THIAGRAJAR COLLEGE OF ENGINEERING, MADURAI 625 015
Department of Electronics and Communication Engineering

MINUTES OF THE MEETING

Name of the meeting	:	Board of Studies Meeting, ECE Department
Date of the meeting	:	01.12.2016
Time	:	10.15 A.M
Duration	:	3 Hours
Venue	:	ECE Seminar Hall, Thiagarajar College of Engineering, Madurai

The following points were discussed:

1. Detailed Syllabi for VI to VIII Semester B.E (ECE) Courses
2. New Elective Courses for B.E. ECE
3. New and Revision of Electives for M.E (Communications Systems) and M.E. (Wireless Technologies)
4. Categorization of courses in Choice Based Credit System (CBCS)
5. Approval of expected level of target attainment for course outcomes (COs)

Attended by:

Dr.R.Sukanesh
Chairman, Board of Studies (ECE) / Head of ECE Department, TCE, Madurai
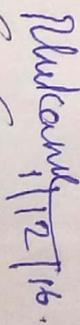
Dr.G.Geetha
Associate Professor, Department of ECE, Anna University, Chennai
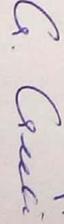
Dr.P.T.Vanathi
Associate Professor, Department of ECE, PSG College of Technology, Coimbatore
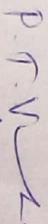
Dr.M.Ganesh Madhan
Professor, Department of Electronics Engineering, Madras Institute of Technology, Chennai

Mr.V.V.Pathy
Head Business Development – Education, Keysight Technologies, Bangalore
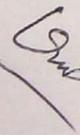
THIAGRAJAR COLLEGE OF ENGINEERING, MADURAI 625 015
Department of Electronics and Communication Engineering

Faculty Members:

No.	Name	Designation	Signature
1.	Dr.V.Abhaikumar	Professor and Principal	
2.	Dr. S. Raju	Professor and Dean(Indstry Interface)	
3.	Dr. M. Suganthi	Associate Professorr	
4.	Dr. S.J. Thiruvengadam	Professor	
5.	Dr. S. Rajaram	Associate Professor	
6.	Dr. S. Md. Mansoor Roomi	Assistant Professor	
7.	Dr. B. Manimegalai	Assistant Professor	
8.	Dr.R.A.Alagu Raja	Assistant Professor	
9.	Dr. T. Aruna	Assistant Professor	
10.	Dr.S.Kanthamani	Associate Professor	
11.	Dr.K.Hariharan	Associate Professor	
12.	Dr. M.S.K. Manikandan	Associate Professor	
13.	Dr.L.R.Karl Marx	Associate Professor	
14.	Dr. A. Banumathi	Associate Professor	
15.	Dr. A. Thenmozhi	Associate Professor	
16.	Dr. B. Yogameena	Associate Professor	
17.	Dr. B. Sathyabama	Associate Professor	
18.	Dr.M.N.Suresh	Assistant Professor	

THIAGRAJAR COLLEGE OF ENGINEERING, MADURAI 625 015
Department of Electronics and Communication Engineering

No.	Name	Designation	Signature
19.	Dr. K. Rajeswari	Assistant Professor	
20.	Dr. N.B. Balamurugan	Associate Professor	
21.	Dr.V.Vinoth Thyagarajan	Assistant Professor	
22.	Dr.S.Ponmalar	Assistant Professor	
23.	Dr. G. Ananthi	Assistant Professor	
24.	Mrs. E. Murugavalli	Assistant Professor	
25.	Dr.V.N.Senthilkumaran	Assistant Professor	
26.	Mr.K. Vasudevan	Assistant Professor	
27.	Dr.D. Gracia Nirmala Rani	Assistant Professor	
28.	Dr. P.G.S. Velmurugan	Assistant Professor	
29.	Dr.V.R. Venkatasubramani	Assistant Professor	
30.	Dr. K. Kalyani	Assistant Professor	
31.	Mr.M.Senthilnathan	Assistant Professor	
32.	Mr.S. Parthasarathi	Assistant Professor	
33.	Dr.S.Rajaram	Associate Professor/English	
34.	Mr.B.BruceLee	Assistant Professor/ Mech	
35.	Dr.R.Muruganandham	Assistant Professor/Mech	
36.	Dr. K. Radha	Associate Professor of chemistry	

THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI 625 015
Department of Electronics and Communication Engineering

