

Department of Mechanical Engineering

National Engineering College, K.R.Nagar, Kovilpatti – 628 503

(An Autonomous Institution - Affiliated to Anna University, Chennai)

www.nec.edu.in

7th Board of studies Meeting in the Department of
Mechanical Engineering

Venue: Smart Class Room, Dept. of Mechanical Engineering
National Engineering College
K.R.Nagar, Kovilpatti – 628 503

Date & Time: 01.04.2017 & 10.30 a.m.

Agenda

BoS / MECH 7.1	:	Welcome address and Opening Remarks by Chairman, Board of studies in the department of Mechanical Engineering
BoS / MECH 7.2	:	Confirmation of the Minutes of the 6 th meeting of Board of studies in the department of Mechanical Engineering held on April 01, 2017 and Action taken report of 6 th meeting of Board of studies
BoS / MECH 7.3	:	Business brought forward by the Chairman, Board of studies 7.3.1. Introducing one credit courses in R-2015 7.3.2. Modifying the course content of Elective course 15ME38E Advanced Modeling Techniques in R-2015 7.3.3. Introducing open book test as an end semester evaluation for few design courses in R-2015
BoS / MECH 7.4	:	List of Board of examiners
BoS / MECH 7.5	:	Any other items
BoS / MECH 7.6	:	Suggestions given by the BoS Members

Department of Mechanical Engineering

MINUTES of 7th Meeting of the Board of studies held on
01st April, 2017 at 10.30 AM

Venue: Smart Class Room, Dept. of Mechanical Engineering
National Engineering College, K.R.Nagar, Kovilpatti – 628 503

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Department of Mechanical Engineering

MINUTES OF THE MEETING

The 7th Meeting of the Board of studies of the Mechanical Engineering was held on 1st April 2017 at 10.30 AM in the smart class room, Dept. of Mechanical Engineering of the National Engineering College, K.R.Nagar, Kovilpatti – 628 503

1. The following members were present:

1.	Dr.K.Kalidasa Murgavel Prof & Head	Chairman
2.	Dr. D.Ravindran, Professor	Internal Members
3.	Dr.K.Manisekar, Professor & Dean (Academic)	
4.	Dr.H.Kanagasabapathy, Professor	
5.	Mr.G.Esakkimuthu, Asso. Prof. (SG)	
6.	Mr.S.Iyah Raja, Asso. Prof.	
7.	Mr.D.Venkat Kumar, Asst. Prof. (SG)	
8.	Dr. M.Kathiresan, Asst. Prof. (SG)	
9.	Dr. R.Harichandran, Asst. Prof. (SG)	
10.	Mr.P.Ramanan, Asst. Prof. (SG)	
11.	Mr.F.Michael Thomas Rex, Asst. Prof. (SG)	
12.	Mr.M.Vivekanandan, Adjunct Faculty	
13.	Dr. Ing. M. Duraiselvam Associate Professor & Head Department of Production Engineering, National Institute of Technology, Trichy	Academic Experts
14.	Dr. R. Velraj Professor & Director, Institute for Energy Studies, CEG Anna University, Chennai	
15.	Dr. S.Venugopal Former Director, Materials Group, IGCAR	Industrial

	Visiting Professor, Indian Institute of Technology, Chennai	Expert
16.	Mr. Raju Sreeram N. D Managing Director, Vijaya Lakshmi Mills Pvt. Ltd, Rajapalayam	Industrial Experts
17.	Mr. S. Suresh Vice President and Business Head (EM) Wheels India Limited, Padi, Chennai	Industrial Expert related to Placement
18.	Mr. R. Kanda Subburaj Chief Engineer, Project Controls, AMEC Foster Wheeler India Pvt. Ltd, Chennai	Meritorious Alumnus Nominated by the Principal
19.	Dr. K. Murugan Scientist –D, Centre for Sol-Gel Coatings, ARCI, Hyderabad – 500 005, Telangana	Special Invitee
20.	Dr. A.Arockiarajan Associate Professor, Department of Applied Mechanics, Indian Institute of Technology, Chennai	Student Members
21.	Mr.C. Muthukumar C. Third year	
22.	Mr.R. Venkatesh @ Periasamy, Third year	

2. The University Nominee member Dr.R.Arularasan, Asst. Prof. (SG), Department of Mechanical Engineering, University College of Engineering, Arni could not attend the meeting due to their prior commitments and unavoidable reasons and he was granted leave of absence.

BoS / MECH 7.1	:	WELCOME ADDRESS AND OPENING REMARKS BY CHAIRMAN, BOARD OF STUDIES IN THE DEPARTMENT OF MECHANICAL ENGINEERING
		The Chairman, BoS of the Mechanical Engineering welcomed and introduced the members of 7 th Board of Studies and thanked each one of them for sparing their valuable time to attend the meeting.
BoS / MECH 7.2	:	TO CONFIRM THE MINUTES OF SIXTH BOS MEETING HELD ON 07 th MARCH, 2016
		The minutes of the Sixth Board of Studies meeting held on 07 th March, 2016 were communicated to the members. The

	<p>comments received have been incorporated and placed for confirmation. The same was approved by the 6th Academic council.</p> <p>➤ Action Taken Report (Enclosed in <i>Annexure D</i>)</p>
BoS / MECH 7.3.1	<p>TO CONFIRM AND APPROVE THE CURRICULUM AND SYLLABI OF ONE CREDIT COURSES FOR THE UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2015</p>
	<p>RESOLVED TO approve the Curriculum and Syllabi of one credit courses for the UG degree programme to be offered under R-2015</p> <p>➤ <u>R-2015 Curriculum & Syllabi of One credit courses</u> (Enclosed in <i>Annexure D</i>)</p>
	<p>SUGGESTIONS GIVEN BY THE BOS MEMBERS</p>
	<p>The course "Aerodynamic Studies on Micro Vehicles" may not be suitable for mechanical engineering students.</p>
	<p>The course content is vast for the course "Process Equipment Design" and it has to be redesigned to reduce the content appropriately.</p>
	<p>Bureau of energy efficiency materials may be added in the reference for the course "Energy Audit and Management".</p>
	<p>The course "Combustion Phenomenon" may be incorporated with the elective course "IC Engines".</p>
	<p>The courses "Nano Materials for Heat Transfer" and "Heat Transfer Enhancement" may be combined and offered as a single course.</p>
	<p>The contents in the courses "Grid Tied PV System Design" and "Off Grid PV System Design" has to be restructured and applications are to be included in the course content.</p>
	<p>The course "PEM Fuel cell" may not be suitable for mechanical engineering students.</p>
	<p>Vibration control has to be added to the course "Techniques For Vibration Monitoring"</p>
	<p>The course content for the "Thermal energy storage system" has to be redefined.</p>
	<p>The courses "Solar Thermal Steam Generation Systems" and "Solar</p>

	<p>Cooling Systems” can be combined and offered as a one credit course.</p> <p>In the course “Natural Fiber Composites” applications may be included instead of case studies. Further, it is recommended to incorporate Prerequisite “Composite Material” for this course.</p> <p>The following topics have to be included in the course “Functional materials for energy conversion”.</p> <ol style="list-style-type: none"> Procedure for functional material development Review of materials developed/available Need for functional materials, synthesis methods, energy application Design philosophy of functional materials Recent Trends <p>Contents in the course “Crashworthiness of Tubular Shells may be more generic”. Further the crashworthiness analysis of helmet and car has to be included.</p> <p>Design of experiments and Taguchi methods can be combined and offered as a single course.</p> <p>The contents in the course “Failure Mode and Effects Analysis” have to be reduced.</p> <p>The contents in the course “Design for Manufacturability” have to be reduced.</p> <p>The course contents in “Tolerance Stackup analysis” are overlapping with Industrial Drawing Reading with GD&T and it is suggested to remove the course.</p>
BoS / MECH 7.3.2	<p>TO CONFIRM AND APPROVE the modified curriculum of 15ME38E Advanced Modeling Techniques in UG degree programme offered under R-2015</p>
	<p>RESOLVED TO approve the modified Syllabi of 15ME38E Advanced Modeling Techniques elective course in UG degree programme offered under R-2015</p>
BoS / MECH 7.3.3	<p>TO CONFIRM AND APPROVE OPEN BOOK TEST AS AN END SEMESTER EXAMINATION FOR THE FOLLOWING COURSES IN R-2015</p> <p style="text-align: center;">15ME53C-DESIGN OF MACHINE ELEMENTS</p>

		15ME62C-DESIGN OF TRANSMISSION SYSTEMS
		RESOLVED TO consider open book test as an End Semester Examination in the next syllabus revision after implementing the suggestions given by the members.
		SUGGESTIONS GIVEN BY THE BOS MEMBERS
		<ul style="list-style-type: none"> a. Open book test may be experimented for all the feasible courses in continuous assessment. b. Quality of the questions is to be high enough to test the higher level of knowledge. c. The course content has to be appropriately modified to suit for the open book test.
BoS / MECH 7.4	:	TO CONFIRM AND APPROVE THE LIST OF EXAMINERS FOR MECHANICAL ENGINEERING BOARD
		<p>RESOLVED TO approve the list of examiners for Mechanical Engineering Board</p> <p>➤ <u>List of Examiners</u></p> <p>(Enclosed in <i>Annexure III</i>)</p>
BoS / MECH 7.5	:	ANY OTHER ITEMS, IF ANY, WITH THE PERMISSION OF THE CHAIRMAN OF THE BOS
		The thrust areas in Industrial Engineering like robotics, logistics, safety, automation, sheet metal forming, etc., are to be identified and can be offered as one credit courses.
		The one credit courses in the thrust areas mentioned by the members will be introduced in the next syllabus revision if expertise in these areas is available in the department.
BoS / MECH 7.6	:	Suggestions given by the BoS Members
		Included in the sections 7.3.1 and 7.3.3

The members had a brainstorming discussion and interaction among themselves. After discussion, fruitful suggestions were incorporated appropriately in the Curriculum and Syllabi.


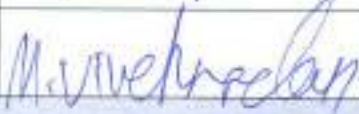









Based on the suggestions given by the members, BOS resolved to recommend the following to the Academic Council for further approval.


- a) The Curriculum and Syllabi of one credit courses in B.E. Mechanical Engineering Programme under Regulation 2015.
- b) The syllabi of elective course "15ME38E Advanced Modeling Techniques" in B.E. Mechanical Engineering Programme offered under Regulation 2015

Dr.D.Ravindran thanked all the members for their kind cooperation and the meeting came to an end.

