

#### PAAVAI ENGINEERING COLLEGE

(Autonomous) NH 44, PACHAL, NAMAKKAL-637018

## DEPARTMENT OF MECHANICAL ENGINEERING ACTION TAKEN REPORT- STAKE HOLDERS FEED BACK ON CURRICULUM & SYLLABUS

Academic Year 2021-2022

Date: 13.07.2021

Minutes of Curriculum Development Committee

- 1. To analyse the feedback from various stakeholders.
- 2. To identify the changes regarding content to be added/deleted in curriculum/syllabus.
- 3. To include the constructive changes/recommend in the curriculum or syllabus.
- 4. This has been submitted to Department Advisory Committee (DAC) for further action

Feedback was requested from following Stakeholders

S.No.	Stake Holders	No of feedback form received
1.	Students	140
2.	Teachers	20
3.	Alumni	40
4.	Employer	5

Name of the course	Recommended by	Recommendation	Action Taken
Students Feedback	76.3.1 10.13. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		
Dynamics of Machinery	R.Logendran IV Year	Instead of all governor, include only one governor	Recommendation considered & Forward for the approval of DAC.
Metrology and Measurements	M.Dharshini IV Year	The topic based on Tolerance analysis may be added.	Forwarded suggestion for the approval of DAC.
Heat and Mass Transfer	Yogeshwaran.M IV Year	C.P.Kothandaraman Book to be added in Reference book list.	Forwarded suggestion for the approval of DAC.
Faculty Feedback	and The state		real Continue Continue City
Metrology and Measurements	Dr.S.T.Kumaravel ASP/Mech	Topic "3D scanning for reverse engineering" can be added in Unit 5.	The suggestion is forwarded for the approval of DAC.
Automobile Engineering	M.Vinothkumar Asst.Prof/Mech	A book on "Electric and Hybrid vehicle" by Iqbai Husain may be added in text book section.	The suggestion is forwarded for the approval of DAC.
Design of Transmission Systems	Dr.S.Maniraj Asst.prof/Mech	Topic V belt is followed by Flat belt.	The suggestion is forwarded for the approval of DAC.

Alumni Feedback			
Metrology and Measurements laboratory	Rathna kumar BDA/TMC Measuring Instruments Pvt Ltd	"Surface roughness measurement" experiment may be added.	Forwarded suggestion for the approval of DAC.
Design of Machine Elements	Srinivasan.A/ Trainee/ Sundaram fasteners limited, Chennai	Topic Riveted joints should be included joining process.	Forwarded suggestion for the approval of DAC.
Design of Machine Elements	Rajaguru J/ Quality Inspector/ Newtech Precision Products, Thirumudivakkam,	Topic "Causes of Failure of Bearing" may be added.	Forwarded suggestion for the approval of DAC.
<b>Employer Feedback</b>		discontinuo gerinalisti ees	Consultation of the second section of
Heat and Mass Transfer	Parthaasarathi /Quality/Subavalar Industries Private Limited, Coimbatore	Include one foreign author book in Text book section.	The suggestion is forwarded for the approval of DAC.
Power Plant Engineering	Anand K/ Quality control/ SL Lumax.pvt.in, Chennai	Include plant life cycle maintenance.	The suggestion is forwarded for the approval of DAC.
Dynamics Laboratory	T.Kiran/ Design Engineer/ Hindhuja Tech Ltd, Bangalore	Add on Experiment on Coriolis acceleration	The suggestion is forwarded for the approval of DAC.

S.No	Name of the Member	Designation	Role	Signature
1.	Mr.A.P.Sivasubramaniam	HOD	Chairman/BOS	DO: 12
2.	Dr.K.Sundara Murthy	Dean-Academics	Member	Shy
3.	Dr.M.Makesh	Associate Professor	Member	Jeenh
4.	Dr.M.S.Vijayanand	Associate Professor	Member	MSW
5.	Dr.S.Maniraj	Assistant Professor	Member	S. W

HOD/MECH

PRINCIPAL

### PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

### DEPARTMENT OF MECHANICAL ENGINEERING MINUTES OF THE SEVENTH BOARD OF STUDIES MEETING

(ONLINE MODE)

DATE & TIME: 28.07.2021 & 10.30 AM

#### MEMBERS PRESENT

s.NO	NAME & DESIGNATION	POSITION IN COMMITTEE	COLLEGE / UNIVERSITY / INDUSTRY
1	Mr.A.P.Sivasubramaniam, HoD & Prof / Mech	Chairman	Paavai Engineering College.
2	Dr. K. Shanmuga Sundaram, Prof/ Mech	University Nominee	Department of Mechanical Engineering, Anna University, Chennai-600 025.
3	Dr.K.Jayabal, ASP/ Mech	Academic Expert	Department of Mechanical Engineering, IIITDM, Kancheepuram-600127.
4	Dr.A.Vinoth Jebaraj, ASP/ Mech	Academic Expert	School of Mechanical Engineering, Design & Automation, VIT University, Vellore-632014.
5	Dr.M.Premkumar, Principal		
6	Dr.K.K.Ramasamy, Prof/ Mech		
7	Dr.K.Sundara Murthy, Dean - Academic	Members	Paavai Engineering College
8	Dr.V.Subburam, Prof/ Mech		
9	Dr.M.Makesh, Prof/ Mech		
10	Dr.S.Maniraj, ASP/ Mech		
11	Dr.K.Muruga Bhoopathy, General Manager	Industry Expert	SAIL, Salem.
12	Mr.R.Kavin Sakkaravarthy, Assistant Manager- Fabrication	Alumni	Ammega Belting India Private Ltd., Chennai