#	Points Discussed	Action Plan	Responsibility	Target date
1.	Scheduling of Courses	Dr.(Mrs) R.Sukanesh welcomed the members of the Board of studies and presented the Agenda of the meeting followed by Scheduling of Courses.	-	-
2.	Revision in the curriculum.	Dr.V.Abhaikumar presented the modifications to be made in the existing curriculum. • "Transmission lines and Wavegudes" course is renamed as "RF Transmission Lines and Passive Circuits" and shall be offered in IV semester for the students joined in 2015-16 onwards. Since waveguides are becoming absolute in industries, they are replaced by passive circuits. • The course "Antennas and Wave Propagation" offered in V semester is replaced by "RF Active Circuits". In turn, "Antennas and Wave Propagation" course is shifted to VI semester replacing "RF and Microwave Engineering" course. This is applicable for students joined in 2015-16 onwards. In "14EC530: Antennas and Wave Propagation" course, derivation of dipole concept is removed and instead antenna design, measurements, power density, array parameters, budgeting and channel measurements are included. • The course "RF System Design and Measurement" is offered as an elective course in the 7th semester.	-	-
3.	The approval of the syllabi for the course- 14EC610- Management Theory and Practice.	Mr.B.BruceLee presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. • Can include "facility management" as a case study. • External experts from IIM / Industries may be invited to handle certain topics.	Mr.B.BruceLee	07.12.16

THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI 625 015
Department of Electronics and Communication Engineering

#	Points Discussed	Action Plan	Responsibility	Target date
4.	The approval of the syllabi for the course 14EC620 – Wireless Communication Systems	Dr.S.J.Thiruvengadam presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
5.	The approval of the syllabi for the course 14EC630 – RF and Microwave Engineering	Mr.K.Vasudevan presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
6.	The approval of the syllabi for the course-14EC670 – Professional Communication.	Dr.S.Rajaram presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. • This course may be offered in 4th semester for placement. • The meaning of vocabulary development and Demonstration of Group Discussion is discussed and clarified in the syllabus.	Dr.S.Rajaram	07.12.16
7.	The approval of the syllabi for the course-14EC680: Microwave and Antenna Lab	Mr.K.Vasudevan presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
8.	The approval of the syllabi for the course-14EC690: System Design and Testing Lab	Dr.A.Thenmozhi presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-

#	Points Discussed	Action Plan	Responsibility	Target date
9.	The approval of the syllabi for the course- 14EC710 – Accounting and finance	Dr.R.Muruganandham presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. • Can include topics on "Entrepreneur development" as a case study. • External experts from IIM / Industries may be invited to handle certain topics. • The common terminologies like fixed/variable cost, E-Business/E-Market. Economics and Management may to be included in the syllabus.	Dr.R.Muruganandham	07.12.16
10.	The approval of the syllabi for the course-14EC720 – Optical Communication Networks	Dr.S.Ponmalar presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. • Remove the term "overview" in the content. • May include topics on "attenuation" and "dispersion" concepts. • Topic on "rate equation" may be removed • May include topics on "analog optical network and links" in the course.	Dr.S.Ponmalar	07.12.16
11.	The approval of the syllabi for the course-14EC770 – ASIC Design	Dr.S.Rajaram presented the course and the syllabus has been passed for approval in Academic council meeting.	Dr.S.Rajaram	-
12.	The approval of the syllabi for the course-14EC780 – Elective Lab	Dr.S.J.Thiruvengadam presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
13.	The approval of the syllabi for the course –14EC7C0 : Capstone II	Dr.S.J.Thiruvengadam and Dr.K.Radha presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-

#	Points Discussed	Action Plan	Responsibility	Target date
14.	The approval of the syllabi for the course – 15EC430 for RF Transmission Lines and Passive Circuits	Dr.V.Abhaikumar presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
15.	The approval of the syllabi for the course – 15EC530: RF Active Circuits	Dr.V.Abhaikumar presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
16.	The approval of the syllabi for the course – 15EC630: Antennas and Wave Propagation	Dr.V.Abhaikumar presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
17.	The approval of the syllabi for the course – 14EC4C1: Capstone I	Dr.S.J.Thiruvengadam presented the course and the revised syllabus has been passed for approval in Academic council meeting. Literature review, research proposal/methodology, result analysis and viva component has been removed. Instead - Mathematics, Physics, Chemistry and Engineering Group 1,2,3 are formed along with corresponding syllabus and assessment pattern.	-	07.12.16
18.	The approval of the syllabi for the course – 14ECPG0 – Statistical Signal Processing	Dr.S.J.Thiruvengadam has been passed for approval in Academic council meeting.	-	-
19.	The approval of the syllabi for the course – 14ECPH0 – Radar Systems	Dr.S.J.Thiruvengadam presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. • Remove the term "overview" in the content.	Dr.S.J.Thiruvengadam	-
20.	The approval of the syllabi for the course – 14ECPJ0:Bio-Medical Instrumentation	Dr.(Mrs) R.Sukanesh presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
21.	The approval of the syllabi for the course – 14ECPK0: Network Security	Dr.M.S.K. Manikandan presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-

THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI 625 015
Department of Electronics and Communication Engineering