Members Present

Dr.K.Kalidasa Murugavel Professor & Head	
<i>Internal Members</i>	
Dr. D.Ravindran, Professor	
Dr.K.Manisekar, Professor & Dean (Academic)	
Dr.H.Kanagasabapathy, Professor	
Mr.G.Esakkimuthu, Asso. Professor (S.G)	
Mr.S.Iyah Raja, Asso. Professor	
Mr.D.Venkat Kumar, Assistant Professor (S.G)	
Dr. M.Kathiresan, Assistant Professor (S.G)	
Dr. R.Harichandran, Assistant Professor (S.G)	
Mr.P.Ramanan, Assistant Professor (S.G)	

Mr. Michael Thomas Rex, Assistant Professor (S.G)	
Mr.M.Vivekanandan, Adjunct Faculty	
Academic Experts	
Dr.-Ing. M. Duraiselvam Associate Professor and Head of the Department Department of Production Engineering, NIT, Trichy	 1/4/17
Dr. R. Velraj Professor & Director, Institute for Energy Studies, CEG, AnnaUniversity, Chennai-600025	
Industrial Experts	
Dr. S.Venugopal Former Director, Materials Group, IGCAR Visiting Professor, IIT Chennai	 1/4/17
Mr. Raju Sreeram N. D Managing Director, Vijaya Lakshmi Mills Pvt. Ltd, Rajapalayam	
Mr. S. Suresh Vice President and Business Head (EM) Wheels India Limited, Padi, Chennai-600050	
Industrial Experts related to Placement	
Mr. R. Kanda Subburaj Chief Engineer, Project Controls, AMEC Foster Wheeler India Pvt. Ltd, Chennai- 600 113	
Alumni Nominated by the Principal	
Dr. K. Murugan Scientist -D, Centre for Sol-Gel Coatings, ARCI Hyderabad - 500 005, Telangana	 01/04/17
Special Invitee	
Dr. A . Arockiarajan Associate Professor, Department of Applied Mechanics, IIT Madras, Chennai - 600 036.	
Student Members Nominated by the HOD	
Muthukumar C, 3 rd Year Venkatesh @ Periasamy R, 3 rd Year	



CHAIRMAN
BOARD OF STUDIES

ANNEXURE I

Actions taken for Minutes of 6th BoS Meeting

As per BOS Committee suggestion,

1. CO levels were verified with Blooms taxonomy verbs
2. Codes and Standards were included in the reference
3. Modern Techniques like ERP, Logistics, big data analysis, PLM and SLM were incorporated in the Project management Course
4. Hydraulics and Pneumatics course was included as an elective
5. FEA course content was refined


CHAIRMAN
BOARD OF STUDIES

ANNEXURE III

List of Board of Examiners approved by Board of Studies

S. No	Name of the Expert	Designation	Institution	Area of Specialization
Thermal Engineering Domain				
1.	Dr. Chakravarthy Balaji	Professor, Dept. of Mech. Engg.	Indian Institute of Technology, Madras	Computational Heat transfer, Computational Radiation, Optimization in Thermal Sciences, Inverse Heat Transfer
2.	Dr. Anand Krishnasamy	Assistant professor, Dept. of Mech. Engg.	Indian Institute of Technology, Madras	I.C Engines, Alternate Fuel
3.	Dr. M. Udayakumar	Professor, Dept. of Mech. Engg.	National Institute of Technology, Tiruchirapalli	Thermodynamics, I.C.Engines, Combustion, Fluid Power Systems and Control
4.	Dr. T. Suthakar	Associate Professor, Dept. of Mech. Engg.	National Institute of Technology, Tiruchirapalli	Turbomachines, Automobile Engineering
5.	Dr. V. Arul Mozhi Selvan	Associate Professor, Dept. of Mech. Engg	National Institute of Technology, Tiruchirapalli	Nanoparticle Additives, Bio-Fuels, Renewable Energy Technology, Energy Conservation and Management
6.	Dr. R. Velraj	Professor & Director, Institute for Energy Studies	CEG, Anna University, Chennai-600025	Heat transfer, Solar Thermal, Thermal Storage
7.	Dr. M.Venkata Ramanan	Assistant Professor (Senior), Institute for Energy Studies	CEG, Anna University, Chennai-600025	Biomass Gasification, Energy Conservation & Management
8.	Dr.K.Srithar	Assistant professor, Dept. of Mech. Engg.	Thiagarajar college of Engineering, Madurai	Solar Thermal & Heat transfer, Alternate fuel

See

9.	Dr.N.Bose	Senior Professor, Dept. of Mech. Engg.	Mepco Schlenk Engineering College, Sivakasi	I.C Engines, Combustion
10	Dr. S.P.Asok	Professor, Dept. of Mech. Engg.	Mepco Schlenk Engineering College, Sivakasi	Thermal Engg., Heat and Mass transfer, Refrigeration and Airconditioning
11	Mr. S.Somesh Subramanian	Assistant Professor, Dept. of Mech. Engg.	Government College of Engineering, Tirunelveli	Thermal Engineering
Manufacturing and Industrial Engineering Domain				
12	Dr. K. Hariharan	Assistant professor, Dept. of Mech. Engg.	Indian Institute of Technology, Madras	Sheet metal forming, Plasticity, Fatigue and Mechanical behavior of materials.
13	Dr. G.L. Samuel	Assistant professor, Dept. of Mech. Engg.	Indian Institute of Technology, Madras	Conventional and Non-conventional manufacturing, Metrology and Computer Aided Inspection, Micro Machining
14	Dr.-Ing. M. Duraiselvam	Associate Professor & HOD, Dept. of Production Engineering	National Institute of Technology, Tiruchirapalli	Laser cladding, Liquid impact erosion, Synthesis of nano composites, Process optimization
15	Dr. Nanda Naik Korra	Associate Professor, Dept. of Mech. Engg.	National Institute of Technology, Tiruchirapalli	Activated Tungsten Inert Gas (A-TIG) Welding Process, Design of Experiments (DoE), Duplex Stainless Steel Alloys
16	Dr. S.Senthilkumaran	Associate Professor, Dept. of Mech. Engg.	CEG, Anna University, Chennai-600025	Metal Casting Physical, Metallurgy, Cellular Manufacturing Systems
17	Dr.K.Natarajan	Professor & Head, Dept. of Mech. Engg.	PSG College of Technology, Coimbatore	Design for Manufacture, CIM, Production Tooling, Industrial Scheduling, Operations Management, Supply Chain Management

Lee

18	Dr. N. Selvakumar	Senior Professor, Dept. of Mech. Engg.	Mepco Schlenk Engineering College, Sivakasi	Industrial Metallurgy, Powder Metallurgy, Nano composites, Nano materials
19	Dr.N.Jawahar	Professor, Dept. of Mech. Engg.	Thiagarajar college of Engineering, Madurai	Manufacturing, Industrial Engineering, Optimization
20	Dr.PL.K.Palaniappan	Associate Professor, Dept. of Mech. Engg.	Thiagarajar college of Engineering, Madurai	Supply Chain Management, Production Engineering
21	Dr.N.Rajesh Jesudoss Hyness	Associate Professor, Dept. of Mech. Engg.	Mepco Schlenk Engineering College, Sivakasi	Production Engineering
22	Dr.D.Jebakani	Assistant Professor (SG), Dept. of Mech. Engg.	Government College of Engineering, Tirunelveli	Industrial Engineering Optimization, Computer Aided Design, Reliability Quality Engineering
Design Engineering Domain				
23	Dr. A. Arockia Rajan	Associate professor, Dept. of Applied Mechanics.	Indian Institute of Technology, Madras	Smart Materials, Ferroelectrics, Electro-active polymers, Constitutive Modeling
24	Dr. P. Ramkumar	Assistant professor, Dept. of Mech. Engg.	Indian Institute of Technology, Madras	Tribology, nano-lubrication, gearbox design, Electrostatic condition monitoring
25	Dr. T. Ramesh	Assistant professor, Dept. of Mech. Engg.	National Institute of Technology, Tiruchirapalli	Engineering Design, Finite Element Methods, MEMS and Micro Devices, Biomaterials, Powder Metallurgy
26	Dr. N. Siva Shanmugam	Assistant professor, Dept. of Mech. Engg.	National Institute of Technology, Tiruchirapalli	Finite Element Method, Bio-Mechanics, Machine Design

27	Dr. A. Elaya Perumal	Professor, Engg. Design division	CEG, Anna University, Chennai-600025	Composite Materials and Mechanics, Vibration Analysis and Control, Nano Science and Engineering, Surface Engineering, Design of Machine Elements
28	Dr. G.Shibu	Assistant Professor (Sr. Gr.), Engg. Design division	CEG, Anna University, Chennai-600025	Machine Design, Applied Mechanics, Mechanism
29	Dr.G.Sureshkannan	Associate Professor, Dept. of Mech. Engg.	CIT, Coimbatore	Finite element analysis, Optimization for engineering design, Theory of machines
30	Dr.J.Selwin Rajadurai	Assistant Professor (SG), Dept. of Mech. Engg.	Government College of Engineering, Tirunelveli	Design, Composites
31	Dr.S.Rajakarunakaran	Professor & HOD, Dept. of Mech. Engg.	Ramco Institute of Technology, Rajapalayam	Fault diagnosis, Condition Monitoring, Multi Criteria Optimization
32	Dr. K. Venkadeshwaran	Associate Professor & HOD, Dept. of Mech. Engg.	Dr. Sivanthi Aditanar College of Engineering, Tiruchendur	Industrial Engineering, Finite Element Modeling
33	Dr.A.Vasanthanathan	Associate Professor, Dept. of Mech. Engg.	Mepco Schlenk Engineering College, Sivakasi	Finite Element Analysis, Fibre Reinforced Plastics
34	Dr. R. Murali Kannan	Professor, Dept. of Mech. Engg.	Sethu Institute of Technology, Kariapatti	CAD/CAM


CHAIRMAN
BOARD OF STUDIES

Department of Electronics and Communication Engineering
National Engineering College, K.R.Nagar, Kovilpatti – 628 503
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7th Board of studies Meeting in the Department of
Electronics and Communication Engineering

Venue: Conference Hall, National Engineering College
K.R.Nagar, Kovilpatti – 628 503

Date & Time: 11.03.2017 & 10.30 a.m.



Agenda

BoS / ECE 7.1	:	Welcome address and Opening Remarks by Chairman, Board of studies in the department of Electronics and Communication Engineering
BoS / ECE 7.2	:	Confirmation of the Minutes of the 6 th meeting of Board of studies in the department of Electronics and Communication Engineering held on March,12,2016 and Action taken report of 6 th meeting of Board of studies
BoS / ECE 7.3	:	Business brought forward by the Chairman, Board of studies 7.3.1. Introduction of one credit courses
BoS / ECE 7.4	:	List of Board of examiners
BoS / ECE 7.5	:	Any other items
BoS / ECE 7.6	:	Suggestions given by the BoS Members

Department of Electronics and Communication Engineering

MINUTES of 7th Meeting of the Board of studies held on
11th March, 2017 at 10.30 AM

Venue: Conference Hall,
National Engineering College, K.R.Nagar, Kovilpatti – 628 503

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Department of Electronics and Communication Engineering

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MINUTES OF THE MEETING

The 7th Meeting of the Board of studies of the Electronics and Communication Engineering was held on 11th March 2017 at 10.30 AM in the Conference Hall of the National Engineering College, K.R.Nagar, Kovilpatti – 628 503

1. The following members were present:

1.	Dr.A.Shenbagavalli Prof & Head	Chairman
2.	Dr.S.Tamilselvi, Prof & Head (PG)	Internal Members
3.	Mr.N.Arumugam, Asso.Prof.	
4.	Mr.V.R.S.Mani, Asso. Prof.	
5.	Mrs.S.D.Jayavathi, Asso. Prof.	
6.	Mr.T.Devakumar, Asst. Prof. (SG)	
7.	Mr.K.J.Prasanna Venkatesan, Asst. Prof. (SG)	
8.	Mrs.P.Kavitha, Asst. Prof. (SG)	
9.	Dr.V.Prithivirajan, Asst. Prof. (SG)	
10.	Mr.M.Satheesh Kumar, Asst. Prof.	
11.	Dr. M. Meenakshi, Professor / Department of ECE, College of Engineering, Guindy Campus, Chennai – 600025	Academic Experts
12.	Dr.M.Ganesh Madhan, Professor, Department of ECE, Madras Institute of Technology campus, Anna University, Chennai-600044	
13.	Dr. Rahilal Bilal Associate Professor Department of ECE Thanthai Periyar Government Institute of Technology, Vellore – 632002	University Nominee
14.	Mr.Anandhsarangaram, Senior design Engineering Manager, Tensillica Technologies India Pvt Ltd., Yerwada, Pune – 411020	Meritorious Alumnus Nominated by the Principal

15.	Mr. P.Essaki Muthu, Chief Scientist, River Silica, 3B, #60, Century Apartments, 100 Feet Road Indiranagar, Bangalore - 560 038	Industrial Expert
16.	Mr. V.Rengaswamy, Third year	Student Members
17.	Ms. J.Mariesh Preethi, Third year	

2. The Industrial Expert member Mr.C.Karthik, Staff Test Engineer, Microsemi India Pvt Ltd, Mandal, Hyderabad could not attend the meeting due to their prior commitments and unavoidable reasons and were granted leave of absence.

BoS / ECE 7.1 : WELCOME ADDRESS AND OPENING REMARKS BY CHAIRMAN, BOARD OF STUDIES IN THE DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
The Chairman, BoS of the Electronics and Communication Engineering welcomed and introduced the members of 7th Board of Studies and thanked each one of them for sparing their valuable time to attend the meeting.

BoS / ECE 7.2 : TO CONFIRM THE MINUTES OF SIXTH BOS MEETING HELD ON 12th MARCH, 2016
The minutes of the Sixth Board of Studies meeting held on 12th March, 2016 were communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 6th Academic council.