#### **AGENDA**

- 1. The Curriculum and syllabus for the 5<sup>th</sup> and 6<sup>th</sup> semester of Regulations 2019 (For the students admitted during the academic year 2019-2020)
- 2. The Curriculum and syllabus for the 3<sup>rd</sup> and 4<sup>th</sup> semester of Regulations 2019 (For the students admitted during the academic year 2020-2021)
- 3. List of one credit and value added courses
- 4. Panel of examiners

#### Suggestions by the members

#### 5<sup>th</sup> SEMESTER

#### 1. ME19501 POWER PLANT ENGINEERING

• Include plant life-cycle maintenance

#### 2. ME19502 HEAT AND MASS TRANSFER

- Remove Holman J.P book in the text book.
- Bring Kothandaraman C.P book as first in the reference.
- In the text book section include one Indian author and one foreign author books.

#### 3. ME19503 DYNAMICS OF MACHINERY

- Topics like 'D'aleberts principle, inertia force, inertia torque may already be there in KOM.
   If overlapping these topic can be removed.
- 'Forced vibration caused by unbalance' can be termed as 'unbalanced forced vibration'.
- In unit 5, instead of all governors, only include one governor type for mechanism understanding purpose. FEA related analysis can be also added.
- Move Rattan, S.S book from text to second reference book.
- Include Mallick and Ghose book either in text or reference section.

#### 4. ME19504 METROLOGY AND MEASUREMENTS

- In unit 1 add topics on ; i) Geometric and dimensioning- symbols ii) Introduction to tolerance analysis.
- In unit 5 add topic on '3D scanning for reverse Engineering'.

#### 5. ME19505 DESIGN OF MACHINE ELEMENTS

- In unit1 do not provide generalized topics like 'Theories of failure'. Instead give two specific titles like Theories of failure for ductile /brittle material.
- In unit 3 the topic 'welded joints subjected to bending, torsional and eccentric loads' can be replaced with 'welded joints subjected to combined loads'.
- Add the topic of riveted joints in unit 3. If it is heavy some contents from welding joints can be removed.
- In unit 4 add spring design for both static and dynamic loading.
- In unit 5 add the topic on 'causes and failures of bearing'. Instead of 'Sliding contact and rolling contact bearings' give rolling contact bearings first then Sliding contact bearing for better sequence of contents..

#### 6. ME19506 DYNAMICS LABORATORY

• If possible add an experiment on 'Coriolis acceleration'

#### 7. ME19507 METROLOGY AND MEASUREMENTS LABORATORY

• If possible Add an experiment on 'Surface roughness measurement' (Profilometer)

#### 6<sup>th</sup> SEMESTER

#### 8. ME19602 DESIGN OF TRANSMISSION SYSTEMS

- In unit1 give flat belt first followed by 'V' belt
- In unit 2 instead of 'Pressure angle in the normal and transverse plane' give virtual spur gear

#### 9. ME19603 AUTOMOBILE ENGINEERING

 A book on 'Electric and hybrid vehicles' by Iqbal Husain should be added in text or reference section.

#### 10. ME19153 COMPOSITE MATERIALS

• In unit5 topics on 'Introduction to smart composites' and 'sandwich structures' can be added in suitable places.

#### 11. ME19252 SMART MATERIALS

- In unit 2,the term 'Smart materials' can be replaced with 'Smart devices'.
- In unit 4 topic on 'two way shape memory effect' can be added.

#### 12. ME19254 PROCESS PLANNING AND COST ESTIMATION

• A book by 'Boothroyd' should be added as it contains more case studies for cost estimation.

#### 13. General Suggestion:

- Mechanical courses should be given four credits instead of mathematics courses.
- 14. In One Credit Courses- The course title 'Fluid Simulation' should be changed as 'Fluid flow simulation'
- 15. Bring 'Integrated Product and Process Development' in seventh or eighth semester. It is an important course for all branches.

The above suggestions were given by the members and approved the syllabi for the 5<sup>th</sup> and 6<sup>th</sup> semester of 2019-20 admitted students, 3<sup>rd</sup> and 4<sup>th</sup> semester of 2020-2021 admitted students of Regulations 2019(CBCS), one credit courses, value added courses and panel of examiners.

