4.0 |
| 6 | ME551 | EXPERIMENTAL STRESS ANALYSIS | 3 | 0 | 0 | 3.0 |
| | ME552 | ADVANCED MACHINING PROCESSES | 3 | 0 | 0 | 3.0 |
| | ME553 | POWER PLANT ENGINEERING | 3 | 0 | 0 | 3.0 |
| 7 | MEL56 | HEAT TRANSFER LABORATORY | 0 | 0 | 2 | 1.0 |
| 8 | MEL57 | FUEL TESTING & INTERNAL COMBUSTION ENGINES LABORATORY | 0 | 0 | 2 | 1.0 |
| FIFTH SEMESTER TOTAL CREDITS | | | | | | 25.0 |

| FOR 2014 BATCH - 6 th SEMESTER | | | L | T | P | C |
|---|-------|--|---|---|---|--------------|
| 1 | IDE | INTER-DEPARTMENTAL ELECTIVE | 4 | 0 | 0 | 4.0 |
| 2 | ME61 | DESIGN OF MACHINE ELEMENTS-II | 4 | 0 | 0 | 4.0 |
| 3 | ME62 | FINITE ELEMENT METHOD | 4 | 0 | 0 | 4.0 |
| 4 | ME63 | MECHANICAL VIBRATIONS | 4 | 0 | 0 | 4.0 |
| 5 | ME64 | OPERATIONS RESEARCH | 4 | 0 | 0 | 4.0 |
| 6 | ME651 | THEORY OF ELASTICITY | 3 | 0 | 0 | 3.0 |
| | ME652 | COMPOSITE MATERIALS AND MANUFACTURING | 3 | 0 | 0 | 3.0 |
| | ME653 | HEATING, VENTILATION & AIR CONDITIONING | 3 | 0 | 0 | 3.0 |
| 7 | MEL66 | COMPUTER INTEGRATED MANUFACTURING LABORATORY | 0 | 0 | 2 | 1.0 |
| 8 | MEL67 | DESIGN LABORATORY | 0 | 0 | 2 | 1.0 |
| 9 | MEP68 | MINI PROJECT WORK | 0 | 0 | 4 | 2.0 |
| SIXTH SEMESTER TOTAL CREDITS | | | | | | 27.0 |
| THIRD YEAR TOTAL CREDITS | | | | | | 52.0 |
| CUMULATIVE CREDITS | | | | | | 152.0 |

| SCHEME AND SYLLABUS FOR ADMISSION BATCH 2013-14 | | | | | | |
|---|--------|--------------------------------|---|---|---|------|
| FOR 2013 BATCH - 7 th SEMESTER | | | L | T | P | C |
| 1 | HS05** | INTELLECTUAL PROPERTY RIGHTS | 2 | 0 | 0 | 2.0 |
| 2 | IDE | INTER-DEPARTMENT ELECTIVE | 4 | 0 | 0 | 4.0 |
| 3 | ME71 | CONTROL ENGINEERING | 4 | 0 | 0 | 4.0 |
| 4 | ME721 | THEORY OF PLASTICITY | 3 | 0 | 0 | 3.0 |
| | ME722 | PRODUCT DESIGN & MANUFACTURING | 3 | 0 | 0 | 3.0 |
| | ME723 | AUTOMOTIVE ENGINEERING | 3 | 0 | 0 | 3.0 |
| 5 | ME731 | FRACTURE MECHANICS | 3 | 0 | 0 | 3.0 |
| | ME732 | ADVANCED WELDING PROCESSES | 3 | 0 | 0 | 3.0 |
| | ME733 | ADVANCED HEAT TRANSFER | 3 | 0 | 0 | 3.0 |
| 6 | ME741 | ENGINEERING TRIBOLOGY | 3 | 0 | 0 | 3.0 |
| | ME742 | INDUSTRIAL ROBOTICS | 3 | 0 | 0 | 3.0 |
| | ME743 | SOLAR ENERGY ENGINEERING | 3 | 0 | 0 | 3.0 |
| 7 | MEL75 | CAMA LABORATORY | 2 | 0 | 0 | 1.0 |
| 8 | MEP76 | PROJECT WORK PHASE-I | 2 | 0 | 0 | 0.0 |
| SEVENTH SEMESTER TOTAL CREDITS | | | | | | 20.0 |

