

Dr.Mahalingam College of Engineering and Technology, Pollachi (An Autonomous Institution affiliated to Anna University) Department of Automobile Engineering

Minutes of 16thBoard of Studies

Mode: Online through Microsoft Teams Date: 02.04.2021 Time: 11.00 AM

Members Attended:

S. No	Name	Designation and Affiliation	Category	Nature
1	Dr. Sunil S.R.Gangolli	Professor & Head, Department of Automobile Engineering, MCET, Pollachi	Chairman	Head of the Department
2	Dr. G. Sakthinathan	Associate Professor Department of Automobile Engineering MIT Campus Anna University Chennai 600 044	University Nominee	Associate Professor
3	Dr. R. Subramanian	Professor & Head Automobile Engineering IRTT, Vasavi College Post, Erode 638 316	Academic Expert	Professor & Head
4	Mr. N.Aravind Krishna	Design Engineer, Ford Global Technology and Business Center Chennai	Alumni & Industry Representative	Design Engineer
5	Dr. KarthickJayaram	Associate Professor, Dept. of Automobile Engg, Dr. MCET	Convenor	Program Coordinator of the Dept.
6	Dr. D.Shanmugam	Associate Professor , Dept. of Automobile Engg, Dr. MCET	Faculty	Faculty Member of the Dept.
7	Dr. M.Selvakumar	Associate Professor , Dept. of Automobile Engg, Dr. MCET	Faculty	Faculty Member of the Dept.
8	Dr. S.K.Ashok	Assistant Professor(SS), Dept. of Automobile Engg, Dr. MCET	Faculty	Faculty Member of the Dept.

9	Mr. G.Janakiraman	Assistant Professor, Dept.of Automobile Engg, Dr. MCET	Faculty	Faculty Member of the Dept.
10	Mr. N. Praveenkumar	Assistant Professor, Dept.of Automobile Engg, Dr. MCET	Faculty	Faculty Member of the Dept.
11	Mr. S. Arulkumar	Assistant Professor, Dept.of Automobile Engg, Dr. MCET	Faculty	Faculty Member of the Dept.
12	Mr. S. Sathishkumar	Assistant Professor, Dept.of Automobile Engg, Dr. MCET	Faculty	Faculty Member of the Dept.
13	Mr. T. Palaniappan	Assistant Professor, Dept.of Automobile Engg, Dr. MCET	Faculty	Faculty Member of the Dept.

Discussed and recorded are:

Details:	
2016 Regulation (Ratification)	Discussed about the inclusion of the following two Professional ElectiveSubjects
	1. Fleet Management, and
	2. Telematics for Transport
	 External experts expressed that the number of credits in 2019 were reduced compared with 2016. We have informed that we are following around 160 credits of AICTE Model Curriculum
2019 Regulation	2. Suggestions:
Curriculum	More number of Electric Vehicle Technology based courses can be added in the curriculum.
	Some of the automotive electrical and electronics based courses and automobile telematics based courses which are offered as Professional Electivescan be offered as core subjects in the curriculum.
*	Specific Manufacturing Technology based courses, like Additive Manufacturing, need not be offered, rather we can offer a course which covers all modern manufacturing technologies.
,	Autonomous Vehicles based courses can be added.
	C++ programming based course can also be included in the curriculum as a Professional Elective.
	One or two more subjects may be added to Sem VIII to include some of the above.
	 New OCC "Electronics and Microprocessors" was discussed and has been apprived for inclusion in R2019.

	Applied Thermodynamics and Heat Transfer (Sem 5)
	Suggestions given:
Syllabus 2019 Regulation- Sem V & VI	 Course title to be renamed as Engineering Thermodynamics and Heat Transfer
	 The word Heat exchanger can be removed from the title of
* *	Unit 1 and the contents of Unit 1 can be redefined.
	 Unit 2 contents can be redefined.
	 Unit 5 contents can be redefined and radiation can be moved
	to the start of the Unit 5.
	Automotive Embedded System(Sem 5)
	Suggestions given:
	Unit 5 Title can be redefined as topics mentioned are related to vehicle stability.
	Vehicle Maintenance Laboratory(Sem 5)
	Suggestions given:
	Experiments related to electric vehicles maintenance can be
	added in the syllabus.
	> The 9 th experiment can be redefined as measurement and
	checking of camber
	Data science(Sem6)
	Suggestions given:
	The contents of Unit 1 & 2 can be redefined since there is
2 22	repetition of contents related to python programming which
	is already offered as a course- Problem Solving using PYTHON
	in Sem V.
	Automotive Chassis and Transmission(Sem6)
	Suggestions given:
	Content related to transmission for electric vehicles can be included
	> The lecture hours for the theory part of the course can be
	increased to 45 hours since the syllabus content is heavy
	> The content related to frames in Unit3 can be transferred to
	Unit 1
	The contents related to suspension system in Unit 3 and
1441 27 SE	steering system in Unit 4 can be integrated into one unit.
	Laboratory experiments of the course can be offered as a separate practical course.
Alumni & Industrial Expert	> The courses AI &ML, Data Science, Problem Solving using
eedback	PYTHONand OCC courses offered in the 2019 regulation
	curriculum are appreciable and more effective for students
* **	since these courses are the future technology and will grab more placement opportunities.

UGC-Skill Based Education under National Skills Qualifications Framework

The curriculum and syllabus for the Certification Program in Automobile Service Technician(Four wheeler) 30 credit and Diploma Program in Automobile Service Technician (Four Wheeler and Two Wheeler)60 credit were presented and approved by the BoS members.

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Verified by:

Approved by (Chairman): Solangolli

(Dr. SUNIS.R. GANGOLLI)



Dr.Mahalingam College of Engineering and Technology, Pollachi

(An Autonomous Institution affiliated to Anna University) Name of the Board - Mechanical Engineering Board of Studies Meeting - Minutes

Mode	Online (Through MS Teams)
Date	: 27.03.2021
Time	: 10.30 am to 12.30pm

Members present

SI. No.	Name & Designation	Official Address	Specialization
1	Dr.I.Rajendran Sr. Professor and Head	Dept. of Mechanical Engg, MCET, Pollachi.	M.E., Ph.D, FIE
2	Dr.Rama Thirumurugan Professor	Dept. of Mechanical Engg, MCET, Pollachi.	M.E., Ph.D
3	Dr.R.Manivel Professor (University Nominee)	Dept. of Mechanical Engg, Kumaraguru College of Technology, Coimbatore.	M.E., Ph.D
4	Dr.M.C.Lenin Babu, Associate Professor (Academic Expert)	School of Mechanical and Building Science, VIT Chennai	M.E., Ph.D
5	Dr. Kulasekharan Narasingamurthi (Industry Expert)	Metier Simulation Manager Valeo India Private Limited, Chennai	M.E., Ph.D
6	Mr.ArunKumar, (Alumni and Industry Expert)	CEO SKYROPTER INDIA IIT Madras Research Park, Tharamani, Chennai.	B.E,M.S (IITM)
7	Mr.P. Arunprasad (Alumni and Industry Expert)	Senior Technical Leader - Methods & Automation, LM Wind Power. Bengaluru	ME - CAD
8	Dr. S.Ayyappan Associate Professor	MCET	M.Tech., Ph.D
9	Dr.R.Gnanaguru Associate Professor	MCET	M.E., Ph.D
10	Dr.D.Nathan Associate Professor	MCET .	M.E., Ph.D

11	Dr.S.Madhusudhanan Assistant Professor(SS)	MCET	M.E., Ph.D
12	Dr.T.Ramkumar Assistant Professor(SS)	MCET	M.E., Ph.D
13	Dr,K.Hariharan Assistant Professor(SS)	MCET	M.E., Ph.D
14	Dr.N.Shanmuga Sundaram Assistant Professor(SS)	MCET	M.E., Ph.D
15	Dr.N.Vinayaga Muruga Pandy Assistant Professor	MCET	M.E., Ph.D
16	Mr.R. Bharathiraja Assistant Professor	MCET	ME - Thermal
17	Vivek P (17BME097) Prajwal K P	MCET	Engineering B.E Mechanical Engineering (Student)
8	(18BME092)	MCET	B.E Mechanical Engineering (Student)

Points Discussed:

S.No.	Items	Points discussed and conclusions
Welco	me	
1	Minutes of department meeting on Curriculum	The minutes of the meeting dated 11.02.2021 and 23.03.2021 of course development were presented. The copies of the minutes are enclosed in Annexure I. Members have expressed satisfaction about the meetings and appreciated the department effort put into course development.
2	Report on stakeholders expectation	Report based on the survey with alumni, students, parents employers and academicians inputs for the curriculum was presented; Members agreed with the inclusion of the following courses in the curriculum based on the views expressed by the stakeholders 1. Courses on Automotive Telematics 2. Industrial Safety Engineering 3. Entrepreneurship Development The report based on the survey is enclosed in Annexure II
3	Statutory Bodies requirements	The credit comparisons of the AICTE 2018 model curriculum, 2016 CBCS curriculum and 2019 Regulation of the B.E. Mechanica Engineering Programme were presented. Members unanimously agreed to the implementation of the features of the AICTE 2018 model curriculum in the current regulations.
4	Curriculum Structure Modification New Course Introductions Courses recommended by industry	The curriculum of 2019 of B.E. Mechanical Engineering and new emerging elective courses were presented. The curriculum of 2019 of B.E. Mechanical Engineering is enclosed in annexure III. There were no major structural modifications in the curriculum presented. The following new elective courses are introduced based on requests from the industry were presented: B.E. Mechanical Engineering 2016 1. Embedded System Design and Development 2. Prototype Development B.E. Mechanical Engineering 2019 1. Problem Solving using PYTHON

		2. Data Science
		3. Artificial Intelligence and Machine Learning
		4. Product Life Cycle Management
		5. Industrial IoT
		6. Augmented Reality & Virtual Reality
		 Data Structures and Object Oriented Programming with C++ Java Programming.
		Members have unanimously approved the UG curriculums.
		Members persuade the syllabus of all the courses offered in V and
		VI semester for B.E. Mechanical Engineering. The syllabus of the courses of 2019 of B.E. Mechanical Engineering is enclosed in Annexure IV. Members made the following recommendations; General
		Industry oriented projects can be given for both faculty and students for programming subjects.
		B.E. Mechanical Engineering 2019
		2. In the Applied Thermodynamics course, the prerequisite has
		to be modified, since some of the fundamental
		thermodynamics concepts are there in 19PHBC2101- Physics for Mechanical Sciences, so it can be included as a
5	Syllabus discussion of	prerequisite.
J	Courses	 The textbook in Applied Thermodynamics course has to be modified by replacing the Thermal Engineering by Sarkar B.K. with Thermal Engineering by R.K.Rajput.
		 For the Electrical and Electronics Engineering course, the content for Unit II- Electrical Machines has to increase by adding some content like an electric motor for Electric Vehicles.
		 In Problem solving using PYTHON course, the programming complexity can be increased in the lab component by including the practical application.
		6. Tutorial can be included in Heat and Mass Transfer course.
		(L:T:P Structure 2:1:2)
		7. In the Computational Fluid Dynamics course, Physics for

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		mechanical sciences has to be included as a prerequisite.
		8. In the Composite Material course, Failure Theories and the
		design of composite parts can be included.
		9. In Industrial IoT Course the course outcome level can be
		increased from lower level to higher level.
		10. Faculty may be ensured Qualifying Certification on Data
		Science course which could help the faculty to deliver the
		course with improved confidence.
		Based on the recommendations, the changes were incorporated in
		the respective course content.
	Skill Davolanmant	The list of Skill Development courses and their content were
6	Skill Development	presented to the members and unanimously agreed to the
	Courses	implementation as part of the Internship of IV semester.
-	Online Courses offered	The list of Online courses and their content were presented to the
7	by NPTEL/SWAYAM	members and unanimously agreed to the implementation of the
	J III ILDOVATAM	online courses in the curriculum for V and VI semester.
	Employability Skills	The content of the courses Employability Skill I & Employability Skill
8	Courses	II for V and VI semesters were presented to the members and
	Courses	approved.
9	Open Elective Courses	List of Open Elective courses and their content were presented to
	Open Liective Courses	the members and approved.
10	Programming Courses	Two Programming courses introduced as an elective and their
	Programming Courses	content were presented to the members and approved.
		Curriculum and Syllabus for Welding Certification Programme (6
	UGC - Skill Based	Months/30 Credit) and Diploma Programme (1 Year / 60 Credit) is
11	Education under NSQF	presented to BoS members for their suggestion and members
	Education under MSQP	approved the curriculum and syllabus for the Welding Certification
	L.	Program

