

Department of Electronics and Communication Engineering

MINUTES of 19th Meeting of the Board of Studies was held on
30th June 2023 at 10.30 A.M

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

National Engineering College, K.R.Nagar, Kovilpatti– 628503
(An Autonomous Institution -Affiliated to Anna University, Chennai)
www.nec.edu.in

Department of Electronics and Communication Engineering

19th Board of studies Meeting of the Department of
Electronics and Communication Engineering

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

Date & Time: 30.06.2023 & 10.30 A.M

AGENDA

ECE/BoS 19.1	:	Welcome address and Opening Remarks by Chairman, Board of studies of the Department of Electronics and Communication Engineering
ECE/BoS 19.2	:	Confirmation of the Minutes and action taken report of the 18 th Board of studies meeting of the Department of Electronics and Communication Engineering held on 30 th December 2022.
ECE/BoS 19.3	:	Business brought forward by the Chairman, Board of studies. 19.3.1. UG degree programme R-2019 Additional elective course. 19.3.2. UG degree programme R-2023 Curriculum structure. 19.3.3. UG degree programme R-2023 I st semester syllabus. 19.3.4. PG degree programme R-2023 Curriculum structure 19.3.5. PG degree programme R-2023 I st semester syllabus.
ECE/BoS 19.4	:	Suggestions given by the BoS Members

National Engineering College, K.R. Nagar, Kovilpatti – 628 503
(An Autonomous Institution - Affiliated to Anna University, Chennai)
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F. No. 1-1/NEC/Branch/ECE

4th July, 2023

Dear Sir/Madam,

Sub: *Minutes of the 19th Board of Studies Meeting of Department of Electronics and Communication Engineering - Reg.*

The 19th Board of studies Meeting of Electronics and Communication Engineering department of National Engineering College, K.R.Nagar, Kovilpatti – 628503 was held on 30th June 2023 at 10.30 A.M at the conference hall of National Engineering college. Thank you for attending the meeting and giving valuable suggestions. The minutes of the meeting is attached herewith.

Kindly go through the minutes and give your remarks if any. Please acknowledge the receipt of this mail and approve the minutes if there is no comments from your end.

Thanking You,

Yours Sincerely



(Dr.S.Tamil Selvi)

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

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

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Department of Electronics and Communication Engineering

MINUTES OF THE MEETING

The 19th Meeting of Board of studies of the Department of Electronics and Communication Engineering was held on 30th June, 2023 at 10.30 A.M in the Conference Hall of the National Engineering College, K.R.Nagar, Kovilpatti– 628503.

The Board of Studies members are as follows,

1.	Dr.S.Tamil Selvi Professor & Head	Chairman
2.	Dr.S.Shanmugavel, Director	Internal Members
3.	Dr.A.Shenbagavalli, Professor & Dean (Academic)	
4.	Dr. T.S. Arun Samuel, Professor	
5.	Dr.V.Suresh, Asso.Prof	
6.	Dr. K.J.Prasanna Venkatesan, Asso. Prof.	
7.	Mr.T.Devakumar, Asst.Prof (SG)	
8.	Mr. C. Cammillus, Asst. Prof (SG)	
9.	Dr.I.Paulkani, AP	
10.	Dr. R.A. Alaguraja Associate Professor, Department of ECE , Thiagarajar College of Engineering, Madurai – 625 015	Academic Expert nominated by Anna University, Chennai
11.	Dr.K.Murugan, Professor, Ramanujan Computing Centre, College of Engineering, Anna University, Chennai - 600025 .	Academic Experts
12.	Dr.R.Pandeeswari, Associate Professor, Department of ECE, NIT Trichy - 620015.	
13.	Dr.Klutto Milleth, Chief Technologist, Centre of Excellence in Wireless Technology, IIT Madras Research Park, Chennai – 600113.	Meritorious Alumnus

