

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 : 14.07.2018
Time : 10.45 A.M
Duration : 3 Hours
Venue : ECE Seminar Hall, Thiagarajar College of Engineering, Madurai

The following points were discussed:

1. Categorization of courses in Choice Based Credit System of M.E (Communication Systems) and M.E (Wireless Technologies) programme for students joining from the Academic year 2018-19 onwards.
2. Scheduling of courses for M.E (Communication Systems) and M.E (Wireless Technologies) programme for students joining from the Academic year 2018-19 onwards.
3. Detailed Syllabi for courses of I to IV semester M.E (Communication Systems) and M.E (Wireless Technologies) programme for students joining from the Academic year 2018-19 onwards.
4. Categorization of courses in Choice Based Credit System of B.E. ECE for students joining from the Academic year 2018-19 onwards.
5. Scheduling of courses for B.E. ECE students joining from the Academic year 2018-19 onwards.
6. Any other matter.

Attended by:

Dr.S.J.Thiruvengadam
Dr.D.Sriram Kumar
Dr.M.Ganesh Madhan
Dr. T. Ganesan
Mr.P.Chinnadurai
Dr. S.Deepak Ram Prasath

Chairman, Board of Studies (ECE) / Head of ECE Department, TCE, Madurai
Professor, Department of ECE, National Institute of Technology Trichy
Professor, Department of Electronics Engineering, Madras Institute of Technology, Chennai
Director and CTO, MMRFIC Technology Pvt. Ltd., Bangalore
Sr. Project Leader, Jasmin Infotech Pvt. Ltd., Chennai
Project Manager, Thiagarajar Telekom Solutions Ltd. , Madurai

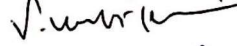
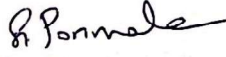


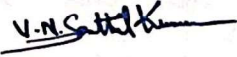
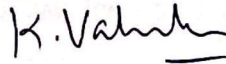
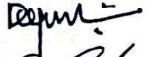


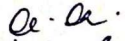


S.J. Thiruvengadam 14/7/18
P. Chinnadurai 14/7/2018
M. Ganesh Madhan
Dr. T. Ganesan
Dr. S. Deepak Ram Prasath 14/7/18

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

Faculty Members:

1. Dr.V.Abhaikumar	Professor and Principal	V Abhaikumar
2. Dr. S. Raju	Professor and Dean (Industry Interface)	—
3. Dr. S. Rajaram	Associate Professor	SR
4. Dr. S. Md. Mansoor Roomi	Assistant Professor	—
5. Dr. B. Manimegalai	Assistant Professor	Manimegalai
6. Dr.R.A.Alagu Raja	Assistant Professor	—
7. Dr. T. Aruna	Assistant Professor	T. Aruna
8. Dr.S.Kanthamani	Associate Professor	S. Kanthamani
9. Dr.K.Hariharan	Associate Professor	K. Hariharan
10. Dr. M.S.K. Manikandan	Associate Professor	M. S. K. Manikandan
11. Dr. A. Banumathi	Associate Professor	—
12. Dr. A. Thenmozhi	Associate Professor	A. Thenmozhi
13. Dr. B. Yogameena	Associate Professor	B. Yogameena
14. Dr. B. Sathyabama	Associate Professor	B. Sathyabama
15. Dr.M.N.Suresh	Assistant Professor	M. N. Suresh
16. Dr. K. Rajeswari	Assistant Professor	K. Rajeswari
17. Dr. N.B. Balamurugan	Associate Professor	N. B. Balamurugan