#	Points Discussed	Action Plan	Responsibility	Target date
22.	The approval of the syllabi for the course -14ECPL0-Software Defined and Cognitive Radio Networks	Dr.M.Suganthi presented the course and the syllabus has been passed for approval in Academic council meeting. The • May reduce advanced topics and instead can include topics on fundamentals.	Dr.M.Suganthi	-
23.	The approval of the syllabi for the course- 14ECPM0 – Low power VLSI Systems	Dr.S.Rajaram presented the course and the syllabus has been passed for approval in Academic council meeting.	Dr.V.Vinoth Thyagarajan	-
24.	The approval of the syllabi for the course- 14ECPN0-VLSI Device modeling	Dr.N.B.Balamurugan presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
25.	The approval of the syllabi for the course- 14ECPP0 – Digital Video Processing	Dr.B.Yogameena presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. • Include HDMI Standards in the course.	Dr.B.Yogameena	-
26.	The approval of the syllabi for the course- 14ECPQ0-Medical Image Processing	Dr.A.Banumathi presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. • The course title may be changed as "Medical Imaging and Processing" • Classification topics may be removed from the course syllabus.	Dr.A.Banumathi	-
27.	The approval of the syllabi for the course-14ECPR0-Satellite Remote Sensing	Dr.S.Mohammed Mansoor Roomi presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
28.	The approval of the syllabi for the course-14ECPS0: Design of Internet of Things	Dr.K.Hariharan presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-

THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI 625 015

Department of Electronics and Communication Engineering

#	Points Discussed	Action Plan	Responsibility	Target date
29.	The approval of the syllabi for the course- 14ECPT0- Radio Frequency Integrated Circuits	Dr.D.Gracia Nirmala Rani presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. • The term "overview" may be replaced by "introduction or basics". • May include topics on power amplifiers. • Remove industry/company names from the syllabus.	Dr.D.Gracia Nirmala Rani	-
30.	The approval of the syllabi for the course 14ECPU0- RF System Design and Measurements	Dr.V.Abhaikumar presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. • Can include topics on modulation parameters, digital receiver system parameters and modulation error ratio.	Dr.V.Abhaikumar	07.12.16
31.	The approval of the syllabi for the course – 14ECPV0 – Physical Layer LTE Systems	Dr.S.J.Thiruvengadam presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
32.	The approval of the syllabi for the course-14ECPW0- Mixed Signal Integrated Circuit	Dr.K.Hariharan presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
33.	The approval of the syllabi for the course-14ECPY0- Electrical and Electronic Measurement	Dr.K.Hariharan presented the course and the syllabus has been passed for approval in Academic council meeting. • Practical examples may be included in the course.	Dr.K.Hariharan	07.12.16
34.	The approval of the syllabi for the course –14ECPZ0 – Speech signal processing	Dr.M.N.Suresh presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
35.	The approval of the syllabi for the course – 14ECRA0- Audio Signal Processing	Dr.K.Rajeswari presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. • May include topics on Digital audio compression techniques in the course.	Dr.K.Rajeswari	07.12.16

THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI 625 015

Department of Electronics and Communication Engineering

#	Points Discussed	Action Plan	Responsibility	Target date
36.	The approval of the syllabi for the course-14ECRB0-Computer Vision and Applications	Dr.B.Yogameena presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
37.	The approval of the syllabi for the course-14ECRC0-Satellite Image Analysis	Dr.S.Md Mansoor Roomi presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
38.	The approval of the syllabi for the course-14ECRD0-Data Compression	Dr.S.Md Mansoor Roomi presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
39.	The approval of the syllabi for the course- 14ECRE0-Electromagnetic Interference and Compatibility	Dr.S.Raju presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. • The term "overview" may be replaced by "introduction or basics". • May include topics on nuclear radiation.	Dr.S.Raju	07.12.16
40.	The approval of the syllabi for the course- 14ECRF0-RF MEMS	Dr.S.Kanthamani presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
41.	The approval of the syllabi for the course- 14ECRG0-Planar Antennas for Wireless Communications.	Dr.B.Manimegalai presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. • Reference book year to be included.	Dr.B.Manimegalai	07.12.16
42.	The approval of the syllabi for the course -14ECRH0-High Performance Networks	Dr.M.Suganthi presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. • Remove the term overview in the content.	-	07.12.16
43.	The approval of the syllabi for the course 14ECRJ0:Adhoc and Sensor Networks	Dr.T.Aruna presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. • Introductory topics may be reduced and instead more topics on sensor routing may be Included.	Dr.T.Aruna	07.12.16

