Dr. Ambedkar Institute of Techonolgy
Department of Mechanical Engineering

The documents enclosed are verified and approved.

HOD
Dept. of Mechanical Engineering

HOD
Department of Mechanical Engineering
Dr. Ambedkar Institute of Technology
Bengaluru - 560 056.

Panchajanya Vidya Peetha Welfare Trust (Regd)

Dr. Ambedkar Institute of Technology

An Autonomous Institution, Affiliated to Visvesvaraya Technological University, Belagavi,
Aided by Govt. of Karnataka, Approved by All India Council for Technical Education (AICTE), New Delhi
Accredited by NBA and NAAC with 'A' Grade
BDA Outer Ring Road, Mallathalli, Bengaluru - 560 056

Ref. No. .....

Date : .....

The BOS approval is taken to introduce the following new subjects in the scheme 2020-2021.

Sl.No	Subject Code	Subject Title	Year of Introduction
1	18MEL38	Fitting And Forging Shop	2020
2	18ME554	Mechatronics And Microprocessor	2020
3	18ME555	Principle Of Metal Forming	2020
4	18ME644	Productions And Operations Management	2020

HOD
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Dr. Ambedkar Institute of Technology
Bengaluru - 560 056.

BOS Chairman

Principal
PRINCIPAL
Dr. Ambedkar Institute of Technology
Bengaluru-560 056

Ph : 23211232, Fax : 080-23217789, E-mail : principal@drait.edu.in, Website : www.drait.edu.in

Dr. Ambedkar Institute of Technology
Department of Mechanical Engineering

BOARD OF STUDIES MEETING

To

Date 30.05.2017

The Dean (Academic)
Dr. AIT, 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 march2017. 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 IIT 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 Gurumurthy 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. Ragunath 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	22/6
Dr. S Paul Vizhiyan	22/6/18
Dr. P L S Murthy	22nd June 18
INDUSTRY REPRESENTATIVES	
Dr. Rajendran	
Mr.RenilPadmanabhan	
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	

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Mechanical Engineering D
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.
2) Third & 4th semester scheme & Syllabus for 2017-2018 batch.
3) Fifth & Sixth semester of 2016-2017 batch. Scheme & Syllabus.
4) Syllabus & scheme for 2015-2016 batch. Students of Seventh & Eight semester.

Professor & HOD Sri. B. Ravindra, chairman of B.O.S meeting cordiale heartedly invited all the external & internal B.O.S members for the meeting. The following resolution were 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 dissussion made by the members
2. P.G. Syllabus of Machine Design (M.Tech) has been throughly reviewed and few suggestions are made have to be incorporated.

NIKHIL R.B

G. Gurumurthy

Dr. U.S. Mallikarjuna 22.06.18

Dr. J.L. Srinivas Murty 22 June 18

Dr. Rudra Naik 22/6/18

N. Shashikanth 22/6/18

Dr. K.M. Narayanappa 22/6/18

Dr. SATISH

Dr B G Shetty
Dr K M. Purushotham
T. N. Raju
Dr. Paul Vizhan S.
Sk Jagadeesh

22/6/18

1. It's better to print SEE marks as 50 both in Syllabus book as well as questions 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. Srinivas Murthy)

22nd June 18

FINAL. B.O.S. Meeting. 03-06-2019.

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 ~~members~~ 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 honors & BE minor.

The following External & internal BOS members were present.

(i) Dr Madhu. Prof & HOD. Govt. Engg college. Ramanagara.

(ii) Dr. Dibakar Sen. prof IISc.

(iii) Dr. P.R. Venkatesh. prof RVCE. 03/6/19

(iv) Dr. Rajeswar Kadadevarmath. prof SIT. Tumkur.

(v) Dr. Sharana Basavaraja. prof BMSCE

(vi) Mr. Alexander Divakaran. Director Texcelead.

(vii) Dr. K. Ramananda Rao. C.O.O. Eskay Heat Transfer Pvt Ltd.

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

(ix) Dr. K.M. Narayanappa.

(x) Dr. B.G. Shetty.

(xi) N. Shashikanth.

(xii) Dr. K.M. Purushottama.

(xiii) A.S. Jayaram

(xiv) H.A. Shivappa. 3/6/19

(xv) S.K. Jagadish.