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

- | | | |
|-------------------------------|---------------------------------|--|
| 18. Dr.V.Vinoth Thyagarajan | Assistant Professor |  |
| 19. Dr.S.Ponmalar | Assistant Professor |  |
| 20. Dr. G. Ananthi | Assistant Professor |  |
| 21. Dr. E. Murugavalli | Assistant Professor |  |
| 22. Dr.V.N.Senthilkumaran | Assistant Professor |  |
| 23. Dr.K. Vasudevan | Assistant Professor |  |
| 24. Dr.D. Gracia Nirmala Rani | Assistant Professor |  |
| 25. Dr. P.G.S. Velmurugan | Assistant Professor |  |
| 26. Dr.V.R. Venkatasubramani | Assistant Professor |  |
| 27. Dr. K. Kalyani | Assistant Professor |  |
| 28. Mr.M.Senthilnathan | Assistant Professor |  |
| 29. Dr.G.Jothi Lakshmi | Associate Professor/Mathematics |  |

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

#	Points Discussed	Action Plan	Responsibility	Target date
1.	ECE Department Vision/Mission, Programme Educational Objectives, and Program Outcomes	Dr.S.J.Thiruvengadam welcomed the members of the Board of studies and presented the Agenda of the meeting followed by ECE Department Vision/Mission, Programme Educational Objectives, and Program Outcomes of M.E (Communication Systems) and M.E (Wireless Technologies) programme. Dr.Balaji Srinivasan, Associate Professor, Department of Electrical Engineering, IIT Madras also participated in this Board of studies meeting vis Skype video call for about 30 minutes duration.	-	-
2.	Credit Distribution, Categorization of Courses, Scheduling of Courses, Courses of Study, and Scheme of Examinations	Dr.S.J.Thiruvengadam presented the Credit Distribution, Categorization of Courses, Scheduling of Courses, Courses of Study, and Scheme of Examinations for M.E (Communication Systems) and M.E (Wireless Technologies) programme and the same have been passed for approval in Academic council meeting. The following recommendations are suggested: <ul style="list-style-type: none"> • To introduce open elective courses on Entrepreneurship and Design Thinking in the M.E(CS) and M.E(WT) Programme curriculum. • To introduce value added courses such as Professional Communication, Labour law, Company law, Foreign trade in the M.E(CS) and M.E(WT) Programme curriculum 	Dr.S.J.Thiruvengadam	-
3.	18CN110/18WT110 Mathematics for Communications	Dr.G.Jothilakshmi presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
4.	18CN120 RF Circuits for Communication Systems	Dr.K.Vasudevan presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: <ul style="list-style-type: none"> • Can include S-parameters and link budget calculations. • Can include book "RF Microelectronics" by Razavi. • Include only Class A and Class C power amplifiers. 	Dr.K.Vasudevan	17.07.18

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

#	Points Discussed	Action Plan	Responsibility	Target date
5.	18CN130 Wireless Networks	Dr.T.Aruna presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: <ul style="list-style-type: none"> • The course title may be changed as "Wireless Cellular Networks" • May include NB-IOT. • Can remove topic on "Testing and Evaluation" 	Dr.T.Aruna	17.07.18
6.	18CN160 Communication System Engineering	Dr.S.J.Thiruvengadam presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
7.	18CN170 RF Circuits Laboratory	Dr.K.Vasudevan presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: <ul style="list-style-type: none"> • Can include experiment on impedance matching. • The focus should be on measurements • Lab experiments can be restructured as per system level requirements. 	Dr.K.Vasudevan	17.07.18
8.	18CN210 Baseband Wireless Communication Systems	Dr.S.J.Thiruvengadam presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
9.	18PG250 Research Methodology and IPR	Dr.S.J.Thiruvengadam presented the course and the syllabus has been passed for approval in Academic council meeting. The syllabus is adapted from AICTE Model Curriculum for Postgraduate Degree Courses in Engineering & Technology, Volume-I, January 2018.	-	-
10.	18CN260 RF Front End and Antennas	Dr.B.Manimegalai presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. <ul style="list-style-type: none"> • The course title may be changed as "RF Frontend Systems" • Can Minimize theory content it that is covered in Lab. • May Include link budget. 	Dr.B.Manimegalai	17.07.18