14.	Mr. S. Kaliraj, Chief Scientist and Co-Founder, Vlinder Labs Pvt Ltd, Bengaluru – 560102.	Meritorious Alumnus
15.	Mr.S.Madhusudhan, Director, Vlinder Labs Pvt Ltd, Bengaluru - 560102.	Industrial Experts
16.	Mr.Irshadh Abdul Rasheed K.A, Associate Partner Cyber Security, Ernst and Young LLP, Chennai - 600113.	
17.	Mrs.Mehala Balasundaram, Senior Technical Writer II, Synopsys, Bangalore - 560016.	Special Invitees
18.	Mr.Rajiv V.K, Senior Director, Test Engineering Tessolve Semiconductor Pvt Ltd, Bengaluru.	
19.	Mr.M.S.Bala Iyyappan, IV Year ECE	Student Members
20.	Ms.J.Chobia Lakshmi, III Year ECE	

BoS/ECE 19.1	:	WELCOME ADDRESS AND OPENING REMARKS BY CHAIRMAN, BOARD OF STUDIES OF THE DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
		The Chairman, BoS of the department of Electronics and Communication Engineering welcomed and introduced the members of the 19 th Board of Studies.
BoS/ECE 19.2	:	TO CONFIRM THE MINUTES OF 18 th BOS MEETING HELD ON 30 th DECEMBER 2022.
		The minutes of the 18 th Board of Studies meeting held on 30 th December 2022 were communicated to the members. The received comments have been properly analyzed and corrections have been carried out in the syllabus. Then it was presented in 18 th Academic Council meeting held on 07 th January 2023 and the same was approved. ➤ Action Taken Report (Enclosed in <i>Annexure D</i>)

BoS/ECE 19.3.1	:	<p>Consider and approve of the additional elective course & syllabus for U.G. degree programme (B.E) under R 2019</p> <p>Resolved to approve of the additional elective course & syllabus for UG Degree Programme Under (B.E) R-2019.</p>
BoS/ECE 19.3.2	:	<p>Consider and approve of the Curricula of U.G. degree programme (B.E) under R-2023</p> <p>Resolved to approve of the Curricula of U.G. degree programme (B.E) under R-2023</p>
BoS/ECE 19.3.3	:	<p>Consider and approve of the syllabus of I semester U.G. degree programme (B.E) under R-2023</p> <p>Resolved to approve of the syllabus of I semester U.G. degree programme (B.E) under R-2023</p>
BoS/ECE 19.3.4	:	<p>Consider and approve of the Curricula of P.G degree programme (M.E. Embedded System Technologies) under R 2023</p> <p>Resolved to approve of the Curricula of P.G degree programme (M.E. Embedded System Technologies) under R 2023.</p>
BoS/ECE19.3.5	:	<p>Consider and approve of the syllabus of I semester P.G degree programme (M.E. Embedded System Technologies) under R 2023</p> <p>Resolved to approve of the syllabus of I semester P.G degree programme (M.E. Embedded System Technologies) under R 2023</p>
BoS/ECE 19.4	:	<p>SUGGESTIONS GIVEN BY THE BOS MEMBERS</p>
19.4.1	:	<p><u>U.G. degree programme (B.E) under R 2023</u></p> <ul style="list-style-type: none"> ➤ In the “19EC66E - Theory and applications of Blockchain” elective course under Regulation 2019, block chain and its evolution can be introduced in Unit III. ➤ Experts suggested to remove the last line (“to prevent these”) in the Unit V. Hyperledger may be removed from tutorial and Mearkle tree can be included in the assignment instead of assignment no.4.