➤ Action Taken Report

(Enclosed in *Annexure I*)

BoS / ECE 7.3 : TO CONFIRM AND APPROVE THE CURRICULUM AND SYLLABI OF ONE CREDIT COURSES FOR THE UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2015

RESOLVED TO approve the Curriculum and Syllabi of one credit courses for the UG degree programme to be offered under R-2015

➤ R-2015 Curriculum & Syllabi of One credit courses

(Enclosed in *Annexure II*)

BoS / ECE 7.4 : TO CONFIRM AND APPROVE THE LIST OF EXAMINERS FOR ELECTRONICS AND COMMUNICATION ENGINEERING BOARD

RESOLVED TO approve the list of examiners for Electronics and Communication Engineering Board

➤ List of Examiners

(Enclosed in *Annexure III*)

BoS / ECE 7.5 : ANY OTHER ITEMS, IF ANY, WITH THE PERMISSION OF THE CHAIRMAN OF THE BOS

In 2015 curriculum, 17 one credit courses had been introduced and this course contents had been submitted in front of the BoS members for the discussion and approval. In the department, there are 5 Domain Expert Groups and each group has introduced 2 or more than 2 one credit courses.

The BoS external members commented on the distribution of one credit courses in all the domains and also appreciated it. Moreover, in embedded related courses the Anna University expert members Dr.Ganesh Madhan and Dr.M.Meenakshi appreciated the course contents and also expressed that this content should be taught in an effective manner to the students.

Overall they appreciated the industrial based one credit courses and the team work of the staff members.

BoS / ECE 7.6 : SUGGESTIONS GIVEN BY THE BOS MEMBERS

7.6.1 : Basic Device Driver Programming Practice

- In this Laboratory course, I²C protocol can be included in order to facilitate the audio device applications.
- Include some text books for laboratory course

7.6.2 : Automotive Embedded Systems

CAN protocol based interboard communication can be included

7.6.3 : Basics of GiT

- Along with GiT other open version control system like perfos and CVS have to be included

7.6.4 : Image Processing Practice Using OMAP3530 and OPENCV

- Non linear algorithm based experiment have to be included.

7.6.5 : Wireless Network Security

- This subject can be removed, since most of the topics in this subject have been already studied by the student. Instead of this, the following 3 one credit courses may be offered.
 1. Application and Operations Security
 2. Security Engineering

3. Security Management Practices

- 7.6.6 **Introduction to OFDM**
- This subject can be included as core course in next regulation
- 7.6.7 **Spreading Codes in Spread Spectrum Modulation**
- The various spreading codes have been already studied by the students, so unit I may be removed.
 - In unit IV, the applications of spreading codes to recent technology may be included.
 - No of Course outcomes may be reduced.
- 7.6.8 **Practical Antenna Design: from theory to practice & Computational Electromagnetics and Applications**
- Both syllabus may be combined and proposed as integrated course. The following topics can be removed.
- 7.6.9 **MIMO Antenna Engineering**
- Wireless technology, Reflection coefficient, Branch power ration topics may be discarded.
- 7.6.10 **Video and Audio encoding techniques**
- The title of the subject can be renamed as “Advanced multimedia techniques”.
 - MPEG-1 and MPEG-2 topics can be removed in video compression.
 - Digital signal processors, Single processor systems, multiprocessor systems topics may be removed in audio processing.
 - In Audio compression, MPEG audio coding topic can be removed. Instead of this, EAC3, AC5, ATMOS, H265 topics can be included.
- 7.6.11 **Multimedia processing and coding lab**
- For audio analysis, one experiment can be done by using audacity.
- 7.6.12 In addition to this, they also suggested that the 3 credit soft computing course may be divided as 3 one credit courses and introduced in the curriculum for the benefit of students. In that case, the 3 credit soft computing course may be removed from the list of electives in the curriculum.



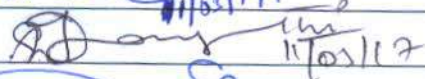
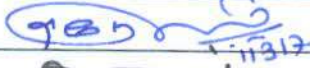

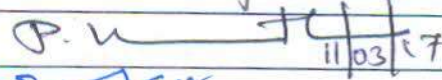

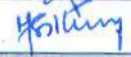


The members had a brainstorming discussion and interaction among themselves. After discussion, fruitful suggestions were incorporated appropriately in the Curriculum and Syllabi.



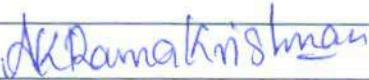

Based on the suggestions given by the members, BOS resolved to recommend the following to the Academic Council for further approval.

- a) The Curriculum and Syllabi for One credit courses B.E. Electronics and Communication Engineering degree course offered under Regulation 2015.

Mr.K.J.Prasanna Venkatesan, Asst Prof (SG) thanked all the members for their kind cooperation and the meeting came to an end.

Members Present

Dr.A.Shenbagavalli Prof & Head Chairman	 11/3/17
Internal Members	
Dr.S.Tamilselvi, Prof & Head(PG)	 11/3/17
Mr.N.Arumugam, Asso.Prof.	N. Arumugam
Mr.V.R.S.Mani, Asso. Prof.	V.R.S. Mani 11/03/17
Mrs.S.D.Jayavathi, Asso. Prof.	 11/03/17
Mr.T.Devakumar, Asst. Prof. (SG)	 11/3/17
Mr.K.J.Prasanna Venkatesan, Asst. Prof. (SG)	 11/03/17
Mrs.P.Kavitha, Asst. Prof. (SG)	 11/03/17
Dr.V.Prithvirajan, Asst. Prof. (SG)	 11/3/17
Mr.M.Satheesh Kumar, Asst. Prof.	 11/3/17
Academic Experts	
Dr. M. Meenakshi, Professor, Department of ECE, College of Engineering, Guindy Campus, Chennai - 600025	 11/3/2017
Dr.M.Ganesh Madhan, Professor, Department of ECE, Madras Institute of Technology campus, Anna University, Chennai- 600044	M. Ganesh Madhan 11/3/17
University Nominees	
Dr. Rahilal Bilal, Associate Professor, Department of ECE, Thanthai Periyar Government Institute of Technology,	 11/3/17

Vellore - 632002	
<i>Industrial Experts</i>	
Mr. P. Essaki Muthu, Chief Scientist, River Silica, 3B, #60, Century Apartments, 100 Feet Road Indiranagar, Bangalore - 560 038	 11/13/17
<i>Alumni Nominated by the Principal</i>	
Mr. Anand Sarangaram, Senior design Engineering Manager, Tensilica Technologies India pvt ltd, Building No:1, First floor, Commerzone, Samrat Ashok Path, Yerwada, Pune - 411020.	
<i>Student Members Nominated by the HOD</i>	
Mr. V. Rengaswamy, 3rd year ECE	
Ms. J. Mariesh Preethi, 3rd year ECE	


CHAIRMAN

BOARD OF STUDIES

Dr. A. SHENBAGAVALLI M.E. PH.D
PROFESSOR & HEAD
Department of Electronics and
Communication Engg
National Engineering College
K.R Nagar, KOVILPATTI - 626 503

ANNEXURE I

Actions taken for Minutes of 6th BoS Meeting

As per BOS Committee suggestion,

DIGITAL ELECTRONICS

- Timing analysis concepts may be included in the 3rd unit and FinFET can be included in the 5th unit.

DIGITAL ELECTRONICS LAB

- The 8th experiment titled "Design and simulation of Adder, Subtractor, Multiplexer, Demultiplexer, 4 bit ripple counter, Mod-10 ripple counter and Shift registers using Verilog Hardware Description Language" may be replaced with detailed description.

DIGITAL SIGNAL PROCESSING

- Some redundant, topics in the unit IV may be removed and instead of it, the topics such as: saturation arithmetic, symmetric and asymmetric rounding topics may be included.
- Adaptive filter topic in Unit V may be removed. Instead of that subband coding, Quadrature mirror filters, Sample rate converter and some applications of Multirate Signal Processing may be included.

DIGITAL SIGNAL PROCESSING LABORATORY

- A few DSP experiments using C language may be added.
- Experiments related to various file formats including wav, bmp, yuv, pcm may be added.
- Sample rate converter, and dynamic range converter experiments may be added.

ADVANCED COMMUNICATION SYSTEMS

- Standard such as ETSI and G7X may be included for explaining the concepts of adaptive PCM and DPCM.

LINEAR INTEGRATED CIRCUITS

- The Course Outcomes (COs) may be reduced.
- Phase noise topic may be included in Unit III.
- INL, DNL (static analysis converter) and SNR, THT, SINAD (Dynamic analysis converter) topics may be included in Unit IV.
- IC317, and IC7805 topics may be added in Unit V.

MICROPROCESSOR AND MICROCONTROLLER

- Pentium processor in Unit III may be replaced by RISC processor.
- 80386, 80486 processors may be removed from unit II and instead scope of Pentium 286 can be expanded.
- Memory architecture and USB topics may be included in unit V.

LIC LABORATORY

- 12th experiment titled "Simulation of Differential amplifier, Instrumentation amplifier, Active lowpass, Highpass, Bandpass, Astable and Monostable multivibrators, RC phase shift oscillator and Wein bridge oscillators using PSPICE" may be clearly specified.
- Instead of having Experiment 9 and Experiment 10 as "Design of Analog to Digital Converter circuit for Ramp and Sine input" and "Design of Digital to Analog Converter using DAC0808" it can be specifically given as, study of ADC for RAMP and sine input.
- Experiment 8 titled "Study of PLL 565 characteristics and its use as Frequency Multiplier" can be renamed as study of PLL for frequency multiplier and phase noise measurement.
- Some experiments using IC317, and IC7805 may be included and the usage of data sheets may be encouraged.

RF AND MICROWAVE LABORATORY

- A specific title may be given for experiment 12 titled "VSWR, Frequency and Wave Length Measurement using slotted section with tunable probe" and experiment 13 titled "Gain and Radiation Pattern Measurement of antennas".

COMPREHENSION

- Students can be divided into various groups based on their area of interest.
- Course Outcome 4 can be changed.

DIGITAL SIGNAL PROCESSORS

- 4th reference book may be removed.
- Unit V may be completely replaced with some advanced processors, since it is not used in the market.

MULTIMEDIA COMPRESSION AND COMMUNICATION


- In Unit III only MPEG 2 or 4 is enough, and MPEG 1 may be removed. MP3 standards and H.264 standards can be added.
- JPEG 2000 standards can be removed in unit II.

FUNDAMENTALS OF SEMICONDUCTOR CHIP TESTING

- Some redundant topics from the course may be removed and the course content may be grouped into 4 units. PCB design for silicon validation may be included as 5th unit.
- Wavelets and its applications, VLSI Digital Signal Processing, Information Theory and Coding Techniques, High Speed Networks, Network Defense and Ethical Hacking, Industrial Networking may be removed from the Elective.
- Control Systems Analysis and Design subject may be moved from elective to core paper in the 6th semester, and Computer Communication Networks subject in the 6th semester may be moved from core to elective.
- Internship and Inplant training in the 7th semester may be moved to 8th semester. Correspondingly, one elective in the 8th semester can be moved to 7th semester.
- Product Development laboratory may be introduced in the 6th semester.
- Instead of opting a 3 credit elective course, a student may opt 3 one credit courses from 3rd to 8th semester.
- Based on the suggestions given by the members, there were no corrections in the Regulation 2013 (7th and 8th semester).


