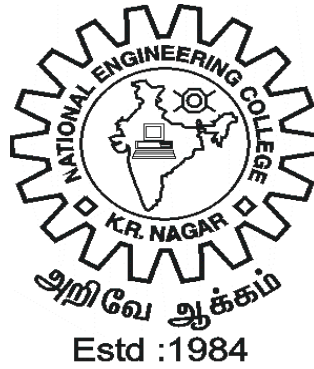


NATIONAL ENGINEERING COLLEGE

(An Autonomous Institution, Affiliated to Anna University Chennai)

K.R.NAGAR, KOVILPATTI – 628 503



17th BOARD OF STUDIES MEETING – MINUTES

Google Online Meet
PERIOD - JULY 2022

Department of Mechanical Engineering

MINUTES of 17th Meeting of the Board of Studies held on
09th July, 2022 at 11.00 a.m. (Online mode)
Google meet Link: meet.google.com/qvp-fajx-bfi

Venue: Seminar Hall, Department of Mechanical Engineering,
National Engineering College

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

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

www.nec.edu.in

**17th Board of Studies Meeting
Department of Mechanical Engineering**

Venue: Seminar Hall, Department of Mechanical Engineering,
National Engineering College

Date & Time: 09.07.2022 & 11.00 a.m.

Online Mode

Google Meet Link: [meet.google.com/ qvp-fajx-bfi](https://meet.google.com/qvp-fajx-bfi)

AGENDA

BoS / MECH17.1	:	Welcome address and Opening Remarks by Chairman, Board of studies in the department of Mechanical Engineering
BoS / MECH17.2	:	Action taken report of 16 th meeting of Board of Studies
BoS / MECH17.3	:	Business brought forward by the Chairman, Board of studies
		17.3.1 Syllabus for Open Elective Courses Regulation 2019.
		17.3.2 Approval for List of Examiners
BoS / MECH17.4	:	Suggestions given by the BOS Members
BoS / MECH17.5	:	Any other items

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

F. No. 1-1/NEC/MECH

09th July, 2022

Dear Sir/Madam,

Sub: Minutes of the 17th Meeting of the Board of studies in the Mechanical Engineering - Reg.

Kindly find attached herewith the Minutes of the 17th Meeting of Board of studies of the Mechanical Engineering of the National Engineering College, K.R.Nagar, Kovilpatti – 628503 held on 09th July 2022 at 11.00 a.m. (Online mode) in Seminar Hall, Department of Mechanical Engineering, National Engineering college. Hard copy of the Minutes is also being sent to you by speed post.

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

Yours Sincerely,

h.u - 82
(Dr.K.Manisekar)

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

Department of Mechanical Engineering

MINUTES OF THE MEETING

The 17th Meeting of the Board of studies of the Mechanical Engineering was held on 09th July 2022 at 11.00 a.m. (Online mode - Google Meet Link: meet.google.com/ qvp-fajx-bfi) in the Seminar Hall, Department of Mechanical Engineering, National Engineering College, K.R.Nagar, Kovilpatti – 628 503

1. The following members were present

1.	Dr. K.Manisekar, Professor & Head	Chairman
2.	Dr. Tamilselvi, Deam Academic	Internal Members
3.	Dr. S.Iyah Raja, Professor	
4.	Dr. D.Venkat Kumar, Professor	
5.	Dr. R.Harichandran, Professor	
6.	Dr. D.Vignesh Kumar, Asst. Prof. (S.G)	
7.	Dr. P.Ramanan, Asst. Professor (S.G)	
8.	Dr. F.Michael Thomas Rex, Asst. Prof. (S.G)	
9.	Mr. R.Vijaykumar, Asst. Prof. (S.G)	
10.	Mr. A.Arul Marcel Moshi, Asst. Prof. (S.G)	
11.	Dr. T. Sakthi, Asst. Prof. (S.G)	
12.	Mr. B.Prince Abraham, Asst. Professor	
13.	Mr. K.Thoufiq Mohammed, Asst. Professor	
14.	Dr. W.Beno Wincy, Asst. Professor	
15.	Dr. N.Karthikeyan, Asst. Professor	
16.	Mr. S.S.Ananthan, Adjunct Faculty	
17.	Dr. G.Kumaresan Deputy Director (Research) & Associate Professor Institute for Energy Studies, CEG, Anna University, Chennai	Academic Experts

18.	Dr.-Ing. M. Duraiselvam Professor / Production Engineering, National Institute of Technology, Trichy	Academic Experts
19.	Dr.A.Arockiarajan Professor / Applied Mechanics, Indian Institute of Technology, Chennai	
20.	Mr. R. Kanda Subburaj Chief Engineer, Project Controls, AMEC Foster Wheeler India Pvt. Ltd, Chennai	Industrial Experts
21.	Mr. P. Muniyandi, Principal Scientific Officer, Controllerate of Quality Assurance (Ordnance Factory Vehicles), Jabalpur - 482 009, Madhya Pradesh.	
22.	Mr. P. Sriram, Joint Executive President, Ultratech in Aditya Birla Group, Pune, Maharashtra.	
23.	Mr. Sivaram Sundaram, Senior Director, Comcast India Engineering Centre, Thoraipakkam, Chennai - 97	
24.	Mr. Anadhavel, III Year Student	Student Members
25.	Mr. Sivakumar G, III Year Student	

2. The Industrial Expert Member Dr.D.Mohanlal, Professor, Department of Mechanical Engineering, CEG campus, Anna university, Chennai and University Nominee Dr. K.Murugan, Scientist-E, Centre for Sol-Gel coatings, ARCI, Hyderabad, Telangana could not attend the meeting due to their prior commitments and unavoidable reasons and they were granted leave of absence.

BoS / MECH17.1	:	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 17 th Board of Studies and thanked each one of them for sparing their valuable time to attend the meeting.
BoS / MECH 17.2	:	TO CONFIRM THE MINUTES OF SIXTEENTH BOS MEETING HELD ON 27 th November, 2021
		The minutes of the Sixteenth Board of Studies meeting held on 27 th November, 2021 were communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 16 th Academic council. (Enclosed in Annexure – I)
BoS / MECH 17.3.1	:	TO CONFIRM AND APPROVE the open elective courses under Regulation 2019. (Enclosed in Annexure – II)
BoS / MECH 17.3.2	:	TO CONFIRM AND APPROVE the List of Examiners – B.E. Mechanical Engineering Programme under Regulation 2019. (Enclosed in Annexure – III)
BoS / MECH 17.4	:	Suggestions Given by the Members
17.4.1	:	<p>“Project Management and Finance”</p> <ul style="list-style-type: none"> • Finance management shall be considered to be offered as an exclusive elective. • The topic Big data analytics in the unit 3 was suggested to be removed considering the relevance. • Financial feasibility, analytics and capital budgeting shall be included. • Product based mini projects shall be offered to the students.

17.4.2	:	“Indian Economy” – The Syllabus coverage shall be ensured in the listed reference books.
17.4.3	:	<p>“Sustainable developments and practices” - Suggested to include the below listed protocol</p> <ul style="list-style-type: none"> • green initiatives of Indian government, • green house gas emission reduction, • Renewable energy initiatives. • 17 goals of sustainable development.
17.4.4	:	“Women in Indian Society” – Suggested to add women in technology and education.
BoS / MECH 17.5	:	Any other items
17.4.6	:	<p>R-2019 – Project Phase - I and Project Phase – II</p> <ul style="list-style-type: none"> • The quality of projects and involvement of faculty and the external supervisors from industry shall be ensured. • Suggested to redefine the process of project. • Suggested to brainstorm the project batches in the 5th semester itself. <p>Curriculum structure for R-2023 has been discussed.</p> <ul style="list-style-type: none"> • Suggested to include AI, ML Machine vision topics in core subjects. • Suggested to provide programming basics to the students. • Suggested to provide industry related problems as student projects.