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

#	Points Discussed	Action Plan	Responsibility	Target date
11.	18CN270 Baseband Communications Laboratory	Dr.S.J.Thiruvengadam presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
12.	18CN280/18WT280 Mini Project	Dr.S.J.Thiruvengadam presented the course and has been passed for approval in Academic council meeting. The guidelines for this course is adapted from AICTE Model Curriculum for Postgraduate Degree Courses in Engineering & Technology, Volume-I, January 2018.	-	-
13.	18CN380/18WT380 Dissertation Phase I	Dr.S.J.Thiruvengadam presented the course and has been passed for approval in Academic council meeting. The guidelines for this course is adapted from AICTE Model Curriculum for Postgraduate Degree Courses in Engineering & Technology, Volume-I, January 2018.	-	-
14.	18CN480/18WT480 Dissertation Phase II	Dr.S.J.Thiruvengadam presented the course and has been passed for approval in Academic council meeting. The guidelines for this course is adapted from AICTE Model Curriculum for Postgraduate Degree Courses in Engineering & Technology, Volume-I, January 2018.	-	-
15.	18WT120 RF Circuits for Wireless Systems	Dr.K.Vasudevan presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: <ul style="list-style-type: none"> • Can include link budget calculations. • Can include book "RF Microelectronics" by Razavi. • Include only Class A and Class C power amplifiers. 	Dr.K.Vasudevan	17.07.18
16.	18WT130 Wireless Network Technologies	Dr.E.Murugavalli presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: <ul style="list-style-type: none"> • May include topics on "security". 	Dr.E.Murugavalli	17.07.18
17.	18WT160 Random Signal Processing	Dr.P.G.S.Velmurugan 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
18.	18WT170 RF Circuits Laboratory	Dr.K.Vasudevan presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: <ul style="list-style-type: none"> • Can include experiment on impedance matching. • The focus should be on measurements • Lab experiments can be restructures as per system requirements. 	Dr.K.Vasudevan	17.07.18
19.	18WT210 Antennas for Wireless Applications	Dr.B.Manimegalai presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. <ul style="list-style-type: none"> • Can include topics on Artificial Intelligence with regard to antenna. 	Dr.B.Manimegalai	17.07.18
20.	18WT260 Wireless Digital Communications	Dr.S.J.Thiruvengadam presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
21.	18WT270 Wireless Networks Laboratory	Dr.E.Murugavalli presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
22.	18CNPA0: Array Signal Processing	Dr.S.J.Thiruvengadam presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
23.	18CNPB0: Digital Speech Processing	Dr.M.N.Suresh presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
24.	18CNPC0: Radar Systems	Dr.P.G.S.Velmurugan presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
25.	18CNPD0: Physical Layer LTE Systems	Dr.S.J.Thiruvengadam presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
26.	18CNPE0/18WTPA0: RF Test and Measurement	Dr B Manimegalai presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
27.	18CNPF0/18WTPA0: EMI and EMC	Dr A Thenmozhi presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
28.	18CNPG0/18WTPA0: RF MEMS for High Performance Passives	Dr.S.Kanthamani 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.	18CNPH0/18WTPA0: Radio Frequency Integrated Circuits	Dr.S.Kanthamani presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
30.	18CNPJ0/18WTPA0:Antennas for Wireless Applications	Dr.B.Manimegalai presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
31.	18CNPK0: Image Systems Engineering	Dr.A.Banumathi presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
32.	18CNPL0: Computational Visual Recognition	Dr. B.Yogameena presented the course and the syllabus has been passed for approval in Academic council meeting. . The following changes are suggested. <ul style="list-style-type: none"> • Course title may be changes as "Machine Learning for Visual Recognition". 	Dr.B.Yogameena	17.07.18
33.	18CNPM0/18WTPLO: Intelligent Video Surveillance Systems	Dr. B.Yogameena presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