Prepared by

Dr.T.Ramkumar

Verified by

Dr.Rama Thirumurugan

Approved by

Dr.I.Rajendran

(Chairman)



Dr. Mahalingam College of Engineering and Technology, Pollachi

(An Autonomous Institution affiliated to Anna University)

CIVIL ENGINEERING

Minutes of XIII Board of Studies (online mode)

	Venue	DEPARTMENT LIBRARY A421	Date	29.03.2021	Time	12.00 Noon
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SI. No.	Name	Designation and Affiliation	Category	Nature
1	Dr. R. Venkatasubramani	Professor & Head, Department of Civil Engineering, MCET, Pollachi	Chairman	Head of the Department
2	Dr. R. Saraswathi	Professor, Department of Civil Engineering, Coimbatore Institute of Technology, Civil Aerodrome Post, Coimbatore - 641014	Subject Expert	Nominated by University
3	Dr. P. Vinayagam	Professor, Department of Civil Engineering, Coimbatore Institute of Technology, Civil Aerodrome Post, Coimbatore - 641014	Subject Expert	Nominated by Academic Council
4	Dr. G. S. Venkatasubramani	Proprietor , S G Structural Engineers No. 53, M. A. Palani Swamy Street, Saibaba Colony, KK Pudhur, Post, Coimbatore - 641 038,	Industry Expert	Industry
5	Er. A. Arun	Senior Engineering Consultant, L&T Infrastructure Engineering Ltd, TC-2 Building 3 rd Floor, Mount Poonamalle Road, Manapakkam, Chennai - 89	Alumni Representative	Industry/Corpor ate/Allied

6 All Faculty members	Professor, Associate Professor, Assistant Professor (SG), Assistant Professor (SS) and Assistant Professor	Faculty	Entire faculty members of the Department and two faculty from Science and Humanities
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Discussed and recorded are:

Dr. R. Venkatasubramani, Head of the department, civil engineering and chairman of BoS welcomed the members for the meeting.

S.No.	Items	Points discussed and conclusions	
1.	Minutes of Department Meeting on Curriculum	Then Mr. S. Krishnakumar, Convenor, BOS presented the syllabus framed for the 2019 regulation (V and VI semester) 2019 Curriculum structure of UG and PG PO's of PG programme Placement statistics In plant and internship details	
2.	Report on Stakeholders Expectation	 The reports of stakeholders are as follows: Online courses can be encouraged with the concern of courses taught in the regular curriculum Dr. G. S. Venkatasubramani and Er. A. Arung emphasized the importance of providing exposure to the students on the practical applications of the theory taught in the class. Dr. R. Saraswathi and Dr. P. Vinayagam suggested the following corrections in the syllabus framed for the 2019 regulation (V and VI semester) 	
3.	Statutory Bodies requirements	Two online courses has to be provided in V and VI semester as programme electives either from NPTEL or SWAYAM	
4.	Curriculum Structure Modification New Course Introductions Courses recommended by Industry	Two online courses has to be provided in v and vi semester programme electives either from NPTEL or SWAYAM The recommendations by the members for the followi courses are as follows: 1. Geology should be kept as the last unit of Soil Mechan course 2. In Design of RC Structures, • the types of water tanks should be clearly mention as square, circular and rectangular • Unit 4 is very heavy and in Unit 1 design of bear should have torsion component included • Safe bearing capacity and pressure distribution water tanks should be taught in DRCS. • Concept of substitute frame method and introduction to bridges should be kept in DRCS cour 3. Environmental engineering • Unit 5 is heavy and should be reduced. • Aeration in unit 5 should be crisp	

 Sources of water to be included in Uni Hydrology component in unit 1 is to be Quantity and transportation can be clue Unit 4 is alright In unit 5, only description without any In steel structures course, the phracolumns" should be removed 	e deleted ubbed as unit 2 design aspects
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 In unit 5, only description without any In steel structures course, the phra 	
4. In steel structures course, the phra	
5. Concept of deflection checking should be	e mentioned in
the steel and concrete courses	
6. In BD lab, pre-engineered structures shou	ıld be included
7. In CADD lab, design of retaining walls wit	
be checked as some of the features are	not available in
the new version	
8. Advanced concrete structures course	is very heavy.
Syllabus has to be reduced and some of	of the units like
design of silos and bunkers should be	
Syllabus. Substitute frame method should	
9. In air pollution monitoring some conc	epts should be
introduced in each unit.	
 In unit 1 stack sampling has to be intro 	
 In unit 2, inversion and air quality mod 	delling has to be
introduced.	
 In unit 3, theory and working of ea 	quipments only
should be mentioned.	
 In unit 4, National ambient air qu 	
should be mentioned along wit	th air quality
management in India.	
In unit 5, control of noise at source ar	
protection of exposed people should b	
10. In industrial structures course, the aerobi	
treatment process should be mentioned s	
11. In Maintenance and rehabilitation of stru	
experts should be involved. ICI docume included in the references	ents should be
	des instrument
12. In Municipal solid waste management, t concept should be included.	ne incineration
13. In QAQC, the site checklist should be inclu	dod
14. In safety in construction, the experts	
should be involved.	from the field
15. Electronic surveying course has been repe	hated
16. Total marks in the 8 th semester have	
mentioned.	Seen wrongly
The meeting ended with vote of that	nks by Dr N
Natarajan.	by Di. IV.
e. Since online made of teaching is going on a	nore number of
4 live / animated videos if possible can be show	
Evaluation Techniques One of the committee members suggested	0.000

S.No. Items		Points discussed and conclusions		
	6	more NPTEL online courses for students. He appreciated that faculty are taking up NPTEL courses		
5.	Examiners Panel List(External and Internal)	 Examiners Panel List (External and Internal) for setting question paper and evaluation were presented and approved by the members. 		
6.	Research Activities	The research activities must be enhanced.		
7.	Extension activities(Training to outsiders, Seminar /Conference/Workshop organized, Setting up the new laboratory, industrial visit etc) • Accomplished • Proposed	 It is proposed in the meeting to have following training to the student as follows: Training on STADD Training on welding Training on ANSYS Training on field oriented activities Training on open source software's 		

BoS Convenor:

S. Krishnakumar

Approved by (Chairman): Dr.R. Venkatasubramani

Dr.Mahalingam College of Engineering and Technology (An Autonomous Institution) Pollachi – 642 003 Department of Electrical and Electronics Engineering

Minutes of Meeting-13th Board of Studies

Date of Conduct: 10th April 2021

Mode of Conduct: MS Teams (online)

Time: 10.00 am to 12.30 pm

Members attended:

External Experts:

S.No	Name	Official Address	Category
1.	Dr.A.Senthilkumar	Senior Professor and Head, Dept of EEE.	BoS Chairman
		External Members	
		University Nominee	
2.	Dr.P.Venkatesh	Professor, Department of EEE, Thiagarajar College of Engineering, Madurai	University Nominee
3.	Dr.S.Vasantharathna	Professor and Head, Department of EEE, Coimbatore Institute of Technology, Coimbatore	Subject expert
4		Industrial Expert	
4.	Dr.P.Rajkumar	Project Manager, Robert Bosch Engineering and Business Solutions Limited, Coimbatore- 641 03	Industrial Expert
		Alumni	4
5.	Ms.Sreedevi Sundararajan	Project Lead, ARRIS Group Pvt Ltd, Bangalore	Alumni and Industrial Expert

Internal Members:

S.No	Name	Official Address
1.	Dr.V.Lakshminarayanan	Professor /EEE
2.	Dr.A.Sakthivel	Associate Professor /EEE
3.	Dr.M.Kaliamoorthy	Associate Professor /EEE
4.	Dr.K.Balamurugan	Associate Professor /EEE
5.	Dr.J.Amudha	Associate Professor /EEE
6.	Dr.B.Vinothkumar	Associate Professor /EEE
7.	Dr.K.Umamaheswari	Assistant Professor (SG)/EEE
8.	Dr.L.Chitra	Assistant Professor (SG)/EEE
9.	Dr.B.Kishore	Assistant Professor (SS)/EEE
10.	Mr.R.Muthubharathi	Assistant Professor (SS)/EEE
11.	Ms.K.Saranya	Assistant Professor /EEE
12.	Mr.J.Senthilkumar	Assistant Professor /EEE
13.	Mr.M.Saravnakumar	Assistant Professor /EEE
14.	Mr.T.Annadkumar	Assistant Professor /EEE
15.	Mr.C.Kannan	Assistant Professor /EEE
16.	Ms.K.Durgalakshmi	Assistant Professor /EEE
17.	Mr.D.Gnanaprakasam	Assistant Professor /EEE
18.	Mr.M.Prabhu Raj	Assistant Professor /EEE
19.	Mr.T.Sathesh Kumar	Assistant Professor /EEE
20.	Ms.D.Suganyadevi	Assistant Professor /EEE
21.	Dr.K.Rameshkumar	Assistant Professor /EEE
22.	Ms.A.Suganya	Assistant Professor /EEE
23.	Mr.J.Nagarajan	Assistant Professor /EEE
24.	Dr.N.Yogambal Jayalakshmi	Assistant Professor /EEE
25.	Ms.T.Nandhini	Assistant Professor /EEE

Agenda:

- Revised Curriculum for 2019 regulations and Syllabi of Semesters V & VI (Updated with inputs of 12th BoS held on 2nd April'2020)
- Dr.A.Senthilkumar- HoD/EEE welcomed all and expressed his gratitude for joining through online mode for BoS
- The curriculum and Syllabi of UG and PG was presented by Dr.J.Amudha-BoS Convener
- Discussion on Program Outcome Assessment for 2015-2019 BATCH by Dr.M.Kaliamoorthy/ Associate Professor / Program Coordinator/EEE
- Dr.K.Balamurugan /Associate Professor /EEE thanked all for their valuable suggestions and inputs.

Points Discussed:

S.No.	Items	Points discussed and conclusions		
1.	Vision/Mission/PO/PSO	Presented the Vision and Mission statement of Dr.MCET and EEE department followed by PO, PSO statements of EEE. Presented the 2019 curriculum and compared the same with the AICTE curriculum		
		Members inspected the presented syllabus of all the courses of Semester V & VI of B.E EEE as part of presentation is enclosed in annexure. Semester-V		
2.	Syllabus discussion of Core Courses	Generation, Transmission and Distribution Members expressed their view to concentrate topics in Generation and then Transmission and Distribution separately. Due to availability		
		of separate course for Renewable Energy Resources they are satisfied with the syllabus. Python Programming Alumni expressed her view to add MINIPROJECT in Lab to focus on areas that involve Machine Learning, Artificial Intelligence etc. Simple		
		projects in Electrical and Electronics Part can be incorporated in experiments Digital Signal Processing Members expressed to provide tutorials in		

Linear Integrated Circuits Members expressed their view to add Introduction to Delta Sigma Converters Integrated Circuits Laboratory Members expressed satisfaction on the syllabus. Employability Skills Members appreciated the syllabus as it is the need of the day. Semester VI Power Electronics Members expressed their view to add datasheet to make the selection of device. Control Systems Members expressed their view to add applications if possible Microprocessor and Microcontroller Members expressed their view to add 32 bit microcontroller as most of the automotive system uses it. Power Electronics Laboratory Members expressed satisfaction on the syllabus. Career Planning and Guidance Members expressed satisfaction on the syllabus. Career Planning and Guidance Members expressed satisfaction on the syllabus. Digital Control of Power Electronics Members expressed satisfaction on the syllabus. High Voltage Engineering Members expressed satisfaction on the syllabus. HyDC Transmission Members expressed satisfaction on the syllabus. Power Domain Electives Renewable Energy Members expressed satisfaction on the syllabus. Power Electronic Applications to Renewable Energy Members expressed satisfaction on the syllabus. Power Quality Members expressed satisfaction on the syllabus. Smart Grid Members suggested to add Micro-grid and digital protective schemes Switched Mode Power Supplies Members expressed satisfaction on the syllabus. Special Electrical Machines		1	MATLAB tool
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Members expressed satisfaction on the syllabus.			Special Electrical Machines
	1		Members expressed satisfaction on the syllabus.

