KONGU ENGINEERING COLLEGE, PERUNDURAI, ERODE- 638 060

MINUTES OF THE MEETING OF BOARD OF STUDIES IN MECHANICAL ENGINEERING

MEETING No. 21

DATE: 19-06-2021

TIME: 10.00 AM (Online)

Google Meet Id: https://meet.google.com/zoy-wwau-apy

The following members were present for the meeting:

	-	·
	Dr. R. Rajasekar	
1.	Professor and Head Department of Mechanical Engineering	Chairman
	Kongu Engineering College Perundurai - 638 060.	
	Dr. P. Sathyabalan	
	Professor	
	Department of Mechanical Engineering	
2.		University Nominee
	Kumaraguru College of Technology Athipalayam Road, Chinnavedampatti,	
	Coimbatore - 641049.	
	Dr. N. Rajini	
	Professor	
3.	Department of Mechanical Engineering	Academic Council Nominee
٥.	Kalasalingam Academy of Research and Education	Academic Council Norminee
	(Deemed to be University), Krishnankoil-626126.	
	Dr. Thundil Karuppa Raj	
	Professor	
4.	Department of Mechanical Engineering	Academic Council Nominee
	Vellore Institute of Technology, Vellore – 632014.	
	Mr. K. Aravindhan	
	Senior Manager	
5.	Supplier Management – International and Supply Customs,	Alumni Representative
0.	Daimler India Commercial Vehicles,	, admin respiesomante
	Chennai - 602 105.	
	Mr. D. Gobu	
_	General Manager	Industry Depresentative
6.	Supplier Development & Integration	Industry Representative
	Brakes India (P) Ltd, Padi, Chennai – 600 050.	
	Dr. P. Navaneethakrishnan	
7.	Professor	Internal Member
١,٠	Department of Mechanical Engineering	internal wember
	Kongu Engineering College Perundurai - 638 060.	
	Dr. P. Senthilvel Murugan	
8.	Professor	Internal Member
0.	Department of Mechanical Engineering	internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Dr. V. Hariharan	
9.	Professor	Internal Member
J.	Department of Mechanical Engineering	internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Dr. P. Sathiamurthi	
10.	Professor	Internal Member
	Department of Mechanical Engineering	miornal Monibor
	Kongu Engineering College Perundurai - 638 060.	