| FOR 2013 BATCH - 8 th SEMESTER | | | L | T | P | C |
|---|-------|---------------------------------------|---|---|----|-------|
| 1 | IDE | INTER-DEPARTMENTAL ELECTIVE | 4 | 0 | 0 | 4.0 |
| 2 | ME81 | HYDRAULICS & PNEUMATICS | 4 | 0 | 0 | 4.0 |
| 3 | ME821 | ENGINEERING DESIGN | 3 | 0 | 0 | 3.0 |
| | ME822 | FOUNDRY TECHNOLOGY | 3 | 0 | 0 | 3.0 |
| | ME823 | BIOMASS ENERGY SYSTEMS | 3 | 0 | 0 | 3.0 |
| 4 | ME831 | OPERATIONS RESEARCH | 3 | 0 | 0 | 3.0 |
| | ME832 | NANO TECHNOLOGY | 3 | 0 | 0 | 3.0 |
| | ME833 | COMPUTATIONAL FLUID DYNAMICS | 3 | 0 | 0 | 3.0 |
| 5 | ME841 | ENGINEERING SYSTEM DESIGN | 3 | 0 | 0 | 3.0 |
| | ME842 | COMPOSITE MATERIALS AND MANUFACTURING | 3 | 0 | 0 | 3.0 |
| | ME843 | INTERNAL COMBUSTION ENGINES | 3 | 0 | 0 | 3.0 |
| 6 | ME851 | DESIGN FOR MANUFACTURING & ASSEMBLY | 3 | 0 | 0 | 3.0 |
| | ME852 | INSPECTION & QUALITY CONTROL | 3 | 0 | 0 | 3.0 |
| | ME853 | HEAT TRANSFER IN ELECTRONIC EQUIPMENT | 3 | 0 | 0 | 3.0 |
| 7 | MES86 | SUBJECT SEMINAR | 0 | 0 | 4 | 2.0 |
| 8 | MEP87 | PROJECT WORK PHASE-II | 0 | 0 | 16 | 8.0 |
| EIGHTH SEMESTER TOTAL CREDITS | | | | | | 30.0 |
| FOURTH YEAR TOTAL CREDITS | | | | | | 50.0 |
| CUMULATIVE CREDITS | | | | | | 200.0 |

Dr. Ambedkar Institute of Technology
Department of Mechanical Engineering

BOARD OF STUDIES MEETING

To

Date: 30-05-2017

The Dean (Academic)
Dr. AII, Bangalore
Dear Madam,

Sub: Minutes of BOS meeting

The Board of studies [BOS] was held in the seminar hall of Mechanical Engineering Department on 22 march 2017. Meeting was begun at 10.00 A.M by welcoming the members. Draft Copies of the syllabus was circulated to members for scrutiny and discussion. After scrutiny and discussion of the curriculum and syllabus the following points were also discussed the same is placed before the academic council for discussion and approval.

1. The problems focused by those students who joined over college in the 3rd, 5th, 7th semester from other colleges have to get 200 credits, where as some of the students after completing their course (i.e. after completion of the 8th semester) They are getting 198, 199, 197 credits. These students should get the remaining credits by doing some project/work shop/ on industries. Regarding these problems. The members discussed all factors and they give their advice that these students should go to the industry and undergo an intensive training for at least 2 weeks or as prof. sheshadri of Bombay III said the students should do literature survey on one of the specified subject and he must submit a report and present a culture on the same subject:
2. External BOS member Sri Gurusurthy has suggested that the students should take small study project and analyse and execute those project through PERT and CPM.

The following members were present during the meeting:

1. Dr. U. S. Mallik
Professor and Head - Mechanical Engineering, Siddaganga Institute of Technology,
Tumkur.
2. Dr. Shreedhar Sheshadri
Professor in Mechanical Engineering, Indian Institute of Technology, Powai, Mumbai.
3. Dr. Paul Vizhyian
Professor, Mechanical Engineering Department, UVCE., Bangalore
4. Dr. Raju Rajendran, Scientist G and Group Director, Materials Technology Group, Gas
Turbine Research Establishment, Bangalore.