Computer Aided Design of Electrical Apparatus

Members suggested to add DC motor design aspects

Power Electronic Applications in Power Systems

Members expressed satisfaction on the syllabus. Electrical Energy Utilization and Conservation

Members expressed satisfaction on the syllabus.

Protection and Switchgear

Members expressed satisfaction on the syllabus. **Electrical Machine Design**

Members expressed satisfaction on the syllabus. **Energy Auditing and Conservation**

Members expressed satisfaction on the syllabus. Flexible AC Transmission Systems

Members expressed their view to add FPGA based GIS

Members expressed satisfaction on the following syllabus.

- Advanced Power System Protection
- Power System Reliability
- Distributed Generation and Micro Grid
- Transient in Power System
- Deregulated Power System
- Energy Storage Systems
- Electric and Hybrid Vehicles

Design Domain Electives

Members expressed satisfaction on the following syllabus.

- Advanced Microprocessors
- Embedded System Design
- Digital Image Processing
- Communication Engineering
- Computer Architecture
- Industrial Data Communication Networks
- VLSI Design
- CMOS Analog IC Design
- Testing of VLSI Circuits

- ASIC Design
- Low Power VLSI Design
- Micro Electro Mechanical Systems
- Hardware Description Language

Illumination Engineering

Members expressed their view to include Green Building Standard, Indoor and outdoor stadium design.

Control Domain Electives

Members expressed satisfaction on the following syllabus.

- Industrial Automation
- Automotive Electronics
- Industry 4.0
- Virtual Instrumentation
- Quality Engineering
- Power Plant Instrumentation
- Industrial Safety

Software Domain Electives

Members expressed satisfaction on the following syllabus.

- Data Base Management System
- Data Mining And Analytics
- Software Testing
- JAVA Programming

Management and Basic Science Electives

Members expressed satisfaction on the following syllabus.

- Principles of Management
- Engineering Economics and Cost Analysis
- Disaster Management
- Systems Approach for Engineers
- Discrete Mathematics
- Operations Research

		PG- Embedded System Technologies The Curriculum and Syllabi including 12thBos points was presented. Members expressed satisfaction on the Curriculum and Syllabus.
4	Amendments in 2016 Regulation	 Syllabus of Applied Design Thinking is presented for amendment Members expressed satisfaction on the syllabus.

Prepared by Ms.K.Saranya

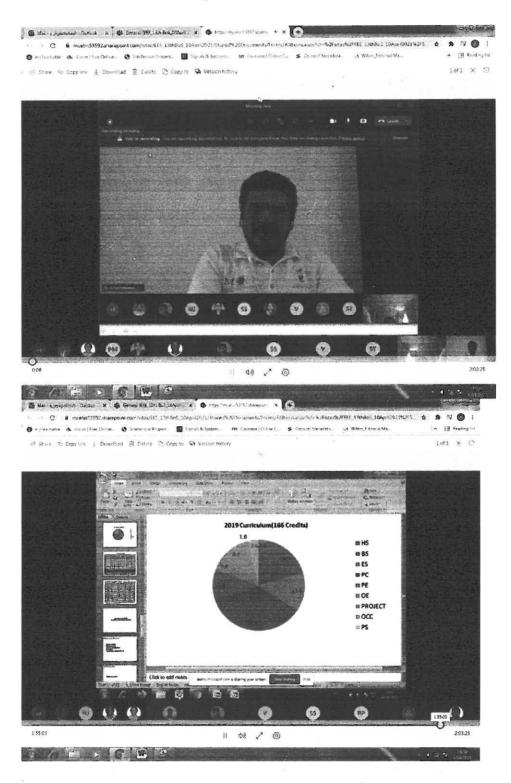
Verified By Dr.J.Amudha

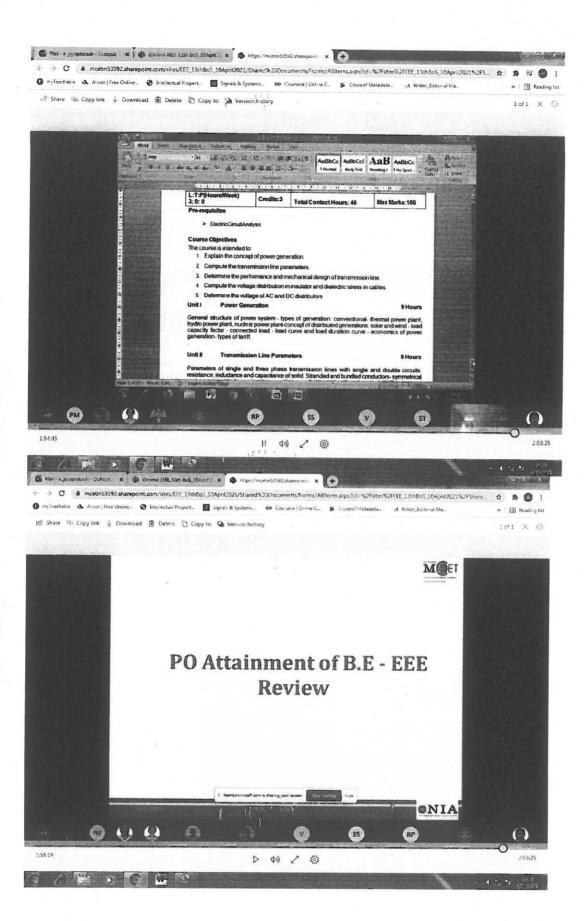
Approved by HOD/EEE

Snapshots of 13th BoS

Date of Conduct: 10th April 2021 Mode of Conduct: MS Teams (online)

Time: 10.00 am to 12.30 pm







Dr. Mahalingam College of Engineering and Technology, Pollachi

(An Autonomous Institution affiliated to Anna University)

Name of the Board <u>ECE</u>

Minutes of 13th Board of Studies

Venue	Via Vidoo conformation	-			
venue	Via Video conferencing	Date	27/03/2021	Time	10 AM

Members:

S.No.	Name& Designation	Official Address	
		Chairman	
1.	Dr.R.Sudhakar,		
	Professor & Head,	HoD, Department of ECE, MCET	
		Convener	
2.	Dr.V.K.Sudha, Professor	Department of ECE, MCET	
	Ex	ternal Members	
		iversity Nominee	
3.	Dr. C. Shanthi,	ECE Department,	
	Professor and Head	GCT, Coimbatore	
	A	cademic Expert	
4.	Dr. D.Sivaraj	Department of ECE	
	Assistant Professor (Sr.Gr)	PSG College of Technology, Coimbatore	
	Ir	ndustry Expert	
5.	Mr.K.Mohan	Platform & Diagnostic Engineering CISCO	
	Technical Leader	systems, Bangalore	
6.	Mr.G.Vijayanad	EmbDes Technologies, Bangalore	
7.	Mr.Narayanan	Pico systems, Coimbatore	
		Alumni	
8.	Ms.R.S.Abinaya	Robert Bosch, Coimbatore	

Meeting attendance List

Full Name	User Action	Timestamp
Kannapiran B	Joined	3/27/2021, 9:52:21 AM
sbharathi	Joined before	3/27/2021, 9:52:21 AM
sherinejenny	Joined before	3/27/2021, 9:52:21 AM
hod_ece@drmcet.ac.in	Joined before	3/27/2021, 9:52:21 AM
Senthilarasi M	Joined before	3/27/2021, 9:52:21 AM
Vijay (Guest)	Joined	3/27/2021, 9:53:14 AM
NIVETHA R	Joined	3/27/2021, 9:53:33 AM
RAJA RAJESHWAR K C	Joined	3/27/2021, 9:53:41 AM
DHARANI S	Joined	3/27/2021, 9:55:08 AM
GAYATHREE K	Joined	3/27/2021, 9:55:12 AM
parthiband	Joined	3/27/2021, 9:55:20 AM
sudhashree	Joined	3/27/2021, 9:55:42 AM
kalamec	Joined	3/27/2021, 9:56:53 AM
Abinaya R S (Guest)	Joined	3/27/2021, 9:58:30 AM
anandg	Joined	3/27/2021, 9:58:44 AM
ssugunavathy	Joined	3/27/2021, 9:58:49 AM
SARAVANAN S	Joined	3/27/2021, 10:00:09 AM
Sathiyapriya T	Joined	3/27/2021, 10:01:17 AM
nsugirtham	Joined	3/27/2021, 10:01:24 AM
Dr.C.Santhi (Guest)	Joined	3/27/2021, 10:01:29 AM
Gurunathan V	Joined	3/27/2021, 10:02:05 AM
Gokul Anand K R	Joined	3/27/2021, 10:04:06 AM
mohankumar	Joined	3/27/2021, 10:04:55 AM
\Narayanan - PicoCircuits (Guest)\""	Joined	3/27/2021, 10:05:00 AM
thilagavathi	Joined	3/27/2021, 10:09:56 AM
VIJEYAKUMAR	Joined	3/27/2021, 10:16:53 AM
senthilmeest	Joined	3/27/2021, 10:19:51 AM
Kalaiselvi S	Joined	3/27/2021, 10:31:15 AM
SIVARAJ (Guest)	Joined	3/27/2021, 10:34:52 AM
Mohan K (Guest)	Joined	3/27/2021, 10:43:28 AM

Discussed and recorded are:

S.No.	Points discussed and conclusions
1.	Minutes of Department Meeting on Curriculum Meeting on curriculum(2019R Regulation) was held on 20.10.2020. Discussion was made on the proposed curriculum structure -2019R,courses on emerging area, Open electives, Professional electives, One credit courses, MNC and internship. Staff members were nominated for the domain wise syllabus preparation and meetings were held domain wise to finalize the syllabus on 08.03.2021. Discussion was made on 08.03.2021 regarding open elective courses.
2.	Report on Stakeholders Expectation • Experts recommended to encourage the students to learn by doing projects . Experts felt that this will create interest in their learning.
3.	The curriculum was designed according to the proposed structure Syllabus was prepared as per the AICTE model .
4.	 Structure Modification A common structure (UG) was proposed in the standing committee and the curriculum has been framed accordingly. New Course Introductions Consumer Electronics and Internet of Everything are to be offered as new open elective Courses recommended by Industry VLSI system design was framed based on the suggestions from Tessolve semiconductor Pvt. Ltd
	Syllabus of courses B.E. Electronics and Communication Engineering
	Semester V
5.	 Control Systems Unit II Time Domain Analysis :PID control systems-Applications related to industry can be added Analog and Digital Communication
	 Experts felt that Analog and digital communication as a single subject cannot make the students to gain more information 4G,5G technology, Noise problem can be addressed

Data Science Laboratory

- Experts questioned whether the syllabus framing is aligned to ECE students and the same was ensured by the internal expert.
- Internal expert confirmed that hands on is planned for better understanding as a prelude when questioned about their level of understanding to other language studied in their earlier semesters.

Analog and Digital Communication Laboratory

 Experts insisted to focus more on communication engineering in depth and students need more communication knowledge

Semester-VI

VLSI System Design

 Internal Expert answered that the syllabus is framed on placement perspective and topics on stuck at faults is in VLSI testing course which is offered as an elective for a question by an expert regarding the topic.

Microcontroller and its interfacing techniques

- Experts suggested to include an introduction to 8 bit processors
- Unit 1: Architecture of 8-Bit Microcontroller (8051)-External memory can be removed as it is of least importance in Embedded systems

Microcontroller Laboratory

- Ex 1 Single and multi-byte Arithmetic operation using 8051 can be more specific as Addition, Subtraction, Multiplication and Division and can be taught as two different experiments.
- Experts suggested to concentrate more on Assembly language programming
- Experiment on sorting can be included
- Experts suggested to use interrupts for either time delay program or serial communication program

Elective

Bio-Medical Electronics

- Processing of bio medical signals can be included
- Noise filtering and Removing techniques can be included
- Recent adaptive algorithms may be included

Speech and Audio Processing

Unit IV: Acoustics of speech signal can be included

Internship & Skill development courses

- Experts accepted the selection and Idea of offering skill development courses & Internship
- Due to the pandemic situation, the following options are considered for IV semester internship.
 - > Industry Internship
 - Remote Internship
 - Skill Development course by COE/Department
 - > Online certification approved by Department

6.

