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 (Online via Google meet), ECE Department
Date of the meeting	:	29th April 2023
Time	:	10.00 A.M
Duration	:	3 Hours

The following points were discussed:

1. Scheduling of courses, Curriculum and Syllabi for III and IV semester B. E (ECE) programme for the students admitted from the Academic year 2022-23 onwards.
2. Syllabus of elective courses for M.E (Communication Systems) programme for the students admitted from the Academic year 2021-22 onwards.
3. Programme Performance Assessment Committee (PPAC) Meeting.
4. Introduction of B.E (ECE) programme - Honors and Minors.
5. Any other matter.

Attended by:

Dr.S.Rajaram	Chairman, Board of Studies (ECE) / Professor and Head of ECE Department, TCE, Madurai
Dr. Balaji Srinivasan	Professor, Department of EE, Indian Institute of Technology Madras
Dr.T.Purusothaman	Professor, Department of ECE, Govt. College of Technology, Coimbatore
Dr S.Manivannan	Principal Key Expert (R&D), Siemens Healthineers India LLP, Bengaluru
Dr.D.Sriram Kumar	Professor, Department of ECE, National Institute of Technology Trichy
Dr. T. Ganesan	Director and CTO, MMRFIC Technology Pvt. Ltd., Bengaluru
Mr.P.Chinnadurai	Sr. Project Leader, Jasmine InfoTech Pvt. Ltd., Chennai
Dr. S. Deepak Ram Prasath	Project Manager, Thiagarajar Telekom Solutions Ltd., Madurai

Faculty Members:

1.	Dr.B.Manimegalai	Professor
2.	Dr.S.Md. Mansoor Roomi	Professor
3.	Dr.S.Kanthamani	Associate Professor
4.	Dr.K.Hariharan	Professor
5.	Dr M.S.K. Manikandan	Associate Professor
6.	Dr B. Yogameena	Professor
7.	Dr B. Sathyabama	Professor
8.	Dr.M.N.Suresh	Associate Professor
9.	Dr K. Rajeswari	Associate Professor
10.	Dr N.B. Balamurugan	Professor
11.	Dr.V.Vinoth Thyagarajan	Assistant Professor
12.	Dr G. Ananthi	Assistant Professor
13.	Dr E. Murugavalli	Assistant Professor
14.	Dr.K.Vasudevan	Assistant Professor
15.	Dr.D.Gracia Nirmala Rani	Associate Professor
16.	Dr P.G.S. Velmurugan	Associate Professor
17.	Dr.V.R. Venkatasubramani	Assistant Professor
18.	Mr M.Senthilnathan	Assistant Professor
19.	Dr.N.Ayyanar	Assistant Professor
20.	Dr.G.Prabhakar	Assistant Professor
21.	Dr.M.Senthilarasi	Assistant Professor
22.	Mrs.J.Shanthi	Assistant Professor
23.	Dr.L.Muthusubramanian	Assistant Professor / Maths

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#	Points Discussed	Action Plan	Responsibility	Target date
1.	Agenda of the Meeting	Dr.S.Rajaram welcomed the members of the Board of studies and presented the Agenda of the meeting. Dr.V.R.Venkatasubramani displayed the statement of Vision, Mission, Programme Educational Objectives, Programme Outcomes, Programme Specific Outcomes of the B.E (ECE) programme. Also Dr.V.R.Venkatasubramani displayed the Scheduling of Courses, syllabus for the fourth semester lateral entry mathematics course, Third semester courses, Fourth semester courses for B.E (ECE), and elective courses for M.E(Communication Systems).	-	-
2.	An additional section/slot for B.E (ECE) programme	Dr.S.Rajaram explained about the plan of starting an additional section/slot for B.E (ECE) programme from the academic year 2023-24 onwards. Balancing of faculty members work load and Lab infrastructure are challenging. The following suggestions were given: • Can have two mirror schedules for the first year - one batch in the morning and another batch can do in the evening. • Massive classroom (physical) can be conducted for a maximum of 250 students. Quality of interaction should not be compromised. At least one face to face contact hour should be assigned each week.	-	-
3.	Scheduling of courses for students joined from academic year 2023-24 onwards for B.E (ECE) programme	Dr.S.Rajaram presented the Scheduling of courses for students joined from academic year 2023-24 onwards for B.E (ECE) programme. To balance the work load in case of three sections/slots in ECE department, the courses '22CH130 Chemistry' and '22CH190 Chemistry Laboratory' are moved from first semester to second semester. Instead, the courses '22EC260 Problem Solving using Computers' and '22EC220 Electronic Devices' are moved from second semester to first semester. The course 'Python Programming and Data Structure' shall be offered in second semester in lieu of '22EC160 Computer Aided Engineering Graphics'. The following changes are suggested: • The course '22EC230 Electric and Magnetic Circuits' can be moved to first semester instead of moving '22EC220 Electronic Devices' so as to ease the load on students in second semester.	Dr.S.Rajaram	06-05-2023
4.	22ECL10 Vector Spaces, Probability and Optimization	Dr.L.Muthusubramanian presented the course and syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Syllabus content can be reduced such that polytechnic students can learn without much difficulty.	Dr.L.Muthu subramanian	06-05-2023
5.	22EC320 Analog Circuit Design	Dr N.B.Balamurugan presented the course and syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Can include experiments on Differential amplifier using op-amp. • Numbers of hours in each module can be allotted as per the gravity of the topics.	Dr N B Balamurugan	06-05-2023