5. Mr. Nikil R B, Director, Anvesha Fab Industries Pvt Ltd, Bangalore.
6. Mr. Raghunath Preetham, Group Chief Executive Officer Sansera Engineering Pvt Ltd, Bangalore
7. Sri. G. Gurumurthy, Vice President, Design Led Manufacturing Cyient Limited, Infotech IT park, Plot No 110A & 110B, Phase I, Electronic City Hosur Road, Bangalore.
8. Dr. B. Ravindra ,Professor, Dr.AIT, Bangalore
9. Dr. K. M. Narayanappa Professor, Dr.AIT, Bangalore
10. Dr. K. M Purushothama Associate Professor, Dr.AIT, Bangalore
11. Dr. B. GangadharShetty Professor, Dr.AIT, Bangalore
12. Dr. T. N. Raju Assistant Professor, Dr.AIT, Bangalore
13. Dr. S. Sathish Assistant Professor, Dr.AIT, Bangalore
14. Dr. H. M Somashekar Assistant Professor, Dr.AIT, Bangalore
15. Dr. N. Gangadhar Assistant Professor, Dr.AIT, Bangalore

Thanking You.

Yours Sincerely



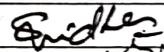
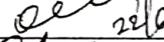
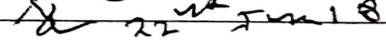
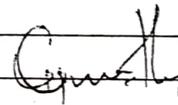
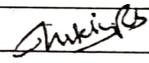
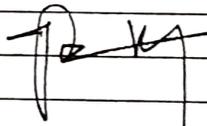
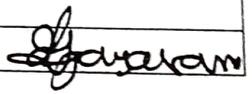
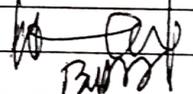
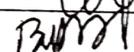
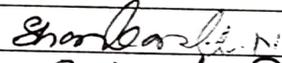
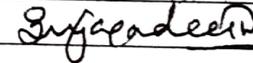
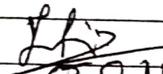
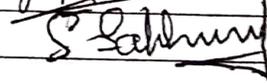
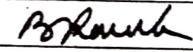
(Dr. L. Chandrasagar)
Prof. & Head - Chairman BOS
Dept of Mech Engg.
Dr. AIT, Bangalore - 560056

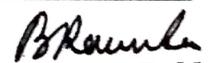
PROFESSOR AND HEAD
Mechanical Engineering Department
Dr. Ambedkar Institute of Technology
BANGALORE - 560 056

DEPARTMENT OF MECHANICAL ENGINEERING
Dr.Ambedkar Institute of Technology, Bengaluru-560056

BOARD OF STUDIES MEETING at 10.00am on 22nd JUNE 2018

All the enclosed suggestions in the courses listed are ratified with modifications for the forth coming academic year.

| Name | Signature |
|---------------------------------|---|
| VTU NOMINEE(01) | |
| Dr. U S Mallik |  |
| EXTERNAL SUBJECT EXPERTS | |
| Dr. Sreedhara Sheshadri |  |
| Dr. Rudra Naik |  |
| Dr. S Paul Vizhayan |  22/6/18 |
| Dr. P L S Murthy |  22 nd June 18 |
| INDUSTRY REPRESENTATIVES | |
| Dr. Rajendran | |
| Mr. Renil Padmanabhan | |
| Mr. Gurumurthy G |  |
| ALUMNI WITH PG DEGREE | |
| Mr. Nikhil R B |  |
| INTERNAL FACULTY | |
| DESIGN | |
| Dr. K M Purushothama |  |
| Mr. A S Jayaram |  |
| MANUFACTURING | |
| Dr. K M Narayanappa |  |
| Dr. B G Shetty |  |
| THERMAL | |
| Mr. N Shashikantha |  |
| Mr. S K Jagadeesh |  |
| MATERIALS | |
| Dr. T N Raju |  |
| Dr. S Sathish |  |
| CHAIRMAN | |
| Dr. B Ravindra |  |


PROFESSOR AND
Mechanical Engineering
Dr. Ambedkar Institute of
BANGALORE - 560

B.O.S. Meeting.

22-06-2018

Agenda:

- 1) First & second semester syllabus & scheme for 2018-2019 batch students.
- 2) (Syllabus) & scheme for 3rd to 8th semester students of 2018-2019 batch.
- 3) Third & 4th semester scheme & syllabus for 2017-2018 batch.
- 4) Fifth & sixth semester of 2016-2017 batch scheme & syllabus.
- 5) Syllabus & scheme for 2015-2016 batch students of seventh & eight semester.

Professor & HOD Sri. B. Ravindra, chairman of B.O.S meeting whole heartedly invited all the external & internal B.O.S members for the meeting. The following resolution was made.

Resolution:

- 1. It was resolved to incorporate the deliberations, corrections, addition, deletion made by the external BOS members & internal B.O.S members made after detail discussion made by the members.
- 2. P.G. Syllabus of Machine Design (M.Tech) has been thoroughly reviewed and few suggestions are made & incorporated.