(xvi) K.C. Byregowda. 3/6/19

(xvii) Anurag Singh. 3/6/19

(xviii) DR. B. Ravindra. 3/6

The following points are mentioned by the external members

1. Engineering mathematics.
   1st 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 increased.
4. Metal Forming to be added in MP1/MP11.
5. CFD, Advanced subjects to be incorporated. Hybrid system (Rotatory m/c, noice & vibration subjects.)
6. Internship to be made compulsory. (weekly 1st four days in Eighth semester - last 2 days are meant for classes)
7. 18ME15/25. conventional & non conventional energy sources to be included in EME. (18ME25)
   + Importance of units such as stress - strain, dimensions & units to be included.
8. Turning m/c to 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. 18ME L14. 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. MP1: Metal casting & welding to be changed as Manufacturing process. Automated handling of materials to be added.
12. BTD. Industrial application to be added.
13. CAMD :- Assembly add 3 more modules.

14. MTL → ASTM → change to BIS.

15. Mechanical measurement · New title

Cold - title - metrology & measurement)

Add. accelerator, data acquisition system & sample

16. FM/ — ATD. — Air std cycle & gas turbines must be in Ist unit, combustion Thermodynamics & I-C engine must be in 2nd unit.

17. ~~[illegible]~~ outbrising.

KOM — case studies to be added.

*** External BOS members and prof Dr Prasad Jefre 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 meaningfull discussion during BOS meeting

Staff members present.

1. T. N. Raju — 3/5/19
2. Dr. Chandrasekhar. R — 3/5/19
3. Ranjith V — 3/5/19 3.5.19.
4. Pavan Tejaswi. T — 03/05/19
5. Rathika M.
6. Venkatesha Reddy 3/5/19

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 14-08-2020 at 10:00 A.M. Dr Ambedkar Institute of Technology, Bengaluru via Google meet App. The following memberswere 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, Ramanagara	VTU nominee
4	Dr. J. SharanaBasavaraja	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 Kalandevarmath	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, Texsteel, 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	Alumnee
11	Mr. Nitesh Kumar Dixit	Head of Mechanical Engineering Department,Institute of Engineering and Technology, Dr Rammanohar Lohia Avadh University, Ayodhya	Member Institution member
12	Dr. K. M. Narayanappa	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	1st and 2nd	2020-21	175
SECOND	3rd and 4th	2019-20	175
THIRD	5th and 6th	2018-19	175
FOURTH	7th and 8th	2017-18	200

After elaborate discussion of the agendas the boardgiven 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 mayhelp 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 Laboratoryfrom sixth semester to fifth semester.

(iii) Suggested to include Finite Element Method as one of the core courseinstead 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 courseis more important for Mechanical Engineers and hence, it is decided include Finite Element Method as professional elective, and not as a core course.

(iv) Condensation, boiling and compact heat exchangerstopics 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 units1, 2, 3 and 4inComposite 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 havepractical exposure to students in Mechanical Vibration course and how new concepts helps in reducing vibrations by inviting experts from indusrty.

(x) Board suggested to include numericals in both Advanced Welding Technology and Production and Operations Management course.

4. The Board considered and approved the proposedB.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	1st to 4th	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 Ambedkar Institute of Technology
Department of Mechanical Engineering,
Bengaluru – 560 056

27.11.2021

MINUTES OF THE BOARD OF STUDIES MEETING

Board of Studies (BOS) meeting of Mechanical Engineering was held on 25.11.20201 at 3:00 P.M, via Google meet App. The following were the agenda of the meeting to discuss as per National Education Policy (NEP) (160 credits).

(1) To discuss and approve Scheme from First to Eighth Semester of Mechanical Engineering BE for the academic year 2021-22 onwards.

(2) To discuss and approve Syllabus of First and Second Semester Mechanical Engineering B.E Board subjects for the academic year 2021-22.

The following members were present:

Sl. No.	Members present		
1	Dr. T. N. Raju	Head, Department of Mechanical Engineering, Dr. AIT	Chairperson
2	Dr. Satish V Kailas	Professor, Mechanical Engineering Department, Indian Institute of Science, Bangalore	External subject expert
3	Dr. G Giridhar	Professor, Mechanical Engineering Department, B M S College of Engineering, Bangalore	VTU nominee
4	Dr. B M Rajaprakash	Professor, Mechanical Engineering Department, UVCE, Bangalore	External subject expert
5	Dr. B Sadashive Gowda	Principal, Vidyavardhaka College of Engineering, Mysore	External subject expert
6	Dr. Krishna M	Professor & HOD, Mechanical Engineering Department, R V College of Engineering, Bangalore	External subject expert
7	Dr. S V Ramana Murty	Scientist G, Technical Director, G T R E, Bangalore	Industry representative
8	Mr. S Kathiresan	Freelancer, Bangalore	Industry representative
9	Mr.Girikumar Kumaresh	Senior Programme Manager, Head, R & D Autonomous driving and Safety Systems, , Bosch, Bengaluru	Aluminee