The members had a brainstorming discussion and interaction among themselves. After discussion, fruitful suggestions were incorporated appropriately in the curriculum and syllabus of R-2019.

Based on the suggestions given by the members, BOS resolved to recommend the Syllabus for open elective course courses – B.E. Electrical and Electronics Engineering Programme under Regulation 2019 to the Academic Council for further approval.



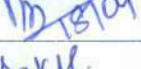




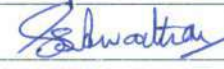



Dr. S.Iyahraja, Professor / Mechanical Engineering thanked all the members for their kind cooperation and the meeting came to an end.

Members Present Online

Dr. G.Kumaresan Deputy Director (Research) & Associate Professor Institute for Energy Studies, CEG, Anna University, Chennai	Academic Experts
Dr.-Ing. M. Duraiselvam Professor / Production Engineering, National Institute of Technology, Trichy	
Dr.A.Arockiarajan Professor / Applied Mechanics, Indian Institute of Technology, Chennai	
Mr. R. Kanda Subburaj Chief Engineer, Project Controls, AMEC Foster Wheeler India Pvt. Ltd, Chennai	Industrial Experts
Mr. P. Muniyandi, Principal Scientific Officer, Controllerate of Quality Assurance (Ordnance Factory Vehicles) Jabalpur- 482009 Madhya Pradesh.	
Mr. P. Sriram, Joint Executive President, Ultratech in Aditya Birla Group, Pune, Maharastra.	
Mr. Sivaram Sundaram, Senior Director, Comcast India Engineering Centre, Thoraipakkam, Chennai- 97	

Members Present

<u>Chairman</u>	
Dr. K.Manisekar, Professor & Head	<i>K.M - 22</i>
<u>Internal Members</u>	
Dr. Tamilselvi, Deam Academic	
Dr. S.Iyah Raja, Professor	<i>S.Iyah Raja</i>
Dr. D.Venkat Kumar, Professor	<i>D.Venkat Kumar</i>
Dr. R.Harichandran, Professor	<i>R.Harichandran</i>
Dr. D.Vignesh Kumar, Asst. Prof. (S.G)	<i>D.Vignesh Kumar</i>

Dr. F. Michael Thomas Rex, Asst. Prof. (S.G)	
Mr. R. Vijaykumar, Asst. Prof. (S.G)	
Mr. A. Arul Marcel Moshi, Asst. Prof. (S.G)	
Dr. T. Sakthi, Asst. Prof. (S.G)	
Mr. B. Prince Abraham, Asst. Professor	
Mr. K. Thoufiq Mohammed, Asst. Professor	
Dr. W. Beno Wincy, Asst. Professor	
Dr. N. Karthikeyan, Asst. Professor	
Mr. S.S. Ananthan, Adjunct Faculty	
<u>Student Members</u>	
Mr. Anadhavel, III Year Student	
Mr. Sivakumar G, IV Year Student	

h.u - 82
09/03/22
CHAIRMAN
BOARD OF STUDIES

ANNEXURE – I

Action taken for Minutes of 16th BoS Meeting

Sl.No	Suggestions by BOS Committee	Action Taken
1.	“19ME42E - Operations and Production Management” programme elective course title may be changed as “Production and Operations Management”	Title changed and Incorporated in syllabus
2.	Safety standards for working in Heights, lifting heavy materials, confined spaces, Heavy voltage area can be included in “19ME48E - Industrial Safety Engineering” programme elective course.	Topics were included in “Industrial Safety Engineering” course
4.	Drones and Automated Guided Vehicle (AGV) topics may be added in the “Introduction to robotics” open elective course.	Drones and Automated Guided Vehicle (AGV) is added in “Introduction to robotics”
5.	Stages of PLM, Marketing techniques related PLM, financial aspects of PLM, case studies with specific applications. Application Lifecycle Management (ALM) topics may be included in “Product Lifecycle Management” open elective course.	The topics were included in “Product Lifecycle Management”
6.	The concept of prototyping may be elaborated in “Product Development Laboratory” integrated course.	Incorporated
7.	The robotic specialization courses may be taught effectively by using a Mini robot and robot simulation software.	Yet to be implemented
8.	Credit transfer of open online courses other than NPTEL (like Udemy, Coursera etc.,) a) Students can register the courses from the open online forum (like Udemy, Coursera etc.,) with prior guidelines given by the Dean Academic with the approval of Head of the department. b) For internal marks, continuous assessments can be considered which is conducted by the Udemy, Coursera etc., c) For external marks, external assessment can be conducted as a separate exam for the selected courses. Before conducting the exam, it is to be ensure that the question	Implemented

ANNEXURE III

List of Board of Examiners approved by Board of Studies

Sl.No	Name of the Expert	Designation	Institutional Address	Contact Details (Mobile No. & Email id)	Experience	Area of Specialization
THERMAL DOMAIN						
1	Dr. M. Udayakumar	Professor, Dept. of Mech. Engg.	National Institute of Technology, Tiruchirapalli	muday@nitt.edu 0431-2503405, 9487257871	35 years	Thermodynamics, I.C.Engines, Combustion, Fluid Power Systems and Control
2	Dr. V. Arul Mozhi Selvan	Associate Professor, Dept. of Mech. Engg	National Institute of Technology, Tiruchirapalli	98949 20835 arulmozhi@nitt.edu	21 years	Nanoparticle Additives, Bio-Fuels, Renewable Energy Technology, Energy Conservation and Management
3	Dr. Babu. S	Associate Professor, Dept. of Mech. Engg	PSG College of Technology, Coimbatore	9865808756 babu.mech@psgtech.ac.in	13 years	Hybrid renewable energy systems, Thermal energy storage with phase change materials, Heat exchanger.
4	Dr. M.Venkata Ramaran	Professor Director, Institute for Energy Studies	CEG, Anna University, Chennai-600025	044-22357755 venkat@annauniv.edu 9444221034		Biomass Gasification, Energy Conservation & Management
5	Dr.K.Srithar	Professor, Dept. of Mech. Engg.	Thiagarajar college of Engineering, Madurai	ponsathya@hotmail.com 9842185302	31 years	Solar Thermal & Heat transfer, Alternate fuel

6	Dr.V.Balasubramani	Associate Professor, Dept. of Mech. Engg.	Thiagarajar college of Engineering, Madurai	vbmech@tce.edu 9843147747	22 Years	Composite Materials and Vibration Analysis
7	Dr.P.Maran	Professor, Dept. of Mech. Engg.	Thiagarajar college of Engineering, Madurai	pmmech@tce.edu 9842120830	28 years	Thermal Science CFD and Applications
8	Dr. S.P.Asok	Professor, Dept. of Mech. Engg.	Mepco Schlenk Engineering College, Sivakasi	asoksp@yahoo.com 9443011358	32 Years	Thermal Engg., Heat and Mass transfer, Refrigeration and Airconditioning
9	Mr. S.Ananthakumar,	Assistant Professor, Dept. of Mech. Engg.	Government College of Engineering, Tirunelveli	ananthakumar@gcetly.ac.in 9791252169	9 years	Thermal Engineering
10	Mr. S.Somesh Subramanian	Assistant Professor, Dept. of Mech. Engg.	Government College of Engineering, Tirunelveli	someshsub@yahoo.co.in 9443909787	9 years	Thermal Engineering
11	Dr.P.Selvakumar	Associate Professor, Dept. of Mech. Engg.	Kongu Engineering College, Erode	selvakumar@kongu.ac.in, selvakumar.mech@kongu.edu 9566341992	20 years	Thermal Engineering, Solar Energy, Heat Transfer, CFD
12	Dr.S.Thirumuruga Veerakumar	Assistant Professor, Dept. of Mech. Engg.	Kumaraguru college of Technology	thirumurugaveerakumar.s.mec@kct.ac.in	15 years	Thermal Analysis on bus bar casing to Benchmark compact structure
13	Dr.K.Arun Balasubramanian	Professor, Dept. of Mech. Engg	Sethu Institute of Technology, Kariapatti	karunbala@sethu.ac.in aarunkab@yahoo.co.in	16 years	I.C Engines