NIKHIL B
 G. GURURAJAN
 Dr. U.S. Totallis
 Dr. J. L. Srinivas Murthy
 Dr. Rudra Akela
 N. Shashikiranth
 Dr. K.M. Narayanaiah
 Dr. SATISH S

Shukla
 Gururaj
 Totallis
 22-06-18
 22 June 18
 22/6/18
 22/6/18
 22/6/18

Dr B G Shetty
 Dr K M. Durgabhatam
 T. N. Raju
 Dr. Paul Vizham S
 SK Jagadeesh

BUM
 P. K.
 J. H.
 P. K. 22/6/18
 S. J. 22/6/18

1. It's better to print SEE marks as 50 both in Syllabus book as well as question paper (SEE).
2. It's requested to provide the Provisional Syllabus in advance (at least 1 month) so that corrections such as addition, deletion can be suggested in advance.

(Dr. P. L. Injiv Nury)

22nd June 18

Prof & H.O.D. Dr. B. Ravindra whole heartedly welcomed all the external and internal B.O.S members for the Final B.O.S meeting.

(i) Prof has requested all the external as well as internal B.O.S members to go through the curriculum & syllabus & to approve the syllabus & scheme for 2018-19 batch onwards.

(ii) proposed scheme for P-G machine design.

(iii)

(iv)

(v) Ratification of equivalent courses

(vi) approval B.E honours & BE courses.

The following External & internal B.O.S members were present.

(i) Dr Madhu. Prof & HOD. Govt. Engg College. Ramnagara.

(ii) Dr. Dibakar Sen. Prof IISC.

(iii) Dr. P.R. Venkatesh. Prof RVCE.

(iv) Dr. Rajeswar ka dadevaranath. Prof SIT-Tumkur.

(v) Dr. Sharan a Basavaraja. Prof BMSCE

(vi) Mr. Alexander Divakaran. Director Texcelead.

(vii) Dr. K. Ramaranda Rao. C.O.O. Eskay Heat Transf & HT Hd.

(viii) Mr. Madhusudan. Director. Diagnostic Enginco.

(ix) Dr. K.m. Narayanappa.

(x) Dr. B.G. Shetty.

(xi) N. Shashikanta.

(xii) Dr. K.m. puovshottanna.

(xiii) A.S. Jayaram

(xiv) H. A. Shirappa.

(xv) S.K. Jagadeesh.

(xvi) K.C. Byregowda.

(xvii) Anurag Singh.

(xviii) DR. B. Ravindra.

The following points are mentioned by the external members

1. Engineering mathematics.

Ist sem. calculus & linear algebra.

IInd sem. Differential equations & complex variables.

Advanced calculus & Numerical methods.

2. 18ME31, Material science & metallurgy, title can be changed as Material science.

3. 18ME32 & 34 - Tutorial classes to be encouraged.

4. Metal Forming to be added in MPI/MP11.

5. CFD, Advanced subjects to be incorporated. Hybrid ~~system~~ system (Rotary m/c, noise & vibration subjects.)

6. Internship to be made compulsory. (weekly ^{1st} four days in Eighth semester - last 2 days are meant for exam)

7. 18ME15/25. conventional & non conventional energy sources to be included in EME. (18ME25)

+ Importance of units such as stress-strain, ~~displacement~~ & units to be included.

8. Turning m/c to be changed to m/c tools. 18ME25. Unit 3 & 4 to be interchanged.

UNIT I - pumps & valves to be included.

*** Ref. books to be changed with world standard books.

9. 18ME14. In CAED - include History of Engg. drawing, introduce Basic m/c parts before projection of solids.

10. Material science - include polymers, composites in unit 5, give updated std Ref. books. Add titanium alloys, duplex materials.

11. MPI: Metal casting & welding to be changed as Manufacturing process. Automated handling of materials to be added.

12. BTD, Industrial application to be added.

13. CAM:- Assembly add 3 more models.

14. MTL → ASTM → change to BFS.

15. Mechanical measurement. New title

Cold-title - metrology & measurement)

Add. accelerators, data acquisition system & sample

16. FM/ - ATD. - Air std cycle & gas turbines

must be in 1st unit, combustion Thermodyn

& I-C engine must be in 2nd unit.

17. ~~Book~~ outlining.

KOM - case studies to be added.

*** External BOS members and Prof Dr Prashant Jeyare
requested the dept Head to send the detailed
curriculum & syllabus to all the members at least
2 weeks before the BOS meeting so that they can
go through the entire syllabus & curriculum in detail
& they can come ^{well} prepared for the meeting & can
have a meaningful discussion during BOS meeting

Staff members present.