	N	T
	Mr. A. Somasundaram	
11.	Associate Professor	Internal Member
	Department of Mechanical Engineering	internal member
	Kongu Engineering College Perundurai - 638 060.	
	Dr. K. Dineshkumar	
12.	Associate Professor	Internal Member
12.	Department of Mechanical Engineering	internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Dr. S. Selvakumar	
	Associate Professor	
13.	Department of Mechanical Engineering	Internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Dr. A. Sivakumar	
	Associate Professor	
14.	Department of Mechanical Engineering	Internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Dr. P. Thangavel	
15.	Associate Professor	Internal Member
	Department of Mechanical Engineering	
	Kongu Engineering College Perundurai - 638 060.	
	Dr. K. S. K. Sasikumar	
16.	Associate Professor	Internal Member
10.	Department of Mechanical Engineering	internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Dr. P. Selvakumar	
	Associate Professor	
17.	Department of Mechanical Engineering	Internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Dr. T. P. Sathishkumar	
	Associate Professor	
18.	Department of Mechanical Engineering	Internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Dr. C. Baskar	
19.	Associate Professor	Internal Member
	Department of Mechanical Engineering	
	Kongu Engineering College Perundurai - 638 060.	
	Dr. A. Mohankumar	
20.	Associate Professor	Internal Member
20.	Department of Mechanical Engineering	internal Wember
	Kongu Engineering College Perundurai - 638 060.	
	Dr. R. Naveen Kumar	
04	Associate Professor	Internal Manal
21.	Department of Mechanical Engineering	Internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Dr. C. Moganapriya	
	Associate Professor	
22.	Department of Mechanical Engineering	Internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Dr.P.Saji Raveendran	
23.	Associate Professor	Internal Member
	Department of Mechanical Engineering	
	Kongu Engineering College Perundurai - 638 060.	
	Mr. T. Ravisankar	
24.	Assistant Professor (Selection Grade)	Internal Member
۲-	Department of Mechanical Engineering	Internal Welliber
	Kongu Engineering College Perundurai - 638 060.	
	Dr. R. Gukendran	
25.	Assistant Professor (Senior Grade)	Internal Member
∠3.	Department of Mechanical Engineering	Internal Member
	Kongu Engineering College Perundurai - 638 060.	
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	Dr.M.Sambathkumar	
26.	Assistant Professor (Senior Grade)	Internal Member
	Department of Mechanical Engineering	
	Kongu Engineering College Perundurai - 638 060.	
	Mr.K.V.Satheeshkumar	
27.	Assistant Professor (Senior Grade)	Internal Member
	Department of Mechanical Engineering	
	Kongu Engineering College Perundurai - 638 060.	
	Mr.C.Sathishranganathan	
28.	Assistant Professor (Senior Grade)	Internal Member
20.	Department of Mechanical Engineering	internal Wember
	Kongu Engineering College Perundurai - 638 060.	
	Dr.P.Prabhakaran	
29.	Assistant Professor (Senior Grade)	Internal Member
29.	Department of Mechanical Engineering	internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Dr.M.Vijayanand	
00	Assistant Professor (Senior Grade)	Later and Marcellan
30.	Department of Mechanical Engineering	Internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Mr.N.Saravanan	
	Assistant Professor (Senior Grade)	
31.	Department of Mechanical Engineering	Internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Mr.B.S.Hari	
	Assistant Professor (Senior Grade)	
32.	Department of Mechanical Engineering	Internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Dr.A.Tamilvanan	
33.	Assistant Professor (Senior Grade)	Internal Member
	Department of Mechanical Engineering	
	Kongu Engineering College Perundurai - 638 060.	
	Dr.M.Harikrishna Kumar	
34.	Assistant Professor (Senior Grade)	Internal Member
	Department of Mechanical Engineering	
	Kongu Engineering College Perundurai - 638 060.	
	Mr.M.Dharmaraj	
35.	Assistant Professor (Senior Grade)	Internal Member
00.	Department of Mechanical Engineering	miorial weinber
	Kongu Engineering College Perundurai - 638 060.	
	Dr.S.M.Senthil	
36.	Assistant Professor (Senior Grade)	Internal Member
30.	Department of Mechanical Engineering	internal wember
	Kongu Engineering College Perundurai - 638 060.	
	Dr.N.Baaskaran	
27	Assistant Professor (Senior Grade)	Internal Mercher
37.	Department of Mechanical Engineering	Internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Mr.S.Manikandan	
	Assistant Professor (Senior Grade)	
38.	Department of Mechanical Engineering	Internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Mr.R.Manivannan	
	Assistant Professor (Senior Grade)	
39.	Department of Mechanical Engineering	Internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Mr.A.Saravanan	
40.	Assistant Professor (Senior Grade) Department of Mechanical Engineering	Internal Member
	Department of Mechanical Engineering	
	Kongu Engineering College Perundurai - 638 060.	

	Mr.S.Karthi	
	Assistant Professor (Senior Grade)	
41.	Department of Mechanical Engineering	Internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Mr.A.Abubakkar	
	Assistant Professor (Senior Grade)	
42.	Department of Mechanical Engineering	Internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Mr.K.Paramasiyam	
	Assistant Professor (Senior Grade)	
43.	Department of Mechanical Engineering	Internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Mr.M.Makeshkumar	
44	Assistant Professor	latera el Mereken
44.	Department of Mechanical Engineering	Internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Mr.R.Karthikeyan	
45.	Assistant Professor	Internal Member
45.	Department of Mechanical Engineering	internal Member
	Kongu Engineering College Perundurai - 638 060.	
	Mr.T.Rajagopal	
46.	Assistant Professor	Internal Member
10.	Department of Mechanical Engineering	michial Mombol
	Kongu Engineering College Perundurai - 638 060.	
	Mr.N.Prasanna	
47.	Assistant Professor	Internal Member
	Department of Mechanical Engineering	
	Kongu Engineering College Perundurai - 638 060.	

The following members were present as special invitees: NIL

The following members have requested for leave of absence: NIL

Meeting of the Mechanical Engineering Board:

Chairman/BoS welcomed the members and briefed on the rules and regulations governing the autonomous scheme and presented the agenda points including the draft syllabi from 3rd semester to final semester under Regulation 2020 of UG Programme.

