THIAGARAJAR 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   :   16.11.2019

Time   :   10.30 A.M

Duration   :   3 Hours

Venue   :   Agilent Communications Lab

The following points were discussed:

1. Detailed Syllabi. based on CDIO framework, for Elective courses of B.E (ECE) programme for the students admitted from the Academic year 2018-19 onwards.
2. Detailed Syllabi, based on CDIO framework, for General Elective courses of B.E (ECE) programme for the students admitted from the Academic year 2018-19 onwards.
3. Detailed Syllabi of Industry Support Courses of B.E (ECE) programme for the students admitted from the Academic year 2014-15 onwards.
4. Detailed Syllabi of Elective course for M.E (Communication Systems) for the students admitted from the Academic year 2018-19 onwards.
5. Categorization of courses in Choice Based Credit System (CBCS) for B. E (ECE) programme for the students admitted from the Academic year 2018-19 onwards.
6. Scheduling of courses, based on CDIO framework, for B. E (ECE) programme for the students admitted from the Academic year 2018-19 onwards.
7. Any other matter

Attended by:

Dr.S.Md Mansoor Roomi   Chairman, Board of Studies (ECE) / Head-in-charge of ECE Department, TCE, Madurai

Dr. Balaji Srinivasan   Professor, Department of EE, Indian Institute of Technology Madras

Dr.M.Ganesh Madhan   Professor, Department of Electronics Engineering, Madras Institute of Technology, Chennai

Dr.S.Manivannan   General Manager, Siemens Ltd., Bangalore

Mr.P.Chinnadurai   Sr. Project Leader, Jasmin Infotech Pvt. Ltd., Chennai

Dr. S. Deepak Ram Prasath   Project Manager, Thiagarajar Telekom Solutions Ltd., Madurai

Faculty Members:

No.	Name	Designation	Signature
1.	Dr.S.J.Thiruvengadam	Professor, ECE and Dean (Academic Process)	S.J.Thiru...
2.	Dr.R.A.Alagu Raja	Assistant Professor	
3.	Dr.S.Kanthamani	Associate Professor	
4.	Dr.K.Hariharan	Associate Professor	
5.	Dr. M.S.K. Manikandan	Associate Professor	
6.	Dr. A. Banumathi	Associate Professor	
7.	Dr. B. Yogameena	Associate Professor	B. Yogameena
8.	Dr. B. Sathyabama	Associate Professor	B. Sathyabama
9.	Dr.M.N.Suresh	Assistant Professor	M.N. Suresh
10.	Dr. K. Rajeswari	Assistant Professor	K.Raj...
11.	Dr. N.B. Balamurugan	Associate Professor	
12.	Dr.V.Vinoth Thyagarajan	Assistant Professor	Vinoth
13.	Dr.S.Ponmalar	Assistant Professor	S Ponmalar
14.	Dr. G. Ananthi	Assistant Professor	G.Ananthi
15.	Dr. E. Murugavalli	Assistant Professor	
16.	Dr.K.Vasudevan	Assistant Professor	K. Vasu...
17.	Dr.V.N.Senthilkumaran	Assistant Professor	V.N.Senthilkumaran
18.	Dr. P.G.S. Velmurugan	Assistant Professor	P...
19.	Dr.V.R. Venkatasubramani	Assistant Professor	
20.	Mr. M.Senthilnathan	Assistant Professor	M. Senthilnathan

#	Points Discussed	Action Plan	Responsibility	Target date
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1.	Agenda of the Meeting	Dr.S.Md Mansoor Roomi welcomed the members of the Board of studies and briefed about the status of TCE with respect to Placement Activities. Dr.V.R.Venkatasubramani presented the Agenda of the meeting.		22.11.19
2.	18ECPA0 Computer Vision and Applications	Dr.B.Yogameena presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Coursera and NPTEL links can be included under learning resources. • "Graph cut" topic can be removed and Instead "Active contour model" can be included to cover medical applications. • "Stereo correspondence and matching" topic can be included to give the overview of depth estimation. • Can reduce Course Outcome 1 (CO1) weightage.	Dr.B.Yogameena	22.11.19
3.	18ECPB0 Data Compression	Dr.B.Sathyabama presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Coursera and NPTEL links can be included under learning resources. • Analysis and comparison of different compression methods can be dealt. • "Understand" level CO can be boosted to a higher level. • Can include compression of data from GPS, Big Data.	Dr.B.Sathyabama	
4.	18ECPC0 DSP Architecture and Programming	Dr.P.G.S.Velmurugan presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Can deal with introduction to Signal Processing Algorithms. • Comparison between fixed point and floating point data types can be included. • Topics on Cycle count and Code size optimization can be included. • Online Learning Resources link can be included. • GPU has to be covered in the curriculum. Can include that in the topic under ARM architecture.	Dr.P.G.S.Velmurugan	22.11.19

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5.	18ECPD0 Wireless Communication Systems	Dr.G.Ananthi presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Interference spoofing and jamming can be introduced in this course. • Case study mentioned in the syllabus can be specific to applications such as wireless sensor networks, underwater communication, Chandrayaan-II mission communication, etc. • RF link budget can be brought up front in the syllabus. • Power efficient and bandwidth efficient methods can be dealt in the interest of comparison and analysis. • BBC / Voice of America channels can be quoted as live examples at the start of teaching topic on channel fading. Subsequently teach mathematical modeling of fading.	Dr.G.Ananthi	22.11.19
6.	18ECPE0 Biomedical 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: • Embedded programming is the need of the hour. • Syllabus can talk about the use of filters for Artifact removal (initially offline and then go for online in the later part) • Internet of Medical Things (IoMT) topic can be included. • Demonstrations on Real-time processing, e,g., during surgery can be shown. Emphasis on sensors, hardware and software can be carried out. • Speech signals may be included in syllabus.	Dr.K.Rajeswari	22.11.19
7.	18ECPF0 FPGA Based Digital System Design	Dr.V.Vinoth Thyagarajan presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Learning resources can enrich with appropriate FPGA books. Also online resource link can be included. • Practical part can enhance the learning level. Assignments given to the students can be more of practical aspects. • The advantages of FPGA over its DSP processor / Microprocessor counterpart has to be specified clearly in the course. • Due importance has to be given for CO6 that is meant for timing analysis. CO6 may be shifted up to CO2.	Dr.V.Vinoth Thyagarajan	22.11.19