14	Dr.S.Raja kumar	Assistant Professor, Dept. of Mech. Engg.	Anna University Regional Campus – Tirunelveli,	rajkumar1998@yahoo.co.in 9894307215	20 Years	Energy Engineering
15	Dr.A.Manivannan	Assistant Professor, Dept. of Mech. Engg.	Anna University Regional Campus – Tirunelveli,	Manivannan461@gmail.com 8838190761		Energy Engineering
MANUFACTURING DOMAIN						
16	Dr.-Ing. M. Duraiselvam	Professor, Dept. of Production Engineering	National Institute of Technology, Tiruchirapalli	Email: durai@nitt.edu Ph: +91-431-2503509	22 years	Laser cladding, Liquid impact erosion, Synthesis of nano composites, Process optimization
17	Dr. Nanda Naik Korra	Associate Professor, Dept. of Mech. Engg.	National Institute of Technology, Tiruchirapalli	Email: naik@nitt.edu	16 years	Activated Tungsten Inert Gas (A-TIG) Welding Process, Design of Experiments (DoE), Duplex Stainless Steel Alloys
18	Dr. S.Senthilkumaran	Professor, Dept. of Mech. Engg.	CEG, Anna University, Chennai-600025	tel:044-22357745 metrosenk@annauniv.edu		Metal Casting Physical, Metallurgy, Cellular manufacturing Systems
19	Dr. G. Selvakumar	Associate Professor, Dept. of Mech. Engg.	Sri Sivasubramaniya Nadar (SSN) College of Engineering, Kalavakkam, Chennai - 603110	selvakumarg@ssn.edu.in 9489581665	20 years	Advanced Manufacturing Systems & Engineering Management
20	Dr. N. Selvakumar	Senior Professor, Dept. of Mech. Engg.	Mepco Schlenk Engineering College, Sivakasi	9443867775 nselva@mepcoeng.ac.in	32 Years	Industrial Metallurgy, Powder Metallurgy, Nano composites.

21	Dr. S.Saravana Perumaal	Assistant Professor (Aided), Dept. of Mech. Engg.	Thiagarajar college of Engineering, Madurai	sspmech@tce.edu 9944461010	18 years	Manufacturing Engineering,
22	Dr.R.Deivasigamani	Professor, Dept. of Mech. Engg.	Kongu Engineering College, Erode	Email: rdeiva@kongu.ac.in Mobile: 9443504573 Office: 04294-226711	37 years	Manufacturing Engineering
23	Dr.D.Jebakani	Professor (CAS), Dept. of Mech. Engg.	Government College of Engineering, Tirunelveli	jebakani@gcetly.ac.in 9944253810	23 years	Industrial Engineering Optimization, Computer Aided Design, Reliability Quality Engineering
24	Dr.A.Krishnaveni,	Professor (CAS)	Government College of Engineering, Tirunelveli	krishnaveni@gcetly.ac.in 9894182237	21 years	Probabilistic Fracture mechanics, Reliability Analysis, Reliability Based Design
25	Dr. J.Aldrin Raj	Assistant Professor, Dept. of Mech. Engg.	Government College of Engineering, Tirunelveli	aldrin@gcetly.ac.in 9486643388	11 years	Industrial Engg.
26	Dr. M.S.Starvin	Assistant Professor (Sr.Gr), Dept. of Mech. Engg.	University College of Engineering - Nagercoil	9486865043 mstarvin@gmail.com	17 years	Finite Element Analysis, Computational Fluid Dynamics, Contact Mechanics, Tribology, Composite Materials, Fracture Mechanics, Additive Manufacturing

27	Dr.C.Velmurugan	Professor, Dept. of Mech. Engg.	Kumaraguru college of Technology	velmurugan.c.mec@kct.ac.in	25 Years	Composite Materials
28	Dr.P.K.Giridharan	Professor, Dept. of Mech. Engg.	Kumaraguru college of Technology	giridharan.pk.mec@kct.ac.in	24Years	Welding
29	Dr.S.Bhaskar	Associate Professor, Dept. of Mech. Engg	Kumaraguru college of Technology	bhaskar.s.mec@kct.ac.in	20 Years	Industrial Engineering
30	Dr.A.Azhagurajan,	Associate Professor	Mepco Schlenk Engineering College, Sivakasi	aazhagu@mepcoeng.ac.in 9486991085	20 Years	Industrial Safety Engg.
31	Dr. R. A. Malairajan	Assistant Professor & Head i/c	The University V.O.C. College of Engineering Thoothukudi, Anna University	Email : ramalairajan@gmail.com Mobile : 9942394141 Phone : 0461-2310044	16 years	Industrial Engg.
32	Dr.S.Amal Bosco Jude	Assistant Professor	The University V.O.C. College of Engineering Thoothukudi, Anna University	Email : sabjude81@rediffmail.com Mobile : 9894148960 Phone : 0461-2310044	12 years	Manufacturing and Welding.
DESIGN DOMAIN						
33	Dr. N. Siva Shanmugam	Associate Professor, Dept. of Mech. Engg.	National Institute of Technology, Tiruchirapalli	Mobile: 9443649278 nsiva@nitt.edu	10 years	Finite Element Method, Bio- Mechanics, Machine Design
34	Dr. A. Elaya Perumal	Professor Head, Engineering Design Division	CEG, Anna University, Chennai-600025	044-22357738 profelaya@annauniv.edu		Composite Materials and Mechanics, Vibration Analysis and Control, Nano Science

						and Engineering, Surface Engineering, Design of Machine Elements
35	Dr. G.Shibu	Associate Professor, Engg. Design division	CEG, Anna University, Chennai-600025	044-22357647 shibu@annauniv.edu		Machine Design, Applied Mechanics, Mechanism
36	Dr.G.Sureshkannan	Associate Professor, Dept. of Mech. Engg.	CIT, Coimbatore	sureshkannan@cit.edu.in 91-9600736007		Finite element analysis, Optimization for engineering design, Theory of machines
37	Dr.J.Selwin Rajadurai	Professor	Government College of Engineering, Tirunelveli.	9442093691 selwinrajadurai@gmail.com	24 years	Design, Composites
38	Dr. T.Prem Singh Inbaraj	Assistant Professor (RD)	Government College of Engineering, Tirunelveli	premsingh@gcetly.ac.in 9345737511	16 years	CAD/CAM
39	Dr.S.Rajakarunakaran	Professor & HOD, Dept. of Mech. Engg.	Ramco Institute of Technology, Rajapalayam	rajarunakaran@ritrjpm.ac .in 9865312352	30 years	Fault diagnosis, Condition Monitoring, Multi Criteria Optimization
40	Dr.P.Navaneethakrishnan	Professor & HOD, Dept. of Mech. Engg.	Kongu Engineering College, Erode	Email: pnk@kongu.ac.in , Mobile: 9842950323 Office: 04294-226710	28 years	Engineering Design
41	Dr.V.Hariharan	Professor, Dept. of Mech. Engg.	Kongu Engineering College, Erode	Email: hariharan@kongu.ac Mobile: 9443504469 Office: 04294-226712	29 years	Vibration Analysis, Condition Monitoring

