THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI-15
(Govt. Aided Autonomous Institution affiliated to Anna University)
DEPARTMENT OF MECHATRONICS
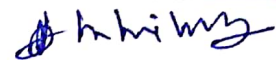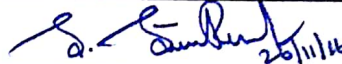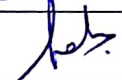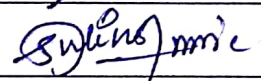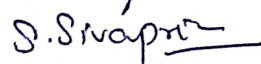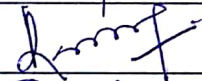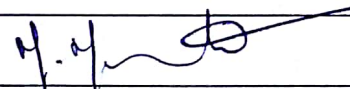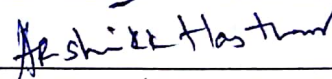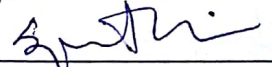
Date of the meeting: 26.11.2016 (Saturday)
Name of the meeting: Board of Studies Meeting – B.E. Mechatronics
ATTENDANCE SHEET
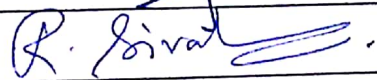
Sl. No.	Name of the Member	Position of the member	Address of the member	Signature of the member
1.	Dr. Ashok Rao	External	Former Head, Network Project, CEDT, IISc Bangalore Guest Faculty, IIM Bangalore Bangalore- 560 012	
2.	Dr. J.E. Diwakar	External	Principal Research Scientist DESE, Indian Institute of Science, Bangalore-560 012	
3.	Mr. Visweswaran Jagadeesan	External	Senior Academic Technical Consultant, National Instruments India Private limited, 81/1 & 82/1, Salarpuria Softzone Wing B, 5th Floor, Block A Bellandur, Varthur Hobli, Bangalore 560 103	—
4.	Mr. S. Sivakumar	External	Caterpillar India Private Limited International Tech Park, 7th Floor, CSIR Road, Tharamani phase 1, Chennai -600 113	—
5.	Dr. M. Palaninatha Raja	Internal	Professor and HOD, Mechatronics, Thiagarajar College of Engineering, Madurai-15	
6.	Dr. P. S. Boopathimanickam	Internal	Asso. Professor, Department of Mechanical Engineering, TCE, Madurai-15	
7.	Dr.M.Mahendran	Internal	Asso. Professor, Department of Physics, TCE, Madurai-15	

H.D.MCT.

Sl. No.	Name of the Member	Position of the member	Address of the member	Signature of the member
x 8.	Dr. G. Kumaraguruparan	Internal	Asso. Professor, Department of Mechatronics, TCE, Madurai-15	
9.	Dr. L.R .Karlmarx	Internal	Asso. Professor, Department of Mechatronics, TCE, Madurai-15	
10	Dr. S. Saravana Perumaal	Internal	Asst. Professor, Department of Mechanical Engineering, TCE, Madurai-15	
11	Dr..Emil Selvan	Internal	Asst. Professor, Department of Computer Science Engineering, TCE, Madurai-15	
12	Mr. T. Vivek	Internal	Asst. Professor, Department of Mechatronics, TCE, Madurai-15	
13	Prof. S. Julius fusic	Internal	Asst. Professor, Department of Mechatronics, TCE, Madurai-15	
14	Prof. S. Sivapriya	Internal	Asst. Professor, Department of Mechatronics, TCE, Madurai-15	
15	Prof. H. Ramesh	Internal	Asst. Professor, Department of Mechatronics, TCE, Madurai-15	
16	Prof. M.A. Ganesh	Internal	Asst. Professor, Department of Mechatronics, TCE, Madurai-15	
17	Prof. M.M. Devarajan	Internal	Asst. Professor, Department of Mechanical Engineering, TCE, Madurai-15	
18	Mr.M.Manimegalan	Internal	Asst. Professor, Department of Mechatronics, TCE, Madurai-15	
x 19	Mr.B.Praveen Kumar	Internal	Asst. Professor, Department of Mechatronics, TCE, Madurai-15	
20	Mr.A.Prakash	Internal	Asst. Professor, Department of Mechatronics, TCE, Madurai-15	
21	Mr.S.A.R.Sheik Masthan	Internal	Asst. Professor, Department of Mechatronics, TCE, Madurai-15	
22	Mr.S.Parthasarathi	Internal	Asst. Professor, Department of Mechatronics, TCE, Madurai-15	

H.D.MCT.

Sl. No.	Name of the Member	Position of the member	Address of the member	Signature of the member
23	Dr.G.Kanagaraj	Internal	Asso. Professor, Department of Mechatronics, TCE, Madurai-15	
24	R.Siva kumar	Internal	Asst. Professor, Department of Mathematics, TCE, Madurai-15	

H.D.MCT.

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		Page No.	1 of 1

MINUTES OF THE MEETING

Date of the meeting: 26.11.2016
Name of the meeting: Board of Studies meeting
Attended by:
External Members:

1. Dr. Ashok Rao, Professor, IISc,(Retd.)2. Dr.J.E.Diwakar, Principal Scientist, Centre for Product Development, IISc.

Internal Members:

1. Dr.M.PalaniNatha Raja, Head, Mechatronics 2. Dr.G.Kanagaraj, Assoc Prof MCT,3. Dr.P.S.Boopathy Manickam, Assoc Prof Mech 4. Dr.M.Mahendran, Assoc Prof Physics 5. Dr.S.Saravana Perumal, Assistant Prof Mech 6.Mr.R.Siva Kumar, Assistant Prof Maths 7. Mr.T.Vivek Assistant Prof MCT, 8.Mr.S.Julius Fusic, Assistant Prof MCT 9. Mr. H.Ramesh, Assistant Prof MCT 10.Mr.M.A.Ganesh, Assistant Prof MCT 11.Ms.S.Siva Priya, Assistant Prof MCT 12. Mr.S.A.R.Sheikh Masthan, Assistant Prof MCT 13. Mr.M.Manimegalan, Assistant Prof MCT 14. Mr.S.Parthasarathy Assistant Prof MCT.