CHAIRMAN

BOARD OF STUDIES


J. A. SHENBAGAVALLI M.E., Ph.D.
PROFESSOR & HEAD
Department of Electronics and
Communication Engg.
NIT - Anna Engineering College
K.P. Noida, ADYALPATTI - 625 505

ANNEXURE III

List of Board of Examiners approved by Board of Studies

S. No	Name of the Expert	Designation	Institution	Area of Specialization
1.	Dr.D.Sriram kumar	Associate Professor	National Institute of Technology, Trichy	Microwave integrated circuits, smart antennas, optical networks
2.	Dr.S.Shenbagadevi	Associate Professor	College of Engineering, Guindy Campus	Biomedical Instrumentation
3.	Dr.M.Meenakshi	Associate Professor	College of Engineering, Guindy Campus	Optical communication & networks, Wireless networks, MEMS
4.	Dr.Mala John	Professor	Madras Institute of Technology, Chennai	Communication, Image & Signal Processing
5.	Dr.M.Ganesh Madhan	Professor	Madras Institute of Technology, Chennai	Optical Communication
6.	Dr.P.T.V.Bhuvaneswari	Asst.Prof(SG)	Madras Institute of Technology, Chennai	Communication/Networking/Wireless Multimedia Sensor Network
7.	Dr.S.P.Joy Vasantha Rani	Asst.Prof(SG)	Madras Institute of Technology, Chennai	VLSI
8.	Dr.G.Kavitha	Asst.Prof(SG)	Madras Institute of Technology, Chennai	Image Processing
9.	Dr.D.Mary Sugantha Rathnam	Assistant Professor	Government college of Engineering, Tirunelveli	Image Processing
10.	Dr.S.Balkani	Associate Professor	Government college of Engineering, Tirunelveli	Digital Image Processing, Computer Networking
11.	Dr.M.Vijayaraj	Professor	Government college of Engineering, Tirunelveli	Signal Processing and Wireless Communication
12.	Dr.S.J.Tiruvengadam	Professor	Thiagarajar college of Engineering, Madurai	Wireless Communication
13.	Dr.N.B. Balamurugan	Professor	Thiagarajar college of Engineering, Madurai	Analog VLSI
14.	Dr.M.S.K.Manikandan	Associate Professor	Thiagarajar college of Engineering, Madurai	Wireless Communication
15.	Dr.S.M.Mohammed Mansoor Roomi	Associate Professor	Thiagarajar college of Engineering, Madurai	Image Processing
16.	Prof.R.Shantha Selva Kumari	Professor	Mepco Schlenk Engineering College	Signal Processing
17.	Prof.D.Selvathi	Professor	Mepco Schlenk Engineering College	Medical Image Processing
18.	Prof.G.Indhumathi	Professor	Mepco Schlenk Engineering College	Wireless Communication
19.	Prof. Syed Ameer Abbas	Professor	Mepco Schlenk Engineering College	VLSI
20.	Dr.S.Anand	Associate Professor	Mepco Schlenk Engineering College	Communication


CHAIRMAN

BOARD OF STUDIES, ECE

Dr. A. SHENBAGAVALLI M.E., Ph.D.

PROFESSOR & HEAD

**Department of Electronics and
Communication Engg.**

National Engineering College

K.R. Nagar, KOVILPATTI - 628 503

Department of Computer Science and Engineering

National Engineering College, K.R.Nagar, Kovilpatti – 628 503

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7th Board of studies Meeting in the Department of
Computer Science and Engineering

Venue: Seminar Hall/CSE, National Engineering College
K.R.Nagar, Kovilpatti – 628 503

Date & Time: 01.04.2017 & 11.00 AM

Agenda

BoS / CSE 7.1	:	Welcome address and Opening Remarks by Chairman, Board of studies in the department of Computer Science and Engineering
BoS / CSE 7.2	:	Confirmation of the Minutes of the 6 th meeting of Board of studies in the department of Computer Science and Engineering held on March'03 rd , 2016 and Action taken report of 6 th meeting of Board of studies
BoS / CSE 7.3	:	Business brought forward by the Chairman, Board of studies 7.3.1. Introduction of one credit courses
BoS / CSE 7.4	:	List of Board of examiners
BoS / CSE 7.5	:	Any other items
BoS / CSE 7.6	:	Suggestions given by the BoS Members

Department of Computer Science and Engineering

MINUTES of 7th Meeting of the Board of studies held on
01st April, 2017 at 11.00 AM

Venue: Seminar Hall, CSE
National Engineering College, K.R.Nagar, Kovilpatti – 628 503

National Engineering College, K.R.Nagar, Kovilpatti – 628 503
(An Autonomous Institution - Affiliated to Anna University, Chennai)
www.nec.edu.in

Department of Computer Science and Engineering
National Engineering College, K.R.Nagar, Kovilpatti – 628 503
(An Autonomous Institution - Affiliated to Anna University, Chennai)
www.nec.edu.in

MINUTES OF THE MEETING

The 7th Meeting of the Board of studies of the Computer Science and Engineering was held on 01st April, 2017 at 11.00 AM in the Seminar hall/CSE of the National Engineering College, K.R.Nagar, Kovilpatti – 628 503

1. The following members were present:

1.	Dr.B.Paramasivan Professor & Head	Chairman
2.	Dr.V.Gomathi, Professor	Internal Members
3.	Dr.V.Kalaivani, Professor	
4.	Dr.K.Mohaideen Pitchai, Associate Professor (SG)	
5.	Dr.S.Anantha Kumaran, Associate Professor	
6.	Ms.V.Vimala, Assistant Professor (SG)	
7.	Ms.M.Bhuvaneswari, Assistant Professor (SG)	
8.	Ms.J.Naskath, Assistant Professor (SG)	
9.	Ms.R.Rajakumari, Assistant Professor (SG)	
10.	Mr.K.Maharajan, Assistant Professor (SG)	
11.	Mr. D.Vijayakumar, Assistant Professor (SG)	
12.	Dr.V.Kavidha, Assistant Professor (SG)	
13.	Ms.G.Sivakama Sundari, Assistant Professor	
14.	Ms.G.R.Hemalakshmi, Assistant Professor	
15.	Mr.V.Sivakumar, Assistant Professor	
16.	Dr. A.V.Reddy Professor Department of Computer Applications NIT, Trichy – 620 015	Academic Expert
17.	Mr.C.Bebin Suresh Director-DevOps, Unified Technology Office Capgemini India, Bangalore	Industrial Experts
18.	Dr. SP. Rahmesh HCL Technologies Limited Medavakkam High Road, Sozhanganallur Village, Chennai – 600 119	

19.	Mr.K.N.Visveswaran Chief Mentor, Hexavarsity Hexaware Technologies Limited Siruseri Campus, H5, Sipcot IT Park, Navallur Post Chennai – 603 103	Industrial Experts
20.	Mr.Antony Dasan Arravindh Senior Project Manager HCL Technologies Limited Medavakkam High Road, Sozhanganallur Village, Chennai – 600 119	Industrial Experts related to Placement
21.	Ms. M.Bala Naveena @ Nivetha, III year CSE	Student Members
22.	Mr. J.Nigesh, III year CSE	Nominated by the HOD

2. The University Nominee Dr.P.Uma Maheswari, Professor, Department of CSE, Anna University, Regional Centre Coimbatore and the Expert Members Dr K.K.Shukla, Professor, Department of CSE, Indian Institute of Technology (BHU),Varanasi, and Mr.D. Rajesh Kannan, Segment Head – Nielsen, Tata Consultancy Services, Chennai, and the Alumni member Ms.G.Maria Justin Mary, IT Lead-Remedy Application, Honey well Technology Solutions, Madurai could not attend the meeting due to their prior commitments and unavoidable reasons and were granted leave of absence.

BoS / CSE 7.1 : WELCOME ADDRESS AND OPENING REMARKS BY CHAIRMAN, BOARD OF STUDIES IN THE DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

The Chairman, BoS of the Computer Science and Engineering welcomed and introduced the members of 7th Board of Studies and thanked each one of them for sparing their valuable time to attend the meeting.

BoS / CSE 7.2 : TO CONFIRM THE MINUTES OF SIXTH BOS MEETING HELD ON 03rd MARCH, 2016

The minutes of the Sixth Board of Studies meeting held on 03rd March, 2016 were communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 6th Academic council.

➤ Action Taken Report

(Enclosed in Annexure I)

- BoS / CSE 7.3 : TO CONFIRM AND APPROVE THE CURRICULUM AND SYLLABI OF ONE CREDIT COURSES FOR THE UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2015
RESOLVED TO approve the Curriculum and Syllabi of one credit courses for the UG degree programme to be offered under R-2015
➤ R-2015 Curriculum & Syllabi of One credit courses
(Enclosed in Annexure ID)
- BoS / CSE 7.4 : TO CONFIRM AND APPROVE THE LIST OF EXAMINERS FOR COMPUTER SCIENCE AND ENGINEERING BOARD
RESOLVED TO approve the list of examiners for Computer Science and Engineering Board
➤ List of Examiners
(Enclosed in Annexure III)
- BoS / CSE 7.5 : ANY OTHER ITEMS, IF ANY, WITH THE PERMISSION OF THE CHAIRMAN OF THE BOS
On the whole, this new initiative was very much appreciated by all members. The challenges faced can be periodically discussed with them. They also congratulated the faculty members for their team efforts towards continuing Education.
- BoS / CSE 7.6 : SUGGESTIONS GIVEN BY THE BOS MEMBERS
- 7.6.1 : For python programming, include business-oriented works as exercises.
 - 7.6.2 : Encourage the students to learn PC installation, S/W installation, and basic Troubleshooting.
 - 7.6.3 : Make a twist in exercises, while assessing their performances with well-in-advance announcements to students.
 - 7.6.4 : Creating mind by brain, BCI design courses are having difficulties in conduct of Examinations.
 - 7.6.5 : Courses may be grouped as Odd / Even Semester Groups.
 - 7.6.6 : For Modern Algebra, suggested a text book "Modern Applied Algebra", by Garrett Birkhoff, Thomas C. Bartee, McGraw-Hill, 1970.

The members had a brainstorming discussion and interaction among themselves. After discussion, fruitful suggestions were incorporated appropriately in the Curriculum and Syllabi.



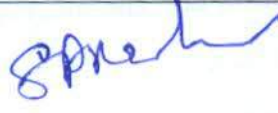


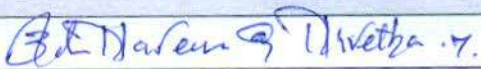
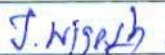
Based on the suggestions given by the members, BOS resolved to recommend the following to the Academic Council for further approval.


- a) The Curriculum and Syllabi for One credit courses B.E. (Computer Science and Engineering) degree course offered under Regulation 2015.

Dr. S. Ananthakumaran, Associate Professor, thanked all the members for their kind cooperation and the meeting came to an end.

Members Present

Dr.B.Paramasivan Chairman	<i>B. Paramasivan 01/14/19</i>
Internal Members	
Dr.V.Gomathi Professor	<i>V. Gomathi</i>
Dr.V.Kalaivani Professor	<i>V. Kalaivani</i>
Dr.K.Mohaideen Pitchai Associate Professor (SG)	<i>K. Mohaideen Pitchai</i>
Dr.S.Ananthakumaran Associate Professor	<i>S. Ananthakumaran</i>
Ms.V.Vimala Assistant Professor (SG)	<i>V. Vimala</i>
Ms.M.Bhuvanewari Assistant Professor (SG)	<i>M. Bhuvanewari</i>
Ms.J.Naskath Assistant Professor (SG)	<i>J. Naskath</i>
Ms.R.Rajakumari Assistant Professor (SG)	<i>R. Rajakumari</i>
Mr.K.Maharajan Assistant Professor (SG)	<i>K. Maharajan</i>
Mr. D.Vijayakumar Assistant Professor (SG)	<i>D. Vijayakumar</i>
Dr.V.Kavidha Assistant Professor (SG)	<i>V. Kavidha</i>
Ms.G.Sivakama Sundari Assistant Professor	<i>G. Sivakama Sundari</i>
Ms.G.R.Hemalakhmi Assistant Professor	<i>G. R. Hemalakhmi</i>
Mr.V.Sivakumar Assistant Professor	<i>V. Sivakumar</i>

<i>Academic Expert</i>	
Dr. A.V.Reddy Professor Department of Computer Applications NIT, Trichy – 620 015 Mobile: 09443781597 Email Id: reddy@nitt.edu	
<i>Industrial Experts</i>	
Mr.C.Bebin Suresh Director-DevOps, Unified Technology Office Capgemini India, Bangalore	
Dr. SP. Rahmesh HCL Technologies Limited SEZ Unit, ELCOT special economic zone, SDB5,#602/3, No.138, Medavakkam High Road, Sozhanganallur Village, Chennai – 600 119	
Mr.K.N.Visveswaran Chief Mentor, Hexavarsity Hexaware Technologies Limited Siruseri Campus, H5, Sipcot IT Park, Navallur Post Chennai – 603 103, Kancheepuram Dist.	
<i>Industrial Experts related to Placement</i>	
Mr.Antony Dasan Arravindh Senior Project Manager HCL Technologies Limited SEZ Unit, ELCOT special economic zone, SDB5, #602/3, No.138, Medavakkam High Road, Sozhanganallur Village, Chennai – 600 119	
<i>Student Members Nominated by the HOD</i>	
M.Bala Naveena@Nivetha, III year CSE	
J.Nigesh, III year CSE	


 CHAIRMAN
 BOARD OF STUDIES

ANNEXURE - I

Actions Taken for minutes of 6th BOS Meeting

As per BOS Committee suggestion,

- New electives such as Big Data Analytics, Analytic Computing, Storage Area Networks and Virtualization, Adhoc sensor networks, Internet of Things, and Machine Learning were introduced with latest topics.
- Also the students are encouraged to acquire the research oriented knowledge in emerging domains by taking a part in "Research paper and Patent Review – seminar" during seventh Semester in R2015.
- Under R2015, each student should earn 6 credits during seventh semester by undergoing Mini project or internship / implant training to get industrial exposure in the core area of computing technology which helps them for final semester project.
- Introduced career and market-oriented, skill enhancing add-on **one-credit courses** that has utility for job, self-employment and empowerment of the students.