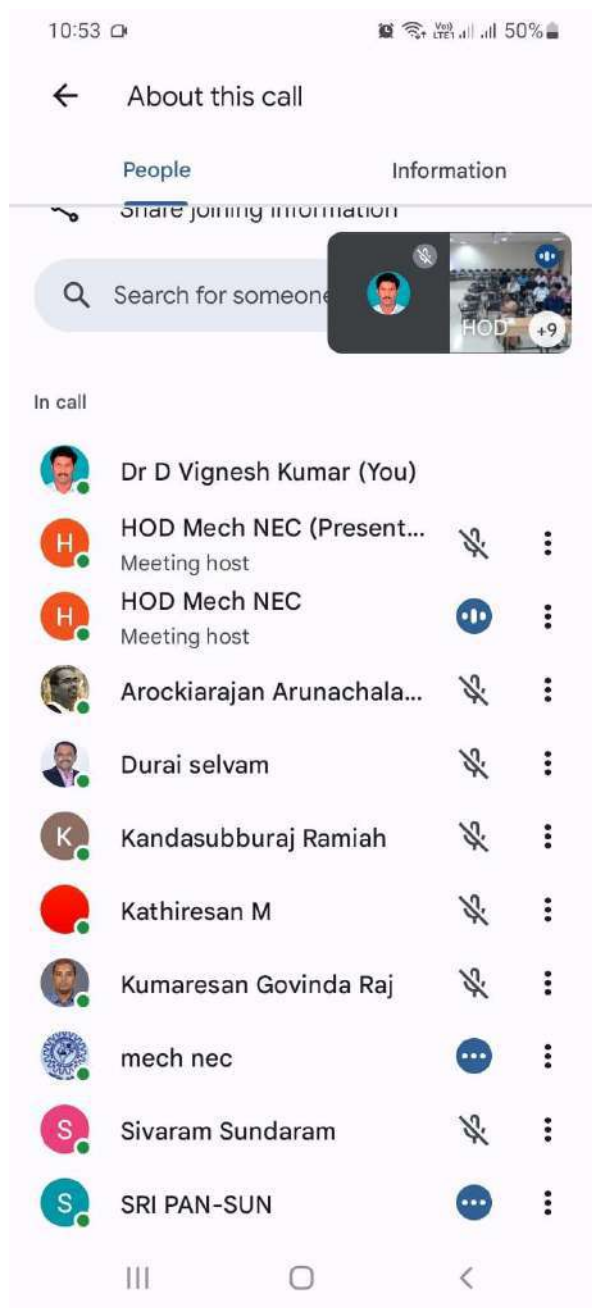
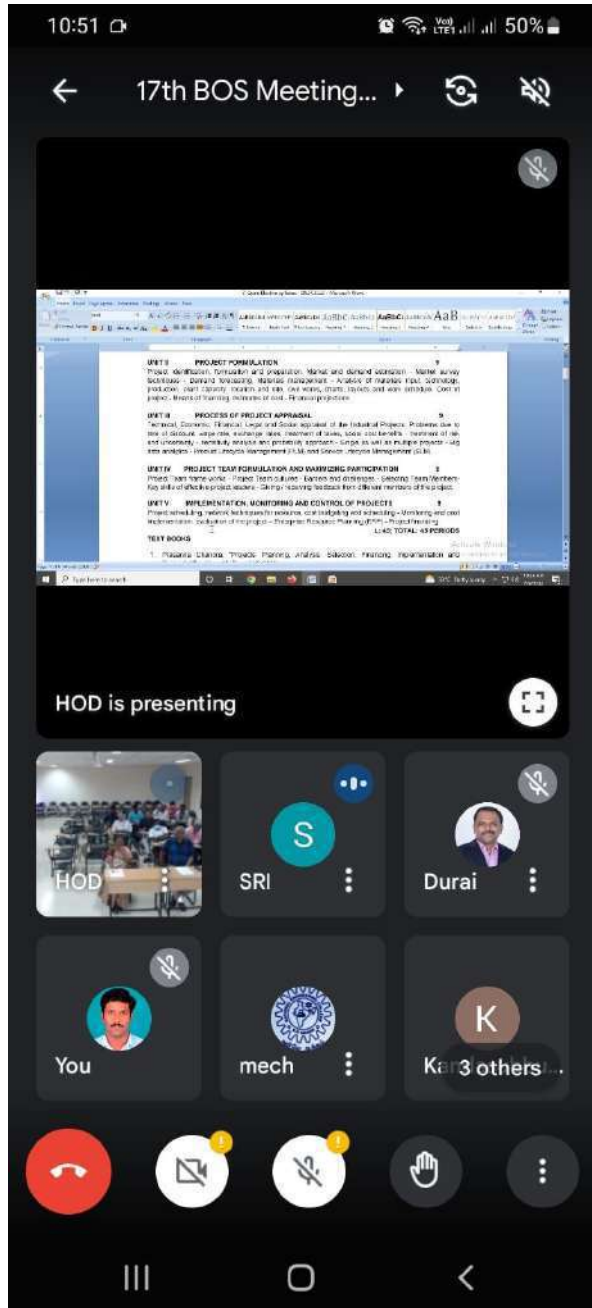
42	Dr.A.Vasanthanathan	Associate Professor, Dept. of Mech. Engg.	Mepco Schlenk Engineering College, Sivakasi	vasanthan@mepcoeng.ac.in 9894781354	20 Years	Finite Element Analysis, Fibre Reinforced Plastics
43	Dr. R. Murali Kannan	Professor, Dept. of Mech. Engg.	AAA College of Engineering, Virudhunagar	muralikannan6@gmail.com 9486140536	17 years	CAD/CAM
44	Dr.P.Sathyabalan	Professor, Dept. of Mech. Engg.	Kumaraguru college of Technology	sathyabalan.p.mec@kct.ac.in	15 Years	Engineering Design
45	Dr.Prabhu Raja. V	Professor, Dept. of Mech. Engg.	PSG College of Technology, Coimbatore	vpr.mech@psgtech.ac.in	25 years	Machin Design, Finite Element Analysis, High Speed Machining
46	Dr. M.Elango	Assistant Professor, Dept. of Mech. Engg.	Thiagarajar college of Engineering, Madurai	memech@tce.edu	28 years	Computer Aided Design

h.u-m

CHAIRMAN

BOARD OF STUDIES

**17th BOARD OF STUDIES MEETING – Department OF Mechanical Engineering On
09.07.2022**



Department of Electronics and Communication Engineering

MINUTES of 17th Meeting of the Board of Studies was held on
2nd July 2022 at 10.00 AM

Venue: Conference Hall, National Engineering College
K.R.Nagar, Kovilpatti – 628503 (Through Google Meet:
<https://meet.google.com/yaw-oren-zdx>)

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

17th Board of studies Meeting of the Department of
Electronics and Communication Engineering

Venue: Conference Hall, National Engineering College
K.R.Nagar, Kovilpatti – 628503 (Through Google Meet:
<https://meet.google.com/yaw-oren-zdx>)

Date & Time: 02.07.2022 & 10.00 AM

AGENDA

ECE/BoS 17.1	:	Welcome address and Opening Remarks by Chairman, Board of studies of the Department of Electronics and Communication Engineering
ECE/BoS 17.2	:	Confirmation of the Minutes and action taken report of the 16 th Board of studies meeting of the Department of Electronics and Communication Engineering held on 27 th November 2021.
ECE/BoS 17.3	:	Business brought forward by the Chairman, Board of studies 17.3.1. Additional Elective courses for UG degree programme under R-2019. 17.3.2. Approval for list of examiners for project viva voce examinations
ECE /BoS 17.4	:	Suggestions given by the BoS Members

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

F. No. 1-1/NEC/Branch/ECE

2nd July, 2022

Dear Sir/Madam,

Sub: Minutes of the 17th Board of Studies Meeting of Department of Electronics and Communication Engineering - Reg.