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8.	18ECPG0 Analog System Design	Dr.N.B.Balamurugan presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Lab experiments should end with relevant applications.	Dr.N.B.Balamurugan	22.11.19
9.	18ECPH0 Electronic Measurement and Instruments	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 can be offered as a "core" in semester II. If not, make this course as compulsory for all students. • Spectrum and logic analyzer can be included. • Vast syllabus. Hence can be thought of allotting 4 credits to this course	Dr.K.Hariharan	22.11.19
10.	18ECPJ0 Network Security	Dr.M.S.K.Manikandan presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • The title of this course can be changed as "Network and Data Security" and topics on cloud security can be included. • Security measure has to be quantified in the start of the syllabus.	-	-
11.	18ECPK0 Optical Communication	Dr.S.Ponmalar presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • The practical aspects has to be mentioned in the syllabus • Link budget design can included at block level. • Introduce our college fiber optic communication system to students. • Spectra efficiency, on-off keying, OFDM, signal constellation topics can be included. • Before going for on-off keying, introduce direct modulation / external modulation and its limitations. Also sub-carrier multiplexing can be included.	Dr.S.Ponmalar	22.11.19

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12.	18ECGA0 Consumer Electronics	Mr.M.Senthilnathan presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • MPEG-H and Auto SAR can be included. • Think of a way to offer this course to ECE students also. • Building block of a specific system with respect to components such as diode, transistor can be included in the syllabus. • Also household electronic system such as microwave oven, refrigerator can be included.	Mr.M.Senthilnathan	22.11.19
13.	18ECGB0 Multimedia Systems	Dr.E.Murugavalli presented the course and the syllabus has been passed for approval in Academic council meeting. . The following changes are suggested: • Block diagram approach can be emphasized for covering the topics.	Dr.E.Murugavalli	22.11.19
14.	18EGGC0 Telecommunication Systems	Dr.V.N.Senthilkumaran presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Optical topic can be sequenced after digital topic. • 5G wireless standards to be included in last module. • Fourth Learning resource: Optic Fiber Communication by Gerd Kaiser to be upgraded to 5th edition. • Learning resource – NPTEL course for Optical Fiber Communication can changed to Video Lecture by Prof. Pradeep Kumar. K of IIT Madras	Dr.V.N.Senthilkumaran	22.11.19
15.	18ECGD0 Applied Image Processing	Dr.B.Yogameena presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Color image processing has been included since students need to work with real-world images. • Ultrasound images can be included and MRI can be removed. • Non-destructive testing can be included. • Mini-projects/Assignments have to be fixed such that the course outcomes are attained.	Dr.B.Yogameena	22.11.19

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16.	14EC2D0 Data Science and Machine Learning	Dr.S.Ponmalar presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Case study from various disciplines can be included. From ECE discipline, PCB inspection can be included.	Dr.B.Sathyabama	22.11.19
17.	14EC2E0 Drone Computing	Dr.B.Sathyabama presented the course and the following changes are suggested: • The title of the syllabus is not appropriate to the content. Hence syllabus has to be changed and can be placed in the next BoS meeting.	Dr.S.Ponmalar	22.11.19
18.	14EC1H0 Programming in JAVA	Dr.E.Murugavalli presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Concepts of object oriented programming should be emphasized.	Dr.E.Murugavalli	22.11.19
19.	14EC1J0 Mastering Instruments through Post Silicon	Dr.V.R.Venkatasubramani presented the course and the syllabus has been passed for approval in Academic council meeting. • Title of the course has to be changed appropriate to the content.	Dr.D.Gracia Nirmala Rani	22.11.19
20.	14CNPZ0 Remote Sensing for Vegetation	Dr.R.A.Alaguraja presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Other Applications such as remote sensing for fisheries, remote sensing for oil exploration, and remote sensing for soil analysis can be included to make the course a general one.	Dr.R.A.Alaguraja	22.11.19
21.	Student Feedback on Curriculum	• Fundamentals courses of ECE: Electronics, Circuit theory and Signals and Systems should be given due importance in the aspects of content and content delivery. • Microprocessor and microcontroller should not be merged. These courses have to be separated as individual core course. • The problem solving skills should be nurtured to a level such that most of the students get placed in ECE core companies and clear GATE exams. • Courses covering JAVA should be made available for all the students.	-	-

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22.	General Recommendations	• The curriculum structure should have equal credit weightage between Theory and Practical. • Refresher course has to be arranged when there is a gap between students' knowledge and the course depth. • Object oriented programming concepts should be covered in core courses. • Legacy courses such as "FPGA based digital system design", "Consumer Electronics" can be video recorded. • General elective courses, offered for other departments, should include hardware domain practical in Rasberry Pi, Ardino, Sensors, Beggle board, Robotics, etc. This will motivate students towards Hackathon / Contest participation. • Create a common Portal, for monitoring the action taken, which includes all the BoS members.		

Prepared by V R Vengata Subbramanam .... Date: 16.11.2019

Approved by .... Date: 16.11.2019