19.4.2	:	<ul style="list-style-type: none"> ➤ In Sem I, the course titled "Introduction to Electronics and Communication Engineering" may be changed to "Introduction to Engineering". ➤ In Sem I, the course titled "C programming" may be changed to "Problem Solving using programming languages".
19.4.3	:	<ul style="list-style-type: none"> ➤ The courses titled "Aptitude I" (Sem I) and "Aptitude II" (Sem IV) may be considered as non CGPA skill development course or value-added courses.
19.4.4	:	<ul style="list-style-type: none"> ➤ The courses titled "Electromagnetic Waves" in Sem III and courses title "Transmission Lines and Waveguides" in Sem IV may be combined to one course. ➤ The course titled "Product, Patent and Literature Review" is too advanced for the 3rd semester students. Instead of considering it as Integrated Laboratory and Project (ILP) Course it may be changed to theory only course with titled as "Design thinking life cycle or Patent, Copyright & Trademark". It may be moved to higher semester. ➤ The course titled "Probability Random Process and Queuing Theory" may be changed to "Random Process and Queuing Theory". ➤ Experts suggested to include the Lab courses for the course titled "Signals and Systems". ➤ Experts suggested to move the course titled "Microprocessor and Microcontroller" from Sem V to Sem III and the course titled "Computer Networks" can be included in Sem IV.
19.4.5	:	<ul style="list-style-type: none"> ➤ Experts suggested that the integrated Theory and Laboratory (ITL) Courses for the core courses may be revised into Theory only (TO) and Laboratory only (LO) courses. ➤ Cloud, Artificial Intelligence and Machine Learning can be included as programme core courses in the curriculum.

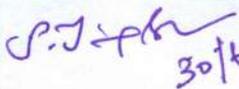
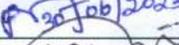
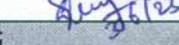
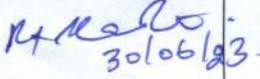
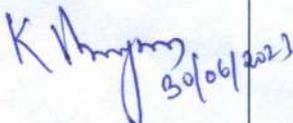
19.4.6	<p>: <u>P.G degree programme (M.E. Embedded System Technologies) under R 2023</u></p> <ul style="list-style-type: none"> ➤ In Sem I, the course titled “ARM CortexM3 Architecture” can be replaced by a generic title and it may be focused on the introduction to recent architecture in syllabus.
19.4.7	<ul style="list-style-type: none"> ➤ Experts suggested to include the FPGA based design using Verilog or any other languages as theory course in the Sem I or Sem II as core course. ➤ Also suggested to include middleware and application part of embedded systems in curriculum. ➤ Artificial Intelligence (AI) & Machine learning (ML) may be introduced as elective courses.

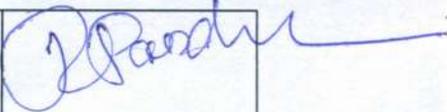
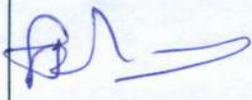
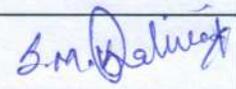
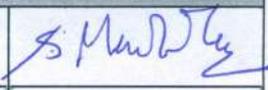
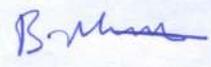
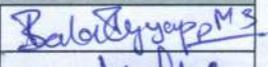
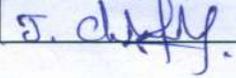
The members had a brainstorming discussion and interaction among themselves. Based on the suggestions given by the members, BOS resolved to recommend the following to the Academic Council for further approval.

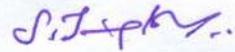
1. UG degree programme R-2019 - Additional elective course.
2. UG degree programme R-2023 Curriculum structure.
3. UG degree programme R-2023 Ist semester syllabus.
4. PG degree programme R-2023 - Curriculum structure.
5. PG degree programme R-2023 - Ist semester syllabus.
6. Any other matter.

Dr.V.Suresh, Associate Professor / ECE thanked all the members for their kind cooperation and the meeting came to an end.