The 17th Board of studies Meeting of Electronics and Communication Engineering department of National Engineering College, K.R.Nagar, Kovilpatti – 628 503 was held on 2nd July 2022 at 10.00 AM at the conference hall of National Engineering college through google meet. 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.A.Shenbagavalli)

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

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

www.nec.edu.in

Department of Electronics and Communication Engineering

MINUTES OF THE MEETING

The 17th Meeting of Board of studies of the Department of Electronics and Communication Engineering was held on 2nd July, 2022 at 10.00 AM in the Conference Hall of the National Engineering College, K.R.Nagar, Kovilpatti– 628503.

The Board of Studies members are as follows,

1.	Dr.A.Shenbagavalli Professor & Head	Chairman
2.	Dr.S.Shanmugavel, Senior Prof, Director	Internal Members
3.	Dr. S.Tamilselvi, Professor	
4.	Dr.V.Vijayarangan, Professor	
5.	Dr. V.R.S.Mani, Asso. Prof (SG)	
6.	Dr.N.Arumugam, Asso Prof	
7.	Dr.V.Suresh, Asso. Prof	
8.	Dr. T.S.Arun Samuel, Professor	
9.	Mr.T.Deva Kumar, AP (SG)/ECE	
10.	Dr. T.Vijayanandh, Asst. Prof (SG)	
11.	Dr. K.J.Prasanna Venkatesan, Asst. Prof (SG)	
12.	Dr. A.Saravana Selvan, Asst. Prof (SG)	
13.	Mr. S.Cammillus, Asst. Prof (SG)	
14.	Mr. C.Balamurugan, Asst. Prof (SG)	
15.	Mr. K.Subramanian, Asst. Prof (SG)	
16.	Mrs. R.Manjula Devi, Asst. Prof (SG)	
17.	Mr. M.Sathish Kumar, Asst. Prof (SG)	
18.	Mr.I.Vivek Anand, Asst. Prof (SG)	
19.	Dr.I.Paulkani, Asst. Prof	
20.	Mr.C.Rajkumar, Adjunct faculty	

21.	Dr. M. Meenakshi, Professor, Department of ECE, College of Engineering, Guindy Campus, Chennai.	Academic Experts
22.	Dr.M.Ganesh Madhan, Professor, Department of ECE, Madras Institute of Technology, Anna University, Chennai.	
23.	Dr.R.Pandeeswari, Associate Professor, Department of ECE, NIT, Trichy.	Meritorious Alumnus
24.	Mr. S. Kaliraj, Director, Vlinder Labs Pvt Ltd, Bangalore.	
25.	Mr.Raja Subramanian , Senior Architect, Mistral Solutions Pvt Ltd ,Bangalore.	Industrial Experts
26.	Mr.K.A.Irshadh Abdul Rasheed Associate Partner Cyber Security, Ernst And Young LLP, Chennai.	Special Invitee
27.	Mr.Dinakaran.B.L, Principal Engineer, MaxLinear, Bangalore.	
28.	Mr.S.Madhusudhan, Co-founder, Vlinder labs pvt ltd, Bangalore	
29.	Ms.A. Subitsha, III Year ECE	Student Members
30.	Mr.Lokeshdurai, III Year ECE	
31.	Ms.Mithra Sri, III Year ECE	
32.	Mr.Ganapathy, III Year ECE	







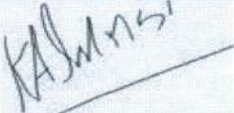
BoS/ECE17.1	:	WELCOME ADDRESS AND OPENING REMARKS BY CHAIRMAN, BOARD OF STUDIES OF THE DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
		The Chairman, BoS of the department of Electronics and Communication Engineering welcomed and introduced the members of the 17 th Board of Studies.
BoS/ECE 17.2	:	TO CONFIRM THE MINUTES OF SIXTEENTH BOS MEETING HELD ON 27 th NOVEMBER 2021.
		<p>The minutes of the sixteenth Board of Studies meeting held on 27th November 2021 were communicated to the members. The comments received have been properly analyzed and corrections have been carried out in the syllabus. Then it was presented in 16th Academic Council meeting held on 9th DEC 2021 and the same was approved.</p> <ul style="list-style-type: none"> • Action Taken Report (Enclosed in <u>Annexure I</u>)
BoS/ECE17.3.1	:	Approval for additional Elective Courses for UG Degree Programme Under R-2019
		Resolved to approve the additional elective courses for UG Degree Programme Under R-2019.
BoS/ECE17.3.2	:	<p>Approval for list of examiners for project viva voce examinations</p> <p>Resolved to approve the list of examiners for project viva voce examinations for UG Degree Programme Under R-2019.</p>
BoS/ECE 17.4	:	SUGGESTIONS GIVEN BY THE BOS MEMBERS
17.4.1	:	The expert members from Vlinder Labs Pvt.Ltd, Bangalore suggested and involved in framing Blockchain and Applications elective course under R2019. In this elective course, the practical sessions can be included and this course may be defined as an Integrated course (Theory + Lab).
17.4.2	:	The elective course “Professional readiness for innovation, employability and entrepreneurship” is introduced by Anna University to all affiliated colleges.

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.

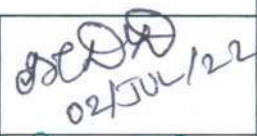



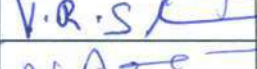




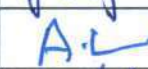
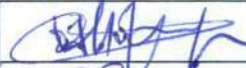





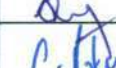
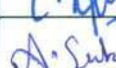
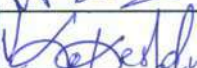
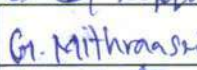



1. Additional Elective courses, One credit courses and Open Elective courses for UG degree programmes under R-2019
2. To get approval for list of examiners for project viva voce examinations

Dr.I.Paulkani, Assistant Professor / ECE thanked all the members for their kind cooperation and the meeting came to an end.

Members Present Online:

S.No	BOS Members	Signature
1.	Dr. A. Shenbagavalli Professor & Head, Department of ECE, National Engineering College, Kovilpatti.	
2.	Dr.M.Meenakshi Professor, Dept. of ECE, College of Engineering, Guindy Campus, Chennai - 600025	
3.	Dr. M.Ganesh Madhan Professor, Dept. of ECE, Madras Institute of Technology campus, Anna University, Chennai – 600044.	 Dr. M. GANESH MADHAN, M.E., Ph.D. Professor Department of Electronics Engineering Anna University, MIT Campus Chennai, Chennai - 600 044
4.	Dr.R.Pandeeswari Associate Professor Department of ECE NIT, Trichy.	
5.	Mr.S.Madhusudhan, Co-founder, Vlinder Labs Pvt Ltd, Bangalore.	 For VLINDER LABS PRIVATE LIMITED. S. Madhusudhan Director
6.	Mr.Raja Subramanian Senior Architect, Mistral Solutions Pvt Ltd Bangalore	
7.	Mr.K.A.Irshadh Abdul Rasheed Associate Partner Cyber Security Ernst And Young LLP, Chennai	

Members Present Off line:

1.	Mr.Dinakaran.B.L, Principal Engineer, MaxLinear, Bangalore.	 02/JUL/22
2.	Dr.S.Shanmugavel, Senior Prof, Director	
3.	Dr. S.Tamilselvi, Professor	 25/7/22
4.	Dr.V.Vijayarangan, Professor	
5.	Dr. V.R.S.Mani, Asso. Prof (SG)	 V.R.S.
6.	Dr.N.Arumugam, Asso Prof	 N.A
7.	Dr.V.Suresh, Asso. Prof	 V.S
8.	Dr. T.S.Arun Samuel, Professor	 T.S.A.S
9.	Dr. T.Vijayanandh, Asst. Prof (SG)	 T.V
10.	Dr. K.J. Prasanna Venkatesan, Asst. Prof (SG)	 K.J.P.V.
11.	Dr. A.Saravana Selvan, Asst. Prof (SG)	 A.S.S.
12.	Mr. S.Cammillus, Asst. Prof (SG)	 S.C.
13.	Mr. C.Balamurugan, Asst. Prof (SG)	 C.B.
14.	Mr. K.Subramanian, Asst. Prof (SG)	 K.S.
15.	Mrs. R.Manjula Devi, Asst. Prof (SG)	 R.M.D.
16.	Mr. M.Sathish Kumar, Asst. Prof(SG)	 M.S.K.
17.	Mr.I.Vivek Anand, Asst. Prof (SG)	 I.V.A.
18.	Dr.I.Paulkani, Asst. Prof	 I.P.
19.	Mr.C.Rajkumar, Adjunct faculty	 C.R.
20.	Ms.A.Subitsha, III Year ECE	 A.S.
21.	Mr.Lokeshdurai, III Year ECE	 L.L.
22.	Ms.Mithra Sri, II year ECE	 M.M.S.
23.	Mr.Ganapathy, II Year ECE	 G.G.


