

Department of Electrical and Electronics Engineering

MINUTES 21st Meeting of the Board of studies held on
08th June 2024 at 10.00 AM

Venue: Conference Hall, National Engineering College

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

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21st Board of studies Meeting in the Department of Electrical and Electronics Engineering

Venue: Conference Hall, National Engineering College

Date & Time:08.06.2024 &10.00 AM

AGENDA

BoS / EEE 21.1	:	Welcome address and Opening Remarks by Chairman, Board of studies in the Department of Electrical and Electronics Engineering
BoS / EEE 21.2	:	Confirmation of the Minutes of the 20 th meeting of Board of Studies in the Department of Electrical and Electronics Engineering held on 01.12.2023 and Action Taken report of 20 th meeting of Board of studies.
BoS / EEE 21.3	:	Business brought forward by the Chairman, Board of studies
	21.3.1	R-2023 UG degree programme – 4 th semester core courses content.
	21.3.2	Verticals proposed for R-2023 elective list.
	21.3.3	Core and Elective courses for PG degree programmes under R-2023.
	21.3.4	Course design document for 1 st to 3 rd semester courses of R-2023 Presentation, discussion and approval.
BoS / EEE 21.4		Any other Agenda brought forward by the Chairperson.
BoS / EEE 21.5	:	Suggestions given by the BoS Members

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F. No. 1-1/NEC/EEE.

08th June, 2024

Dear Sir/Madam,

Sub: Minutes of the 21st Meeting of the Board of studies in the EEE-Reg.

Kindly find attached herewith the Minutes of the 21st Meeting of Board of studies of the Electrical and Electronics Engineering of the National Engineering College, K.R.Nagar, Kovilpatti – 628503 held on 08th June, 2024 at 10.00 AM in Conference Hall of National Engineering College.

It is requested that comments on the Minutes, if any, may please be sent by email at hodeee@nec.edu.in or by post, at the earliest. If no comments are received, within ten days, the Minutes shall be taken as confirmed.

Yours Sincerely


Dr. M. Willjuice Iruthayarajan

Dr. M. WILLJUICE IRUTHAYARAJAN, M.E., Ph.D.
Professor
Department of Electrical and Electronics Engg.
National Engineering College
Kovilpatti - 628 503

Department of Electrical and Electronics Engineering

MINUTES OF THE MEETING

The 21st Meeting of the Board of studies of the Electrical and Electronics Engineering was held on 08th June, 2024 at 10.00 AM in National Engineering College,

Venue: Conference Hall, National Engineering College

The following members were present:

1.	Dr.M.WilljuiceIruthayarajan, Professor and Head/ EEE	Chairman
2.	Dr.L.Kalaivani, Professor/ EEE	Internal Members
3.	Dr.R.V.Maheswari, Professor/ EEE	
4.	Dr.N.B.Prakash, Professor/ EEE	
5.	Dr.S.Sankarakumar Assistant Professor(S.G) / EEE	
6.	Mr.J.Thangaraj Assistant Professor / EEE	
7.	Dr. R.Francis, Associate Professor/EEE, Government College of Engineering, Bargur.	University Nominee
8.	Dr.P.S.Manoharan, Professor, Department of Electrical and Electronics Engineering, Thiagarajar College of Engineering, Madurai, Tamilnadu.	Academic Expert
9.	Dr. Rajesh Joseph Abraham Associate Professor, Department of Avionics, Indian Institute of Space Science and Technology, Valiamala P.O., Thiruvananthapuram, Kerala.	
10.	Dr. M.P.Selvan, Professor & Head, Department of EEE, National Institute of Tech, Tiruchirappalli	
11.	Dr.Siva Rama Krishna Vanjari, Professor / EE, Indian Institute of Technology, Hyderabad.	

12.	Mr.Muthu Senthilkumar Sr.Lead Engineer, Mahindra & Mahindra Limited, Chennai.	Industrial Expert
13.	Dr.Gopinath Selvaraj, Practice Head, ADAS & Autonomous Driving Practice, Automotive Center of Excellence (CoE), UST Global Pvt. Ltd., Bengaluru.	
14.	Mr.Vijay Karthik, Lead Services Specialist, Technical Support, REN GS-GA-Field Engineering, GE T&D India Limited, Chennai	
15.	Mr.V.Karthikeyan, Co-Founder, Rapid Semiconductor Technology, Chennai.	
16.	Dr.T.Bavisha, EMT Analyst, Insulation Coordination(IC) Team, KNR Engineers (India) Pvt. Ltd. (A JEF Group Company), Chennai	
17.	Shri. C. Chandrasekharan, Deputy Director, AISE, ISRO Propulsion Complex (IPRC), Mahendragiri.	Scientists from R&D Laboratories
18.	Mr.Ragupathy Ramachandran, Senior product Manager, ESAB India Limited, Chennai.	Meritorious Alumnus
19.	R. Vaishnavi, Pre Final Year/EEE	Student Members
20.	A. Reginold, Second Year/EEE	

The industrial expert Mr.K. Shanmugam, Architect, Robert Bosch Engineering Solutions Ltd., Coimbatore could not attend the meeting due to his prior commitments and unavoidable reasons and granted leave of absence.

