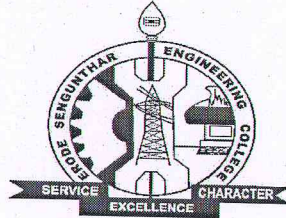




ERODE SENGUNTHAR ENGINEERING COLLEGE

(An Autonomous Institution)

Approved by AICTE, New Delhi, Permanently Affiliated to Anna University- Chennai,
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National Assessment and Accreditation Council (NAAC), Bangalore with 'A' Grade
PERUNDURAI -638 057, TAMILNADU, INDIA.

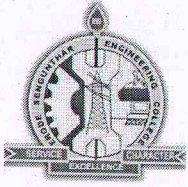


Department of Electrical and Electronics Engineering
7th BOARD OF STUDIES MEETING

14th December 2023 @ 11.30 a.m.

ZOOM ONLINE MEET

<https://us06web.zoom.us/j/82810580776?pwd=aL5C3gKUfberV1t4Gla6Sw4qJQSYhN.1>



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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

MINUTES OF 7th BOARD OF STUDIES MEETING

Name of the Department : Electrical and Electronics Engineering

Name of the Board : Electrical and Electronics Engineering

Programmes : BE-Electrical and Electronics Engineering
ME-Power Electronics and Drives

Date, Time & Mode : 14.12.2023 – 11.30 AM & ONLINE

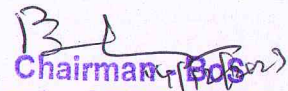
Zoom Link :

<https://us06web.zoom.us/j/82810580776?pwd=aL5C3gKUfberV1t4Gla6Sw4qJQSYhN.1>

Meeting Number : 07


AGENDA OF THE MEETING

BoS /EEE 7.1	:	Welcoming new Board of Studies members and opening remarks by the Chairman, Board of Studies, Department of Electrical and Electronics Engineering.
BoS /EEE 7.2	:	Confirmation of the Minutes of 06 th Board of Studies Meeting and Action taken report of 6 th Board of Studies meeting.
BoS /EEE 7.3	:	Approval of third and fourth semester syllabus for the B.E. Electrical and Electronics Engineering programme offered under Regulations 2023.
BoS /EEE 7.4	:	Approval of third and fourth semester syllabus for the M.E. Power Electronics and Drives programme offered under Regulations 2023.
BoS /EEE 7.5	:	Any other items

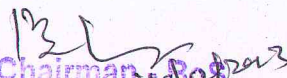

Chairman (BoS)
Dept. of EEE - ESEC

The following members were present

Sl. No.	Name & Designation	Category
1	Dr. P. Selvan Professor and Head, Department of Electrical and Electronics Engineering, Erode Sengunthar Engineering College, Perundurai.	Chairman
2	Dr. S. Geetha Associate Professor, Department of Electrical and Electronics Engineering, Coimbatore Institute of Technology, Coimbatore.	University Nominee
3	Dr. N. P. Subramaniam Associate Professor, Department of Electrical and Electronics Engineering, Puducherry Technological University, Puducherry.	External Experts (Academic)
4	Dr. M. Arun Professor/ Embedded Technology, School of Electronics Engineering, Vellore Institute of Technology, Vellore	
5	Dr. S. R. Sivarasu BEE Certified Energy Auditor(EA-27299) Managing Partner, Ram Kalam - Centre for Energy Consultancy and Training, Coimbatore	Representative from Industry/ Corporate sector
6	Er. Vijay Anandan, Research and Development Engineer – AI, Samsung Electro Mechanics, Bengaluru	Alumnus
7	Dr. M. Shyamalagowri, Associate Professor	Internal Members
8	Dr. R. Muthukumar, Associate Professor	
9	Dr. S. Karthick, Assistant Professor	
10	Dr. L. Anbarasu, Assistant Professor	
11	Dr. A. Johny Renoald, Assistant Professor	
12	E. Immanuvel bright, Assistant Professor	
13	S. Tamilselvi, Assistant Professor	
14	N. Jothipriya, Assistant Professor	
15	P. Karthikeyan, Assistant Professor	
16	K. Preetha, Assistant Professor	