34.	18CNPN0: Medical Imaging and Classification	Dr.A.Banumathi presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
35.	18CNPP0: Remote Sensing Data Analytics	Dr.B.Sathyabama presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
36.	18CNPQ0: Digital Integrated Circuits	Dr.S.Rajaram presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
37.	18CNPR0: Analog Integrated Circuits	Dr.N.B.Balamurugan presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
38.	18CNPS0/18WTPQ0: Internet of Things	Dr.K.Hariharan presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested: <ul style="list-style-type: none"> • May be offered as a "Theory cum practical" course. • Order of modules in the syllabus may be changed. 	Dr.K.Hariharan	17.07.18
39.	18CNPT0/18WTPQR0: System-on-Chip	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
40.	18CNPU0: Optical Communication Systems	Dr.S.Ponmalar presented the course and the syllabus has been passed for approval in Academic council meeting. The following changes are suggested. <ul style="list-style-type: none"> • More topics on Optical sources can be included. 	Dr.S.Ponmalar	17.07.18
41.	18CNPV0/18WTPT0: Number Theory and Cryptography	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. <ul style="list-style-type: none"> • Can remove topics on Quantum cryptography and Security protocols. • Can include book by Veni Madhavan, Abhijit Das titled "Public Key Cryptography: Theory And Practice". 	Dr.M.S.K.Manikandan	17.07.18
42.	18CNPW0/18WTPP0: Reconfigurable Wireless Transceivers	Dr.K.Kalyani presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
43.	18CNPX0/18WTPE0: RF CAD Tools	Dr.K.Vasudevan presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
44.	18CNPY0/18WTPW0 Machine Learning for Signal Processing	Dr.G.Ananthi presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
45.	18WTPF0: MIMO OFDM Systems	Dr.K.Rajeswari presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
46.	18WTPG0: Millimeter Wave Communications	Dr.V.N.Senthilkumaran presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
47.	18WTPH0: 5G Wireless Technologies	Dr.M.N.Suresh presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
48.	18WTPJ0: Cognitive Radio Communications	Dr.P.G.S.Velmurugan 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
49.	18WTPK0: Physical Layer Security	Dr.G.Ananthi presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
50.	18WTPM0: Digital Integrated Circuit Design with HDL	Dr.D.Gracia Nirmala Rani presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
51.	18WTPN0: VLSI for Wireless Communication	Dr.V.Vinoth Thyagarajan and Dr.V.R.Venkatasubramani presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
52.	18WTPS0: Optical Wireless Communication	Dr.S.Ponmalar presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
53.	18WTPU0: Cognitive Radio Networks	Dr.T.Aruna presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
54.	18WTPV0: Multimedia Coding and Transmission	Dr.B.Sathyabama presented the course and the syllabus has been passed for approval in Academic council meeting.	-	-
55.	18CNGA0/18WTGA0 Convex Optimization	Dr.S.J.Thiruvengadam presented this open elective course and syllabus is passed for approval in Academic council meeting.	-	-
56.	18EC1D0 Embedded System Design	Dr.K.Hariharan presented this one credit course and the syllabus is passed for approval in Academic council meeting.	-	-
57.	Categorization of courses in Choice Based Credit System - B.E. (ECE) programme	Categorization of courses in Choice Based Credit System of B.E. (ECE) for students joining from the Academic year 2018-19 onwards has been passed for approval in Academic council meeting. The following changes are suggested. <ul style="list-style-type: none"> • To allot a slot for "Control Systems" as core course in the B.E. (ECE) Programme curriculum. • B.E. (ECE) students should study topics on "Electrical sciences" and "Electrical measurements". 	Dr.S.J.Thiruvengadam	-
58.	General Recommendations of the Board	<ul style="list-style-type: none"> • Bridge courses can be arranged for Mathematics course and all other first semester courses for students joining M.E(CS) and M.E(WT) Programmes. 	-	-

Prepared by VR Venkata Subramani Date: 14.07.2018

Approved by S.J.Thiruvengadam Date: 14.07.2018