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6.	22EC330 Network Analysis and Synthesis	Dr B Sathyabama presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Book by Van Valkenburg can be assigned as text book. • Connectivity form first semester '22EC230 Electric and Magnetic Circuits' to this course has to be ensured.	Dr B Sathyabama	06-05-2023
7.	22EC340 Computer Organization and Microprocessor	Dr G Prabhakar presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Topics on ARM processor can be included in Theory. • In theory, topics on 8086 can be retained for historic reason, if required. But in Practical, experiments based on 8086 should be removed and instead experiments based on Raspberry pi, GPU, i5, i7 and Cloud computing can be included. Students can learn how a single board computer, laptop, workstation is architected. • Topics on scheduling and resource allocation in multicore architectures can be included. • Numbers of hours in each module can be allotted as per the gravity of the topics. Especially, the number of hours in the last two modules can be reduced.	Dr G Prabhakar	06-05-2023
8.	22EC350 Signals and Systems	Dr K Rajeswari presented the course and the syllabus has been passed for approval in Academic council meeting without change. • The module 'Time-Domain Analysis of Discrete-Time Systems' can be placed after the Sampling module. • Real-time signals such as signals from sensors can be included in the first module.	Dr K Rajeswari	06-05-2023
9.	22EC360 Object-Oriented Programming	Dr.M.Senthilarasi presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Topics on Functional programming and Design patterns can be included. Functional programming concepts can be referred from Python book. A book titled 'Design Patterns: Elements of Reusable Object-Oriented Software' by gang of four can be referred. • More hands-on assignments and exercises should be given in parallel with the theory topics. • Course title can be changed to 'OOPS with JAVA'.	Dr.M.Senthil arasi	06-05-2023
10.	22EC420 Mixed Signal Circuit Design	Dr V.R.Venkatasubramani presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Topics on 'Switch capacitor amplifiers, Switch capacitor power amplifiers, Switch capacitor filters' can be explicitly specified in the syllabus. • Topics on Negative resistance can be included. Prof KRK Rao lecture notes can be referred. • Numbers of hours in each module can be allotted as per the gravity of the topics.	Dr V R Venkata subramani	06-05-2023

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11.	22EC430 RF Circuit Design	Dr K Vasudevan presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Common base, common collector, and common emitter topologies have to be introduced to students. • Topics on Gain-bandwidth product has to be explicitly specified in the syllabus. • Topics on 'Gain and Power budget analysis' has to be included. • Topics on Microwave sources and waveguides has to be included in the first module.	Dr K Vasudevan	06-05-2023
12.	22EC440 Microcontrollers and Embedded Systems	Dr K Hariharan presented the course and the syllabus has been passed for approval in Academic council meeting without change. The suggestions are: • Topics on I2S and SDIO has to be included. • Communication peripherals should be taught in a such a way to lead towards IoT readiness. This course should have connectivity to forthcoming IoT courses.	Dr K Hariharan	06-05-2023
13.	22EC450 Discrete-Time Signal Processing	Dr M N Suresh presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: • Topics on polyphase filters can be included instead of quadrature mirror filter in multi-rate signal processing module. • Can refer to ADA website for including signal processing experiments. • Can include performance metrics for signal processing for the students to understand the significance of performance issues in signal processing and the need for signal processing upfront.	Dr M N Suresh	06-05-2023
14.	22EC460 Introduction to Data Science	The syllabus was designed by TCE Data Science department. The following changes are suggested: • Connectivity has to be ensured between the '22EC310 Probability and Statistics' mathematics course taught in third semester and this course. • Initially, faculty members from CSE department should handle this course. • The sequence of the syllabus can be ordered as Unsupervised learning, Regression analysis, Supervised learning, Time series analysis and then Text analysis & NLP. The prescribed text book should support the content and reordering. Book suggested is: 'Data Science & Big Data Analytics: Discovering, Analyzing, Visualizing and Presenting Data' EMC Education Services, John Wiley, 2015.	Dr V R Venkata subramani	06-05-2023
15.	21CNRD0 Soft Robotics and Control	Dr G Prabhakar presented the course and the syllabus has been for approval in Academic council meeting. The following changes are suggested: • The first module can be an introduction to conventional Robotics. • Can include Healthcare use cases. • Topics on Reinforcement Learning can be included.	Dr G Prabhakar	06-05-2023

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16.	21CNRE0 Biomedical Signal Processing	Dr K Rajeswari presented the course and the syllabus has been for approval in Academic council meeting. The following changes are suggested: • Can incorporate Biomedical image processing concepts also in this course. Also, can change the title of the course as 'Biomedical Signal and Image Processing'. • Topics on Reconstruction, Radon transform, Tomography, MR, and ultrasound. • Can include PPG signal also along with EEG and ECG.	Dr K Rajeswari	06-05-2023
17.	Programme Performance Assessment Committee (PPAC) Meeting	Dr B Yogameena presented the PPAC meeting report with regard to result analysis, content delivery, assessment and peer-coaching meant for the 2022-23 odd semester. The following points are suggested: • During regular course itself, weak students have to identified and necessary action has to be taken to improve their performance. • In class committee meeting, faculty members handing the courses can also be present for better interaction and response then and there.	Dr B Yogameena	
18.	Introduction of Honors and Minors	Dr Rajaram and Dr.V.R.Venkatasubramani presented the Honors and Minors degree introduced by Anna University, recently. The courses in each vertical were displayed. This is meant for B.E (ECE) programme students admitted in the Academic year 2021-22.	-	-
19.	General recommendations	Students should be introduced to the R coding language. It can be given as an Elective course.	-	-

Prepared by: Dr.V.R.Venkatasubramani

Date: 29.04.2023

Approved by: HoD/ECE

This Board of Studies Meeting is conducted online and hence the member signatures are not present.