CHAIRMAN

BOARD OF STUDIES

Dr. B. PARAMASIVAN, M.E., Ph.D.,

Professor and Head

Department of Computer Science & Engineering

National Engineering College,

K.R. Nagar KOVILPATTI - 628 503.

ANNEXURE – III

List of Board of Examiners approved by Board of Studies

S. No	Name of the Expert	Designation	Institution	Area of Specialization
1.	Dr.S.Nickolas	Associate Professor/ CA	National Institute of Technology, Trichy	Web Mining
2.	Dr.R.Balasubramanian	Professor/ CSE	Manonmaniam Sundaranar University, Tirunelveli	Fuzzy Logic Theory
3.	Dr.D.Devaraj	Dean(Academic), Sr.Prof. & Head/ EEE	Kalasalingam University Krishnankoil	Artificial Intelligence
4.	Dr. Pallikonda Rajasekaran	Professor/ ECE	Kalasalingam University Krishnankoil	Wireless Sensor Networks
5.	Dr.M.Thanga Raj	Associate Professor/ CS	Madurai Kamaraj University, Madurai	Social Networks
6.	Dr. S.Srinivasan	Prof. & Head / CSE	Regional Centre of Anna University, Madurai	Computational Science
7.	Dr.M.K.Jeyakumar	Professor/ CA	Noorul Islam University, Thakkalai	Soft Computing
8.	Dr.M.Govindarajan	Assistant Professor/CSE	Annamalai University, Chidambaram	Data Mining
9.	Dr.K.Mala	Professor/ CSE	MEPCO Schlenk Engg. College, Sivakasi	Image Processing
10	Dr.P.Latha	Associate Professor/ CSE	Govt. College of Engineering, Tirunelveli	Networking
11.	Dr.K.Ruba Soundar	Prof.&Head/ CSE	PSR Engineering College, Sivakasi	Image Processing


CHAIRMAN

BOARD OF STUDIES

Dr. B. PARAMASIVAN, M.E., Ph.D.,

Professor and Head

Department of Computer Science & Engineering,
National Engineering College,

K.R. Nagar, KOVILPATTI - 626 503.

Department of Electrical and Electronics Engineering
National Engineering College, K.R.Nagar, Kovilpatti – 628 503
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7th Board of studies Meeting in the Department of
Electrical and Electronics Engineering

Venue: Conference Hall, National Engineering College
K.R.Nagar, Kovilpatti – 628 503

Date & Time: 25.04.2017 & 10.30 AM

Agenda

- BoS / EEE 7.1 : Welcome address and Opening Remarks by
Chairman, Board of studies in the department of
Electrical and Electronics Engineering
- BoS / EEE 7.2 : Confirmation of the Minutes of the 6th meeting of
Board of studies in the department of Electrical
and Electronics Engineering held on March' 26th,
2016 and Action taken report of 6th meeting of
Board of studies
- BoS / EEE 7.3 : Business brought forward by the Chairman,
Board of studies
7.3.1. Introduction of one credit courses
- BoS / EEE 7.4 : List of Board of examiners
- BoS / EEE 7.5 : Any other items
- BoS / EEE 7.6 : Suggestions given by the BoS Members

Department of Electrical and Electronics Engineering

MINUTES of 7th Meeting of the Board of studies held on
25th March, 2017 at 10.30 AM

Venue: Conference Hall
National Engineering College, K.R.Nagar, Kovilpatti – 628 503

National Engineering College, K.R.Nagar, Kovilpatti – 628 503
(An Autonomous Institution - Affiliated to Anna University, Chennai)
www.nec.edu.in

Department of Electrical and Electronics Engineering
National Engineering College, K.R.Nagar, Kovilpatti – 628 503
(An Autonomous Institution - Affiliated to Anna University, Chennai)
www.nec.edu.in

MINUTES OF THE MEETING

The 7th Meeting of the Board of studies of the Electrical and Electronics Engineering was held 25th March, 2017 at 10.30 AM in the Conference Hall of the National Engineering College, K.R.Nagar, Kovilpatti – 628 503

1. The following members were present:

1.	Dr.M.Willjuice Iruthayarajan Professor and Head	Chairman
2.	Dr.L.Kalaivani, Associate Professor (SG)	Internal Members
3.	Dr.M.Ravindran, Associate Professor (SG)	
4.	Dr.R.V.Maheswari, Associate Professor	
5.	Mr.N.B.Prakash, Associate Professor	
6.	Mr.G.Kannayeram, Assistant Professor (SG)	
7.	Mr. M.P.E. Rajamani, Assistant Professor (SG)	
8.	Dr. M. Saravanan Professor Department of Electrical and Electronics Engg Thiagarajar College of Engineering, Madurai.	Academic Expert
9.	Dr. C. Ponmani Assistant Professor Department of Electrical and Electronics Engg Government College of Engineering, Tirunelveli.	University Nominee
10.	Dr. Santosh Kumar Annadurai GE, GIS R&D Centre Unit R&D Head Padappai, Chennai.	Industrial Expert
11.	Dr. Hariram Satheesh Principal Scientist ABB Global Industries and Services Ltd Bangalore.	

12.	Mr. M. Ramesh Senior Technical Engineer Hardware Design and Development Data Patterns India Pvt. Ltd., Chennai.	Industrial Expert
13.	Dr.G.Venkatesan Principal Narasu's Sarathy Institute of Technology, Poosaripatty, Omalur (TK), Salem	Meritorious Alumnus – Nominated by Principal
14.	Mr. S.S. Siva Shankar, Third Year /EEE	Student Members
15.	Ms. P.Tamilarasi, Third Year /EEE	

2. The Academic Expert member **Dr. V.Sankaranarayanan**, Associate Professor / EEE, National Institute of Technology, Trichy and Industrial Expert Member **Mr.S.Subramanian**, Senior Maintenance Engineering (I), Kudankulam Nuclear Power Project could not attend the meeting due to their prior commitments and unavoidable reasons and were granted leave of absence.

BoS / EEE 7.1 : WELCOME ADDRESS AND OPENING REMARKS BY CHAIRMAN, BOARD OF STUDIES IN THE DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

The Chairman, BoS of the Electrical and Electronics Engineering welcomed and introduced the members of 7th Board of Studies and thanked each one of them for sparing their valuable time to attend the meeting.

BoS / EEE 7.2 : TO CONFIRM THE MINUTES OF SIXTH BOS MEETING HELD ON 26th MARCH 2016

The minutes of the Sixth Board of Studies meeting held on 26th March, 2016 were communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 6th Academic council.

➤ **Action Taken Report**

(Enclosed in Annexure I)

BoS / EEE 7.3 : TO CONFIRM AND APPROVE THE CURRICULUM AND SYLLABI OF ONE CREDIT COURSES FOR THE UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2015

RESOLVED TO approve the Curriculum and Syllabi of one credit courses for the UG degree programme to be offered under R-2015

➤ R-2015 Curriculum & Syllabi of One credit courses

(Enclosed in Annexure II)

BoS / EEE 7.4 : TO CONFIRM AND APPROVE THE LIST OF EXAMINERS FOR ELECTRICAL AND ELECTRONICS ENGINEERING BOARD

RESOLVED TO approve the list of examiners for Electrical and Electronics Engineering Board

➤ List of Examiners

(Enclosed in Annexure III)

BoS / EEE 7.5 : ANY OTHER ITEMS, IF ANY, WITH THE PERMISSION OF THE CHAIRMAN OF THE BOS

The BoS members had a good interaction with the chairman, internal members and student members regarding industry oriented syllabus formation for students in all the domains. They also discussed and highlight the importance of Inplant training and Internship. Finally they suggest the course materials for one credit courses and overall they appreciated the staff and student members for the effort taken.

BoS / EEE 7.6 : SUGGESTIONS GIVEN BY THE BOS MEMBERS

7.6.1 : For the course "Smart Grid", the topic related with ICT and Cyber Security may be included.

7.6.2 : Interaction between faculty and industry experts should be maintained for proper assessment during internship and industrial trainings.

7.6.3 : The following New one credit courses related with industrial developments should be included.

1. Communication Technologies for Smart Grids
2. Techno Commercial Project Proposal
3. Controllers for Industrial Automation
4. Non-Conventional Instrument Transformer
5. Energy Storage System
6. Electronics for Safety Critical System
7. CFD for Electrical Apparatus
8. HVDC Circuit Breakers
9. Earthing Design
10. Low Voltage DC Applications
11. Electrical Stress Analysis
12. Alternate Insulating Medium
13. PCB Design And Fabrication
14. Digital Substation
15. Electrical System for Smart Building
16. Power System Protection and Substation Automation

7.6.4 : Power system protection and substation automation course may be included.

7.6.5 : The professors/experts in different domains may be included from the National Institute of Technology, Indian Institute of Technology and etc. in the list of examiners for Project Evaluation.

The members had a brainstorming discussion and interaction among themselves. After discussion, fruitful suggestions were incorporated appropriately in the Curriculum and Syllabi.

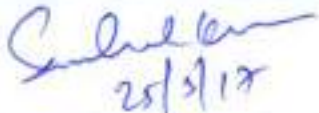



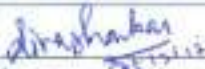

Based on the suggestions given by the members, BoS resolved to recommend the following to the Academic Council for further approval.

- a) The Curriculum and Syllabi for One credit courses B.E. Electrical and Electronics Engineering degree course offered under Regulation 2015.

Mr. N. B. Prakash, Associate Professor/EEE thanked all the members for their kind cooperation and the meeting came to an end.

Members Present

Dr.M.Willjuice Iruthayarajan, Chairman,BoS/EEE	<i>M. Willjuice</i> 25/3/17
<i>Internal Members</i>	
Dr.L.Kalaivani, Associate Professor (S.G)/EEE	<i>L. Kalaivani</i>
Dr.M.Ravindran, Associate Professor (S.G) /EEE	<i>M. Ravindran</i>
Dr.R.V.Maheswari, Associate Professor/EEE	<i>R. V. Maheswari</i>
Mr.N.B.Prakash, Associate Professor/EEE	<i>N. B. Prakash</i>
Mr.G.Kannayeram, Assistant Professor(S.G) /EEE	<i>G. Kannayeram</i> 25/3/17
Mr. M.P.E. Rajamani, Assistant Professor(S.G) /EEE	<i>M. P. E. Rajamani</i>
<i>Academic Experts</i>	
Dr. M. Saravanan, Professor, Department of Electrical and Electronics Engineering, Thiagarajar College of Engineering, Madurai.	<i>M. Saravanan</i> 25/3/17
<i>University Nominees</i>	
Dr. C. Ponmani, Assistant Professor, Department of Electrical and Electronics Engineering, Government College of Engineering, Tirunelveli.	<i>C. Ponmani</i> 25/3/17

<i>Industrial Experts</i>	
Dr. Santosh Kumar Annadurai, GE, GIS R&D Centre, Unit R&DHead, Padappai, Chennai.	 25/3/17
Dr. Hariram Satheesh, Principal Scientist, ABB Global Industries and Services Ltd, Bangalore.	 25/03/17
<i>Industrial Experts related to Placement</i>	
Mr. M. Ramesh, Senior Technical Engineer, Hardware Design and Development, Data Patterns India Pvt. Ltd., Chennai.	
<i>Alumni Nominated by the Principal</i>	
Dr.G.Venkatesan, Principal, Narasu's Sarathy Institute of Technology, Poosaripatty, Omalur(TK), Salem.	 25/3/17
<i>Student Members Nominated by the HOD</i>	
Mr. S.S. Siva Shankar	
Ms. P. Tamilarasi	 25/3/17


25/03/17
CHAIRMAN
BOARD OF STUDIES

ANNEXURE - I
Actions Taken for minutes of 6th BOS Meeting

As per BOS Committee suggestion,

Sl. No.	Course Code	Course Title	Suggestions	Action Taken
1.	15EE34C	DC Machines and Transformers	Speed control of compound motor may be included.	The Content is included in the Unit III of the course.
2.	15EE35C	Linear Integrated Circuits and its Applications	Latest edition of books should be included.	Modifications are carried out in the final syllabus
3.	15EE36C	Digital Logic Circuits	No. of references should be reduced.	
4.	15EE38C	Integrated Circuits Laboratory	Amplifier and oscillator experiments may be added.	These experiments are included in the Electronic Circuits Laboratory Course instead of IC Laboratory
5.	15EE43C	Control Engineering	Latest edition of books should be included.	Modifications are carried out in the final syllabus
6.	15EE45C	Electrical Power Systems	Hand books may be added as references.	
7.	15EE48C	Control and Instrumentation Laboratory	Software names should be removed from syllabus.	
8.	15EE52C	Power Electronics	Multilevel inverters may be included.	Multilevel inverters content is added in Unit IV
9.	15EE55C	Digital Signal Processing and its Applications	Instead TMS320C5X, TMS320LF2407 may be included.	Complete content of Unit V is modified based on the TMS320LF2407 processor.
10.	15EE57C	Microprocessor and Microcontroller Laboratory	16 bit operations may be included. VHDL programmes may be included.	The Content is included in the laboratory course.
11.	15EE71C	a) Mini Project – 4 Credits b) Internship – 1 to 4 Credits c) Inplant Training – 2 to 4 Credits	– – Internship and Inplant training should be moved to 8 th semester.	Internship and Inplant training is moved to 8 th semester.