Skill Development Courses offered through centre of excellence and by the department is below

S.No.	Name of the Skill Development Course	Offered from the center	
1.	Custom Analog IC Design using Cadence EDA Tools	ASIC COE	
2.	Digital IC Design using Cadence EDA Tool & FPGA Implementation	ASIC COE	
3.	RF and Microwave System Design using ADS	Keysight Centre for RF communication Systems	
4.	Programming fundamentals in R	ECE Department	
5.	Introduction to Networks and Devices	ECE Department	

Online courses

- Experts appreciated the idea of offering online courses in the fifth & sixth semester and discussion about the credit consideration was done.
- Experts suggested to encourage the students to earn the credits.

Open Elective

Open elective courses offered by the department of ECE were presented and the members accepted the same.

Data Science Using Hadoop With R , Artificial Intelligence , Soft Computing , Machine Vision System, In Vehicle Networking, Consumer Electronics, Internet of Everything are to be offered by the department

FORGE Protosem Courses for 2016 regulations

• Course offered by FORGE and mapping of the courses with ECE curriculum was presented. The same was accepted by the members. Following points were discussed.

The III year (2018 batch) students have been permitted to go for FORGE Protosem programme and they will undergo the courses offered by FORGE at KCT campus, Coimbatore under protosem Programme during 7th semester of Academic year 2021-22.

In this regard, we need to introduce FORGE protosem courses in our curriculum; hence it is requested to grant approval to add the courses developed by FORGE listed below as Industry elective courses (Open Elective, Professional Elective) and also Innovative and creative project in our curriculum.

Open Elective Course:

16OE0xx-Applied Design Thinking

Professional Elective Courses:

Embedded System Design and Development Prototype development

Innovative and Creative Project:

MUP development

The students can select the open elective course 16OE0xx-Applied Design Thinking which will be offered from the EEE department.

The lists of courses conducted by FORGE Protosem are mapped with the seventh semester of 2016 curriculum structure are as follows:

7.

	Course	Course Little	Course offered	Hours/Week		eek	Credits	Marks
	Code		by FORGE	L	T	P	credits	IVIAIKS
1	THEORY					W		
	XXXX	Core Course	-	3	0	0	3	100
	XXXX	Core Course	:=	3	0	0	3	100
	XXXX	Professional	Embedded	3	0	0	3	100
		Elective-III	System Design and Development					
	XXXX	Professional	Prototype	3	0	0	3	100
	200000000000000000000000000000000000000	Elective-IV	Development					
	XXXX	Open Elective	Applied Design Thinking	3	0	0	3	100
	PRACTIC	AL						
	XXXX	Laboratory	-	0	0	4	2	100
	XXXX	Laboratory	- "	0	0	4	2	100
	XXXX	Innovative and	MUP	0	0	8	4	100
		Creative Project	Development					
8.	Innovative Teaching and Evaluation Techniques The idea of two week Internship and skill development courses were appreciated by the							
	experts							
	Examir	ners Panel List(Extern	nal and Internal)					
9.	List of panel members for Question paper setting, Verification and valuation was presented to							
	the BoS members.							
	Resear	ch Activities				4		
10.	During AY 2020-21 Even, 15 proposals were submitted. One Proposal granted.15 papers were published in Reputed journals. Faculty members have attended Various faculty development programmes and webinars.							
	Extension activities(Training to outsiders/Seminar /Conference/Workshop organized, Setting							
	up the new laboratory, industrial visit etc)							
invene.	It was presented that 2 webinars were conducted by the department through online during							
11.	AY 2020-21. Students have participated in symposium and have attended online courses. Tw							
	value added courses have been conducted during 20-21Even. One conference is planned to b							
	conducted during April 2021. 28 students have undergone internship during AY 2020-21							

Prepared by: R. Plerie Teny

(R.SHERINE JENNY)

Verified by:

(Dr.V.K.SUDHA)

Approved by (Chairman):

(Dr.R.SUDHAKAR)



Dr.Mahalingam College of Engineering and Technology, Pollachi (An Autonomous Institution, Accredited by NBA and NAAC)

Department of Electronics and Instrumentation Engineering

Meeting Minutes of 13th Board of Studies

Venue

: C420 - EIE Department Library

Dr. Mahalingam College of Engineering and Technology.

Date of the meeting : 10/04/21

Members Present:

S. No.	Name& Designation	Official Address	Specialization	Signature
		Chairman		= -
1	Dr.K.Vijayakumar	Associate Professor & Control and Instrumentation		Com
		Convener		
2	Dr.S.Anthony Jesudurai	Assistant Professor (SS) Department of EIE, MCET	Control and Instrumentation	andre
4	- Y - C -	External Members	P	
		University Nominee		
3	Dr.B.Vasuki	Professor, Dept. of Instrumentation and Control Engineering, National Institute of Technology, Tiruchirapalli.	Power Systems	online
		Academia	30 de la companya de	
4	Dr.V.Prasanna Moorthy,	Professor, Department of Electrical & Electronics Engg, Government College of Technology Coimbatore.	Power Electronics and Drives	online
		Industry		7
5	Mr.M.Dhanasekaran	General Manager – Operations, VVDN Technologies, MCET Campus, Pollachi	Embedded and Networking	online

		Alumni						
6	Mr.P.S.Muthamilselvan	Hardware Development Associate, Robert Bosch,Coimbatore		online				
	Internal Members							
		Faculty members						
S.No	Name& Designation	Official Address	Specialization	Signature				
7	Mr.P.E.Kamalakkannan	Assistant Professor(SS) Department of EIE, MCET	Control and Instrumentation	p. Eury				
8	Ms.V.Karpagam	Assistant Professor(SS) Department of EIE, MCET	Applied Electronics	They				
9	Mr.P.Kathirvel	Assistant Professor Department of EIE, MCET	Power Electronics	online				
10	Mr.L.Jayaraman	Assistant Professor Department of EIE, MCET	Control and Instrumentation	12				
11	Mr.A.Venkatesh	Assistant Professor Department of EIE, MCET	Applied Electronics	d. Dugami				
12	Mr.G.Karthikeyan	Assistant Professor Department of EIE, MCET	Communication systems	G. F.				
13	Ms.S.Kavitha	Assistant Professor Department of EIE, MCET	Applied Electronics	& Vanth				
14	Ms.H.Sathiya Girija	Assistant Professor Department of EIE, MCET	Communication systems	Sathy Dutit				
15	Mr.T.Gowtham	Assistant Professor Department of EIE, MCET	Applied Electronics	T. gulf				
16	Ms.B.Manjula	Assistant Professor Department of EIE, MCET	VLSI Design	Dej				
Supi	porting Staff							
17	Mr.G.Srinivasan	Technical Assistant Department of EIE, MCET	BE-EEE	a os				
18	Mr.N.Senthilnathan	Lab Assistant Department of EIE, MCET	BE-EEE	Sha				
19	Mr.D.Karthik	Secretarial Assistant Department of EIE, MCET	B.com(CA)	Dkutn				
Spe	cial Invitees							
20	N- Warmatha Stee	Student, Dept EIE, AKET	W year	online				
21	R. Mohana priya	Student, Depot FIE, MCET	Tiyean	online				

Convener

Chairman

Dr.Mahalingam College of Engineering and Technology (An Autonomous Institution) Pollachi – 642 003

Department of Electronics and Instrumentation Engineering

Minutes of Meeting-Board of Studies

Date of Conduct:10th April

Mode of Conduct: MS Teams

Time: 10 AM to 1 Noon Members attended: 16 External Experts:

- Dr.B.Vasuki, Professor, ICE, NIT, Trichy Anna University Nominee
 Dr.S.Prasanna Moorthy, Professor, EEE, GCT Academic Expert
- 3. Mr.Dhanasekar -VVDN, Pollachi Industry Expert
- 4. Mr. Muthamil Selvan Robert Bosch, Coimbatore Alumni

Internal Members:

- 1. Dr.K.Vijayakumar HOD/EIE BoS Chairman
- 2. Dr.S.Anthony Jesudurai, AP(SS) BoS Convener
- 3. Mr.P.E.Kamalakkannan, AP(SS)
- 4. Mrs.V.Karpagam, AP(SS)
- 5. Mr.P.Kathirvel, AP
- 6. Mr.L.Jayaraman, AP
- 7. Mr.A. Venkatesh, AP
- 8. Mr.G.Karthikeyan, AP
- 9. Ms.S.Kavitha, AP
- 10. Ms.H. Sathiya Girija, AP
- 11. Mr.T. Gowtham, AP
- 12. Ms.B. Manjula, AP

Student Members:

- 1. M.Narmathasree (17BEI009)
- 2. B.Mohana priya (18BEI001)

Agenda:

 Revised 2019 regulations and update the curriculum and Syllabi of Semesters V to VIII.

Dr.K.Vijayakumar- HoD welcomed all and express his gratitude for joining through online mode via MS Teams.

- 1. HOD, EIE was discussed College & Department Vision, Mission, POs, PSOs, Professional skills & Skill development programs.
- BoS Convener had discussed the curriculum and Syllabi of UG Courses from semester V to VIII, Professional Electives, Open Electives and Online Courses.

Poin	ts Discussed:	Duta discussed and conclusions
S.No.	Items	Points discussed and conclusions
Welcom	е	
		 As per the 12th minutes of meeting and the internal meetings held on March and April month of 2021 following courses were identified for 5th to 7th semester. 5th Semester courses: Theory Courses: Control System Microprocessor and Microcontroller Practical Courses: Microprocessor and Microcontroller Laboratory Control System Laboratory 6th Semester courses: Theory Courses: Process Control
		Embedded System Design
		Practical Courses:
12		 Process Control Laboratory
		Embedded and IoT Laboratory
		7 th Semester courses:
	BE' to all describes and	Theory Courses:
1.	Minutes of department meeting on Curriculum	Machine Learning Machine Learning System
	meeting on ournous	 Industrial Automation System Practical Courses:
		Industrial Automation Laboratory
		Professional Electives Courses:
		Industrial Data Communication
	2 2	Networks
		 Digital Signal Processing
		VLSI Design
		Automotive Electronics
		Image and Video Processing Advantage Floatenia Instrumentation
		Modern Electronic InstrumentationFiber Optics and Laser Instrumentation
		Smart and Wireless Instrumentation
1		Bio Medical Instrumentation
		Analytical Instrumentation
		 Automobile and Aircraft Instrumentation
		Agricultural Instrumentation
		 Instrumentation System Design
		 Thermal and Fluid Mechanics
		 Power Electronics and Drives

		 Non Linear Control System
		Digital Control Engineering
1		 Fluid Power System
		 Robotics and Automation
	Report on stakeholders expectation	 Power Plant Instrumentation
		 Instrumentation in Process Industries
		Industrial safety and standards
		Industrial Internet of Things
		Open Electives Courses:
		Industrial Internet of Things
		Smart Sensor Technology
		Factory Automation
		 Industrial Measurement Systems
		Internet of Medical Things
		Virtual Instrumentation
		 Electronics System Design
		 Head of the department showcased the Department's
		Vision, Mission, PEO, PO and PSO statement
		The expert members satisfied and appreciated the steps
		taken by the department in dissemination of Department's
		Vision, Mission, PEO, PO and PSO statement to the stake
		holders.
		 Presented the templates for collecting the surveys from
		stake holders and showcased sample survey forms
		Consolidated survey report based on the stake holders
		inputs for the curriculum was presented;
		Technical Skills
		1. Industry 4.0
		2. Networking & IoT
_		3. PCB Designing
2.		4. VHDL Programming
	*	- Togrammig
		January Star Chount Design
		7. Communication Engineering
		8. PLC/SCADA and DCS Programming
		9. PLC Panel Designing
		Professional Skills
		1. Leadership skills
		2. Communication skills
		3. Team work
		4. Professional ethics
	h h	5. Interpersonal skills
		 Members agreed with the views expressed by the
		stakeholders and considered the inclusion of the above in