The board discussed and approved the following points as per the agenda:

Item No. 21.1: Confirmation of Minutes of the previous Board of Studies meeting

Resolved to confirm the minutes of the previous Board of Studies Meeting held on 29.08.2020.

Item No. 21.2: Ratification of the following items under R2014 & R2018 as given in Annexure - I.

- a. Course and Syllabi for PhD Course work Nil
- b. One credit courses Nil
- c. On line courses List attached in Annexure I
- d. Curriculum and Syllabi amendments under R2014 & R2018 Nil
- e. Introduction of new electives under R2014 & R2018 Nil
- f. Credit transfer from Foreign Universities, Change of Regulations for readmitted students, Transferred candidates Nil
- g. Other items if any Nil

(The board can list only relevant items to be ratified for the above items a,b,c,d,e,f and g implemented after the last BoS meeting held on 29.08.2020. i.e. items did not get approval in the last BoS meeting and implemented during 2020-21)

It is resolved to ratify the above items a, b, c, d, e, f and g as given in Appendix – I.

Item No. 21.3. Approval of the Syllabi from 3rd semester to 8th semester BE/BTech (Mechanical Engineering Branch) under R2020 as given in Annexure-II

The members discussed the syllabi from third semester to eighth semester BE/BTech (Mechanical Engineering Branch) under R2020 as given in Annexure – II and approved the same.

Item No. 21.4. Approval for one credit courses, on-line courses with syllabi, Transfer of credits from UGC & AICTE approved institutions and Credit transfer from foreign universities under R2018 & R2020 as given in Annexure-III.

The members discussed the one credit courses, on-line courses with syllabi, Transfer of credits from UGC and AICTE approved institutions including NPTEL, SWAYAM, etc., and Credit transfer from foreign universities under R2018 & R2020 (from the year 2021-22 onwards) as given in Annexure – III and approved the same.

Item No. 21.5. Approval of Syllabus for PhD courses under R2020 as given in Annexure-IV.

The members discussed the Syllabus for PhD courses under R2020 (if any from the year 2021-22 onwards) as given in Annexure – IV and approved the same.

Item No. 21.6. To recommend the online examination system to be followed for the April/May 2021 End Semester Examinations as given in Annexure-V.

The members discussed recommend the online examination system to be followed for the April/May 2021 End Semester Examinations as given in Annexure-V

The meeting was concluded with a vote of thanks to the members.

Name & Signature Name & Signature (Dr.P.Sathyabalan) (Dr.N.Rajini) R. Thurdie Claupha Ri Name & Signature Name & Signature (Dr.Thundil Karuppa Raj) (Mr.K.Aravindhan) Name & Signature Name & Signature (Dr.P.Navaneethakrishnan) (Mr.D.Gobu) Name & Signature Name & Signature (Dr.V.Hariharan) (Dr.P.Senthilvelmurugan) Name & Signature Name & Signature (Dr.P.Sathiamurthi) (Mr.A.Somasundaram) Name & Signature Name & Signature (Dr.K.Dineshkumar) (Dr.S.Selvakumar) Name & Signature Name & Signature (Dr.P.Thangavel) (Dr.A.Sivakumar) Name & Signature Name & Signature (Dr.K.S.K.Sasikumar) (Dr.P.Selvakumar)



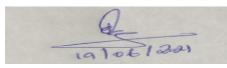
Name & Signature (Dr.T.P.Sathishkumar)



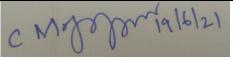
Name & Signature (Dr.C.Baskar)



Name & Signature (Dr.A.Mohankumar)



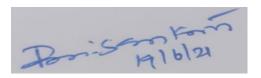
Name & Signature (Dr.R.Naveen Kumar)



Name & Signature (**Dr.C.Moganapriya**)



Name & Signature (Dr.P.Saji Raveendran)



Name & Signature (Mr.T.Ravisankar)



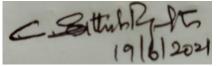
Name & Signature (Dr.R.Gukendran)



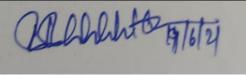
Name & Signature (Dr.M.Sambathkumar)