10	Mr. Anurag Singh	Assistant Professor, Mechanical Engineering Department, Institute of Engineering and Technology, Dr Rammanohar Lohia Avadh University, Ayodhya	Mentee Institution member
11	Dr. K. M. Purushothama	Professor, Department of Mechanical Engineering, Dr.AIT	Internal member
12	Dr. B. Gangadhara Shetty	Professor, Department of Mechanical Engineering, Dr.AIT	Internal member **Convener**
13	Mr .S. K. Jagadeesh	Associate Professor, Department of Mechanical Engineering, Dr.AIT	Internal member
14	Dr. S. Sathish	Associate Professor, Department of Mechanical Engineering, Dr.AIT	Internal member
15	Dr Rajesh M	Assistant Professor, Department of Mechanical Engineering, Dr.AIT	Internal member
16	Dr. H. A. Shivappa	Assistant Professor, Department of Mechanical Engineering, Dr.AIT	Internal member
17	Dr. Ranjith V	Assistant Professor, Department of Mechanical Engineering, Dr.AIT	Internal member (P G)

Members absent			
1	Mr. Sanjeev Sikka	Managing Director, Micronel Global Engineers Pvt. Ltd	Industry representative
2	Dr. Mahadevaswamy M	Assistant Professor, Department of Mechanical Engineering, Dr.AIT	Internal member
3	Dr.V Arun Kumar	Research Advisor, Department of Mechanical Engineering, Dr.AIT	Invitee

The BOS chairman welcomed all the members of the committee and requested the BOS convener to put forward the agenda's for discussion. After elaborate discussion of the agendas the board given following suggestions:

1. The Board considered and approved the proposed B.E 1st and 2nd Semester Syllabus of Elements of Mechanical Engineering with following modifications.

(i) Suggested to include basics on different topics in the entire syllabus such as positive displacement pumps, gear pumps, enthalpy, entropy, SI engines, CI engines, introduction to hear treatment of materials and its applications, 3D printing, BS III, BS IV engines.

(ii) Suggested to change the title of "Insight into future mobility technology" as Insight into present mobility technology.

(iii) Suggested to include and teach skill developing components in the syllabus.

2. The Board considered and approved the proposed B.E 1st and 2nd Semester Syllabus of Engineering Graphics with following modifications.

(i) Suggested to teach only first angle projections in Projection of lines chapter.

(ii) Suggested to reduce the portions in projection of solid chapter, as the topics to be covered are more, as student has to learn projection many solids such as triangle, square, rectangle, pentagon, hexagon), cones, cubes, tetrahedron.

(iii) Suggested to reduce the portions in isometric projection of solid chapter, as the topics to be covered are more, as student has to learn Isometric projection of many solids such as hexahedron (cube), right regular prisms, pyramids, cylinders, cones and spheres.

(i) Suggested to reduce the portions in development of surfaces chapter, as the topics to be covered are more, as student has to learn development of right regular prisms, cylinders, pyramids, cones, Development of lateral surface of sphere, Development of frustums and truncations. Problems on applications of development of lateral surfaces viz. Funnels, Trays, Transition pieces connecting two ducts in development of surfaces.

3. The Board considered and approved the proposed B.E 3rd to 8th Semester Scheme and Syllabus with following modifications.

(i) Suggested to add one hour of tutorial in Mechanics of Materials, Basic Thermodynamics, Applied Thermodynamics, Theory of Machines subjects.

(ii) Suggested to increase the credit of Computer Aided Machine Drawing subject from 1 credit to 3 credits.

(iii) Suggested to reduce the credit of Summer Internship – I and Summer Internship – I from 2 credits to 1 credit and use that credits to add additional subject.

(iv) Suggested to include Python, ML, deep learning and data science related subjects in ability enhancement courses.

(v) Suggested to include mechatronics, data structures, industry 4.0 concepts and teach/include application of electronics in Mechanical Engineering has to be focussed.

(A) 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 Educational 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

HOD

HOD
Department of Mechanical Engineering
Dr. Ambedkar Institute of Technology
Bengaluru - 560 056.