1. T. N. Raju — ~~LP~~
2. Dr. Champsatru. R. — ~~DP~~ 3/5/19
3. Ravipathi V. — ~~DP~~ 3/5/19
4. Pavan Tejavve. T. — ~~DP~~ 03/05/19
5. Rathika M. — ~~DP~~
6. Venkatesha Reddy — ~~DP~~ 3/6/19

**Dr Ambedkar Institute of Technology
Department of Mechanical Engineering,
Bengaluru – 560 056**

MINUTES OF THE BOARD OF STUDIES MEETING

Board of Studies (BOS) meeting of Mechanical Engineering (UG and PG) was held on 14-08-2021 at 10:00 A.M, Dr Ambedkar Institute of Technology, Bengaluru via Google meet App. The following members were present:

| Sl. No. | Members present | | |
|---------|----------------------------|---|---------------------------|
| 1 | Dr. T.N. Raju | Head, Department of Mechanical Engineering, Dr. AIT | Chairperson |
| 2 | Dr. Dibakar Sen | Professor, Centre for Product Design and Manufacturing, Indian Institute of Science, Bangalore | External subject expert |
| 3 | Dr. D. Madhu | Professor & Head, Mechanical Engineering Department, Government Engineering College, Ramnagar | VTU nominee |
| 4 | Dr. J. Sharanabasvaraj | Associate Professor, Mechanical Engineering Department, B M S College of Engineering Bangalore | External subject expert |
| 5 | Dr. P. R. Venkatesh | Professor, Mechanical Engineering Department, R V College of Engineering, Bangalore | External subject expert |
| 6 | Dr. Rajeswar Kadadevarutti | Professor, Industrial Engineering Department, Siddaganga Institute of Technology, Tumkur | External subject expert |
| 7 | Mr. Satyanarayana Murthy R | Senior Deputy Manager (D & E SS NS – 1), Bharath Electronics Limited, Bengaluru | Industry representative |
| 8 | Mr. Alexander Divakaran | Director, Telesoft, Bangalore | Industry representative |
| 9 | Dr. K. Ramananda Rao | Chief operating officer, Eskay Heat Transfers Pvt Ltd, Bengaluru | Industry representative |
| 10 | Mr. Madhusudan N | Diagnostic Engineers, Bengaluru | Aluminee |
| 11 | Mr. Nitesh Kumar Dixit | Head of Mechanical Engineering Department, Institute of Engineering and Technology, Dr Rammandhar Lohia Avadh University, Avadhya | Montee Institution member |
| 12 | Dr. K. M. Narayanaswpa | Professor, Department of Mechanical Engineering, Dr. AIT | Internal member |

| | | | |
|----|------------------------|---|------------------------------------|
| 13 | Dr.B.Gangadhara Shetty | Professor, Department of Mechanical Engineering, Dr.AIT | Internal member Convener |
| 14 | Dr.K.M.Purushothama | Professor, Department of Mechanical Engineering, Dr.AIT | Internal member |
| 15 | Mr. N.Shashikanth | Associate Professor, Department of Mechanical Engineering, Dr.AIT | Internal member |
| 16 | Mr.S. K. Jagadeesh | Associate Professor, Department of Mechanical Engineering, Dr.AIT | Internal member |
| 17 | Mr. K.C.Byre Gowda | Assistant Professor, Department of Mechanical Engineering, Dr.AIT | Internal member |
| 18 | Dr.A. S. Prashanth | Assistant Professor, Department of Mechanical Engineering, Dr.AIT | Internal member (P G) |

| Member absent | | | |
|---------------|-------------------|---|-----------------|
| 01 | Mr.H. A. Shivappa | Assistant Professor, Department of Mechanical Engineering, Dr.AIT | Internal member |

The chairman welcomed the members of the committee and requested the convener to put the following agenda for discussion:

(A) Proposed scheme and syllabus of B. E, Mechanical Engineering (UG), for the current academic year 2020-21 and its approval.

| YEAR | SEMESTER | BATCH | CREDITS |
|--------|-------------------------------------|---------|---------|
| FIRST | 1 st and 2 nd | 2020-21 | 175 |
| SECOND | 3 rd and 4 th | 2019-20 | 175 |
| THIRD | 5 th and 6 th | 2018-19 | 175 |
| FOURTH | 7 th and 8 th | 2017-18 | 200 |

After elaborate discussion of the agendas the board given following suggestions:

I. BE in Mechanical Engineering (UG)

1. The Board considered and approved the proposed B.E 1st and 2nd Semester Syllabus (Syllabus are discussed in the previous year BOS also in detail).
2. The Board considered and approved the proposed B.E 3rd and 4th Semester Scheme and Syllabus (Scheme and syllabus are discussed in the previous year BOS also in detail).
3. The Board considered and approved the proposed B.E 5th and 6th Semester Scheme and Syllabus with following modifications.