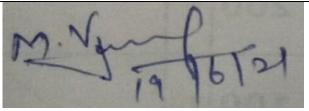
Name & Signature (Mr.K.V.Satheeshkumar)



Name & Signature (Mr.C.Sathishranganathan)



Name & Signature (Mr.P.Prabhakaran)



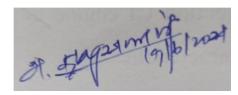
Name & Signature (Dr.M.Vijayanand)

N. faravarary

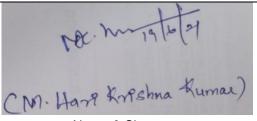
Name & Signature (Mr.N.Saravanan)

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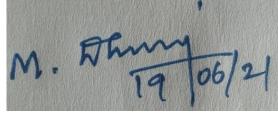
Name & Signature (Mr.B.S.Hari)



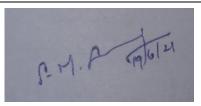
Name & Signature (**Dr.A.Tamilvanan**)



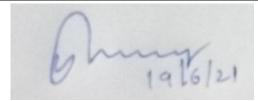
Name & Signature (Dr.M.Harikrishna Kumar)



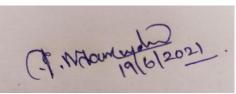
Name & Signature (Mr.M.Dharmaraj)



Name & Signature (Mr.S.M.Senthil)



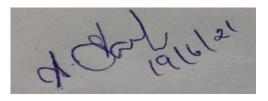
Name & Signature (Dr.N.Baaskaran)



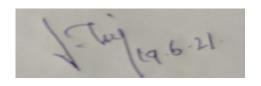
Name & Signature (Mr.S.Manikandan)



Name & Signature (Mr.R.Manivannan)



Name & Signature (Mr.A.Saravanan)



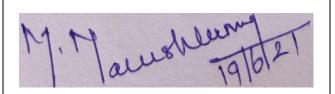
Name & Signature (Mr.S.Karthi)



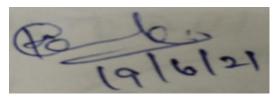
Name & Signature (Mr.A.Abubakkar)



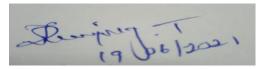
Name & Signature (Mr.K.Paramasivam)



Name & Signature (Mr.M.Makeshkumar)



Name & Signature (Mr.R.Karthikeyan)



Name & Signature (Mr.T.Rajagopal)



Name & Signature (Mr.N.Prasanna)

Rysolation 1

Name & Signature Dr.R.Rajasekar Chairman/BoS

Annexure - I

Ratification items under R2014 & R2018 implemented during the last academic year 2020-21

- a. Course and Syllabi for PhD Course work Nil
- b. One credit courses Nil
- c. On line courses -

Academic year 2020-21 - EVEN Semester

Academic year 2020-21 - EVEN Semester										
SI. No	Name of the Course	NPTEL/ GIAN	Hosting Institution	Recommende d Credits by the Host Institution	Recommende d Credits by the Internal BOS Members					
1	Aircraft Design	NPTEL	IIT Kanpur	3	3					
2	Water and waste water treatment	NPTEL	IIT Roorkee	3	3					
3	Data Base Management System	NPTEL	IIT Kharagpur	2	2					
4	Design, Technology and Innovation	NPTEL	IIT Bombay	2	2					
5	Failure analysis and Prevention	NPTEL	IIT Roorkee	2	2					
6	Processing of Polymers and Polymer Composites	NPTEL	IIT Roorkee	2	2					
7	Explosions and Safety	NPTEL	IIT Madras	3	3					
8	Muffler Acoustics – Application to Automotive Exhaust Noise Control	NPTEL	IIT Kanpur	3	3					
9	Introduction to soft matter	NPTEL	Indian Institute of Science	2	2					
10	Vibrations of Structures	NPTEL	IIT Kharagpur	3	3					
11	Turbulent Combustion: Theory and Modelling	NPTEL	IIT Kanpur	3	3					
12	Introduction to Uncertainty Analysis and Experimentation	NPTEL	IIT DELHI	2	2					
13	Traditional and Non-Traditional Optimization Tools	NPTEL	IIT Kharagpur	2	2					
14	Smart Materials and Intelligent System Design	NPTEL	IIT Kanpur	1	1					
15	Product Design and Manufacturing	NPTEL	IIT Kanpur	3	3					
16	Tools in Scientific Computing	NPTEL	IIT Kharagpur	2	2					
17	Steel Quality: Role of Secondary Refining & Continuous Casting	NPTEL	IIT Madras	3	3					