CHAIRMAN

BOARD OF STUDIES

17th BOARD OF STUDIES MEETING – DEPARTMENT OF ECE ON 02.07.2022

The screenshot shows a Zoom meeting in progress. The main window displays a slide titled "AGENDA OF 17th BOS MEETING" with the following items:

1. Minutes of 16th BOS Meeting ([Link](#))
 > Action taken Report ([Link](#))
2. Additional Elective courses, One credit courses, Open Elective courses for UG degree programmes under R-2019
3. To get approval for list of examiners for project viva voce examinations
4. Any other matter

The slide is presented in a Beamer format. The Zoom interface on the right shows several participants: Meenakshi M, Dr. Pandeeswari Ra..., Dr. Ganesh Madhan, Raja Subramanian N, Madhusudhan Srin..., Sathishkumar .M, and You. A small video thumbnail for 'arunsamuel ece' is also visible.

This screenshot shows a Google Drive viewer displaying a video recording titled "BOS Meeting 02.07.2022.mkv". The video player shows a slide with the text:

PROFESSIONAL READINESS FOR
INNOVATION, EMPLOYABILITY AND
ENTREPRENEURSHIP

The video player interface includes a progress bar at 43:41 / 50:26 and various control icons. The Zoom meeting interface is visible in the background of the video, showing the same participants as in the first screenshot. The browser's address bar shows the file URL: https://drive.google.com/file/d/1iIN3_Vxq4iqPfx1as75BwK2NvVg_RuZ/view. The Windows taskbar at the bottom shows the time as 14:18 on 07-07-2022.

Department of Computer Science and Engineering

MINUTES of 17th Meeting of the Board of Studies held on
9th July, 2022 at 10.30 AM

Meeting Mode: Through Hybrid mode - offline and online (Webex meeting)
Venue: CSE seminar Hall, National Engineering College
K.R.Nagar, Kovilpatti – 628 503

Webex Meet link: <https://nec4962.webex.com/nec4962/j.php?MTID=m02637384fb39fdd864ddb5b1a9406e1>

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

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

**17th Board of Studies Meeting in the Department of
Computer Science and Engineering**

Meeting Mode: Through Hybrid mode - offline and online (Webex Meet)

Venue: CSE Seminar Hall, National Engineering College

K.R.Nagar, Kovilpatti – 628 503

Webex Meet link: <https://nec4962.webex.com/nec4962/j.php?MTID=m02637384fb39fdd864ddb5b1a9406e1>
Date & Time: 09.07.2022 & 10.30 AM

Agenda

- BoS / CSE 17.1 : Welcome address and Opening Remarks by Chairman, Board of Studies in the department of Computer Science and Engineering
- BoS / CSE 17.2 : Confirmation of the Minutes of the 16th meeting of Board of studies in the department of Computer Science and Engineering held on 27th November 2021 and Action taken report of 16th meeting of Board of studies
- BoS / CSE 17.3 : Business brought forward by the Chairman, Board of studies
- 17.3.1. New one credit courses for B.E-CSE under R2019.
- 17.3.2. Refinement of existing courses for B.E-CSE and M.E –CSE under R2019.
- 17.3.3. Anna University - MANDATORY ELECTIVE course – (Professional Readiness for Innovation, Employability and Entrepreneurship).
- 17.3.4. List of Examiners for project Viva voce Examinations.
- BoS / CSE 17.4 : Any other items.
- BoS / CSE 17.5 : Suggestions given by the BoS Members

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

F. No. 1-1/NEC/CSE

9th July, 2022

Dear Sir,

Sub: Minutes of the 17th Meeting of the Board of studies in the Computer Science and Engineering -Reg.

Kindly find attached herewith the Minutes of the 17th Meeting of Board of studies of the Computer Science and Engineering of the National Engineering College, K.R.Nagar, Kovilpatti – 628 503 held on 9th July 2022 at 10.30 AM through hybrid mode - offline and online (Webex meet) in the CSE Seminar hall of National Engineering college. Hard copy of the Minutes is also being sent to you by speed post.

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

Yours Sincerely


Dr. V. Gomathi

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

MINUTES OF THE MEETING

The 17th Meeting of the Board of studies of the Computer Science and Engineering was held on 9th July, 2022 at 10.30 AM through hybrid mode -offline and online Google Meet in the CSE Seminar Hall of National Engineering College.

The following members were present in the seminar hall

1.	Dr.V.GOMATHI Professor & Head	Chairman
2.	Dr.D.Manimegalai, Professor& COE	Internal BoS members
3.	Dr.V.Kalaivani, Professor	
4.	Dr.K.MohaideenPitchai, Professor	
5.	Dr.J.Naskath, Assistant Professor (SG)	
6.	Ms.R.Rajakumari, Assistant Professor (SG)	
7.	Mr.D.Vijayakumar,Assistant Professor (SG)	
8.	Dr.G.Sivakamasundari, Assistant Professor (SG)	
9.	Ms.G.R.Hemalakshmi, Assistant Professor (SG)	
10.	Dr.V.Anusuya Devi ,Assistant Professor(SG)	
11.	Dr. C. Mala Professor, Dept. of Computer Science and Engineering, National Institute of Technology Trichy, Trichy.	Academic Expert
Experts attended the meeting Online(Webex Meet)		
12.	Dr. K. S. Easwarakumar Professor, Dept. of Computer Science and Engineering, CEG Campus Anna University, Chennai.	Anna university Nominee
13.	Dr. C.Krishna Mohan Professor & Head Dept. of Computer Science and Engineering, Indian Institute of Technology Hyderabad, Hyderabad.	Academic Expert
14.	Mr.Roy Antony Arnold, Lead - Education and Research, Infosys Pvt Ltd.,	Industrial Experts

15.	Mr.D.Siddharthan, Delivery Manager, Wipro Technologies Pvt. Ltd, Chennai.	
16.	Ms.G.Maria Justin Mary Lead S/W Engineer, Lowe's India, Bangaluru.	Alumni and Industrial Expert
17.	Ms. Suji S, III year CSE.	Student Members Nominated by the HOD
18.	Mr. Narain C A, III year CSE.	

Dr.G.R.Karpagam, Professor, Dept. of Computer Science and Engineering, PSG College of Technology, Coimbatore, Dr.G.Kousalya, Professor & Head of the Department, Dept. of Computer Science and Engineering, Coimbatore Institute of Technology, Mr.Srinivasan Rajendren, Service Delivery Manager, Tata Consultancy Services, Chennai and Mr.Manikanda Raman Viswanathan, Director, Cognizant Digital Operations, CTS, Chennai could not attend the meeting due to their prior commitments and unavoidable reasons and were granted leave of absence.