- (i) The institution is suggested to conduct online classes in the month of September of this academic year. Hence board suggested to ensure proper internet facility between the faculty and students for conducting online classes. Further, suggested to make video recording of the contents to send across the students. This may help more, for the students for discussion and clarifying doubts.
 - (ii) Suggested to shift heat transfer theory course and heat transfer laboratory from fifth semester to sixth semester. In turn, suggested to shift turbo machines theory course and Computer Aided Manufacturing Laboratory from sixth semester to fifth semester.
 - (iii) Suggested to include Finite Element Method as one of the core course instead of elective course. Because it is most desired course for modelling and analysis in industries. Moreover, conducting Computer Aided Modelling and Analysis Laboratory without the knowledge of Finite Element Method is difficult. However Dr K M Purushothama, Professor defended it, saying that Mechanical vibration course is more important for Mechanical Engineers and hence, it is decided to include Finite Element Method as professional elective, and not as a core course.
 - (iv) Condensation, boiling and compact heat exchanger topics shall be incorporated in heat transfer course.
 - (v) In the course of Computer Aided Design and Manufacturing, the board, suggested to change unit II title from computer graphics to geometric modelling, and change the topic of "topology of geometry modelling" to "elements of geometric modelling" in Unit II.
 - (vi) Board suggested to change the titles of units 1, 2, 3 and 4 in Composite Materials & Manufacturing course.
 - (vii) Board suggested to shift Fluid Mechanics and Machines Laboratory from sixth to fifth semester. But this laboratory consists of basic experiments on fluid flow which will be studying in fluid mechanics course of fourth semester and experiments on turbines and pumps which will be studying in turbo machines course of fifth semester. Hence it is decided to keep this laboratory in sixth semester after studying all topics.
 - (viii) Board suggested to include working of various sensors used in automobile systems in Automobile Engineering course.
 - (ix) Board suggested to have practical exposure to students in Mechanical Vibration course and how new concepts help in reducing vibrations by inviting experts from industry.
 - (x) Board suggested to include numericals in both Advanced Welding Technology and Production and Operations Management course.
4. The Board considered and approved the proposed B.E 7th and 8th Semester Scheme and Syllabus (Syllabus are discussed in the previous year BOS also in detail).

II.M Tech in Machine Design (PG)

(B) Proposed scheme and syllabus of M Tech in Machine Design (PG), for the current academic year 2020-22 and its approval.

| YEAR | SEMESTER | BATCH | CREDITS |
|---------------------|------------------------------------|---------|---------|
| FIRST and SECOND | 1 st to 4 th | 2020-21 | 88 |

(1) The Board considered and approved the M Tech 1st and 2nd Semester Scheme and Syllabus with following modifications.

- i. Incorporate laboratory components in course, Advanced Theory of Vibrations such as FFT analyser.
- ii. Suggested to incorporate problem based topics in unit - II of Advanced Design of Mechanism course.
- iii. Suggested to change subject title of the course from Experimental Mechanics to Experimental Methods as per contents of the syllabus.
- iv. Suggested to change course title of Robust Design to Design of Additive manufacturing as per contents of the syllabus.
- v. Incorporate topics of Robots in Material Handling Equipment Design course to impart modern outlook in next academic year.
- vi. Suggested to change subject title of Acoustics and Noise Control Engineering course to Technical Acoustics as per contents of the syllabus.
- vii. Suggested to change course title of Advanced Machine Design to Design for Fatigue Loading as per contents of the syllabus.
- viii. Suggested to change course title of Tribology & Bearing Design to tribology & Bearing Technology as per contents of the syllabus.

2. The Board considered and approved the M Tech 3rd and 4th Semester Scheme and Syllabus with following modifications.

1. Board suggested that student should select a subject for Self-Study – Massive Open Online Course (MOOC) with at least 16 weeks content which is confined to his core specialization.

(C) Vision and Mission, PEO and PO of the department are revised, as suggested by the recent NBA visit to the department. Your kind approval for the same is sought.