3.	Statutory Bodies requirements	 the curriculum. The external members satisfied and nodded to continue with the same Department's Vision, Mission, PEO, PO and PSO statements. The credit comparisons of the AICTE 2018 model curriculum, 2016 CBCS curriculum and 2019 Regulation of the B.E. Electronics and Instrumentation Engineering programme were presented.
4.	Curriculum Structure Modification New Course Introductions Courses recommended by industry	The curriculum of 2019 of B.E. Electronics and Instrumentation Engineering was presented and enclosed in the annexure I. There were no major structural modifications in the curriculum presented.
5.	Syllabus discussion of Courses	Members perused the syllabus of all the courses presented as part of curriculum of 2019 of B.E. Electronics and Instrumentation Engineering. Members made the following recommendations; B.E. Electronics and Instrumentation Engineering 2019 Semester 5 to 7: 1. Control Systems (Theory& Practical) a. University Nominee Dr.B.Vasuki had suggested to update the Text Book of Recent Edition. b. Alumni Mr.Muthamil Selvan had suggested to include an experiment based on frequency response of lag, lead compensator. 2. Microprocessor & Microcontroller (Theory & Practical) a. University Nominee Dr.B.Vasuki had suggested to include advanced and recent trend in MPMC topic in unit-1 b. Alumni Mr.Muthamil Selvan had suggested to include ARM architecture in Unit- V c. Alumni Mr.Muthamil Selvan had suggested to include communication based experiments such as serial communication based experiments such as serial communication based on read, write process, 3. Embedded & IoT Lab a. Alumni Mr.Muthamil Selvan had suggested to include one experiment based on real time implementation of surrounding environment such as sensor interfacing on Experiment No.9 b. Alumni Mr.Muthamil Selvan had suggested to swap the PWM to hands on experiment in communication such as calculating speed, time

etc.,

4. Process Control Lab

- University Nominee Dr.B.Vasuki had suggested to add I2P, P2I controller based and different Control Value Characteristics as an Experiment
- 5. Machine Learning
 - Alumni Mr.Muthamil Selvan had suggested to include Case study in Unit- V
 - Alumni Mr.Muthamil Selvan and University Nominee Dr.B.Vasuki both suggested to include Riddel based function network in Unit - II
- 6. Industrial Data Communication Networks
 - Alumni Mr.Muthamil Selvan had suggested to add firewall, gateway, in Unit – 2
 - University Nominee Dr.B.Vasuki and Alumni Mr.Muthamil Selvan both suggested to add 5G technology in Unit-V.
- 7. Digital Signal Processing
 - Alumni Mr.Muthamil Selvan had suggested to add Quantization based topics
 - b. Remove TMS320X and add recent instead of that.
- 8. Automotive Electronics
 - Alumni Mr.Muthamil Selvan had suggested to add Standards in Automotives
- Modern Electronic and Instrumentation
 - University Nominee Dr.B.Vasuki had suggested to remove CRO and add DSO topic
- 10. Fiber Optics & Laser Instrumentation
 - University Nominee Dr.B.Vasuki had suggested to remove DC,AC voltmeter topics
- 11. Agriculture Instrumentation
 - Alumni Mr.Muthamil Selvan had suggested to add hydroponics and automation in agriculture topics in Unit-V
- 12. Industrial IoT
 - Alumni Mr.Muthamil Selvan had suggested to add LoRa topic
- 13. Smart Sensor Technology
 - Alumni Mr.Muthamil Selvan had suggested to add Boat to Boat Communication for smart sensor
- 14. Internet of Medical Things
 - a. Alumni Mr.Muthamil Selvan had suggested to add 10 sensors (wearable devices) in Unit-V and also requested to add case study based on any real time product

		 15. Virtual Instrumentation a. Alumni Mr.Muthamil Selvan had suggested to add case studies based on labview in Unit-V 16. Electronics System Design a. Alumni Mr.Muthamil Selvan had suggested to add about EPROM technology and peripheral interface system 17. OCC - Alumni Mr.Muthamil Selvan had suggested to add topics such as E-Vechiles and Standards in PCB design. 18. From students side requested Lab sessions for OOPS and Programming concepts. General 19. Appreciated the way of choosing the Online Course list and for choosing the One Credit Courses also.
6.	Innovative Teaching and Evaluating Techniques	 As a best TLP presented the students project as an assignment, preparation of workbook for tutorial courses, preparation of record book for practical courses and open source tool for content sharing
7.	Examiners Panel List (External and Internal)	 List of panel members fixed based on the eligibility norms prescribed by the Controlled of Examinations of MCET for QP setting and valuation, question paper review was presented. Members expressed satisfaction about the proposed panel.
8.	Extension activities (Training to outsiders, Seminar Conference/Workshop organized, Setting up the new laboratory, industrial visit etc.) • Accomplished • Proposed	 Statistics pertaining to the following of the department were presented; Industrial Visit, Inplant training and Internship statistics for the AY 2018-19 & 2019-20 Workshop/Seminars organized by the department. Plan of the department pertaining to the following for the next semester was also presented. Members appreciated the activities and the proposed plan.

Prepared by

: Mr.G.Karthikeyan, OBE Co-ordinator G

Verified by

: Dr.S.Antony Jesudurai – BOS Convene

Approved by

: Dr.K.VijayaKumar, HOD, EIE (BoS Chairman)



Dr.Mahalingam College of Engineering and Technology, Pollachi

(An Autonomous Institution affiliated to Anna University)

Name of the Board: Computer Science and Engineering

Minutes of XIII Board of Studies

Venue	(Meeting conducted through online mode via MS Teams meetings)	Date :27.03.2021	Time	3.30 P.M- 5.00 P.M
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Sl. No.	Name	Designation and Affiliation	Category	Nature
1.	Dr G.Anupriya	Professor & Head, CSE	Chairman	Head of the Department
2.	Dr.P.Chitra	Professor & Head, Department of CSE, Thiagarajar College of Engineering, Madurai	University Nominee	Nominated by University
3.	Dr N.K.Karthikeyan	Professor & Head, Department of IT, Coimbatore Institute of Technology, Coimbatore	Academic Expert	Nominated by College
4.	Mr. Sudhir Ganesh Kamath	Delivery Manager IoT solutions, Robert Bosch, Bangalore	Delivery Manager IoT Industry Expert solutions, Robert Bosch,	
5.	Mr.G.Balakumar	Technical Lead, Impiger Technologies, Coimbatore	Alumni Member	Nominated by College
6.	Dr.A. Noble Mary Juliet	Associate Professor, CSE	Convener-UG	Faculty member
7.	Dr N.Senthil Madasamy	Associate Professor, CSE	BOS member	Faculty member
8.	Dr T.Sivakumar	Associate Professor, CSE	BOS member	Faculty member
9.	Dr M.Pandi	Assistant Professor(SG)	BOS member	Faculty member
10.	Dr N.Subarani	Assistant Professor(SG)	BOS member	Faculty member
11.	Dr V.Priya	Assistant Professor(SS)	BOS member	Faculty member
12.	Dr J.Bhavithra	Assistant Professor(SS)	Convener-PG	Faculty member
13.	Dr N.Gobi	Assistant Professor(SS)	BOS member	Faculty member
14.	Ms.S.C.Lavanya	Assistant Professor	BOS member	Faculty Member

15.	Mr. K.Srinivasan	Assistant Professor	BOS member	Faculty Member
16.	Mr.P.Boopathirajan	Assistant Professor	BOS member	Faculty Member
17.	Mr. D.Hari	Assistant Professor	BOS member	Faculty Member
18.	Ms. T.Gowrisankari	Assistant Professor	BOS member	Faculty Member
19.	Ms. C.Devipriya	Assistant Professor	BOS member	Faculty Member
20.	Ms. B.Suganya	Assistant Professor	BOS member	Faculty Member
21.	Selvan, R.Sunilsamson (17BCS030)	IV Year Student-CSE	Student	Student Member
22.	Selvan.G.Abimanyu (18BCS032)	III Year Student-CSE	Student	Student Member

Points Discussed:

S. No	Items	Points discussed and conclusions		
Minutes of Department Meeting on Curriculum		Dates of department meeting: 25/01/2021, 19/02/2021 & 25/03/2021 Some key aspects of 2019 regulations curriculum discussed were: • 3 Projects across- IV, VI, VIII semesters • 3 Internships across – IV, VI & VIII semesters • Credits and the duration of projects and Internships are discussed. ° Details of the Skill development courses & grouping of Professional electives under 2019 regulations are discussed ° Syllabus for semesters V, VI and professional Electives offered for V and VI semester were reviewed. ° List of online courses was identified and reviewed.		
٥	Report on Stakeholders Expectation	Major inputs suggested by various stakeholders are considered to industry based courses and new technologies can be offered. considered to included in Courses as integrated component. considered for credits.		
•	Statutory Bodies Requirements	 Major aspects of AICTE model curriculum have been implemented for 2019 regulations UG & PG CSE Programmes AICTE requirement is satisfied with maximum credits of 166 for UG & 70 credits for PG 2019 regulations. 		

S. No Items	Points discussed and conclusions
	UG Curriculum
2019 Regulations	 Course map & Curriculum was presented Total No. of Credits: 166 Suggestions Given: The course title for Data communications and computer networks could be reframed. The course big data analytics can be included with more analytics component as it is an emerging field. The courses software quality Assurance and software testing can be combined as a single course. Elective Courses can be suitably modified using theory of 45 hours with integrated laboratory component of 30 hours.
Skill development courses, Online courses and Industry based courses	 List of Skill development and industry based courses for 2016/2019 regulations were approved and some suggestions given were: Robotic process automation can be offered as a skill development course. FORGE Protosem Courses for 2016 regulations Course offered by FORGE and mapping of the courses with CSE curriculum was presented. The same was accepted by the members. Following points were discussed. The III year students (Batch 2018, 2016 Regulation) have been permitted to go for FORGE Protosem programme and they will undergo the courses offered by FORGE at KCT campus, Coimbatore under protosem Programme during 7th semester of Academic year 2021-22. It is proposed to add the courses developed by FORGE listed below as Industry elective courses (Open Elective, Professional Elective) and also Innovative and creative project in our curriculum. Open Elective Course: 160E0xx-Applied Design Thinking Professional Elective Courses: Embedded System Design and Development Prototype development Innovative and Creative Project:

		Cour	FIGURE THE THE Y	Course	H	ours/V	Veek	Con	Mar
	-11	se Code	Course Title	offered by FORGE	L	T	P	Cre	ks
		THEC	RY						
128		xxxx	Core Course	E-B	3	0	0	3	100
		XXXX	Core Course	•	3	0	0	3	100
	Skill development	XXXX	Professional Elective-III	Embedded System Design and Development	3	0	0	3	100
	courses, Online courses	XXXX	Professional Elective-IV	Prototype Development	3	0	0	3	100
	and Industry based courses	XXXX	Open Elective	Applied Design	3	0	0	3	100
	A STATE OF SUR	DDAC	TICAL	Thinking	-				
		XXXX	Laboratory		0	0	4	2	100
		XXXX			0	0	4	2	100
		XXXX	Laboratory	MUP	0	0	8	4	100
		AAAA	and Creative Project	Development	U	U	8	4	100
				b & Mobile A G Curriculun				•	
r -	2019 Regulations	PG curriculum was presented and approved for 2019 regulations.							
	Curric	ulum ar	nd Syllabi of	New Progran	mes	(AY:	2021-	22)	
er e		•	programmes	and syllabi : B.Tech Arti Security to be	ficial	Intel	ligenc	e & D	ata Science
	New Programmes to be introduced in the	 Experts have approved the first year curriculum and syllab 							
	Academic Year: 2021								
	Academic Year: 2021		Science	ing a proper ce courses and semesters.					