		(Minimum of 6 credits are to be earned)		
12.	15EE09E	Power Quality	Standards may be included as content.	Standards are included as course content in Unit I
13.	15EE14E	EHV Power Transmission	Subject name may be modified.	Course Name is modified as EHV AC Power Transmission
14.	15EE15E	High Voltage DC Transmission	Line commutated and voltage source converters may be included.	The topic of Line Commutated Converters is included in Unit II
15.	15EE17E	PLC, SCADA and DCS®	Subject name may be changed.	Course name is modified as Logic and Distributed Control System

GENERAL SUGGESTIONS IN SYLLABUS FOR REGULATION 2015

Sl. No.	Suggestions	Action Taken
1.	Electronic Circuits laboratory should be included in the curriculum	Electronic Circuits Laboratory Course is included in the syllabus
2.	Available hand books can be included in references	Modifications are carried out in the final syllabus
3.	Recent editions of text and reference books should be included	
4.	For laboratory, virtual platforms may be included for demonstrating experiments	For some experiments in laboratory courses, virtual platforms are used.

Modification Made After BoS:

- Based on the Suggestions from Academic Council Members, the course "Smart Grid" is included in the 7th Semester as core course.


CHAIRMAN
BOARD OF STUDIES

Dr. M. WILLJUICE IRUTHAYARAJAN, M.E., Ph.D.
 PROFESSOR & HEAD
 DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING
 NATIONAL ENGINEERING COLLEGE
 K.R. NAGAR, KOVILPATTI

ANNEXURE - III
List of Board of Examiners approved by Board of Studies

S. No	Name of the Expert	Designation	Institution	Area of Specialization
1.	Dr. K. Shanti Swarup	Professor	Indian Institute of Technology Madras	Power System
2	Dr. V. Sankaranarayanan	Associate Professor	National Institute of Technology, Trichy	Power System and Control Engineering
3	Dr. P. Vanaja Ranjan	Professor	Anna University -Chennai	Embedded Systems
4	Dr. P.Lakshmi	Professor	Anna University -Chennai	Instrumentation
5	Dr. P. Soma Sundaram	Associate Professor	Anna University -Chennai	Power System
6	Dr. C. Pugazhendhi Sugumaran	Assistant Professor (SG)	Anna University -Chennai	High Voltage Engineering
7	Dr. Indra Getzy David	Professor and Head	Government College of Engineering, Tirunelveli	Power System
8	Dr. N. Kamaraj	Professor and Dean(Student)	Thiagarajar College of Engineering, Madurai	Power System
9	Dr.M.Saravanan	Professor	Thiagarajar College of Engineering, Madurai	Power Electronics
10	Dr. P. Venkatesh	Associate Professor(SG)	Thiagarajar College of Engineering, Madurai	Power System
11	Dr. V. Prakash	Associate Professor	Thiagarajar College of Engineering, Madurai	Instrumentation
12	Dr. V. Jayasankar	Senior Professor and Head	Mepco Schlenk Engineering College, Sivakasi	High Voltage Engineering
13	Dr. S. Edward Rajan	Professor	Mepco Schlenk Engineering College, Sivakasi	Instrumentation
14	Dr. N. Senthil Kumar	Professor	Mepco Schlenk Engineering College. Sivakasi	Electronics Engineering


CHAIRMAN
BOARD OF STUDIES

Dr. M. WILLJUICE IRUTHAYARAJAN, M.E., Ph.D.
PROFESSOR & HEAD
DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING
NATIONAL ENGINEERING COLLEGE
K.R. NAGAR, KOVILPATTI

Department of Electronics and Instrumentation Engineering

National Engineering College, K.R.Nagar, Kovilpatti – 628 503

(An Autonomous Institution - Affiliated to Anna University, Chennai)

www.nec.edu.in

7th Board of studies Meeting in the Department of
Electronics and Instrumentation Engineering

Venue: Conference Hall, National Engineering College
K.R.Nagar, Kovilpatti – 628 503.

Date & Time: 18.03.2017 & 10.30 a.m.

Agenda

EIE/BoS 7.1	:	Welcome address and Opening Remarks by Chairman, Board of studies in the department of Electronics and Instrumentation Engineering
EIE/BoS 7.2	:	Confirmation of the Minutes of the 6 th meeting of Board of studies in the department of [Electronics and Instrumentation Engineering] held on March, 4 th , 2016 and Action taken report of 6 th meeting of Board of studies
EIE/BoS 7.3	:	Business brought forward by the Chairman, Board of studies 7.3.1. Introduction - one credit courses curriculum and detail syllabi 7.3.2. Syllabus for Internet of Things (IoT)
EIE/BoS 7.4	:	List of Board of examiners
EIE /BoS 7.5	:	Any other items
EIE /BoS 7.6	:	Suggestions given by the BoS Members

Department of Electronics and Instrumentation Engineering

MINUTES of 7th Meeting of the Board of studies held on
18th March, 2017 at 10:30 AM

Venue: Central Library,
National Engineering College, K.R.Nagar, Kovilpatti- 628503

National Engineering College, K.R.Nagar, Kovilpatti – 628 503
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Department of Electronics and Instrumentation Engineering

National Engineering College, K.R.Nagar, Kovilpatti – 628 503

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MINUTES OF THE MEETING

The 7th Meeting of the Board of studies of the Electronics and Instrumentation Engineering was held on 18th March 2017 at 10.30 AM in the Central Library of the National Engineering College, K.R.Nagar, Kovilpatti– 628503.

1. The following members were present:

1.	Dr.B.Sankaragomathi Professor & Head	Chairman
2.	Dr.D. Santhi, Associate Professor (SG)	Internal Members
3.	Mr.Jackson Daniel, Associate Professor	
4.	Mr.K.Shankar, Associate Professor	
5.	Dr.S.Manikandan, Associate Professor	
6.	Mr.T.Ramakrishnan, Asst. Professor (SG)	
7.	Mrs.J.BabithaThangamalar, Asst. Professor (SG)	Academic Experts
8.	Dr. S. Edward Rajan Professor, Dept. of EEE Mepco Schlenk Engineering College Sivakasi - 626 005	
9.	Dr.K. Latha Associate Professor Department of Instrumentation Engineering MIT Campus Chennai -600 044.	University Nominee
10.	Mr.R.Dheenadhayalan, M.Tech Scientist-D Electronics and Instrumentation Group(EIG) Indira Gandhi Centre for Atomic Research (IGCAR), Chennai	Industrial Experts
11.	Mr.M.Veera Shanthi Ram, Third Year EIE	Student member

2. The Academic Expert Member Prof. V. Subbiah Bharathi, Dean, SRM University, Ramapuram, Chennai, Industrial Expert Members Mr. C. Rajkumar, Engineering Director, Cadence Design Systems India Pvt. Ltd,

Bangalore, Mr. Ramesh, Head – Instrumentation, Sterlite copper, Vedanta Limited, Thoothukudi, Alumni Member Mr. K.T.Gandhi Karuna, Chief Technology Officer, Watsimit Mobile Technologies Pvt. Ltd., Kanchipuram, Internal members Mr.V.Suresh, Asso. Professor, Mrs.Carmel Sobia, Asst. Professor (SG), Mrs.A.Geetha, Asst. Professor (SG) and student member Ms. I Nandhini could not attend the meeting due to their prior commitments and unavoidable reasons and were granted leave of absence.

BoS / EIE 7.1 : WELCOME ADDRESS AND OPENING REMARKS BY CHAIRMAN, BOARD OF STUDIES IN THE DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

The Chairman, BoS of the Electronics and Instrumentation Engineering welcomed and introduced the members of 7th Board of Studies and thanked each one of them for sparing their valuable time to attend the meeting.

BoS / EIE 7.2 : TO CONFIRM THE MINUTES OF SIXTH BOS MEETING HELD ON 04th MARCH, 2016

The minutes of the Sixth Board of Studies meeting held on 04th March, 2016 were communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 6th Academic council.

➤ Action Taken Report

(Enclosed in *Annexure D*)

BoS / EIE 7.3.1 : TO CONFIRM AND APPROVE THE CURRICULUM AND SYLLABI OF ONE CREDIT COURSES FOR THE UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2015

RESOLVED TO approve the Curriculum and Syllabi of one credit courses for the UG degree programme to be offered under R-2015

➤ R-2015 Curriculum & Syllabi of One credit courses

(Enclosed in *Annexure II*)

- BoS / EIE 7.3.2 : TO CONFIRM AND APPROVE ADDITION OF 15EI72C INSTRUMENTATION ASPECTS OF IOT IN PROGRAMME CORE COURSE FOR THE UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2015
- RESOLVED TO approve addition of 15EI72C INSTRUMENTATION ASPECTS OF IOT in Programme Core Course for the UG degree programme to be offered under R-2015
- BoS / EIE 7.4 : TO CONFIRM AND APPROVE THE LIST OF EXAMINERS FOR ELECTRONICS AND INSTRUMENTATION ENGINEERING BOARD
- RESOLVED TO approve the list of examiners for Electronics and Instrumentation Engineering Board
- List of Examiners
(Enclosed in *Annexure III*)
- BoS / EIE 7.5 : ANY OTHER ITEMS, IF ANY, WITH THE PERMISSION OF THE CHAIRMAN OF THE BOS
- Total Hours for practical one credit courses must be 30.
- BoS / EIE 7.6 : SUGGESTIONS GIVEN BY THE BOS MEMBERS
- 7.6.1 : The BOS resolved to modify the topics in the following courses
- PLC Programming
 - Control System with MATLAB
 - Control System with LABVIEW
 - Embedded System Design using Arm Microcontroller
 - VLSI Testing
 - Graphical Programming for Electronic Circuits
 - Softcomputing Techniques using Fuzzy and Neural Network
 - Field Instruments for Process Control
- 7.6.2 : The BOS resolved to change the title of the theory course VLSI TESTING
- 7.6.3 : The BOS resolved to remove the course EMBEDDED SYSTEM DESIGN USING PIC MICROCONTROLLER
- 7.6.4 : Course code of 15EI72C is renamed IoT and its application & some topics of the fifth unit has to be removed from the syllabus.

The members had a brainstorming discussion and interaction among themselves. After discussion, fruitful suggestions were incorporated appropriately in the Curriculum and Syllabi.







Based on the suggestions given by the members, BOS resolved to recommend the following to the Academic Council for further approval.

- a) The Curriculum and Syllabi for One credit courses B.E. Electronics and Instrumentation Engineering degree course offered under Regulation 2015.
- b) The Curriculum and Syllabi of Programme Core Course '15EI72C IoT and its application' for B.E. Electronics and Instrumentation Engineering degree course offered under Regulation 2015

Dr. D. Santhi, Associate Professor (SG) thanked all the members for their kind cooperation and the meeting came to an end.