BoS / EEE 21.1	:	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 21 st Board of Studies and thanked each one of them for sparing their valuable time to attend the meeting.
BoS / EEE 21.2	:	TO CONFIRM THE MINUTES OF TWENTEETH BOS MEETING HELD ON 01 st DECEMBER 2023.

	<p>The minutes of the Twentieth Board of Studies meeting held on 01st December 2023 were communicated to the members vide letter No. F. No. 1-1/NEC/EEE, Dated 01.12.2023</p> <p>The comments received have been incorporated and placed for confirmation. The same was approved by the 20th Academic council.</p> <p style="text-align: center;">Action Taken Report (Enclosed in Annexure I)</p>
BoS / EEE 21.3.1	<p>: TO CONFIRM AND APPROVE COURSES AND SYLLABUS FOR THE IV SEMESTER UG (B.E-EEE), DEGREE PROGRAMME UNDER R-2023</p>
	<p>RESOLVED TO approve the Courses and syllabus for the IV semester UG (B.E-EEE), Degree Programme under R-2023</p>
BoS/EEE 21.3.2	<p>: TO CONFIRM AND APPROVE THE VERTICALS FOR, UG (B.E-EEE), DEGREE PROGRAMME ELECTIVE LIST UNDER R-2023</p>
	<p>RESOLVED TO approve the the verticals for, UG (B.E-EEE), Degree Programme Elective List under R-2023</p>
BoS/EEE 21.3.3	<p>: TO CONFIRM AND APPROVE THE CORE AND ELECTIVE COURSES FOR PG DEGREE PROGRAMMES UNDER R-2023.</p>
	<p>RESOLVED TO approve approve core and elective courses for PG Degree Programmes under R-2023.</p>
BoS/EEE 21.3.4	<p>TO CONFIRM AND APPROVE THE COURSE DESIGN DOCUMENT FOR 1st TO 3rd SEMESTER COURSES OF UG (B.E-EEE), DEGREE PROGRAMME UNDER R-2023</p>
	<p>RESOLVED TO approve Course design document for 1st to 3rd semester courses of UG (B.E-EEE), Degree Programme under R-2023</p>

BoS/EEE 21.4	: ANY OTHER ITEMS, IF ANY, WITH THE PERMISSION OF THE CHAIRMAN OF THE BOS
	<ul style="list-style-type: none"> • The members suggested that in order to prepare students for placements, soft skills courses be provided for them each semester. • Members also recommended that instructors and students to refer NPTEL courses for more comprehensive knowledge and also relevant field visit for their courses. • Members suggested to invite industrial experts for handling one credit courses. • Dr.Siva Rama Krishna Vanjari, Professor / EE, Indian Institute of Technology, Hyderabad suggested to remove Engineering Chemistry and Engineering Graphics from the curriculum. • The course Electron Devices and Circuits can be split in to two separate courses ie) Electronic Devices and Electronic Circuits in the upcoming Regulation.
BoS/EEE 21.5	: SUGGESTIONS GIVEN BY THE BOS MEMBERS
B.E – EEE	
BoS/EEE 21.5.1	<ul style="list-style-type: none"> • In the course, “Signals and Systems” the content realisability may be added. • In CO2 Block diagram representation may be given before state space representation. • Power Spectral density may be added in CO5. • Simulation on types of signals, CT and DT signals in complex frequency domain may be added in syllabus.
BoS/EEE 21.5.2	<ul style="list-style-type: none"> • In the course, “ Power System – I ”, Recent Trends in Power System can be included in CO1. • In CO3 statement action verb can be changed and introduction to FACTS devices can be included. • In CO4 Methods of laying cables can be included. • In CO5 110kV/11kV may be replaced with 220kV/11kV


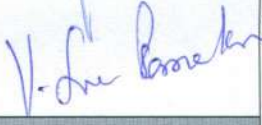

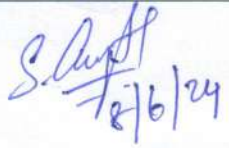



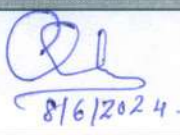
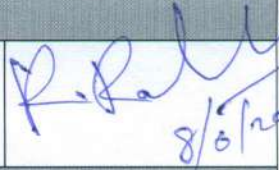
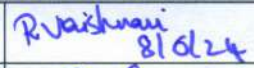