and the second s

S. No	Items	Points discussed and conclusions
•	Syllabus of courses	Attached as Annexure in Book
•	Innovative Teaching and Evaluation Techniques	 Online classes are conducted with some learner based active participation techniques. Some of them are: Timed quiz. Tablet based Class room Instant Poll questions using MS Teams and Forms MCET Edu - Academic Management System
•	Examiners Panel List(External and Internal)	 Panel members are fixed based on certain Eligibility norms for QB setting, a minimum experience of 5 years in teaching with engineering college is mandatory. Sample panel list for the course-16CSE22-BUSINESS INTELLIGENCE External Mr P Sathishkumar, AP/CSE, BIT, Sathyamangalam. Mr.A.Arunkumar, Assoc. Prof/CSE, SKCET, Coimbatore. Internal Ms.C.Devipriya, AP/CSE Ms.S.C.Lavanya, AP/CSE
	Research Activities Accomplished Proposed	 Completed International journal publications (2020 - 21): 06 International conference publications (2020 - 21): 05 Proposals have been submitted to various funding agencies like AICTE, DRDO, SERB and TNSCST. 2 ATAL FDP grants have been submitted. Three patents have been filed. Three Research seminars have been conducted. Proposed To conduct more research seminars. Apply research proposals to various funding agencies.
•	Extension activities(Training to outsiders, Seminar /Conference/Worksho p organized, Setting up the new laboratory, industrial visit etc) • Accomplished • Proposed	 Organized Workshops / Conferences (2020-21) AICTE Sponsored Online STTP on "Federated Identity Management System: Research Perspectives" – Phase I - 17.08.2020 to 22.08.2020 AICTE Sponsored Online STTP on "Federated Identity Management System: Research Perspectives" – Phase II-07.09.2020 to 12.09.2020 AICTE Sponsored Online STTP on "Federated Identity Management System: Research Perspectives" – Phase III-21.09.2020 to 26.09.2020 ATAL Sponsored FDP on "Augmented Reality and Virtual reality" -15.12.2020 to 19.12.2020

S. No	Items	Points discussed and conclusions
		Organized an AICTE sponsored International E- Conference on Data Analytics, Intelligent Systems and Information Security on 11th and 12th December 2020 in association with IT department, MCET.
		 Proposed Workshops / Conferences – (2021-2022) To conduct workshops on emerging technologies.
•	Any other Matter	

Prepared by: Dr. V.Priya, Assistant Professor (SS) / CSE

Verified by:

Dr.A.Noble Mary Juliet Associate Professor/ CSE Approved by (Chairman):

Dr.G.Anupriya

Professor and Head/ CSE

Alumni Member

G.BALAKUMAR TECHNICAL LEAD - IMPIGER Industry Expert

SUDHIR GANESH KAMATH DELIVERY MANAGER, ROBERT BOSCH

Academic Expert

Dr. N.K. KARTHIKEYAN

PROF. 2 HEAD / IT.

CIT, COIMBATORE

University Nominee

Dr. P. CHITRA

PROFESSOR + HEAD / CSE

TCE, MADURAL



Dr.Mahalingam College of Engineering and Technology, Pollachi-03 (An Autonomous Institution, Accredited by NBA and NAAC)

Name of the Board <u>Information Technology</u>

Attendance Sheet for 13th Board of Studies Meeting

Venue: Online-Google Meet

Date: 17.04.2021

GMeet link: https://meet.google.com/txt-rhtx-woi

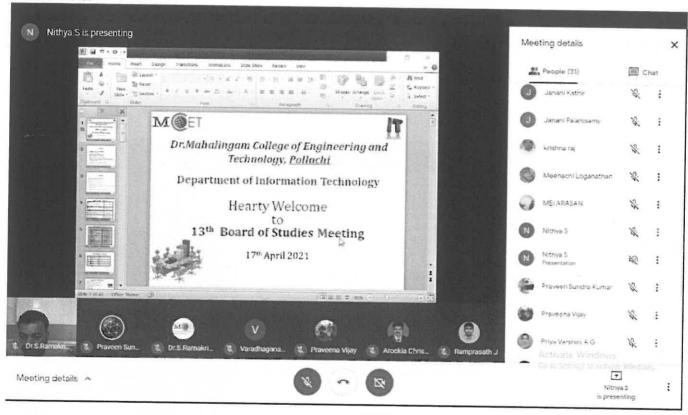
The following members attended the meeting:

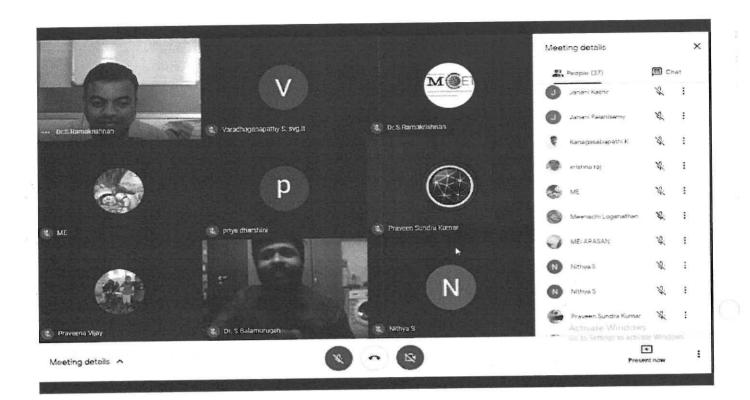
S. No.	Name of the member	Expert
1.	Dr.S.Varadhaganapathy	
	Professor	
	Department of Information Technology,	University Nominee
	Kongu Engineering College	
	Perundurai, Erode	
2.	Dr.R.Nedunchezhian,	
	Professor,	Academic Expert
	Dept. of CSE,	readomic Expert
	Coimbatore Institute of	
	Technology, Coimbatore	
3.	Dr.S.Balamurugan,	
	Founder & Chairman - Albert Einstein	
	Engineering and Research Labs (AEER Labs)	Industry
	Vice Chairman- Renewable Energy Society of	
	India (RESI), India	
4.	Ms.J.Praveena	Alumni
	Senior Customer Support Engineer,	11411111
	Kovai Systems Ltd.,Coimbatore	
5.	Dr. S. Ramakrishnan,	
	Professor & Head,	
	Dept. of Information Technology,	BoS Chairman
	Dr.Mahalingam College of Engineering and	
	Technology, Pollachi-642003	
6.	Dr.A.B. Arockia Christopher	
	Assistant Professor (SG),	E2
	Dept. of Information Technology,	Convener
	Dr.Mahalingam College of Engineering and	
	Technology, Pollachi-642003	
7.	Dr.A.S.Muthanantha Murugavel	
	Associate Professor,	Internal Faculty
	Dept. of Information Technology,	Members
	Dr.Mahalingam College of Engineering and	Members
	Technology, Pollachi-642003	

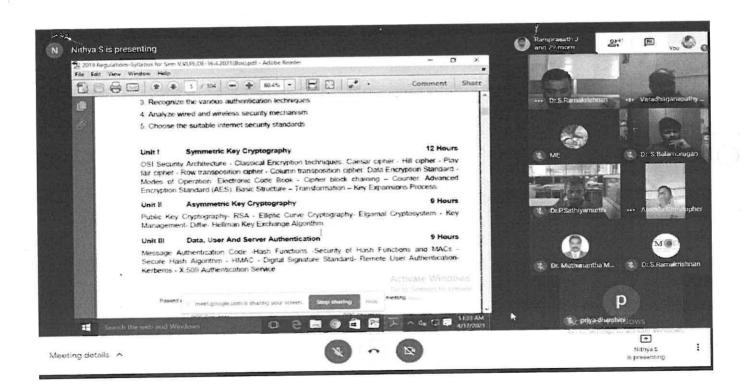
8.	Dr.A.P.Janani,	
	Associate Professor,	
	Dept. of Information Technology,	
	Dr.Mahalingam College of Engineering and	
	Technology, Pollachi-642003	
9.	Dr.M.Balakrishnan,	
	Assistant Professor (SG),	
	Dept. of Information Technology,	
	Dr.Mahalingam College of Engineering and	
	Technology, Pollachi-642003	
10.	Dr.P.Sathiyamurthi,	
	Assistant Professor(SS),	
	Dept. of Information Technology,	
	Dr.Mahalingam College of Engineering and	
	Technology, Pollachi-642003	
11.	Dr.S.Ponni @ Sathya,	
6 655	Assistant Professor(SS),	
	Dept. of Information Technology,	×
	Dr.Mahalingam College of Engineering and	
	Technology, Pollachi-642003	
12.	Dr.S.Nithya,	
	Assistant Professor(SS),	
	Dept. of Information Technology,	Internal Faculty
	Dr.Mahalingam College of Engineering and	Members
	Technology, Pollachi-642003	
13.	Ms.L.Meenachi,	
2000000	Assistant Professor(SS),	
	Dept. of Information Technology,	
	Dr.Mahalingam College of Engineering and	
	Technology, Pollachi-642003	
14.	Ms.R.Menaha,	
	Assistant Professor(SS),	
	Dept. of Information Technology,	* .
	Dr.Mahalingam College of Engineering and	
	Technology, Pollachi-642003	
15.	Mr.J.Ramprasath,	
1	Assistant Professor,	
	Dept. of Information Technology,	
	Dr.Mahalingam College of Engineering and	
	Technology, Pollachi-642003	
16.	Mr.N.Praveen sundra Kumar,	
15/10-00	Assistant Professor,	
	Dept. of Information Technology,	
	Dr.Mahalingam College of Engineering and	
	Technology, Pollachi-642003	
	I Ver	

17.	Mr.K.Dinesh Kumar,			
	Lab Technician,			
	Dept. of Information Technology,	Lab Technician		
	Dr.Mahalingam College of Engineering and			
	Technology, Pollachi-642003			
18.	N.Anirudh (17BIT085),			
	Final Year B.Tech.IT,			
	Dept. of Information Technology,			
	Dr.Mahalingam College of Engineering and			
	Technology, Pollachi-642003	~ .		
19.	K.S. Meiarasan K S (17BIT073),	Student		
	Final Year B.Tech.IT,			
	Dept. of Information Technology,			
	Dr.Mahalingam College of Engineering and			
	Technology, Pollachi-642003			

Screenshots:









Points Discussed:

S.No.	Items	Points discussion and conclusions
	akrishnan, HoD-IT & the cha	airman of IT Board welcomed the external and internal members Meet.
1.	Minutes of department meeting on Curriculum	The process adopted for framing the syllabus is briefed to the external members. It is informed that the inputs are received from the industry experts and internal faculty members in department meeting and thus the syllabus is being prepared for semesters V and VI including Professional Electives and Open Electives for 2019 Regulations.
2.	Report on stakeholders expectation	The process of obtaining feedbacks from stakeholders such as industry experts, alumni, parents and faculty on curriculum and syllabus for semesters V and VI of 2019 Regulations is stated to the external experts and informed that the syllabus is being framed based on the suggestions received from stakeholders. The external experts suggested to follow the same procedure.
3.	Statutory Bodies requirements	The requirements of statutory bodies on course category such as Humanities, Basic Sciences, Engineering Science, Professional Core, Professional Elective, Project, etc. is presented to the external members. The members examined the requirements of statutory bodies and informed that the proposed curriculum meets the requirements satisfactorily.
4.	Curriculum Structure Modification New Course Introductions Courses recommended by industry	The curriculum structure and syllabus of semesters V, VI, Professional Elective and Open Elective courses of 2019 Regulations is presented to the external members. The members recommended to detach Machine Learning from the course "Data Mining and Machine Learning" and suggested to combine Machine Learning with Artificial Intelligence. The professional Elective course entitled "PHP and MySql" is recommended to be changed as Server Side Programming.

		To indulge the management skill among the students, the members recommended to include Engineering Economics and Management as Professional Core in Semester VII.
		The members suggested to include the following courses as professional Electives.
		 Industry 4.0 Computer Vision Data Visualization Techniques Public Cloud services Further, the members appreciated the curriculum structure of Regulations and advised to adopt the same curriculum
	-	structure.
	ar r	The courses identified for Professional Elective(online) from Nptel/Swayam is discussed and the members agreed to provide the same to the students.
3		The Syllabus of semesters V, VI, professional Elective and Open Elective courses of 2019 Regulations is presented. The members recommended the following points to be incorporated in the syllabus of various courses of 2019
5.	Syllabus discussion of Courses	Regulations Semester V: • Web Technology
		 Recommended to include more topics on HTML 5.0 Suggested to include topics on Spring

		Professional Electives:
		 Object Oriented Analysis and Design
		> Suggested to change the sequence of the
		TextBooks mentioned i.e to mention the
	* .	TextBook by Grady Booch at first.
		Cyber Physical Systems
		Recommended to include case studies in Unit
		III,IV and V
		 Augmented Reality and Virtual Reality
		Proposed to include the Experiments on
		advanced concepts
		The members suggested to reduce the algorithms mentioned
	Ø.	in the syllabus for the following courses
		Advanced Problem Solving using C
	*	Advanced Problem solving using Java
,		Advanced problem solving using Python
		The transform of online teaching due to pandemic were
		discussed. It is briefed that the online teaching happens via
_	Innovative Teaching	MSteams where live sessions and recorded videos are
5.	and Evaluating	ੂ hosted.
	Techniques	Also it is stated that the assessments are carried out for all
		the courses and the students performance are analyzed.