Members Present

Dr. B.Sankaragomathi Professor & Head Chairman	 18/3/17
<i>Internal Members</i>	
Dr. D. Santhi Associate Professor (SG)	
Mr. Jackson Daniel Associate Professor	 18/3/17
Mr. K.Shankar, Associate Professor	
Dr. S.Manikandan, Associate Professor	 18/3/17

Mr. T.Ramakrishnan Assistant Professor (SG)	 18/3/17
Mrs. J.Babitha Thangamalar Assistant Professor (SG)	 18/3/17
Academic Expert	
Dr. S. Edward Rajan Professor, Dept. of EEE, Mepco Schlenk Engineering College, Sivakasi - 626 005 Phone No.:9443868860 Mail id : sedraj@yahoo.com, sedward@mepcoeng.ac.in	 18/03/17
University Nominee	
Dr. K. Latha Associate Professor, Department of Instrumentation Engineering, MIT Campus, Chennai -600 044. Phone No.:9500064042 Mail id: klatha@annauniv.edu	 18/3/17
Industrial Expert - Invitee	
Mr. R.Dheenadhayalan, Scientific Officer - E Electronics and Instrumentation Group, Indira Gandhi Centre for Atomic Research(IGCAR)-Chennai Mail Id:dheenageneral@gmail.com	 18/3/17
Student Member Nominated by the HOD	
Mr. M.Veera Shanthi Ram III year EIE Student	


18/3/17
CHAIRMAN
BOARD OF STUDIES

ANNEXURE I

Actions taken for Minutes of 4th BoS Meeting

The following action were taken based on the suggestions of the BoS committee

- Advance topics were included in the courses Embedded Systems, VLSI Design and Sensor Networks
- Title of few courses like Flow and Level Instrumentation, PLC, SCADA and DCS, Advanced Process Control were changed to Industrial Instrumentation - II, Logic and Distributed Control System and System Identification and Adaptive Control respectively.
- The courses Signals and Networks, Automotive Instrumentation and Control, Virtual Instrumentation Lab were introduced.
- Two courses Virtual Instrumentation and Applied Soft Computing were removed from curriculum.
- Instrumentation Aspects of IOT is added in VII semester.
- Two courses Engineering mechanics and Fluid dynamics and Thermodynamics and Heat transfer were merged to a single course as Fundamentals of Thermodynamics and Fluid Mechanics.
- Mini project is introduced in Seventh semester.



CHAIRMAN

BOARD OF STUDIES

ANNEXURE III

List of Board of Examiners approved by Board of Studies

S. No	Name of the Expert	Designation	Institution, Mobile No & Email ID	Area of Specialization
1	Dr. V.Prakash,	Associate Professor	Dept. of EEE, Thiagarajar College of Engineering Madurai – 625 015 9442969918, 91-452-2482240 (Extn-209) vpeee@tce.edu	Instrumentation, Electrical Machines
2	Dr. S. Edward Rajan	Professor	Dept. of EEE, Mepco Schlenk Engineering College, Mepco Nagar, Sivakasi - 626 005, Virudhunagar District 9443868860, 04562-235302 sedraj@yahoo.com sedward@mepcoeng.ac.in	Electrical Measurements and Instrumentation
3	Dr. K.Valarmathi,	Professor	Dept. of ECE, P.S.R.Engineering College, Sevalpatti, Sivakasi – 626140 valarmathi@psr.edu.in 04562-239600/239091 / 239092	Biomedical Engineering
4	Dr. S.A.Pasupathi,	Professor	Dept. of Mechatronics Engineering, Kumaraguru College of Technology, Coimbatore – 641 049 8098141600 hod.mce@kct.ac.in pasupathy.sa.mce@kct.ac.in	Electronic Instrumentation
5	Dr. C.Ponmani,	Assistant Professor	Dept. of EEE, Government College of Engineering, Tirunelveli – 627 007 ponmani@gcetly.ac.in 0462-2552450	Power Electronics and Drives
6	Dr. M.Poongothai	Assistant Professor (SG)	Dept. of ECE, Coimbatore Institute of Technology Civil Aerodrome Post, Coimbatore – 641 014 poongothai@cit.edu.in gothaikathirvel@yahoo.com 9894635286	Microprocessors and Real-Time Embedded Systems


 Dr. B. SANKAR
 B.Sc. (A), B.E., M.Tech., Ph.D.
 Professor
HOD / EIE
 Dept. of Electronics and Instrumentation
 National Engineering College (Autonomous)
 K.R. Nagar, KOVILPATTI - 628 503.

Department of Information Technology

National Engineering College, K.R.Nagar, Kovilpatti – 628503

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7th Board of studies Meeting (Phase-I) in the Department of
Information Technology

Venue: Conference Hall, National Engineering College
K.R.Nagar, Kovilpatti – 628503

Date & Time: 04.03.2017 & 11.00 am

Agenda

- BoS / IT 7.1 (1) : Welcome address and Opening Remarks by
Chairman, Board of studies in the department of
Information Technology
- BoS / IT 7.2 (1) : Confirmation of the Minutes of the 6th meeting of
Board of studies in the department of Information
Technology held on 19th March 2016 and Action
taken report of 6th meeting of Board of studies
- BoS / IT 7.3 (1) : Business brought forward by the Chairman,
Board of studies
7.3.1.(1) Introduction of one credit courses
7.3.2. (1) R-2015 Curriculum M.Tech – IT
(Information and Cyber warfare)
- BoS / IT 7.4 (1) : List of Board of examiners
- BoS / IT 7.5 (1) : Any other items
- BoS / IT 7.6 (1) : Suggestions given by the BoS Members

Department of Information Technology

MINUTES of 7th Meeting of the Board of studies (Phase-I) held on
04th March, 2017 at 11.00 AM

Venue: Conference Hall,
National Engineering College, K.R.Nagar, Kovilpatti – 628503

National Engineering College, K.R.Nagar, Kovilpatti – 628 503
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Department of Information Technology

National Engineering College, K.R.Nagar, Kovilpatti – 628 503

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MINUTES OF THE MEETING

The 7th Meeting of the Board of studies (Phase-I) of the Information Technology was held on 04th March 2017 at 11.00 AM in the Conference Hall of the National Engineering College, K.R.Nagar, Kovilpatti – 628503

1. The following members were present:

1.	Dr.D.Manimegalai Prof & Head	Chairman
2.	Dr.V.Seenivasagam, Prof. & COE	Internal Members
3.	Dr.K.G.Srinivasagan, Professor	
4.	Dr.S.Sankar Ganesh, Asso. Prof. (SG)	
5.	Mr.R.Muthu Kumar, Asst. Prof. (SG)	
6.	Dr.M.Kaliappan, Asso. Prof.	Academic Expert
7.	Dr. S.Valli Professor / Department of CSE Anna University Chennai	
8.	Dr. P.Latha Associate Professor / Department of CSE Government College of Engineering Tirunelveli	University Nominee
9.	Mr.R.Rajasekar, Director, Bizplus Tech Services Private Limited Velachery, Chennai	Alumni Member
9.	Shri. E. Khalieraaj Regional Director, National Cyber Safety and Security Standards National Cyber Defence Research Centre (NCDRC) Team, New Delhi	Industrial Expert
10.	Dr. A.Soundarrajan Associate Professor / Department of IT PSG College of Technology Peelamedu, Coimbatore	Special Invitee
11.	Ms. K.Anitha, Third year	Student Members
12.	Mr. M.Balasubramanian, Third year	

2. The Academic Expert member Dr.L.Ganesan, Prof, Department of CSE, Alagappa Chettiar College of Engineering and Technology, Karaikudi and Industrial Expert Member Mr. Somu Chockalingam, Director, Doyen Systems

Pvt Ltd. Chennai could not attend the meeting due to their prior commitments and unavoidable reasons and were granted leave of absence.

BoS / IT 7.1 (1) : WELCOME ADDRESS AND OPENING REMARKS BY CHAIRMAN, BOARD OF STUDIES IN THE DEPARTMENT OF INFORMATION TECHNOLOGY

The Chairman, BoS of the Information Technology welcomed and introduced the members of 7th Board of Studies (Phase-I) and thanked each one of them for sparing their valuable time to attend the meeting.

BoS / IT 7.2 (1) : TO CONFIRM THE MINUTES OF SIXTH BOS MEETING HELD ON 19th MARCH, 2016

The minutes of the **Sixth Board of Studies meeting** held on 19th March, 2016 were communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 6th Academic council.

➤ **Action Taken Report**

(Enclosed in *Annexure I*)

BoS / IT 7.3.1 (1) : TO CONFIRM AND APPROVE THE CURRICULUM AND SYLLABI OF ONE CREDIT COURSES FOR THE UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2015

RESOLVED TO approve the Curriculum and Syllabi of one credit courses for the UG degree programme to be offered under R-2015

➤ **R-2015 Curriculum & Syllabi of One credit courses**

(Enclosed in *Annexure II*)

BoS / IT 7.3.2 (1) : TO CONFIRM AND APPROVE THE CURRICULUM OF M.TECH. (INFORMATION AND CYBER WARFARE) FOR THE PG DEGREE PROGRAMME TO BE OFFERED UNDER R-2015

: **RESOLVED TO** approve the curriculum of M.TECH. (INFORMATION AND CYBER WARFARE) for the PG degree programme to be offered under R-2015

BoS / IT 7.4 (1) : TO CONFIRM AND APPROVE THE LIST OF EXAMINERS FOR INFORMATION TECHNOLOGY BOARD

RESOLVED TO approve the list of examiners for Information Technology Board

➤ **List of Examiners**

(Enclosed in *Annexure III*)

BoS / IT 7.5 (1) : **ANY OTHER ITEMS, IF ANY, WITH THE PERMISSION OF THE CHAIRMAN OF THE BOS**

On the whole, the list of courses was very much appreciated by all members. Especially the industry collaborated courses was highly commended. They also congratulated the faculty members for their team efforts towards continuing Education.

BoS / IT 7.6 (1) : **SUGGESTIONS GIVEN BY THE BOS MEMBERS**

- 7.6.1 : For Microsoft Analytics , include software packages or tools for References
- 7.6.2 : Include Penetration testing as an exercise in Web services for mobile programming
- 7.6.3 : For Computer Hardware and Troubleshooting, suggested a text book "IBM PC AND CLONES: Hardware, Troubleshooting and Maintenance", by Govindarajalu.B, Tata McGraw-Hill, 2011.
- 7.6.4 : Practical component may be introduced in Social Media Application Development
- 7.6.5 : Practical exercises related to Aurdino and Raspberry PI may be included in Microcontroller and Raspberry PI
- 7.6.6 : Quantization and Number theory may be introduced in the first semester to enhance mathematical skills to fulfill the cryptographic needs.
- 7.6.7 : Ethical hacking (Theory + Lab) may be replaced as Vulnerability assessment theory and laboratory.
- 7.6.8 : Enterprise and Perimeter security may be shifted to elective paper from core paper.
- 7.6.9 : Advanced Database and Application Security can be replaced as Data and cloud security may be introduced in First semester as core paper.
- 7.6.10 : Cyber Practitioner Development Laboratory can be replaced as Network and Wireless Security Laboratory.
- 7.6.11 : Soft computing, IOT Security, Malware Security may be added as elective papers.







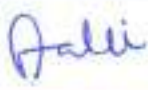

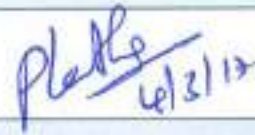
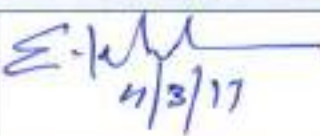

The members had a brainstorming discussion and interaction among themselves. After discussion, fruitful suggestions were incorporated appropriately in the Curriculum and Syllabi.

Based on the suggestions given by the members, BOS resolved to recommend the following to the Academic Council for further approval.

- a) The Curriculum and Syllabi for One credit courses B.Tech. Information Technology degree course offered under Regulation 2015.

Dr.S.Sankar Ganesh, Asso Prof(SG) thanked all the members for their kind cooperation and the meeting came to an end.