Chairman - BEES
Dept. of EEE - ESEG

BoS /EEE 7.1	<p>Welcoming new Board of Studies members and opening remarks by the Chairman, Board of Studies, Department of Electrical and Electronics Engineering.</p> <p>Discussion</p> <p>The Chairman of the Board of Studies welcomed all the members to the meeting for discussing proposed BE – Electrical and Electronics Engineering and ME – Power Electronics and Drives curriculum of all semesters and syllabus of III & IV semesters under the Regulations 2023. The members presented in the Board of Studies Meeting are given in Annexure I.</p>
BoS /EEE 7.2	<p>Confirmation of the Minutes of 6th Board of Studies Meeting and Action taken report of 6th Board of Studies meeting.</p> <p>Discussion</p> <p>The Chairman presented the Minutes of 6th Board of Studies Meeting which was held on 24.05.2023 and action taken report of the same.</p> <p>Resolution</p> <p>It is resolved to recommend the Minutes of 6th Board of Studies Meeting and action taken report of the same is submitted to the Academic Council for approval.</p>
	<p>Approval of syllabus belongs to third and fourth semester for the B.E. Electrical and Electronics Engineering programme offered under Regulations 2023.</p> <p>Discussion</p> <p>The Chairman, presented syllabus belongs to third and fourth semester for the B.E. Electrical and Electronics Engineering programme offered under Regulations 2023. The BoS members approved the same.</p>


 Chairman, BoS
 Dept. of EEE - ESEC

The Chairman, suggested to interchange the Circuit Theory Subject/ Electric Circuits Lab and Electron Devices and Circuits Subject/ Electron Devices and Circuits Lab in the curriculum.

It is resolved to provide Electron Devices and Circuits Subject/ Electron Devices and Circuits Lab in the 3rd semester and Circuit Theory Subject/ Electric Circuits Lab subject in 2nd semester. The BoS members approved the same.

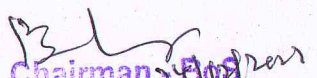
Dr. M. Arun, suggested to include GATE oriented contents in 23EE303 –Measurements and Instrumentation subject. The Chairman agreed to include the same.

Dr. N. P. Subramaniam, suggested to remove the CRT related contents and include the digital energy meter in 23EE303 – Measurements and Instrumentation. The Chairman agreed to update the same.

Dr. N. P. Subramaniam, suggested to remove advantages and limitations of each topic in Unit V and put as last topic in 23EE304 – Electric Power Generation. The Chairman agreed to update the same.

Dr. N. P. Subramaniam, suggested to change CO3 Blooms Verb – **Build** as **Model** in AC Machines Lab. The Chairman agreed to update the same.

Er. Vijay Anandan, Research and Development Engineer – AI, Samsung Electro Mechanics, Bengaluru, asked about the prerequisite for Unit I – Test of Hypothesis of 23BS301- Numerical Methods and Statistics. The Chairman replied that the students studied prerequisite of Probability, Mean and Variance sample in +2 Mathematics subject.


Chairman
Dept. of EEE - ESEC

BoS /EEE 7.3

Er. Vijay Anandan, suggested to have Application oriented Eigen Values in Unit III – Solution of Equations and Eigen value Problems of 23BS301- Numerical Methods and Statistics. The Chairman replied that the students studied the topic like Membrane (Eigen value Application) in Matrix and Calculus Subject in First year

Dr. S. Geetha, and **Dr. M. Arun**, suggested to add Verilog / HTML circuits and Introduction to VLSI Design in Unit V - Programmable Logic Devices, Memory and Logic Families of 23EE404 - Digital Logic Circuits. The Chairman agreed to add the same.

Er. Vijay Anandan, , suggested to add Graph Theory in 23ES401 - Programming in C and Data Structures. And also to change the title as Data Structures and Algorithms Using C instead of Programming in C and Data Structures. The Chairman agreed to update the same.

Dr. S. Geetha and **Dr. M. Arun** suggested to do experiment with any one circuit simulator like Multisim, Pspice etc. The Chairman replied that Pspice circuit simulator is used in 23EE405 - Digital Logic Circuits Lab.

Resolution

It is resolved to recommend the BE – Electrical and Electronics Engineering third and fourth semester syllabus under Regulation 2023 to the Academic Council for Approval.