- d. Curriculum and Syllabi amendments under R2014 & R2018 Nil
- e. Introduction of new electives under R2014 &R2018 Nil
- f. Credit transfer from Foreign Universities, Change of Regulations for readmitted students, Transferred candidates Nil
- g. Other items if any Nil

Annexure - II

Syllabi from 3rd semester to 8th semester BE/BTech (Mechanical Engineering Branch) under R2020

B.E. MECHANICAL ENGINEERING CURRICULUM - R2020

SEMESTER	SEMESTER - III									
Course Code	Course Title	Но	Hours / Week			Maximum Marks			Cate	
Code		L	Т	Р		CA	ESE	Total	gory	
Theory/The	ory with Practical									
3.1	Programming 1	3	0	2	4	50	50	100	ES	
3.2	Mathematics 3	3	1	0	4	50	50	100	BS	
3.3	Fluid Mechanics and Hydraulic Machines	3	0	2	4	50	50	100	ES	
3.4	Engineering Thermodynamics	3	0	0	3	50	50	100	PC	
3.5	Engineering Materials and Metallurgy	3	0	2	4	50	50	100	PC	
3.6	Material Removal Processes	3	0	0	3	50	50	100	PC	
Practical / E	mployability Enhancement									
3.7	Production Technology Laboratory	0	0	2	1	50	50	100	PC	
3.8	Machine Drawing Laboratory	0	0	2	1	50	50	100	PC	
3.9	Environmental Science	2	0	0	0	100	0	100	MC	
	Total Credits to be earned				24					

SEMESTER - IV									
Course Code	Course Title	Но	urs / V	Credit	Maximum Marks			Cate	
Code		L	Т	Р		CA	ESE	Total	gory
Theory/Theo	ory with Practical								
4.1	Programming 2	3	0	2	4	50	50	100	ES
4.2	Mathematics 4	3	1	0	4	50	50	100	BS
4.3	Strength of Materials	3	1	0	4	50	50	100	PC
4.4	Thermal Engineering	3	0	0	3	50	50	100	PC
4.5	Kinematics of Machinery	3	0	0	3	50	50	100	PC
Practical / E	mployability Enhancement								
4.6	English Communication Lab	0	0	2	1	50	50	100	HS
4.7	Thermal Engineering and Renewable Energy Laboratory	0	0	2	1	50	50	100	PC
4.8	Material Property Testing Laboratory	0	0	2	1	50	50	100	PC
4.9	Universal Human Values	2	0	0	2	100	0	100	HS
	Total Credits to be earned								

	SEMESTER - V									
Course Code	Course Title	Hours / Week			Credit	Maximum Marks			Cate	
Code		L	Т	Р		CA	ESE	Total	gory	
Theory/Th	eory with Practical									
5.1	Heat and Mass Transfer	3	0	0	3	50	50	100	PC	
5.2	Dynamics of Machinery	3	0	0	3	50	50	100	PC	
5.3	Design of Machine Elements	3	0	0	3	50	50	100	PC	
5.4	Professional Elective - 01	3	0	0	3	50	50	100	PE	
5.5	Open Elective – 01	3	0	2	4	50	50	100	OE	
Practical /	Employability Enhancement									
5.6	Computer Aided Drawing Laboratory	0	0	2	1	50	50	100	PC	
5.7	Heat Transfer Laboratory	0	0	2	1	50	50	100	PC	
5.8	Dynamics Laboratory	0	0	2	1	50	50	100	PC	
5.9	Professional Skills Training 1 / Industrial Training 1 \$				2	100	0	100	EC	
	Total Credits to be earned				21					

^{\$} Professional Skills Training / Industrial Training for a total period of about 80 hr during the period of 4thsem end summer holidays and 5th sem.