Members Present

Dr.D.Manimegalai Prof & Head Chairman	
Internal Members	
Dr.V.Seenivasagam, Prof. & COE	
Dr.K.G.Srinivasagan, Professor	
Dr.S.Sankar Ganesh, Asso. Prof. (SG)	
Mr.R.Muthu Kumar, Asst. Prof. (SG)	
Dr.M.Kaliappan, Asso Prof.	
Academic Experts	
Dr.S.Valli, Professor, Dept. of CSE, Anna University, Chennai.	
Dr.A.Soundarajan Associate Professor, Department of IT, PSG College of Technology, Peelamedu Coimbatore - 641 004	
University Nominees	
Dr.P.Latha Associate Professor, Department of CSE GCE, Tuirunclveli	
Industrial Experts	
Shri. E. Khalieraaj Regional Director, National Cyber Safety and Security Standards (NCDRC) Team, Chennai	
Alumni Nominated by the Principal	
Mr.R.Rajasekar, Director, Bizplus Tech Services Private Limited 1331, Tnhb Colony Velachery, Chennai	
Student Members Nominated by the HOD	
K.Anitha ,IIIyr IT	
M.Balasubramanian ,IIIyr IT	


CHAIRMAN
BOARD OF STUDIES
 Dr. D. Manimegalai, Ph.D.,
 Professor & Head
 Department of Information Technology
 National Engineering College
 K.R. Nagar, Kovilpatti - 628 503,

ANNEXURE I

Actions taken for Minutes of 6th BoS Meeting

As per BOS Committee suggestion,

For R2013

- Recent applications and case studies have been added in Cryptography and Network Security.
Open Source Systems syllabus has been reframed.
- Entire syllabus of Web Technology has been revised.
- Recent applications are added in Software Project Management.

For R2015

- Data Structures renamed as Data Structures and Algorithms and algorithm concepts have been added.
- OOP using JAVA renamed as Object Oriented Programming and syllabus also changed accordingly.
- Queuing Theory renamed as Applied Mathematics for Information Technology and queuing concepts and Applications of IT have been added for remaining.
- In Operating Systems advanced concepts and Hardware partition has been added.
- Applications have been added in most of the courses.



CHAIRMAN
BOARD OF STUDIES

Dr. D. MANIMEGALAI, M.E., Ph.D.,
Professor & Head
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National Engineering College
K.R. Nagar, Kovilpatti - 628 503.

ANNEXURE III

List of Board of Examiners approved by Board of Studies

S. No	Name of the Expert	Designation	Institution	Area of Specialization
1.	Dr.S.Valli	Professor/CSE	Anna University, Chennai	Computer Networks
2.	Dr.S.Swamynathan	Associate Professor/IST	Anna University, Chennai	Distributed Computing, AI
3.	Dr.P.Yogesh	Associate Professor/IST	Anna University, Chennai	Mobile computing, Multimedia
4.	Dr.P.Latha	Associate Professor/CSE	GCE, Tirunelveli	Pattern Recognition
5.	Dr.S.Baulkani	Associate Professor/ECE	GCE, Tirunelveli	Digital Image processing
6.	Dr.D.Mary Sugantha Rathnam	Assistant Professor /ECE	GCE, Tirunelveli	Medical image processing
7.	Dr.A.Soundarrajan	Associate Professor/IT	PSG College of Technology	Cyber security
8.	Dr.K. Munceswaran	Sr.Professor & Head/CSE	Mepco Schlenk Engineering College	Neural networks
9.	Dr.T.Revathi	Sr.Professor & Head/IT	Mepco Schlenk Engineering College	Networks & Multimedia
10.	Dr.S.Rajesh	Associate Professor /IT	Mepco Schlenk Engineering College	Image processing
11.	Dr.G.S.R.EmilSelvan	Assistant Professor/CSE	Thiagarajar College of Engineering	Network Security, GIS
12.	Dr.S.Muthuramalingam	Associate Professor & Head /IT	Thiagarajar College of Engineering	Network Security
13.	Dr.A.Sakthi Bharathi	Assistant Professor	University VOC college of Engg	Data mining
14.	Dr. Deje	Assistant Professor /CSE	Anna University Regional Campus Tirunelveli Region	Image, Signal and Video Processing



**CHAIRMAN
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Department of Information Technology

National Engineering College, K.R.Nagar, Kovilpatti – 628503

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7th Board of studies Meeting (Phase-II) in the Department of
Information Technology

Venue: Conference Hall, National Engineering College
K.R.Nagar, Kovilpatti – 628503

Date & Time: 08.04.2017 & 11.00 a.m.

Agenda

- BoS / IT 7.1 (2) : Welcome address and Opening Remarks by
Chairman, Board of studies in the department of
Information Technology
- BoS / IT 7.2 (2) : Confirmation of the Minutes of the 7th meeting
(Phase-I) of Board of studies in the department of
Information Technology held on 04th march 2017 and
Action taken report of Phase-I of 7th meeting of
Board of studies
- BoS / IT 7.3 (2) : Business brought forward by the Chairman, Board of
studies
7.3.1. (2) R-2015 Curriculum and Syllabus of
M.Tech-IT (Information and Cyber warfare)
- BoS / IT 7.4 (2) : Any other items
- BoS / IT 7.5 (2) : Suggestions given by the BoS Members

Department of Information Technology

MINUTES of 7th Meeting (Phase-II) of the Board of studies held on
08th April, 2017 at 11.00 AM

✦

Venue: Conference Hall,
National Engineering College, K.R.Nagar, Kovilpatti – 628503

National Engineering College, K.R.Nagar, Kovilpatti – 628 503
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Department of Information Technology

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MINUTES OF THE MEETING

The 7th Meeting of the Board of studies (Phase-II) of the Information Technology was held on 08th April 2017 at 11.00 AM in the Conference Hall of the National Engineering College, K.R.Nagar, Kovilpatti – 628503

1. The following members were present:

1.	Dr.D.Manimegalai Prof & Head	Chairman
2.	Dr.V.Seenivasagam, Prof. & COE	Internal Members
3.	Dr.K.G.Srinivasagan, Professor	
4.	Dr.S.Sankar Ganesh, Asso. Prof. (SG)	
5.	Mr.R.Muthu Kumar, Asst. Prof. (SG)	
6.	Dr.M.Kaliappan, Asso. Prof.	
7.	Mr.S.Chidambaram, AP(SG)	
8.	Mr.S.Vimal, AP(SG)	Academic Experts
9.	Dr. S.Valli Professor / Department of CSE Anna University Chennai	
10.	Dr. L.Ganesan Professor / Department of CSE Alagappa Chettiar College of Engg. & Tech Karaikudi	University Nominee
11.	Dr. P.Latha Associate Professor / Department of CSE Government College of Engineering Tirunelveli	
12.	Shri. E. Khalieraaj Regional Director, National Cyber Safety and Security Standards National Cyber Defence Research Centre (NCDRC) Team, New Delhi	Industrial Expert

13.	Dr. A.Soundarrajan Associate Professor / Department of IT PSG College of Technology Peelamedu, Coimbatore	Special Invitee
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2. The Industrial Expert member Mr. Somu Chockalingam, Director, Doyen Systems Pvt. Ltd., Chennai and Alumni Member Mr.R.Rajasekar, Director Bizpluz Tech Services Pvt. Ltd., Chennai could not attend the meeting due to their prior commitments and unavoidable reasons and were granted leave of absence.

BoS / IT 7.1 (2)	:	WELCOME ADDRESS AND OPENING REMARKS BY CHAIRMAN, BOARD OF STUDIES IN THE DEPARTMENT OF INFORMATION TECHNOLOGY
		The Chairman, BoS of the Information Technology welcomed and introduced the members of 7 th Board of Studies (Phase-II) and thanked each one of them for sparing their valuable time to attend the meeting.
BoS / IT 7.2 (2)	:	TO CONFIRM THE MINUTES OF SEVENTH BOS MEETING (PHASE - I) HELD ON 04 th MARCH, 2017
		The minutes of the Seventh Board of Studies meeting (Phase-I) held on 04 th March, 2017 were communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 7 th Academic council.
BoS / IT 7.3 (2)	:	TO CONFIRM AND APPROVE THE CURRICULUM AND SYLLABUS OF M.TECH. (INFORMATION AND CYBER WARFARE) FOR THE PG DEGREE PROGRAMME TO BE OFFERED UNDER R-2015
	:	RESOLVED TO approve the Curriculum and Syllabus of M.TECH. (INFORMATION AND CYBER WARFARE) for the PG degree programme to be offered under R-2015

BoS / IT 7.4 (2)	:	ANY OTHER ITEMS, IF ANY, WITH THE PERMISSION OF THE CHAIRMAN OF THE BOS
		On the whole, the list of courses was very much appreciated by all members. Especially the industry collaborated courses was highly commended. They also congratulated the faculty members for their team efforts towards continuing Education.
BoS / IT 7.5 (2)	:	SUGGESTIONS GIVEN BY THE BOS MEMBERS
7.5.1	:	Information Security and cryptography – Advanced concepts in cryptography may be given in one unit
7.5.2	:	Data and Cloud Security – Contents related to DB security can be added as one unit
7.5.3	:	Digital Forensics – Include topics such as Evidence collection, transportation, Presentation techniques.
7.5.4	:	Vulnerability Assessment Laboratory – Password and mobile hacking contents may be added and more number of open source tools may be given
7.5.5	:	Network and Wireless Security – Security protocols, layers, Security in Ethernet, Hub, Switches and bridges contents may be added. Recent edition books may be given.
7.5.6	:	Operating System Security – Process & memory management, Device and File management, Security issues in OS, Trusted OS, Security Applications contents
7.5.7	:	Global Cyber Warfare syllabus may be reframed.


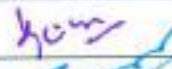


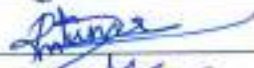
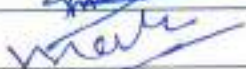





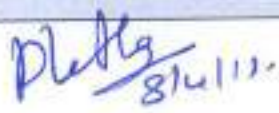
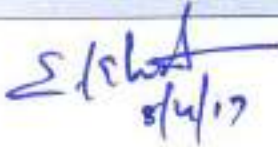
The members had a brainstorming discussion and interaction among themselves. After discussion, fruitful suggestions were incorporated appropriately in the Syllabi.

Based on the suggestions given by the members, BOS resolved to recommend the following to the Academic Council for further approval.

- a) The Syllabi for M.Tech. Information Technology (Information and Cyber warfare) degree course offered under Regulation 2015.

Mr.S.Vimal Asst.Prof(SG) thanked all the members for their kind cooperation and the meeting came to an end.

Members Present

Dr.D.Manimegalai Prof & Head ,Board Chairman	
Internal Members	
Dr.V.Seenivasagam, Prof. & COE	
Dr.K.G.Srinivasagan, Professor	
Dr.S.Sankar Ganesh, Asso. Prof.(SG)	
Mr.R.Muthu Kumar, Asst. Prof. (SG)	
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Mr.S.Vimal, Asst. Prof. (SG)	
Academic Experts	
Dr. L.Ganesan, Professor, Dept. of CSE, AC Tech, Karaikudi-630 004.	
Dr.S.Valli, Professor, Dept. of CSE, Anna University, Chennai.	
Dr.A.Soundarrajan Associate Professor, Department of IT, PSG College of Technology, Peelamedu Coimbatore - 641 004	
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CHAIRMAN
Dr. D. MANIMEGALAI, M.E., Ph.D.,
BOARD OF STUDIES,
Professor & Head
Department of Information Technology
National Engineering College
K.R. Nagar, Kovilpatti - 628 501

ANNEXURE I

Actions taken for Minutes of 7th BoS Meeting (Phase – I)

As per BOS Committee suggestion,

- Penetration testing is included in Web services for mobile programming.
- In Computer Hardware and Troubleshooting, suggested text book is included in the references.
- Practical exercises have been included in Social Media Application Development.
- Aurdino and Raspberry PI exercises are included in Microcontroller and Raspberry PI.
- Quantization and Number theory has been included as a core subject.
- Ethical hacking is renamed as Vulnerability assessment
- Enterprise and Perimeter security is shifted to elective paper
- Data and cloud security has been included as a core subject
- Cyber Practitioner Development Laboratory is replaced by Network and Wireless Security Laboratory and the syllabus has been framed.
- Soft computing, IOT Security and Malware Security are added as electives


CHAIRMAN
BOARD OF STUDIES

M. D. MANIMEGALAI, M.E., Ph.D.,
Professor & Head
Department of Information Technology
National Engineering College
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