13/11/2023
Chairman - BoS
Dept. of EEE - ESEC

BoS /EEE 7.4	<p>Approval of syllabus belongs to third and fourth semester for the M.E. Power Electronics and Drives programme offered under Regulations 2023.</p> <p>Discussion</p> <p>The Chairman, presented syllabus belongs to third and fourth semester for the M.E. Power Electronics and Drives programme offered under Regulations 2023. The BoS members approved the same.</p> <p>Er. Vijay Anandan, suggested to reframe the unit contents of 23PEX16 - Python Programming for Machine Learning as below.</p> <table border="1" data-bbox="523 712 1461 936"> <thead> <tr> <th>S.No.</th> <th>Course Code/Name</th> <th>Recommendations</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>23PEX16 - Python Programming for Machine Learning</td> <td>Remove the Unit V and Unit IV is split into two Units as Unit IV and Unit V.</td> </tr> </tbody> </table> <p>The Chairman agreed to reframe the same.</p> <p>Resolution</p> <p>It is resolved to recommend the ME – Power Electronics and Drives third and fourth semester syllabus under Regulation 2023 to the Academic Council for Approval.</p>	S.No.	Course Code/Name	Recommendations	1	23PEX16 - Python Programming for Machine Learning	Remove the Unit V and Unit IV is split into two Units as Unit IV and Unit V.
S.No.	Course Code/Name	Recommendations					
1	23PEX16 - Python Programming for Machine Learning	Remove the Unit V and Unit IV is split into two Units as Unit IV and Unit V.					
BoS /EEE 7.5	<p>Any other items</p> <p>Common points suggested by the members as concluding remark</p> <p>Suggested to update the text and reference book with latest edition and replace the course outcome Blooms Verb UNDERSTAND with suitable one.</p> <p>The Chairman of Board of Studies agreed and assured to incorporate the changes suggested by the members wherever possible.</p> <p>The Chairman of Board of Studies thanked all the members for their valuable suggestions and coordination.</p>						


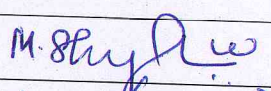
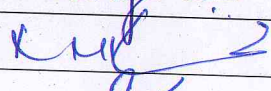
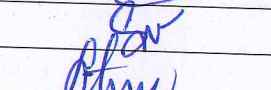
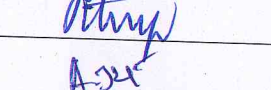
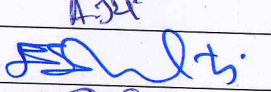
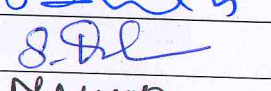
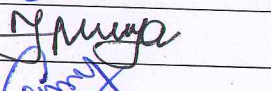
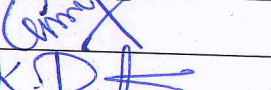



Chairman - BoS - EEE


Chairman - BoS
Dept. of EEE - ESEC



ANNEXURE – I

The following members presented in the Board of Studies Meeting

Sl. No.	Name & Designation	Category	Signature	
1	Dr. P. Selvan Professor and Head, Department of Electrical and Electronics Engineering, Erode Sengunthar Engineering College, Perundurai.	Chairman		
2	Dr.S.Geetha Associate Professor, Department of Electrical and Electronics Engineering, Coimbatore Institute of Technology, Coimbatore.	University Nominee	ON-LINE	
3	Dr.N.P.Subramaniam Associate Professor, Department of Electrical and Electronics Engineering, Puducherry Technological University, Puducherry.	External Experts (Academic)		
4	Dr. M. Arun Professor/ Embedded Technology, School of Electronics Engineering, Vellore Institute of Technology, Vellore			
5	Dr.S.R.Sivarasu BEE Certified Energy Auditor(EA-27299) Managing Partner, Ram Kalam - Centre for Energy Consultancy and Training, Coimbatore	Representative from Industry/ Corporate sector		
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7	Dr. M. Shyamalagowri, Associate Professor	Internal Members		
8	Dr. R. Muthukumar, Associate Professor			
9	Dr. S. Karthick, Assistant Professor			
10	Dr. L. Anbarsu, Assistant Professor			
11	Dr. A. Johny Renoald, Assistant Professor			
12	E. Immanuel bright, Assistant Professor			
13	S. Tamilselvi, Assistant Professor			
14	N. Jothipriya, Assistant Professor			
15	P. Karthikeyan, Assistant Professor			
16	K. Preetha, Assistant Professor			