Members Present :

Chairman		Signature
I.	Dr. S.Tamil Selvi, Professor & Head, Department of ECE, National Engineering College, Kovilpatti.	 30/6/23
Internal Members		
2.	Dr.S. Shanmugavel, Director	 30/6/23
3.	Dr.A. Shenbagavalli, Professor & Dean (Academic)	
4.	Dr. T.S. Arun Samuel, Professor	 30/6/23
5.	Dr. V. Suresh, Asso.Prof	 30/06/23
6.	Dr. K.J. Prasanna Venkatesan, Asso. Prof	 30/06/2023
7.	Mr.T. Devakumar, Asst.Prof (SG)	
8.	Mr. S. Cammillus, Asst. Prof (SG)	
9.	Dr.I. Paulkani, AP	 30/6/23
Academic Expert nominated by Anna University, Chennai		
10.	Dr. R.A. Alaguraja Associate professor, Department of ECE , Thiagarajar College of Engineering, Madurai - 625 015	 30/06/23.
Academic Experts		
II.	Dr.K.Murugan, Professor, Ramanujan Computing Centre, College of Engineering, Anna University, Chennai - 600025.	 30/06/2023

12.	Dr.R.Pandeeswari, Associate Professor, Department of ECE, NIT, Trichy - 620015.	
Meritorious Alumnus		
13.	Dr.Klutto Milleth, Chief Technologist, Centre of Excellence in Wireless Technology, IIT Madras Research Park, Chennai - 600113.	
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17.	Mrs.Mehala Balasundaram, Sr.Technical Writer II Synopsys, Bangalore - 560016.	
18.	Mr. V.K.Rajiv, Senior Director, Test Engineering Tessolve Semiconductor Pvt Ltd, Bengaluru.	
Student Members		
19.	Mr.M.S.Bala Iyyappan, IV Year ECE	
20.	Ms.J.Chobia Lakshmi, III Year ECE	



CHAIRMAN
BOARD OF STUDIES

Annexure - I

Minutes of 18th BoS Meeting - Action Taken Report

S. No	Suggestion given by expert members	Action taken
1.	<ul style="list-style-type: none">➤ In the "19EC71E – Web Application Development" elective course under Regulation 2019, equal weightage (marks) may be given to the practical content, and one of the evaluators for the practical content may be an expert from the industry.	Implemented
2.	<ul style="list-style-type: none">➤ In Vertical 1 – VLSI (under Regulation 2019) proposed in the 18th BoS meeting, the course titled "Hardware Modelling using Verilog HDL", may be changed to an integrated course (Theory + Lab).➤ The program Elective course "19EC37E – Fundamentals of Semiconductor Chip Testing" may be included in VLSI Vertical.➤ An introduction to the DFT tools may be included in the course titled "Design for Testability (DFT)."	Implemented
3.	<ul style="list-style-type: none">➤ In Vertical 2 – Signal Processing proposed in the 18th BoS meeting, the experts suggested to revise the vertical name as "Signal Processing and its Applications."➤ Experts suggested that three courses related to the applications of signal processing in Communication may be included in this vertical.	Implemented
4.	<ul style="list-style-type: none">➤ In Vertical 3 – Cyber Security proposed in the 18th BoS meeting, Experts suggested to do the following modifications in the Cyber Crime investigations and Digital forensics Course:<ol style="list-style-type: none">1. Few topics are redundant in Unit 1 and Unit 2 and it may be removed from one unit.2. The textbooks given for each course may be updated to the latest version.	Implemented

5.	<ul style="list-style-type: none"> ➤ In the 2019 curriculum, 19EC81C-Project work II (6 credits) was approved in the previous BoS meeting. ➤ In the 18th BoS meeting, the proposal was placed before the BoS members to replace Project Work II as Project Work II/Industry Practice. The BoS members approved this proposal with the following suggestions. ➤ For industry practice, a report by the student approved by an industry mentor or certificate from the industry stating that the student has done industry practice in the respective industry part of the placement. ➤ The periodical and end-semester assessment for industry practice may be done with one examiner from academia and another from the industry. This assessment may be in online mode. ➤ The Project work II assessment, the practice followed in regulation 2019 be continued. 	Implemented
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S. J. + K.