Position in the	University	Academic	Academic Expert	Industry Expert	Alumni
committee	Nominee	Expert	Academic Expert	midustry Expert	Alumin
Name &	Dr. K. Shanmuga	Dr.K.Jayabal,	Dr.A.Vinoth	Dr.K.Muruga	Mr.R.Kavin
Designation	Sundaram, Prof/	AP/ Mech	Jebaraj, ASP/	Bhoopathy,	Sakkaravarthy,
	Mech		Mech	General Manager	Assistant
					Manager-
					Fabrication
e-Signature	(Loces)	Inghal.	A.	Zhym J.	R. Kulphung

# PAAVAI ENGINEERING COLLEGE

# (AUTONOMOUS)

# DEPARTMENT OF MECHANICAL ENGINEERING 7th BOS SUGGESTIONS AND IMPLEMENTATION

UG-REGULATIONS 2019.

NAME OF THE COURSE	SEMESTER /YEAR	EXISTING	SUGGESTIONS	STATUS OF IMPLEMETATION
ME19501 Power Plant Engineering	V / THIRD		• Include plant life-cycle maintenance	IMPLEMENTED
ME19532 Heat and Mass Transfer	V / THIRD	Holman J.P book in the text book as second one.     Kothandaraman C.P book as third in the reference section.	Remove Holman J.P book in the text book.     Bring Kothandaraman C.P book as first in the reference.     In the text book section include one Indian author and one foreign author books.	IMPLEMENTED
ME19503 Dynamics of Machinery	V / THIRD	• In unit 5, all governors topic is already available.	• Topics like 'D'aleberts principle, inertia force, inertia torque may already be there in KOM. If overlapping these topic can be removed.  • Forced vibration caused by unbalance' can be termed as 'unbalanced forced vibration'.  •In unit 5, instead of all governors, only include one governor type for mechanism understanding purpose. •Move Rattan, S.S book from text to second reference book.  •Include Mallick and Ghose book either in text or reference section.	IMPLEMENTED
			•FEA related analysis can be also added.	FEA Theory course in 7 <sup>th</sup> Semester
ME19504 Metrology and Measurements	V / THIRD		<ul> <li>In unit 1 add topics on; i) Geometric and dimensioning-symbols</li> <li>ii) Introduction to tolerance analysis</li> <li>In unit 5 add topic on '3D scanning for reverse Engineering'</li> </ul>	IMPLEMENTED
ME19505 Design of Machine Elements	V / THIRD	• In unit 3 the topic  'welded joints subjected to bending, torsional and eccentric loads' is already existed.	<ul> <li>In unit1 do not provide generalized topics like 'Theories of failure'. Instead give two specific titles like Theories of failure for ductile /brittle material.</li> <li>In unit 3 the topic 'welded joints subjected to bending, torsional and eccentric loads' can be replaced with 'welded joints subjected to combined loads'.</li> </ul>	IMPLEMENTED

			· Add the topic of riveted joints in unit 3. If it is heavy some	
			contents from welding joints can be removed.	
			• In unit 4 add spring design for both static and dynamic	
			To unit 5 add the tonic on 'conces and failures of hearing'	
			Instead of 'Sliding contact and rolling contact bearings' give	
			rolling contact bearings first then Sliding contact bearing for	
			ocure sequence of contention.	NOT IMPLEMENTED -
ME19506 Dynamics	V / THIRD		• If possible add an experiment on 'Coriolis acceleration'	Additional Equipment considered for
Tongo and				implementation in future.
ME19507 Metrology			TEnonsitie Add on avnoriment on Surface roughless	NOT IMPLEMENTED -
and Measurements	V / THIRD		measurement' (Profilometer)	considered for
Laboratory				implementation in future.
		• In unit1 'V' belt first	• In unit1 give flat belt first followed by 'V' belt	•
ME19602 Design of	VI/THIRD	followed by flat belt is	• In unit 2 instead of 'Pressure angle in the normal and	IMPLEMENTED
I ransmission Systems		available	transverse plane' give virtual spur gear	
ME19603 Automobile	VI / THIRD		<ul> <li>A book on 'Electric and hybrid vehicles' by Iqbal Husain should be added in text or reference section</li> </ul>	IMPLEMENTED
Engineering				
ME19153 Composite Materials	VI / THIRD		<ul> <li>In unit5 topics on 'Introduction to smart composites' and 'sandwich structures' can be added in suitable places.</li> </ul>	IMPLEMENTED
			• In unit 2, the term 'Smart materials' can be replaced with	
ME19252 Smart	VI / THIRD	• In unit 2,the term 'Smart materials' is	'Smart devices'.	IMPLEMENTED
Materials		already existed	In unit 4 topic on two way snape memory effect can be added.	
ME19254 Process	Garrier, wy		• A book by 'Boothroyd' should be added as it contains more	· IMPI FMFNTFD
Flaming and Cost Estimation	VI/ IHIKD		case studies for cost estimation.	
ME19957 Fluid Flow Simulation		Fluid Simulation	• In One Credit Courses- The course title 'Fluid Simulation' should be changed as 'Fluid flow simulation'	IMPLEMENTED