 Chairman & B.S. Member
 Dept. of EEE - ESEC

ANNEXURE – II
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Screen shots of 7th Board of Studies Meeting

Name of the Department : Electrical and Electronics Engineering
 Name of the Board : Electrical and Electronics Engineering
 Programmes : BE-Electrical and Electronics Engineering
 ME-Power Electronics and Drives

Date, Time & Mode : 14.05.2023 – 11.30 AM & ONLINE

Zoom Link :

<https://us06web.zoom.us/j/82810580776?pwd=aL5C3gKUfberV1t4Gla6Sw4qJQSYhN.1>

Meeting Number : 07

The screenshot shows a Zoom meeting in progress. The top half displays a grid of participants, including Dr. Subramaniam N.P., Arun M., Dr. S. Karthick, Tamil Selvi S, N. Jothipriya, Dr. S. Geetha, ESEC Admin, E. Preetha Siva, and GAYATHIRI K. The bottom half shows a shared document with the following content:

3	Dr. M. Arun. Professor/ Embedded Technologies, School of Electronics Engineering, Vellore Institute of Technology, Vellore	Suggested including Computer and Information Technology courses specifically Artificial Intelligence and Machine Learning in the curriculum	Laboratory	These subjects are in the Computer Science and Engineering Department as open electives	
4	Dr. Vijay Anandam. Research and Development Engineer – AI, Samsung Electro Mechanics, Bengaluru	Suggested to include AI based Laboratory course in the curriculum.		It is to be considered in the upcoming years.	

At the bottom right of the document, it says "Chairman BoS-EEE" and "Click on Windows logo to settings to activate". The Zoom control bar at the very bottom includes options like Unmute, Stop Video, Participants, Chat, Share Screen, Record, Show Captions, Reactions, Apps, and Leave.

[Handwritten Signature]
Chairman
Dept. of EEE - ESEC

[Handwritten Signature]

Zoom Meeting

Dr. Subramania... Arun M Dr.S.Geetha

Dr. Subramaniam N P Arun M Dr.S.Geetha

Approved on 24.05.2023 in Sixth Board of Studies Meeting

DE EEE CBCS - R2023

23ES207	Electronic Devices and Circuits	3	0	0	3	40	60	100	ES
23MC201	Environmental Science and Engineering	3	0	0	0	40	60	100	MC
23HS202	தமிழ்நாட்டுக் கலாச்சாரம் / Tamil and Technology	1	0	0	1	40	60	100	HS
23TP502	Soft Skills II	1	0	0	1	40	60	100	EEC
PRACTICALS									
23ES218	Electronic Devices and Circuits Laboratory	0	0	2	1	60	40	100	ES
23ES221	Engineering Graphics	0	0	4	2	60	40	100	ES
Total		17	1	6	18	400	500	900	-

SEMESTER III

Participants (13)

Find a participant

- Dr.S.Karthick
- Dr.Subramaniam N P
- ESEC Admin
- GAYATHIRI K
- muthukumar r

Board of Studies Meeting

Message addresses to 'Meeting Group Chat' will also appear in the dedicated group chat in Team Chat

muthukumar r joined as a guest

Dr.S.Karthick joined as a guest

muthukumar r left

Who can see your messages? Recording On

Meeting Group Chat

Message Board of Studies Meeting

Go to Settings to activate Windows

27°C ENG 11:45 AM IN 12/14/2023

Zoom Meeting

Arun M Dr. Subramania... Dr.S.Geetha

Dr. Subramaniam N P Dr.S.Geetha

Energy conversion process for hydro-power station (HPS) with plant layout - Classification of HPS: based on head, Storage and pondage, Plant Layout, types of hydro turbines - Layout and subsystems of Nuclear Power Plants - Boiling Water Reactor (BWR) - Pressurized Water Reactor (PWR) - CANADA Deuterium-Uranium reactor (CANDU).