#	Points Discussed	Action Plan	Responsibility	Target date
44.	The approval of the syllabi for the course -14ECRK0- Cooperative Communication Networks	Dr.T.Aruna presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
45.	The approval of the syllabi for the course- 14ECRL0- CAD for VLSI	Dr.D.Gracia Nirmala Rani presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. • Recent edition for text book is to be included.	Dr.D.Gracia Nirmala Rani	07.12.16
46.	The approval of the syllabi for the course 14ECRM0: Image Analysis and Visualization	Dr.S.Md Mansoor Roomi presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
47.	The approval of the syllabi for the two course – 14EC2A0-Device Characterization	Mr.V.V.Pathy presented the course offered his company and the syllabus has been passed for approval in Academic council meeting.	-	-
48.	The approval of the syllabi for the two course – 14EC2B0-Semiconductor Modeling	Mr.V.V.Pathy presented the course offered his company and the syllabus has been passed for approval in Academic council meeting.	-	-
49.	The approval of the syllabi for the two course – 14EC2C0-RF Design and Measurement Tools	Mr.V.V.Pathy presented the course offered his company and the syllabus has been passed for approval in Academic council meeting.	-	-
50.	The approval of the syllabi for the course-14ECGA0- Consumer Electronics	Dr.K.Hariharan presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. • This course may be offered as an elective course in ECE Department with different course title.	-	-
51.	The approval of the syllabi for the course-14ECGB0- Multimedia Systems	Dr.M.S.K.Manikandan presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-

THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI 625 015
Department of Electronics and Communication Engineering

#	Points Discussed	Action Plan	Responsibility	Target date
52.	The approval of the syllabi for the course-14ECGC0-Telecom Systems	Dr.S.J.Thiruvengadam presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
53.	The approval of the syllabi for the course-14ECGD0-Image Processing and Applications	Dr.B.Yogameena presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
54.	The approval of the syllabi for the course – 14CNRA0 /14WTPV0 - Telehealth Technology	Dr.(Mrs) R.Sukanesh presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
55.	The approval of the syllabi for the course – 14CNPY0/14WTPT0: Emerging Wireless Technologies and Future Mobile Internet	Dr.(Mrs) M.Suganthi presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
56.	14CNPZ0/14WTPU0: Software Defined and Cognitive Radio Networks	Dr.(Mrs) M.Suganthi presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
57.	14CNRB0/14WTPW0: Radio Frequency Integrated Circuit System Design	Dr.D.Gracia Nirmala Rani presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-

THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI 625 015
Department of Electronics and Communication Engineering

#	Points Discussed	Action Plan	Responsibility	Target date
58.	14WT151-Multimedia Compression Techniques	Dr.S.Mohammed Mansoor Roomi presented the course and revised syllabus has been passed for approval in Academic council meeting. • Removed module on "hearing perception" and "Loseless compression" for image data. Also removed topics on "DCT – Walsh Hadamard." • Included a new module on " Multimedia- Graphics and Image Data Representations, Video Data Representation." Also included advanced topics on "rice code", Bilevel Image Compression Standards, 7-MPEG 21.	-	-
59.	Revise course outcomes and CO-PO mapping for M.E.(Wireless Technologies)	Dr.S.J.Thiruvengadam presented the Revise course outcomes and CO-PO mapping for M.E.(Wireless Technologies) and the same has been passed for approval in Academic council meeting.	-	-
60.	General Recommendations of the Board	• To allot a slot for "Control Systems" as core course in the B.E. (ECE) Programme curriculum. *Compulsorily* • To introduce course on "Satellite Communication" in the B.E. (ECE) Programme curriculum.	-	-

Prepared by .... Date: 01.12.2016

Approved by .... Date: 01.12.2016

HDECE

THIAGRAJAR COLLEGE OF ENGINEERING, MADURAI 625 015
Department of Electronics and Communication Engineering

MINUTES OF THE MEETING

Name of the meeting : Board of Studies Meeting (Adhoc), ECE Department
Date of the meeting : 03.10.2016
Time   : 11.00 AM
Duration   : 1 Hour
Venue   : ECE Department Seminar Hall

Attended by:

Dr.(Mrs) R.Sukanesh	Chairman, Board of Studies (ECE), Head of Department
Dr. S.J. Thiruvengadam	Professor
Dr.M,S.K.Manikandan	Associate Professor
Mrs.E.Murugavalli	Assitant Professor
Dr.V.R. Venkatasubramani	Assistant Professor

Sl.No	Points Discussed	Action Plan	Responsibility	Target date
1.	The approval of the syllabi of one credit course for B.E ECE Students : 14EC1C0- Practical Approaches to Networking	Dr.M,S.K.Manikandan presented the course and the syllabi has been approved without change.	Dr.M,S.K.Manikandan Mrs.E.Murugavalli	-

Prepared by .... Date: 03.10.2016   Approved by .... Date: 03.10.2016

HDECE

Page 1 of 1