The following experts were given leave of absence.

External : Mr.J.Visveswaran, Academic Manager National Instrumnts & Mr.S.Sivakumar, Project Manager Caterpillar Inc.

Internal : Dr.G.Kumaraguruparan, Assoc Prof MCT, Mr.B.Praveen Kumar Asst Prof MCT& Mr.A.Prakash Asst Prof MCT

S.No.	Points Discussed	Responsibility	Target Date
1.	**14MT610 - Accounting And Finance** 1. Financial aspects of startups shall be explored to introduce in the syllabus. 2. Life cycle costing, Environmental and green costing are the	Dr.P.S.Boopathy Manickam	15.12.2016

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	important topics to be considered for introduction. 3. Exposure to live software examples such as Tally need to be introduced during teaching. 4. Cost center, profit center and spread sheet figures shall be shown to the students. 5. Risk analysis and assessment shall be introduced. 6. Ethics on finance shall be taught to the students.		
2.	**14MT620- Robotics** 1. Title to be renamed as "Industrial robots" with more Mathematics intensive. 2. Autonomous vehicles shall be studied as a separate subject with : Sensing, control and Navigation, Imaging and Vision Based control. 3. Last two topics of "Robot control and Sensors" shall be removed from the syllabus.	Dr.S.Saravana perumal	15.12.2016
3.	**14MT630- Mechatronics System Design** 1. Lab session need to be included with proper tools. 2. Hardware in Loop need to be given in Lab 3. Atleast one online assessment shall be explored in this subject.	Mr.T.Vivek	15.12.2016
4.	**14MT640- Digital Signal Processing** 1. Title to be Changed as "Discrete Time signal processing". 2. Most of the mechatronic system requires "Tracking and Regulation" mechanisms and hence associated time domain concepts to be introduced. 3. Frequency domain concepts shall be reduced. 4. Book on "Ashok Ambar Dhas" shall be used as text book. 5. More emphasis on DSP processors, programs such as Motor control using DSP processor shall be taught.	Mr.H.Ramesh	15.12.2016
5.	**14MTPF0 -Total Quality management**-Nil	Dr.Palaninatha Raja	--

6.	**14MTPG0- Smart material for Mechatronics** 1. Electro Polymers shall be introduced. 2. For specific application, numerical assessment alongwith usability and limitations shall be taught. 3. Smart actuators must be customized for mechatronics.	Dr.M.Mahendran	15.12.2016
7.	**14MTPH0 -Embedded system** 1. Lab session need to be included. 2. Must be a core subject for mechatronics	Dr.L.R.Karl Marx	15.12.2016
8.	**14MTPJ0- Programming for Robotics system** 1. Lab sessions need to be included.	Mr.S.Julius Fusic	15.12.2016
9.	**14MTPK0- Industrial Internet of Things** 1. Python, ARM and Raspberry pi programming in tune with IOT shall be included. 2. Security aspect and Basics of networking needs more emphasis.	Mr.H.Ramesh	15.12.2016
10.	**14MTPM0- Industrial Communication Networks** 1. Hybrid communication systems like wired, wireless, Bluetooth, IR shall be included. 2. 2. Sensor Networks may be introduced as an elective.	Mr.H.Ramesh	15.12.2016
11.	**14MTPN0 -Automotive Mechatronics** 1. NVH requirements shall be introduced . 2. Book by "Isermann" shall be used. 3. Assessment pattern needs to be corrected	Mr.T.Vivek.	15.12.2016
12.	**14MTPP0 -Artificial Intelligence** 1. The limitations of each algorithm need to be added in the syllabus. 2. Genetic Algorithm being a offline it could be removed	Dr.G.Kanagaraj	15.12.2016
13.	**14MTPQ0- Non linear and adaptive control** 1. State space analysis, state estimation, kalman filter in discrete domain is enough. 2. Phase plane analysis, describing function analysis, sliding mode control shall be removed from the syllabus.	Ms.S.Siva Priya	15.12.2016

14.	**14MTPR0- Thermal Management of Electronics** 1. The title to be changed as "Mechanical packaging of electronics technologies".	Dr.G.Kumaraguruparan	15.12.2016
15.	**14MTGA0- Industrial Automation** 1. Hardware knowledge of automation and its inclusion will enrich the understanding on Industrial automation topology.	Mr.H.Ramesh	15.12.2016
16.	**14MTGB0- Mechatronics-NIL**	Mr.T.Vivek.	--
17.	**14MT680- Dynamics and Control Lab** 1. In experiment # 8 of control lab, various motors such as stepper motor and brushless motors shall be added for simulation.	Mr.G.Kanagaraj	15.12.2016
18.	**14MT690- Robotics Lab-NIL**	Mr.S.Julius Fusic	--
19.	**14MT4C0- Capstone Course-1** 1. Matrix: eigen value and eigen vectors need to be added 2. Physics: Maxwell equation needs to be added	Mr.H.Ramesh	15.12.2016
20.	**The following are the suggestion on One credit courses.** 1. Thermal Management of Systems-1 credit course 2. Computational electromagnetics shall be considered. 3. Corporate Social Responsibility by Aravind eye hospital 4. Physiology for engineers from Medical Colleges 5. Life science for engineers 6. Biological inspired design 7. Agricultural robotics 8. Climate change	Head	15.12.2016