Department Vision

To create Dynamic, Resourceful, Adept and Innovative Technical professionals to meet global challenges in Mechanical engineering discipline and other interdisciplinary requirements.

Department Mission

- To impart state of the art knowledge in basic and applied areas of Mechanical Engineering - vis-a- vis the development in industries at an affordable cost.
- To provide state-of-the-art infrastructure & laboratories as necessitated from academics, to promote futuristic research in the areas of design, materials, thermal, manufacturing engineering, managerial skills and related interdisciplinary areas
- To facilitate faculty development through quality improvement programs.
- To strengthen interaction with industries and research organizations from internship and joint research perspectives.
- To instill moral and ethical values with social and professional commitment.

Program Education Objectives

PEO1: Post Graduates to have sufficient knowledge in specialized areas of machine design and to promote state of the art societal/industrial research and developments leading to Innovations

PEO2: Post Graduates to have a sound comprehensive skills related to problem identification and problem solution in area of machine design in particular and interdisciplinary areas in general

PEO3: Post Graduates to have moral and ethical values with societal commitments along with communication skills and engage in independent and lifelong learning along with knowledge dissemination.

Program Outcomes

PO1: An ability to independently carry out research /investigation and development work to solve practical problems

PO2: An ability to write and present a substantial technical report/document

PO3: Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program

PO4: An ability to identify futuristic research requirements

Dr.K. M. Narayanappa Dr.K.M. Purushothama Mr. N. Shashikanth Mr.S. K. Jagadeesh

Mr.K. C. Byre Gowda Mr. H. A. Shivappa Dr. A. S. Prashanth Dr. Dibakar Sen

Dr. D. Madhu Dr. J. Sharana Basavaraja Dr. P. R. Venkatesh Dr. Rajeswar Kadadevarmutt

Mr. Sathyanarayana Murthy R Mr. Alexander Divakaran Dr. K. Ramananda Rao Mr. Madhusudan N

Mr. Nitesh Kumar Dixit Dr. B. Gangadhara Shetty Dr. T. N. Raju

Department of Mechanical Engineering

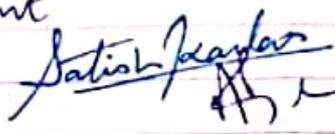
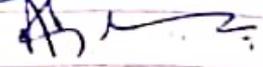
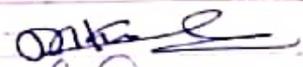
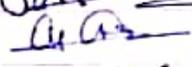
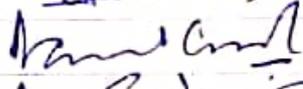
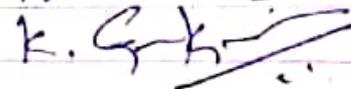
NEW TOPICS ADDED (2020-21)

| Sub Code | Subjects | New topics added |
|----------|---|--|
| 18ME31 | Material Science And Metallurgy | Biomaterials: Introduction, Materials used as biomaterials, advantages, disadvantages and applications. |
| 18ME33 | Manufacturing Processes - I | Forging, Rolling, Die-design, residual stresses in forging |
| 18ME34 | Basic Thermodynamics | Availability and irreversibility, Ideal gases and mixtures |
| 18MEL38 | Fitting And Forging Workshop | New Lab |
| 18ME42 | Fluid Mechanics | Introduction to CFD |
| 18ME43 | Manufacturing Processes - II | Hobbing |
| 18ME44 | Applied Thermodynamics | Stirling cycle; Combustion in IC engines; Alternate Fuels, Steam nozzles |
| 18ME52 | Dynamics of Machines | |
| 18ME53 | Turbomachines | Thermodynamics of fluid flow |
| 18ME54 | Computer Aided Design and Manufacturing | Hardware for CAD, Topology of the geometry modelling, Operational features of CNC machine, Canned Cycles |
| 18ME552 | Composite Materials and Manufacturing | Recycling of Metal Matrix Composites, Nanocomposites, Polymer Nano Composites, 3D Printing of Composites |
| 18ME553 | Automobile Engineering | Sensors used in automobile systems |
| 18ME554 | Mechatronics and Microprocessor | New subject |
| 18ME555 | Principles of Metal Forming | New subject |
| 18ME556 | Experimental Stress Analysis | Analysis of plane polariscope by Jones calculus |
| 18ME62 | Heat Transfer | Variable thermal conductivity, Critical thickness of insulation, Boiling and condensation, Compact heat exchangers, |
| 18ME642 | Advanced Welding Processes | Plasma arc welding, Welding of Cu, Al, Ti and Ni alloys – processes |
| 18ME644 | Production And Operations Management | New subject |
| 18ME645 | Finite Element Method | Thermal Analysis, Steady state Heat Transfer, One Dimensional Heat Conduction – Governing Equation – Boundary Condition. Temperature Gradient & B matrix functional approach to Heat Conduction – Element Conductivity Matrix. Assembly & Boundary Conditions, Heat Flux |