UNIT 3 | SOLAR POWER PLANT

Solar constants, Measurement of solar radiations - Large (more than 1 MW) Solar photovoltaic (PV) and concentrated solar power (CSP) - Solar Energy Conversion of CSP - CSP generators, construction and working principle - constructions of solar PV systems: Solar cell, Module, Panel and array - Types of solar PV system: Stand-Alone, Grid-Tied, Hybrid system.

UNIT 4 | WIND POWER PLANT

Compounds of wind- site selection, Power of the wind, power curve of wind turbines - HAWT and VAWT - Downwind and upwind wind turbines - Squirrel Cage Induction Generators (SCIG), doubly-fed (DFIG), Permanent magnet synchronous generator (PMSG).

UNIT 5 | CAPTIVE POWER PLANT AND OTHER RENEWABLE ENERGY SOURCES

Electrical energy conversion of DG sets, advantages and limitations - Electrical energy conversion of gas-based power plants, advantages, and limitations - Electrical energy conversion of biomass energy, ocean energy thermal conversion (OTEC), advantages and limitations

1 Wadhwa, C.L. 'Generation Distribution and Utilisation of Electrical Energy', New Age International publishers, 3rd edition, 2010.

Participants (15)

Find a participant

- Dr.S.Karthick
- Dr.Subramaniam N P
- ESEC Admin
- GAYATHIRI K
- muthukumar r

Board of Studies Meeting

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muthukumar r joined as a guest

Dr.S.Karthick joined as a guest

muthukumar r left

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Meeting Group Chat

Message Board of Studies Meeting

Go to Settings to activate Windows

NIFTY ENG 11:59 AM IN 12/14/2023

B. Subramanian
 Chairman, BOS
 Dept. of EEE - ESEC

Zoom Meeting

Participants (15)

Find a participant

- Preetha Siva
- Shyamalagowri
- Tamil Selvi S
- Vijay Anandan
- N.Jothipriya

Invite Unmute Me

Board of Studies Meeting

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muthukumar joined as a guest

Dr.S.Karthick joined as a guest

...muthukumar left

Who can see your messages? Recording On

To: Meeting Group Chat

Message Board of Studies Meeting

Go to Settings to activate Windows

ENG 12:29 PM
IN 12/14/2023

23PEX15 POWER ELECTRONICS APPLICATIONS TO POWER SYSTEM

L	T	P	C
3	0	0	3

Course Objective (s): The purpose of learning this course is to

- Impart knowledge on HVDC system.
- Analyze the different types of converter configurations.
- Study the different types of compensators for load balancing.
- Design and analyze the different types of reactive power compensation schemes for converters.
- Impart the knowledge of series and shunt compensation.

Course Outcomes: At the end of this course, learners will be able to:

- Illustrate the characteristics of different types of HVDC converter configurations.
- Determine the different control functions required for HVDC link with converters.
- Understand the load balancing in AC and DC system.
- Analyze the reactive power compensation methods.
- Analyze the engineering problems and identify suitable shunt or Series Compensation devices for given applications.

Unit I HVDC SYSTEM

HVDC configurations, components of HVDC system: Converter, transformer, smoothing reactor, harmonic filter; Reactive power support, operation of 6-pulse controlled rectifier in inverting mode of operation; Operation of 12-pulse converter; Control of HVDC system; Rectifier and inverter characteristics.

Unit II ANALYSIS OF CONVERTERS AND THEIR CONTROL

Pulse number-analysis of Graetz circuit-characteristics of twelve pulse converter - DC link control -converter

Type here to search

Zoom Meeting

Participants (13)

Find a participant

- Dr.S.Karthick
- Dr.Subramaniam N P
- ESEC Admin
- GAYATHIRI K
- muthukumar c

Invite Unmute Me

Board of Studies Meeting

Messages addressed to "Meeting Group Chat" will also appear in the dedicated group chat in Team Chat

muthukumar joined as a guest

Dr.S.Karthick joined as a guest

muthukumar left

Who can see your messages? Recording On

To: Meeting Group Chat

Message Board of Studies Meeting

Go to Settings to activate Windows

ENG 11:42 AM
IN 12/14/2023

Dr.Subramania... Arun M Dr.S.Geetha

Dr.Subramaniam N.P Arun M Dr.S.Geetha

27°C

[Signature]
 Chairman
 Dept. of EEE - ESEC