SEMESTE	SEMESTER - VI										
Course	Course Title		Hours / Week			Credit	Maximum Marks			Cate	
Code			L	Т	Р		CA	ESE	Total	gory	
Theory/Th	Theory/Theory with Practical										
6.1	Finite Element Analysis		3	0	0	3	50	50	100	PC	
6.2	Metrology and Measurements		3	0	0	3	50	50	100	PC	
6.3	Mechatronics & IoT		3	0	2	4	50	50	100	PC	
6.4	Open Elective – 02		3	0	2	4	50	50	100	OE	
6.5	Professional Elective - 02		3	0	0	3	50	50	100	PE	
Practical /	Employability Enhancement										
6.6	Metrology & Measurements and Automobile Engineering Laboratory		0	0	2	1	50	50	100	PC	
6.7	CAD/CAM Laboratory		0	0	2	1	100	0	100	PC	
6.8	Simulation and Analysis Laboratory		0	0	2	1	100	0	100	PC	
6.9	Professional Skills Training 2 / Industrial Training 2	@				2	100	0	100	EC	
6.10	Project Work 1 Phase I	#	0	0	4	2	100	0	100	EC	
	Total Credits to be earned			•		24					

[@] Professional Skills Training / Industrial Training for a total period of about 80 hr during 5thsem end summer holidays and 6thsem.
#Project Work 1 Phase I (6thsem) shall be continued further as Project Work 1 Phase II (7thsem).

SEMESTE	SEMESTER - VII										
Course	Course Title	Hours / Week			Credit	Maximum Marks			Cate		
Code		L	Т	Р		CA	ESE	Total	gory		
Theory/Th	eory with Practical										
7.1	Engineering Economics and Management	3	0	0	3	50	50	100	HS		
7.2	Open Elective – 03	3	0	0	3	50	50	100	OE		
7.3	Professional Elective – 03	3	0	0	3	50	50	100	PE		
7.4	Professional Elective – 04	3	0	0	3	50	50	100	PE		
7.5	Professional Elective – 05	3	0	0	3	50	50	100	PE		
Practical /	Employability Enhancement										
7.6	Comprehensive Test / Viva		-		2	100	0	100	EC		
7.7	Project Work 1 Phase II \$	0	0	8	4	100	0	100	EC		
	Total Credits to be earned										

\$ Project Work 1 Phase II (7thsem) shall be continuation of Project Work 1 Phase I (6thsem). Courses in SI. Nos. 7.1, 7.2 and 7.3 shall be completed in the first half of the semester. Courses in SI. Nos. 7.4 and 7.5 shall be handled in the second half of the semester. One or both of these two courses can also be completed in 5th semester (fast track). Intern students can study these two courses also through NPTEL/MOOC portals.

SEMESTE	SEMESTER - VIII										
Course Code	Course Title	Hours / Week			Credit	Maximum Marks			Cate		
		L	T	Р		CA	ESE	Total	gory		
Theory/Th	eory with Practical										
8.1	Open Elective – 04	3	0	0	3	50	50	100	OE		
8.2	Professional Elective -06	3	0	0	3	50	50	100	PE		
Practical /	Employability Enhancement										
8.3	Internship / Project work 2 #			12	6	50	50	100	EC		
	Total Credits to be earned										

Internship / Project work for a total period of about 240 hrs.

One or both of the courses in SI. Nos. 8.1 and 8.2 can also be completed in 6th semester (fast track). Intern students can study these two courses also through NPTEL/MOOC portals.

		PROFESSIONAL E	LECTI	/E (P	E)				
S. No.	Course Code	Course Name	L	т	Р	С	Pre- requisites	Sem	Domain/ Stream
		Elective – I							
1.		Fluid Power System	3	0	0	3	Fluid Mechanics, Hydraulic Machines	V	Design
2.		CAD/CAM/CIM	3	0	0	3	Engineering Drawing, Material Removal Processes	V	Design
3.		Gas Dynamics and Jet Propulsion	3	0	0	3	Engineering Thermodyna mics Thermal Engineering	V	Thermal
4.		Refrigeration and Air Conditioning	3	0	0	3	Engineering Thermodyna mics Thermal Engineering	V	Thermal
5.		Unconventional Machining Processes	3	0	0	3	Material Removal Processes, Production Technology Laboratory	V	Mfg.
6.		Design for Manufacture and Assembly	3	0	0	3	Manufacturin g Technology, Engineering Materials and Metallurgy, Material Removal Processes	V	Mfg.
7.		Operations Research	3	0	0	3	Matrices and Differential Equations Multivariable Calculus and Complex Analysis Statistics and Numerical Methods	V	Ind. Engg.
8.		Production Planning and Control	3	0	0	3	Nil	V	Ind. Engg.
		Elective – II							
9.		Design of Transmission Systems	3	0	0	3	Strength of Materials, Design of Machine Elements	VI	Design
10.		Vibration and Noise Control	3	0	0	3	Matrices and Differential Equations Multivariable Calculus and Complex Analysis	VI	Design