BoS / CSE 17.1	:	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 17 th Board of Studies and thanked each one of them for sparing their valuable time to attend the meeting.
BoS / CSE 17.2	:	TO CONFIRM THE MINUTES OF 16 th BOS MEETING HELD ON 27 th November, 2021
		The minutes of the 16th Board of Studies meeting held on 27 th November 2021 were communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 16 th Academic council. ➤ Action Taken Report (Enclosed in Annexure I)

BoS/CSE 17.3.1	<p>: TO CONFIRM AND APPROVE OF NEW ONE CREDIT COURSES FOR B.E CSE PROGRAMME UNDER R2019</p> <p>RESOLVED TO approve new one credit courses for B.E-CSE programme under R2019</p>
BoS/ CSE 17.3.2	<p>: TO CONFIRM AND APPROVE OF REFINEMENT OF EXISTING COURSES FOR B.E-CSE AND M.E – CSE UNDER R2019</p> <p>RESOLVED TO approve refinement of existing courses for B.E-CSE and M.E –CSE UNDER R2019</p>
BoS/ CSE 17.3.3	<p>: TO CONFIRM AND APPROVE OF Anna University - MANDATORY ELECTIVE course – (Professional Readiness for Innovation, Employability and Entrepreneurship) FOR B.E-CSE UNDER R2019</p> <p>RESOLVED TO approve Anna University - MANDATORY ELECTIVE course for B.E-CSE under R2019</p>
BoS/ CSE 17.3.4	<p>: TO CONFIRM AND APPROVE LIST OF EXAMINERS FOR PROJECT VIVA VOCE EXAMINATIONS B.E-CSE and M.E- CSE UNDER R2019</p> <p>RESOLVED TO approve list of examiners for project viva voce examinations B.E-CSE and M.E- CSE UNDER R2019</p>
BoS/CSE 17.4	<p>: ANY OTHER ITEMS, IF ANY, WITH THE PERMISSION OF THE CHAIRMAN OF THE BOS</p> <p>On the whole, this new initiative was very much appreciated by all members. The challenges faced by the students (if any)</p>

		should be periodically discussed with them. They also congratulated the faculty members for their team efforts towards continuing Education.
BoS / CSE 17.5	:	SUGGESTIONS GIVEN BY THE BOS MEMBERS
17.5.1	:	Microprocessor and Micro controller theory and Lab courses may be included in the B.E CSE under regulation 2019.
17.5.2	:	High-resolution monitor may be purchased for practicing the Augmented Reality for developer's course exercises.
17.5.3	:	In 19CS30E - Advanced Java Programming course, Java Server Pages unit contents may be reduced, course contents may be taught with the demonstration and Spring Boot may be included in unit 3.
17.5.4	:	In the 19CS29L Full stack development course, a mini-project may be included.
17.5.5	:	In 19CT21C Advanced algorithms course, pre-request, Data structures and Algorithms may be included and the textbook "Parallel computation: models and methods" by Selim G.Aki may be included.

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.

- New one credit courses for B.E- CSE under R2019.
- Refinement of existing courses for B.E-CSE and M.E-CSE under R2019.
- List of Examiners for project Viva voce Examinations.
- Anna University – MANDATORY ELECTIVE course.

Dr.V.Kalaivani Professor ,thanked all the members for their valuable suggestions and cooperation and the meeting came to an end.

Members Present

Dr.V.Gomathi Chairman	V. C 9/7/22
<i>Internal Members</i>	
Dr.D.Manimegalai Professor	D. M
Dr.V.Kalaivani Professor	V. Kalaivani
Dr.K.MohaideenPitchai Professor	K. Mohaideen Pitchai
Dr.J.Naskath Assistant Professor (SG)	J. Naskath
Ms.R.Rajakumari Assistant Professor (SG)	R. Rajakumari
Mr.D.Vijayakumar Assistant Professor (SG)	D. Vijayakumar
Dr.G.Sivakamasundari Assistant Professor (SG)	G. Sivakamasundari
Ms.G.R.Hemalakshmi Assistant Professor (SG)	G. R. Hemalakshmi
Ms.V.Anusuya Devi Assistant Professor(SG)	V. Anusuya Devi
<i>Academic Experts</i>	
Dr. C. Mala, Professor, Dept. of Computer Science and Engineering, National Institute of Technology, Tiruchirappalli	C. Mala 9/7/22

Experts attended the meeting by Online <i>Anna University Nominee</i>
Dr. K. S. Easwarakumar Professor, Dept. of Computer Science and Engineering, CEG Campus, Anna University, Chennai
Academic Experts
Dr. C.Krishna Mohan Professor & Head, Dept. of Computer Science and Engineering, Indian Institute of Technology Hyderabad, Hyderabad.
Dr.G.R.Karpagam Professor, Dept. of Computer Science and Engineering, PSG College of Technology, Avinashi Road, Peelamedu, Coimbatore.
Industrial Experts
Mr.SrinivasanRajendren Service Delivery Manager, Tata Consultancy Services, Chennai.
Mr.D.Siddharthan, Delivery Manager, Wipro Technologies Pvt. Ltd, Chennai.
Mr.Roy Antony Arnold, Lead - Education and Research, Infosys Pvt Ltd., Chennai.
Adjunct faculty and Alumni
Mr.Manikanda Raman Viswanathan Director, Cognizant Digital Operations, CTS, Chennai.
Alumni
Mrs.G.Maria Justin Mary Lead S/W Engineer, Lowe's India, Bangaluru
Student Members Nominated by the HOD
Ms. Suji S, III year CSE
Mr. Narain C A, III year CSE


 CHAIRMAN 9/17/22
 BOARD OF STUDIES

Annexure I

Action Taken Report for Minutes of 16th BOS

As per BOS committee suggestions,

- NPTEL courses are mandatory for B.E and M.E students. 50% Success is achieved in Completion of NPTEL courses.
- 19CS36C - Software Engineering Methodologies, 19CS15E-Artificial Intelligence, 19CS28L- Python for Machine Learning courses, COs are refined.
- 19CS66C- Product Development Laboratory course contents has been revised.
- 19CS51C- Java Programming course has been refined as per new trends in industries.


CHAIRMAN
BOARD OF STUDIES

17th BOARD OF STUDIES MEETING – DEPARTMENT OF CSE ON 09.07.2022

The screenshot shows a Webex meeting interface. The main content is a slide titled "BOS MEMBERS" with the following list of members:

- Mr.Roy Antony Arnold**
Lead - Education and Research, Infosys.Pvt Ltd., Chennai.
- Mr.Srinivasan Rajendren**
Service Delivery Manager, TCS, Chennai.
- Mr.D.Siddharthan**
Delivery Manager, Wipro Ltd., Chennai.
- Ms.G.Maria Justin Mary**
Lead S/W Engineer, Lowe's India, Bangaluru.
- Mr. V. Manikanda Raman**
Director, CTS, Chennai.

The slide also includes the Department of CSE logo and the date 9 Jul 22. The meeting participants visible in the top bar are Gomathi NEC, Sivakomasundari, Dhooa, Dr.V.Kalaivani, and Mohaideen Pitchai. The bottom bar shows the Windows taskbar with the time 10:38 AM on 7/9/2022.

The screenshot shows a Webex meeting interface. The main content is a slide titled "MINUTES of 16th BOS MEETING (27.11.2021)" with the following bullet points:

- List of courses for B.E. specialization in Artificial Intelligence & Machine Learning are appreciated by Anna University nominee and commented that syllabus is fine.
- One or two NPTEL courses may be mandatory for B.E. specialization courses.
- Two new elective courses such as 19CT28E-Vehicular adhoc networks, 19CT29E-Cloud management and security are introduced in M.E-CSE under R2019.
- One credit course, 19CS30L Microprocessor and microcontroller is introduced in the B.E-CSE under R2019.
- End semester examinations reforms are presented.

The slide also includes the Department of CSE logo and the date 9 Jul 22. The meeting participants visible in the top bar are Gomathi NEC (speaking), Sivakomasundari, Dhooa, Dr.V.Kalaivani, Mohaideen Pitchai, and naskath. The bottom bar shows the Windows taskbar with the time 10:41 AM on 7/9/2022.