Convener

S. Pinneed vocacage

Dr. Mahalingam College of Engineering and Technology, Pollachi, 642003

(An Autonomous Institution, Accredited by NBA and NAAC)

Department of Mechatronics Engineering

Minutes of 6th Board of Studies Meeting (AY 2020 - 2021)

Venue

Microsoft Teams (Online Mode),

Dr. Mahalingam College of Engineering and Technology

Date of Meeting

13/03/2021 at 10.00 am

Members Present:

	Name	9		
S.No	&	Official Address	Specialization	Signature
	Designation		The second secon	
		Chairman		
1	Dr. P. Govindasamy Professor	Head of the Department, Department of Mechatronics Engineering, Dr. MCET, Pollachi.	I.C Engineering	Comp.
		Convener		
_	M. Giridharadhayalan	Department of Mechatronics		
2	Assistant Professor	Engineering, Dr. MCET, Pollachi.	CAD/CAM	M.C. and
		External Members		
		Academia		
3	Dr. M. Suresh Associate Professor	Department of Robotics and Automation Engineering, PSG College of Technology, Coimbatore.	Mechatronics System Design	Online Mode
d'n	2	Industry		
4	Mr. A. Aravindhan Senior Manager	Corporate Manufacturing Department, Pricol Ltd., Coimbatore.	Sensors and Process Automation	Online Mode
		University Nominee		
5	Dr. E. Prakash Associate Professor,	Department of Automobile Engineering, Bannari Amman Institute of Technology, Sathyamangalam - 638 401	CAD/CAM	Online Mode

Internal Members

Faculty Members

S.No	Name & Designation	Official Address	Specialization	Signature
6	Mr. C.Radhakrishanan Assistant Professor (SS)	Department of Mechatronics Engineering, Dr. MCET, Pollachi.	CAD/CAM	f
7	Mr. Karuppusamy Assistant Professor	Department of Mechatronics Engineering, Dr. MCET, Pollachi.	IC Engines	and the second
8	Mr.K.Satish Kumar Assistant Professor	Department of Mechatronics Engineering, Dr. MCET, Pollachi.	CAD/CAM	4
9	Mr. M.Ganeshan Assistant Professor	Department of Mechatronics Engineering, Dr. MCET, Pollachi.	Applied Electronics	Myon
10	Mr. Ramkumar Venkatasamy Assistant Professor	Department of Mechatronics Engineering, Dr. MCET, Pollachi.	Engineering Design	Rank "
11	Mr. N. Dhamodharan Assistant Professor	Department of Mechatronics Engineering, Dr. MCET, Pollachi.	CAD/CAM	(By
12	Mr.R.Manoj Kumar Assistant Professor	Department of Mechatronics Engineering, Dr. MCET, Pollachi.	Thermal	3 -
13	Mr.P.P.Mahalingam Assistant Professor	Department of Mechatronics Engineering, Dr. MCET, Pollachi.	Engineering Design	Mis.
14	Mrs.R.Renugadevi Assistant Professor	Department of Mechatronics Engineering, Dr. MCET, Pollachi.	Engineering Design	art
		Supporting Staff		
15	Mr. K.Malayandisami. Lab Assistant	Department of Mechatronics Engineering, Dr. MCET, Pollachi.	DECE	85
16	Mr. K.Arivazhagan Lab Assistant cum Sec. Assistant	Department of Mechatronics Engineering, Dr. MCET, Pollachi.	DECE	A

Convener (M-GIRIDHARADHAYACAN)

BoS Chairman

S.No.	Items	Points discussed and conclusions
		Welcome
1.	Minutes of department meeting on Curriculum	The minutes of meeting dated 3 rd February 2021, 4 rd March 2021 on course development were presented. The copies of the minutes are enclosed in annexure I Members expressed satisfaction about the meeting and appreciated the department effort put it on course development.
2.	Report on stakeholders expectation	Report based on the survey with students, parents and academicians inputs for the curriculum was presented. They suggested following technical skills courses as part of Curriculum. • Advanced hydraulic and pneumatics • PLC,HMI and SCADA • Automotive Electronics • IT related courses like Python, Data science Machine learning and Artificial Intelligence.
3.	Statutory Bodies requirements	The credit comparisons of the AICTE 2018 mode curriculum, 2016 CBCS curriculum and 2019 Regulation of the B.E. Mechatronics Engineering programme were presented. Members unanimously agreed for the implementation of the features of AICTE 2018 model curriculum in the current regulations for the programme.
4.	Curriculum Structure Modification New Course Introductions Courses recommended by industry	The curriculum of 2019 of B.E. Mechatronics Engineering is enclosed in annexure III. There were no major structural modifications in any of the curriculum presented. Members unanimously recommended the UG curriculum.

		In VI Sem Curriculum, Fluid power system can
	-	be included in the curriculum as a main paper.
		Manufacturing Technology and Machine
		Design can be swapped between 5th and 6th
		semester.
. ,		2. In VII Sem Curriculum, CAD/CAM/CIM can be
17 17 17 10		included in the curriculum as a main paper
		instead of Finite Element Analysis and Finite
		Element Analysis can be offered as elective.
		Simulation lab can be replaced as CAM/ CAE
		lab.
		Members perused the syllabus of all the courses
		offered in V,VI,VII and VIII semester for B.E.
		Mechatronics Engineering
		The syllabus of course of 2019 of B.E. Mechatronics
		Engineering is enclosed in annexure IV.
		Members made the following recommendations;
	=	General
		 Use latest edition of textbooks in syllabus
		2. Data science, python & Al can be added as
		elective course instead of main paper or can
		be given as online course.
5.	Syllabus discussion of Courses	2019 Regulation Syllabus
		3. Include merchants circle topic and revise the
		syllabus of manufacturing technology.
		4. In Industrial Automation add SCADA related
	100	topics.
		5. In CAD/CAM/CIM Grooving cycle and
		Introduction to Macro Programming can be
		included.
		6. In Industrial Robotics and Machine Vision
	§*	Modify the unit hours as follows Unit 1 – 6 hr
	3	instead of 8 hrs and Unit 3 - 14 hr instead of
I .	,	1 27 2
		12 hrs.

- 7. In Design of Mechatronics System Unit 4 & 5 can be swapped Application of micro robots can be included as case studies.
- 8. In Data Science, some of the Syllabus contents are same as in python.
- In Fluid power system Hydraulic power pack and KV map circuit design can be added in syllabus.
- In Flexible Manufacturing systems, Unit I Title may be modified and Introduction about RMS can be added.
- 11. In Additive Manufacturing EBM welding can be added and Additive Manufacturing technologies by Iron Gibson as Text book.
- In Professional Electives subject list following suggestions were given
- Turbo machines can be removed.
- Design of welding can be named as robotic welding.
- Lean manufacturing can be added.
- Linear Integrated Circuits can be added.
- Lean Manufacturing and six sigma can be added
- Analog and Digital circuits can be added
- Power Electronics can be added
- Virtual Instrumentation can be added
- In Online Course, Members Suggested to use other platforms like Edx and Mit open courseware with NPTEL.
- 14. In Skill development course, they suggest to include robot modeling and simulation related courses.

6.	Innovation Teaching and	 15. In Professional Skill Course, Members are satisfied with course content of Employability Skills-1 and 2. 16. In open Elective, they suggested to add Unmanned Ariel Vehicles and Ariel Robotics.
	Evaluating Techniques	
7.	Examiners Panel list (External and Internal)	Members are Satisfied with list of Internal and External Examiners list.
8.	Research Activities Accomplished Proposed	
9.	Extension Activities (Training to outsiders, Seminar/Conference/ Workshop Organized, Setting up the new laboratory, Industrial visit etc) Accomplished Proposed	-

Prepared by

: Mr. K.Satish Kumar & N. Dhamodharan

Verified by

: Mr.M.Giridharadhayalan

Approved by : Dr.P.Govindasamy

(Chairman)



Dr. Mahalingam College of Engineering and Technology, Pollachi

(An Autonomous Institution affiliated to Anna University)

Name of the Board: Master of Computer Applications

Minutes of XIIth Board of Studies

Through Online mode(MS Teams)	Date	15.04.2021		
o mode(M3 realis)	Date	13.04.2021	Time	10.30 A.N

Sl. No.	Name	Designation and Affiliation	Category	Nature
1	Dr. R. Muthusami	Assistant Professor (SS)/MCA HoD i/c	Chairman	Head of the
2	Dr. P. Radha	Professor, Department of Computer Applications(MCA), Mepco Schlenk Engineering College, Sivakasi	Univertsity Nominee	Department Nominated by University
3	Dr. S. Parthasarathy	Professor of Data Science and Head – Department of Computer Applications, Thiagarajar College of Engineering, Madurai	Academic Expert	Nominated by College
4	Mr. S. Vivekanandhan	Senior software Engineer, Exterro R&D, TIDEL Park, Coimbatore	Industry Expert cum Alumni Member	Nominated by College
5	Dr. G. Anupriya	Professor & Head – CSE, MCET	Special Invitee	Nominated by College
n	Dr. N. Senthil Madasamy	Associate Professor – CSE, MCET	Special Invitee	Nominated by College
7	Fac	culty - Entire faculty members of the		
9	Ms. Geetha V (19MCA321) III Year MCA	2018-2021 Batch	Invitee	PG Students
	Ms. Chithra devi L (19MCA304) III Year MCA	2018-2021 Batch	Invitee	nominated from the department

S.No.	Items	Points discussed and conclusions
1.	Minutes of Department Meeting on Curriculum	 Date of Meeting: 19.03.21 & 12.04.21 Curriculum Structure for Regulation 2019 was discussed. The list of courses identified for conducting bridge course during 2nd semester for Non-IT students. Introduction of new electives & one credit courses on par with industry needs
2.	Report on Stakeholders Expectation	 Major inputs suggested by various stakeholders are Python Programming, Artificial Intelligence, Web services, Block Chain Technology, Optimization techniques courses can be included in curriculum User interface Design courses can be updated on par with industry needs Encourage the students to learn advanced Java through online course / series of workshop to be conducted internally.
3.	Statutory Bodies Requirements	AICTE requirement is satisfied with maximum credits.
4.	Curriculum Structure Modification New Course Introductions Courses recommended by Industry	 The laboratory course, Cloud and Big Data Analytics Laboratory can be split into 2 separate courses such as Cloud Laboratory, and Big Data Analytics Laboratory The course, Machine learning can be considered as integrated lab course The 5th unit can be revised in the course, cloud computing The professional elective –III need not mandate as an online course, encourage the students to get reputed online certification. The following courses syllabus has been updated: Cloud computing theory and lab, and Big data analytics lab Mobile programming laboratory is re-named to mobile programming with Swift which is included in elective. Advanced operating system course shifted from the professional core to elective with content updates. Electives newly Introduced are Information storage and management Semantic web Technologies Block Chain Technology Security in Computing

S.No.	Items	Points discussed and conclusions	
		The list of courses identified for conducting the bridge course during 2 nd semester for Non-IT students. 1 st Semester(Conducted):	
5.	Syllabus of courses	Attached as Annexure in Book	
6.	Innovative Teaching and Evaluation Techniques	 Activity-based teaching & learning: Role Play, Quiz, Think Pair Share & Analogy Multimedia based teaching & learning Scenario & project based lab practices Self study components Formative assessment Model viva-voce for projects are conducted by industry expert / senior alumni Internal assessment for major project evaluates by industry guide and academic guide. 	
7.	Examiners Panel List(External and Internal)	Eligibility norms For QP setting and valuation is minimum experience of 5 years in teaching with engineering college is mandatory for Panel members. Sample External panel members Dr.N.Shanthi, Associate Professor/CSE, Kongu Engineering college, Erode Dr.G. Kousalya, Professor/CSE, Kongu Engineering college, Erode Dr. N. Illayaraja, AP/CA PSG college of Technology, Coimbatore Dr.N.Sreeja, AP/AMCS PSG college of Technology, Coimbatore Internal Dr.K.Karpagam, Assistant Professor Mr.K.Madusudanan, Assistant Professor	