						D t		
						Dynamics of Machinery,		
						Strength of		
						Materials		
						Materials Removal		
						Processes		
11.	Production Tool Design	3	0	0	3	Production	VI	Mfg.
						Technology		
						Laboratory		
						Manufacturin		
12.	Manufacturing Information System	3	0	0	3	g Technology, Production	VI	Mfg.
12.	Manufacturing information dystem	J	0	O	J	Technology	٧١	wing.
						Laboratory		
13.	Automobile Engineering	3	0	0	3	Thermal	VI	Thermal
13.	Automobile Engineering)	0	0	3	Engineering	VI	memiai
						Engineering		
						Thermodyna mics,		
						Fluid		
						Mechanics		
14.	Climate Change and New Energy Technology	3	0	0	3	and	VI	Thermal
						Hydraulics Machinery,		
						Heat and		
						Mass		
						Transfer		
15.	Supply Chain Management	3	0	0	3	Nil	VI	Ind. Engg.
16.	Lean Six Sigma	3	0	0	3	Nil	VI	Ind. Engg.
	Elective – III							
17.	Fundamentals of Research	3	0	0	3	Nil	VII	General
						Engineering		
						Materials and		
18.	Piping Design	3	0	0	3	Metallurgy	VII	Design
						Strength of Materials		
						Manufacturin		
						g Technology,		
		_	_	_	_	Strength of		
19.	Design of Jigs, Fixtures and Press Tools	3	0	0	3	Materials,	VII	Design
						Design of Machine		
						Elements		
						Engineering		
20.	Fuels and Combustion Technology	3	0	0	3	Thermodyna	VII	Thermal
						mics Fluid		
						Mechanics		
						and Hydraulic		
21.	Computational Fluid Dynamics	3	0	0	3	Machines,	VII	Thermal
						Heat and Mass		
						Transfer		
						Material		
22.	CNC Technology	3	0	0	3	Removal	VII	Mfg.
						Processes		
						Material Removal		
00	Paraisias Fusion :	_	_	_	^	Processes,	\ (1)	N 46
23.	Precision Engineering	3	0	0	3	Metrology	VII	Mfg.
						and		
						Measurement		

						S		
24.	Total Quality Management	3	0	0	3	Nil	VII	Ind. Engg.
25.	Project Management	3	0	0	3	Nil	VII	Ind. Engg.
	Elective – IV							
26	Mechanics of Composite Materials	3	0	0	3	Engineering Mechanics Engineering Materials and Metallurgy Strength of Materials	VII	Design
27	Advanced Mechanics of Materials	3	0	0	3	Engineering Mechanics Strength of Materials	VII	Design
28.	Turbomachines	3	0	0	3	Thermal Engineering	VII	Thermal
29.	Design of Heat Exchangers	3	0	0	3	Engineering Thermodyna mics, Fluid Mechanics and Hydraulic Machines, Heat and Mass Transfer	VII	Thermal
30.	Additive Manufacturing	3	0	0	3	Manufacturin g Technology Engineering Materials and Metallurgy	VII	Mfg.
31.	Welding Technology	3	0	0	3	Manufacturin g Technology Engineering Materials and Metallurgy	VII	Mfg.
32.	Quality and Reliability Engineering	3	0	0	3	Nil	VII	Ind. Engg.
33.	Industrial Engineering	3	0	0	3	Nil	VII	Ind. Engg.
	Elective – V							
34.	Introduction to Aircraft Systems	3	0	0	3	Engineering Mechanics Fluid Mechanics and Hydraulic Machines Strength of Materials	VII	Design
35.	Industrial Tribology	3	0	0	3	Fluid Mechanics and Hydraulic Machines Design of Machine Elements	VII	Design
36.	Instrumentation in Thermal Engineering	3	0	0	3	Mechatronics and IoT, Metrology and	VII	Thermal