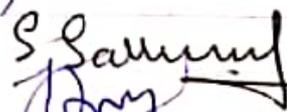
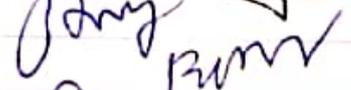
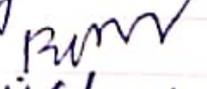
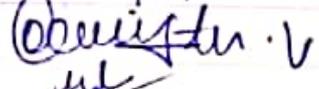
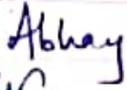
| | | |
|-------|-----------------------------------|--|
| | | Boundary Conditions, Forced and Natural Boundary Conditions – Numerical problems. |
| ME71 | Control Engineering | Positive Feedback systems |
| ME811 | Computer Integrated Manufacturing | Flexible Manufacturing Systems, Additive Manufacturing Systems, Future of Automated Factory |
| MEE03 | Power Plant Engineering | Pulverising of fuels and burning Fuel burning principles |
| MEE05 | Composite Materials Technology | Recycling of Metal Matrix Composites, Nanocomposites, Polymer Nano Composites, 3D Printing of Composites |

- Dr. Krishna suggested to include a new topic instead of Ideal gas and Real Gas in BTD course.
- Dr. Krishna M. raised Q&A Transport is missing in syllabus.
- Dr. Gividhar advised to increase the contact hours to cover the flywheel
- Dr. Krishna and Dr. Gividhar told to keep plunger block and screw jack assembly.
- Dr. Krishna suggested to link the facts components of Machine tool and Metrology.
- External Expert suggest Dr. Krishna suggested to remove the belt drives in
- Remove governors & dynamometer to Self Study. I.I.T. velocity and acceleration analysis in mechanisms.

External Experts Present

- | | |
|----------------------------|--|
| 1) Dr. Satish Kailas |  |
| 2) Dr. B M Rajaprakash |  |
| 3) Dr. M Krishna |  |
| 4) Dr. G Gividhar |  |
| 5) Dr. V Arun Kumar |  |
| 6) Mr. Givikumar (Alumini) |  |

Members Present :- (Internal)

- | | |
|--------------------------------|---|
| 1) Dr. SATHISH S |  |
| 2) Dr. H M Somashelkar |  |
| 3) Dr. B G Shetty |  |
| 4) Dr. Rajesh V |  |
| 5) Dr. Rajesh M |  |
| 6) Dr. Mohan Kumar S |  |
| 7) Abhay P Devangavi (Student) |  |
| 8) S.K. Jagadeesh |  |
| 9) Dr. K. M. Punyashyam |  |
| 10) Dr. Shrinani HA |  |

BOS Meeting

263

30-07-2022

Time:-:

At the beginning HOD Dr. TN Raju welcomed both External and Internal members to the BOS meeting.

- Committee has decided to reduce the credits to project, Seminar, Internship etc. and add some theory subjects.
- FEM Subject from Elective to Core Subject.
- Additive manufacturing instead of Theory put lab component.
- Rom/Dom club and Pennac Gyroscope/Gyros topics.
- FEM/CAE - Internship - invited to keep FEM as a core subject by Subject Expert Dr. M. Krishna and Alumni representative Mr. Girikumar.
- VTU Nominee Dr. Giridhar advised to club Design of Machine Elements I and Design of Machine Elements II.
- Dr. M. Krishna suggested to club Kinematics of Machines and Dynamics of Machines also to club Basic thermodynamics and Applied Thermodynamics.
- Ability Enhancement Course - III → Experts Dr. M. Krishna and Dr. B.M. Rajatraksh told to change the title of the Introduction to Matlab & into Matlab for Engineers and also introduce python programming.
- In strength of materials simple stresses can be avoided as the student will be studied in Engg. Physics so it can be removed as per the Expert Dr. Krishna.
- Subject Expert Dr. B.M. Rajatraksh told to remove fundamental concepts from the content of Basic thermodynamics and also Dr. Krishna suggested to change the title of course.