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S.No.	Items	Points discussed and conclusions
8.	Research Activities	Nil
9.	Extension activities (Training to outsiders, Seminar /Conference/Workshop organized, Setting up the new laboratory, industrial visit etc) • Accomplished • Proposed	Proposed Workshops / Conferences • Workshop on React JS (May 2021) • Workshop on DevOps (May 2021)

Prepared by

: Ms .G. Deepa, Assistant Professor / MCA

Verified by

: Mr. K. Madusudanan, Assistant Professor / MCA

Approved by (Chairman): Dr.R.Muthusami, Assistant Professor (SS) & HoD i/c / MCA

PRINCIPAL



DI: MAHALINGAM

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Department of Science and Humanities

9th Board of Studies

Date: 17.04.2021

Mode of Conduct: Microsoft Teams

Time: 10.30 am

Members attended:

I. University Nominees:

S.No	Name	Designation
1	Dr. N. Gopalakrishnan, University Nominee - Physics	Professor, Department of Physics, National Institute of Technology, Tiruchirappalli
2	Dr. J. Jayakumar, University Nominee - Mathematics	Professor and Head, Department of Mathematics, Pondicherry Engineering College, Pillaichavady, Puducherry
3	Dr. M. Kumaravel, University Nominee - Chemistry	Professor, Department of Chemistry, PSG College of Technology, Coimbatore
4	Dr. R. Kalpana, University Nominee - English	Associate Professor, Department of English, PSG College of Technology, Coimbatore

II. Internal Members:

S.No	Name	Designation
1	Dr. A. Sakthivel	BoS Chairman, HoD - S&H
2	Dr. G. V. Sriramachandran	BoS Convener, Assistant Professor (SG)
3	Dr. N. Pankajam	Assistant Professor (SS)
4	Dr. K. KanakSindhu	Assistant Professor
5	Dr. L. Senthil Kumar	Assistant Professor
6	Ms. K. Kalaiselvi	Assistant Professor
7	Ms. N. Sangeetha	Assistant Professor
8	Dr. P. A. Periasamy	Asso Prof/Chemistry & Co-ordinator IQAC
9	Dr. S. Parveen	Assistant Professor - Chemistry

10	Dr. D. Manikandan	Assistant Professor - Chemistry
11	Dr. T. Sathiyapriya	Assistant Professor - Chemistry
12	Dr. B. Saravanakumar	Assistant Professor-Physics
13	Dr. P. S. DeviPrasadh	Assistant Professor-Physics
14	Mr. N. Karthikeyan	Assistant Professor-Physics
15	Dr. J. Johnson William	Assistant Professor-Physics
16	Dr. M. Mariyappan	Assistant Professor-Physics
17	Ms. K. Rajalakshmi	Assistant Professor-English
18	Ms. V. Arunadevi	Assistant Professor-English
19	Ms. R. Bhuvaneswari	Assistant Professor-English
20	Ms. D. Nivetha	Assistant Professor-English
21	Ms. B. Poorani	Assistant Professor-English
22	Dr. A. Anithasree	Assistant Professor-English

Minutes of the Meeting

9th Board of Studies meeting was conducted on 17th April 2021 from 10.30 am to 12.30 pm for Science and Humanities courses through Microsoft Teams. Dr. A. Sakthivel, Chairman, BoS & HoD - S & H hosted the meeting and welcomed the university nominees of Physics, Mathematics, Chemistry and English and internal members of Science and Humanities. He briefed the legacy of the institution and placed the agenda for discussion.

Dr. P. A. Periasamy, Dr. G. V. Sriramachandran, Dr.B. Saravanakumar and Ms. K. Rajalakshmi, presented the syllabus of Chemistry, Mathematics, Physics and English simultaneously in different channels. The following significant points were recorded:

1. Chemistry

Dr. P. A. Periasamy, Associate Professor/Chemistry, welcomed the university nominee Dr.M.Kumaravel, Professor, Head of the department/Chemistry, PSG College of Technology, Coimbatore and presented chemistry course syllabi. The university nominee suggested the following points:

1.1 19CHBC2001 - Chemistry for Electrical Sciences

- Suggested to include the topics such as "Dry cell", "Hydrogen production and storage "in Unit I or Unit IV.
- Recommended to have different spectroscopic techniques like AAS and it can be taught to identify and quantify the elements present in the water sample in Unit-III instead of having separate unit.

- Instead of Biofuels, a suggestion was rendered to include more fuel cells and batteries like satellite batteries, one time use batteries etc in Unit – IV.
- Suggested to introduce newer nano materials based on silicon and organic/inorganic materials in Unit - V.

1.2 19CHBC2201 - Chemistry for Mechanical Sciences

- Recommended to include Unit-I topics of mechanical stream in civil stream and vice versa.
- Suggested to include "Carbonate conditioning and Calgon conditioning", because students have minor knowledge on boiler troubles. So it may be added in Unit-I.
- Suggested to include hydrogen production and storage in Unit-II.
- Recommended to remove the topics such as "Total Acid number and Total Base Number" in Unit-V. It was further suggested to explain the properties of lubricants like viscosity, viscosity index, flash point, pour point.
- Suggested to remove anyone titrations and to include experiments such as "Fire and flash point, Redwood viscometer" in Unit-V laboratory experiment.

1.3 19CHBN2201 - Chemistry for Civil Engineering

- Recommended to include Unit-I topics of mechanical stream in civil stream and vice versa.
- Recommended to include corrosion of marine structures, concrete corrosion, reinforcement structures and biological corrosion in Unit-II.
- Commented to include more topics related to batteries and fuel cells in Unit-III instead of nuclear energy. It was suggested to include hydrogen production and storage.
- Suggested to include anyone titration and to include analytical experiments related to theory in Unit-V laboratory experiment.

2. Mathematics

Dr. G. V. Sriramachandran, Assistant Professor (SG) and BoS convener welcomed the subject expert and presented the syllabi of mathematics courses.

2.1 Semester - I

2.1.1 Course: 19MABC1102 - Linear Algebra and Infinite Series

- Suggested to include "Solution of system of equations" after rank of matrix, in unit- 1.
- Recommended to add "Finding the inverse of a matrix by using Crout's method" in unit -1.
- Suggested to mention "Problems in Gram-Schmidt process and Orthonormal basis" in unit- 3.
- Suggested to include application problems in unit -5 (Sequences and Series).
- Recommended to add the text book titled "P. Sivaramakrishna Das and C. Vijiyakumari,"
 "Engineering Mathematics".

2.1.2 Course: 19MABC1101 - Matrices and Calculus

- Suggested to include double and triple integration in polar coordinates in unit 5.
- Suggested to include applications such as centre of gravity, centroid in unit 5.

2.2 Semester - II

2.2.1 Course: 19MABC1202 - Calculus and Transforms

- Suggested to include properties of vector differential operators in unit 2.
- Suggested to extend up to solution of higher order differential equations in unit 3.
- Recommended to include expansion of periodic functions as Fourier series in unit 4.
- Suggested to update the topic "Solution to homogeneous linear constant difference equation as Solution to homogeneous linear difference equation with constant coefficients" in unit 5.

2.2.2 Course: 19MABC1201 - Ordinary Differential equations and Complex variables

- Suggested to include "Simple application problems on tetrahedron" in unit 1.
- Suggested to include conformal mappings of some more functions in unit 2.
- Suggested to mention "Simply connected region and multi connected region in unit-3.

2.3 Semester - III

2.3.1 Course: 19MABC1301 - Numerical Methods

- Suggested to include "Gauss Jordan method" in solve system of linear equations in unit 1.
- Suggested to include "Finding inverse of a matrix by Gauss Jordan method" in unit 1.
- Recommended to include more methods in finding Eigen values of a matrix in unit 1.
- Suggested to include more methods" Solution of non linear equations" such as Secant method, Horner's method in unit 2.
- Suggested to include double integrals by Simpson's rule in unit 3.
- Suggested to include Improved Euler method after Modified Euler method, in unit-3.
- Suggested to include finite difference concepts, approximation of derivatives using finite differences in unit 5.
- Suggested to include the reference book –"Jain M.K, lyengar.S.R.K and Jain. R. K, "Numerical Methods for Scientific and Engineering Computation", Sixth Edition, New Age Publishers, 2012.

2.3.2 Course: 19MABC1302 - Numerical Methods and Linear Algebra

- Suggested to include "Improved Euler's method and Modified Euler's method" to solve first order ODE in unit 3.
- Suggested to include the reference book- "Numerical methods by Krishnamoorthy".

2.3.3 Course: 19MABC1303 - Discrete Mathematics

No modification was suggested.

2.3.4 Course: 19MABN1304 - Transforms and Partial Differential Equations

 Suggested to include polar coordinates in solution of two dimensional heat flow equation in unit 4.

2.4 Semester - IV

2.4.1 Course: 19MABG1401 - Probability and Statistics

 Suggested to update the topic "Test for independence of attributes by chi square test" in Unit 4.

3. Physics

Dr. B. Saravanakumar, AP/Physics, welcomed the university nominee Dr. N. Gopalakrishnan, Professor of Physics, National Institute of Technology, Trichy and presented the syllabi of four Physics courses. The expert was satisfied with the syllabus and provided following suggestions to be incorporated.

3.1 19PHBC2001 - Physics for Electrical Sciences.

 Suggested to include a unit under the basics of digital electronics and it can be common to circuit branches. Topics such as number conversion, boolean algebra and logic gates may be added. Furthermore, an experiment for this may be included.

3.2 19PHBC2002 - Physics for information Sciences.

 Recommended to revisit the necessity of Unit – 1 wave optics. Since the students are studying about the fabrication of ICs, a unit can be included with the topics such as diodes, transistors and gates. An experiment may be included for this unit.

3.3 19PHBC2101 - Physics for Mechanical Sciences.

Suggested to include NDT in core engineering, instead of 'Physics of Sound'. As it is an
important part. 'Non-Destructive Testing' unit may be included with the topics such as LPM,
MPT, Radiography techniques and Ultrasonic flaw detectors.

3.4 19PHBN2101 - Physics for Civil Engineering.

Recommended to include NDT in core engineering, since it plays vital role. 'Non-Destructive Testing' unit may be included with the topics such as LPM, MPT, Radiography techniques and Ultrasonic flaw detectors.

4. English

Ms. K. Rajalakshmi, AP/English, welcomed the university nominee Dr. R. Kalpana, Associate Professor, Department of English, PSG College of Technology, Coimbatore, presented the highlights of Nachimuthu Industrial Associations –Center for Language Proficiency (NIA–CLP) at MCET, its functioning and shared the plan of syllabus, its deployment and assessment pattern and presented the syllabi of two communication skill courses.

The university nominee suggested the following points:

4.1 19ENHG2101-Communication Skills-I

- Recommended to reframe a few phrases in Communication Skills I syllabi such as: Listening for specific details of monologues and dialogues, paraphrasing aural input, Identifying relevant ideas needed for the presentation, using mind-map to organize thoughts, prioritizing ideas, using varied sentence structures, awareness of mother tongue influence, tense & voice, checking the accuracy of data interpreted, exposure to reading reviews, reading strategies for comprehension, importance of punctuation.
- Recommended to exclude the topics such as "Physical condition needed for active listening, expressing the thoughts in simple sentences
- Suggested to combine the topics "Listening to organize ideas and developing ideas,
 Identifying the main points and organising the main ideas
- Recommended to reframe unit-5 topics as writing memos, notes and messages, E-mail writing and letter writing

4.2 19ENHG2101-Communication Skills-I

- Recommended to reframe a few phrases in Communication Skills I syllabi such as: importance and purpose of extensive and intensive listening, body language cues, writing compound and complex sentences, taking down notes from the listening inputs, organising ideas, expressing views coherently, applying discourse markers, awareness of barriers to reading, reading strategies for effective comprehension.
- Suggested to merge the topics "Importance of empathetic and listening for main ideas to importance of empathetic listening, developing ideas and listening to compose paragraphs to developing ideas and composing

After the discussion, vote of thanks was proposed in all the sections.

BoS Convener

(Dr. G. V. Sriramachandran)

Bos Chairman (Dr. A. Sakthivel)