	Substation, and Substation Automation can be included.
BoS/EEE 21.5.3	<ul style="list-style-type: none"> • In the Course, “ Linear Integrated Circuits”, Recent trends in IC packaging may be included in CO1. • In CO3 Bistable multivibrator and in CO5 Bistable 555 timer may be included.
BoS/EEE 21.5.4	The Course Linear Integrate circuits in semester IV and Digital Logic circuits in Semetser V can be swapped in the Curriculum.
BoS/EEE 21.5.5	In the vertical, “ Embedded System Technology”, courses like <ul style="list-style-type: none"> • RISC architecture, • Design for Testability , • VLSI design lifecycle can be added.
BoS/EEE 21.5.6	The course, “ MEMS and NEMS”, in the Embedded System Technology vertical may be moved to diversified vertical.
BoS/EEE 21.5.7	In the vertical , “Electric Vehicle Technology”, the following 1 credit courses may be added. <ul style="list-style-type: none"> • Autonomous Vehicle sensors. • Electric-Vehicle dynamics. • Electric-Vehicle safety
BoS/EEE 21.5.8	In the course title. “Battery Management systems and Modeling”, Charging can be given as separate unit.
BoS/EEE 21.5.9	In the verticals, “ High Voltage Engineering”, Insulation Coordination 1 credit course can be added.
BoS/EEE 21.5.10	Restructured Power Systems course can be added in verticals – diversified.
M.E – HVE	
BoS/EEE 21.5.11	In the course, “Application of AI Techniques to High Voltage Engineering” books related to high voltage transformers and Deep Neural Network may be included.

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.

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

Members Present

CHAIRMAN		
1.	Dr.M.WilljuiceIruthayarajan Professor and Head/ EEE	<i>W. Willjuice</i> 8/26/2024
INTERNAL MEMBERS		
2.	Dr.L.Kalaivani, Professor/ EEE	<i>L. Kalaivani</i>
3.	Dr.R.V.Maheswari, Professor/ EEE	<i>R.V. Maheswari</i> 8/26/24
4.	Dr.N.B.Prakash, Professor/ EEE	<i>N.B. Prakash</i> 8/26/24
5.	Dr.S.Sankarakumar Assistant Professor(S.G) / EEE	<i>S. Sankarakumar</i> 8/26/24
6.	Mr.J.Thangaraj Assistant Professor / EEE	<i>J. Thangaraj</i> 8/26/24
UNIVERSITY NOMINEE		
7.	Dr. R.Francis, Associate Professor/EEE, Government College of Engineering, Bargur.	<i>R. Francis</i> 8/26/2024
ACADEMIC EXPERTS		
8.	Dr.P.S.Manoharan, Professor, Department of Electrical and Electronics Engineering, Thiagarajar College of Engineering, Madurai, Tamilnadu.	<i>P.S. Manoharan</i> 08/06/2024
9.	Dr. Rajesh Joseph Abraham Associate Professor, Department of Avionics, Indian Institute of Space Science and Technology, Valiamala P.O., Thiruvananthapuram, Kerala.	<i>Rajesh Joseph Abraham</i> 08/06/2024

10.	Dr. M.P.Selvan Professor & Head Department of Electrical and Electronics Engineering, National Institute of Technology, Tiruchirappalli.	
11.	Dr.Siva Rama Krishna Vanjari, Professor / Electrical Engineering, Indian Institute of Technology, Hyderabad.	
INDUSTRIAL EXPERTS		
12.	Mr.Muthu Senthilkumar Sr.Lead Engineer, Mahindra & Mahindra Limited, Chennai.	
13.	Dr.Gopinath Selvaraj, Practice Head, ADAS & Autonomous Driving Practice, Automotive Center of Excellence (CoE), UST Global Pvt. Ltd., Bengaluru.	
14.	Mr.Vijay Karthik, Lead Services Specialist, Technical Support, REN GS-GA-Field Engineering, GE T&D India Limited, Chennai	
15.	Mr.V.Karthikeyan, Co-Founder, Rapid Semiconductor Technology, Chennai.	
16.	Dr.T.Bavisha, EMT Analyst, Insulation Coordination(IC) Team, KNR Engineers (India) Pvt. Ltd. (A JEF Group Company), Chennai	
SCIENTISTS FROM R&D LABORATORIES		
17.	Shri. C. Chandrasekharan, Deputy Director, AISE, ISRO Propulsion Complex (IPRC), Mahendragiri.	
MERITORIOUS ALUMNUS		
18.	Mr.Ragupathy Ramachandran, Senior product Manager, ESAB India Limited, Chennai.	
STUDENT MEMBER		
19.	R. Vaishnavi, Pre Final Year/EEE	
20.	A. Reginold, Second Year/EEE	


EEE Board Chairman

Dr. M. WILLJUICE IRUTHAYARAJAN, ME., Ph.D.
Professor & Head
Department of Electrical & Electronics Engg.
National Engineering College
Kovilpatti - 628 503

21st BOARD OF STUDIES MEETING - DEPARTMENT OF EEE ON 08.06.2024