					Measurement s		
37. Energy Auditing and Management	3	0	0	3	Engineering Thermodyna mics, Thermal Engineering, Heat and Mass Transfer	VII	Thermal
38. Modelling and Analysis of Manufacturing Systems	3	0	0	3	Industrial Engineering	VII	Mfg.
39. Micro Electro Mechanical Systems	3	0	0	3	Applied Physics, Engineering Mechanics, Mechatronics and IoT	VII	Mfg.
40. Maintenance Engineering	3	0	0	3	Nil	VII	Ind. Engg.
41. Industrial Safety Engineering	3	0	0	3	Nil	VII	Ind. Engg.
42. Hybrid Vehicle Technology	3	0	0	3	Nil	VII	General
Elective – VI							
43. Entrepreneurship Development	3	0	0	3	Nil	VIII	Ind. Engg.
44. Introduction to Aircraft Structures	3	0	0	3	Engineering Mechanics, Strength of Materials, Design of Machine Elements	VIII	Design
45. Principles of Farm Machineries	3	0	0	3	Automobile Engineering, Manufacturin g Technology	VIII	Design
46. Power Plant Engineering	3	0	0	3	Engineering Thermodyna mics Thermal Engineering	VIII	Thermal
47. Energy Conservation in HVAC System	3	0	0	3	Engineering Thermodyna mics, Thermal Engineering	VIII	Thermal
48. Nanotechnology for Mechanical Engineers	3	0	0	3	Nil	VIII	Mfg.
49. Non Destructive Evaluation Techniques	3	0	0	3	Engineering Materials and Metallurgy Metrology and Measurement s Manufacturin	VIII	Mfg.
50. Industrial Marketing	3	0	0	3	g Technology Nil	VIII	Ind. Engg.
Total Credits to be earned				18			
EMPLOYABILITY ENHANCEM	/IENT	cou	RSE	S (EC)			

S. No.	Course Code	Course Name	L	Т	Р	С	Pre- requisites	Sem	Domain/ Stream
1.		Professional Skills Training 1 / Industrial Training 1	0	0	0	2	Nil	V	
2.		Professional Skills Training 2 / Industrial Training 2	0	0	0	2	Nil	VI	
3.		Project Work 1 Phase I	0	0	4	2	Nil	VI	Design, Thermal, Mfg. and Ind. Engg.
4.		Comprehensive Test / Viva	0	0	0	2	Nil	VII	
5.		Project Work 1 Phase II	0	0	8	4	Nil	VII	Design, Thermal, Mfg. and Ind. Engg.
6.		Project Work 2 / Internship	0	0	12	6	Nil	VIII	Design, Thermal, Mfg. and Ind. Engg.
		18							

* Domain/Stream Abbreviations: Mfg – Manufacturing, Ind. Engg. – Industrial Engineering,

	OPEN ELECTIVE COURSES OFFERED TO OTHER DEPARTMENTS (OE)									
S. No.	Course Code	Course Name	L	Т	Р	С	Pre- requisites	Sem		
		Mechanical Engineering Stream								
1.		Renewable Energy Sources	3	0	2	4	Nil	V		
2.		Design of Experiments	3	0	2	4	Nil	VI		
3.		Fundamentals of Ergonomics	3	0	0	3	Nil	VII		
4.		Principles of Management and Industrial Psychology	3	0	0	3	Nil	VII		
5.		Safety Measures for Engineers	3	0	0	3	Nil	VIII		
6.		Energy Conservation in Thermal Equipments	3	0	0	3	Nil	VIII		

The total credits for the BE (Mechanical Engineering Branch) programme is 169 with the following curriculum breakdown structure:

S.No.	Category			% out of total credits
1.	Humanities and Social Sciences	HS	13	7.69
2.	Basic Sciences	BS	30	17.75
3.	Engineering Sciences	ES	20	11.83
4.	Professional Core	PC	56	33.14
5.	Professional Electives	PE	18	10.65
6.	Open Electives	OE	14	8.28
7.	Employability Enhancement Courses	EC	18	10.65
8.	Mandatory Courses(Induction Programme, Environmental Science)	MC	0	-
		Total:	169	100 %