Department of Electrical and Electronics Engineering

**MINUTES 17th Meeting of the Board of studies held on
20th July 2022 at 10.00 AM**

Meeting Mode: Hybrid Mode

Venue: Conference Hall, National Engineering College

Cisco Webex Meet Link: <https://nec4962.webex.com/nec4962/j.php?MTID=m22a5e55f8c03cee07ebea81c1800b422>

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- 628503

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

www.nec.edu.in

17th Board of studies Meeting in the Department of Electrical and Electronics Engineering

Meeting Mode: Hybrid Mode

Venue: Conference Hall, National Engineering College

Cisco Webex Meet Link: <https://nec4962.webex.com/nec4962/j.php?MTID=m22a5e55f8c03cee07ebee81c1800b422>

Date & Time: 20.07.2022 & 10.00 AM

AGENDA

- BoS / EEE 17.1 : Welcome address and Opening Remarks by Chairman, Board of studies in the Department of Electrical and Electronics Engineering
- BoS / EEE 17.2 : Confirmation of the Minutes of the 16th meeting of Board of Studies in the Department of Electrical and Electronics Engineering held on 29th November 2021, and Action Taken report of 16th meeting of Board of studies
- BoS / EEE 17.3 : Business brought forward by the Chairman, Board of studies
- 17.3.1 Syllabus for Programme Elective Courses - UG B.E. (EEE) under Regulation R2019
- 17.3.2 Syllabus for One Credit Elective Courses - UG B.E. (EEE) under Regulation R2019
- 17.3.3 Any other items
- BoS / EEE 17.4 : Any other items
- BoS / EEE 17.5 : Suggestions given by the BoS Members

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

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

20th July, 2022

Dear Sir/Madam,

Sub: Minutes of the 17th Meeting of the Board of studies in the EEE-Reg.

Kindly find attached herewith the Minutes of the 17th Meeting of Board of studies of the Electrical and Electronics Engineering of the National Engineering College, K.R.Nagar, Kovilpatti – 628503 held on 20th July, 2022 at 10.00 AM in National Engineering college, through hybrid mode. Hard copy of the Minutes is also being sent to you by speed post.

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. With Kind Regards,

Yours Sincerely


Dr. M. Willjuice Iruthayarajan

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

Department of Electrical and Electronics Engineering

MINUTES OF THE MEETING

The 17th Meeting of the Board of studies of the Electrical and Electronics Engineering was held on 20th July, 2022 at 10.00 AM in National Engineering College, through hybrid mode.

Venue: Conference Hall, National Engineering College

Cisco Webex Meet Link: <https://nec4962.webex.com/nec4962/j.php?MTID=m22a5e55f8c03cee07e8ea81c1800b422>

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.M.Ravindran Associate Professor (S.G) / EEE	
5.	Dr.N.B.Prakash Associate Professor / EEE	
6.	Dr.M.P.E.Rajamani Assistant Professor(S.G) / EEE	
7.	Dr.S.Dharmalingam, Adjunct Faculty/EEE	Academic Expert
8.	Dr. V. Suresh Kumar, Professor, Department of Electrical and Electronics Engineering, Thiagarajar College of Engineering, Madurai, Tamilnadu.	
9.	Dr. Rajesh Joseph Abraham Associate Professor, Department of Avionics, Indian Institute of Space Science and Technology, Valiamala P.O., Thiruvananthapuram, Kerala.	Industrial Expert
10.	Dr. Santosh Kumar Annadurai GE T&D Ltd., GIS R&D Centre, Unit R&D Head, Padappai, Chennai.	
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.	
13.	Mr. J. S. Jekhan, Third Year / EEE	Student Members
14.	Ms. J. Joyslin Janet, Third Year / EEE	

The University Nominee Dr.S.Usa, Professor, Department of EEE, CEG Campus, Anna University Chennai, Industrial Experts Dr.S.Paramasivam, R&D Head, Electrical Drives, Danfoss Industries Ltd, Chennai, Mr.R. Jayakumar, Engineering Leader, Altimetrik Pvt, Ltd., Chennai & Mr.S.Subramanian, Senior Maintenance Engineering (I), Kudankulam Nuclear Power Project, Kudankulam, could not attend the meeting due to their prior commitments and unavoidable reasons and were granted leave of absence.

BoS / EEE 17.1	:	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 16 th Board of Studies and thanked each one of them for sparing their valuable time to attend the meeting.
BoS / EEE 17.2	:	TO CONFIRM THE MINUTES OF SIXTEENTH BOS MEETING HELD ON 29 th NOVEMBER 2021
		The minutes of the Sixteenth Board of Studies meeting held on 29 th November 2021 were communicated to the members vide letter No. F. No. 1-1/NEC/EEE, Dated 29.11.2021. The comments received have been incorporated and placed for confirmation. The same was approved by the 15 th Academic council. <u>Action Taken Report</u> (Enclosed in Annexure I)
BoS / EEE 17.3.1	:	TO CONFIRM AND APPROVE THE SYLLABUS OF PROGRAMME ELECTIVE COURSES FOR UG (B.E. – EEE) PROGRAMME UNDER R-2019
		RESOLVED TO approve the syllabus of programme elective

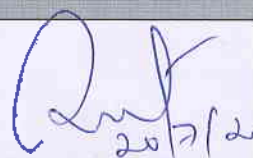
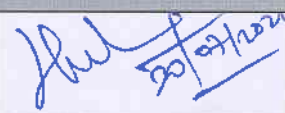
		courses for UG (B.E. – EEE) PROGRAMME under R–2019.
Bos/EEE 17.3.2	:	TO CONFIRM AND APPROVE THE SYLLABUS OF ONE CREDIT ELECTIVE COURSE FOR UG (B.E. – EEE) PROGRAMME UNDER R–2019
		RESOLVED TO approve the syllabus of One Credit Elective courses for UG (B.E. – EEE) PROGRAMME under R–2019.
Bos/EEE 17.4	:	ANY OTHER ITEMS, IF ANY, WITH THE PERMISSION OF THE CHAIRMAN OF THE BOS
17.4.1	:	The BoS members insisted the BoS EEE chairman to include immediate or near passed out alumni for BoS meeting. They told that alumni's are the most important evaluators of an outcome-based curriculum because only they can match their experience of the curriculum against the demands of their current roles.
Bos/EEE 17.5	:	SUGGESTIONS GIVEN BY THE BOS MEMBERS
17.5.1	:	In the course, "Industrial Electrical Systems" content related to hybrid lighting, and light pollution may be included. Diesel Generator may be included in Unit-V.
17.5.2	:	In the course, "Switched Mode Power Conversion", performance parameters may be included in Unit – II & III.
17.5.3	:	In the course, "Electrical Energy Conservation and Auditing" Unit- II & III titles may be modified. Lighting applications related to domestic loads may be included.
17.5.4	:	In the course, "Solar Photovoltaic Fundamentals and Applications" the title of the course may be changed. Design

		and implementation of solar photovoltaic in domestic applications, agriculture etc, may be included.
17.5.5	:	In the course, "Smart Grid" Unit-V title may be changed. Standards of protocols may be included. Contents such as IP based Protocols, basics of web service, cloud computing - and cyber security issues may be included in syllabus.
17.5.6	:	In the course, "Power Generation Systems", case study in Unit-V may be given. Content related to hydrogen fuel cell, onshore and offshore power generation can be included.
17.5.7	:	In the course, "Electrical Safety", Contents like Personal Protective Equipment, recent surge protection scheme for generator may be included.
17.5.8	:	In the course, "Advanced Control Theory", H_{∞} Control may be included in Unit – IV.
17.5.9	:	In the Course, "VLSI Design", FPGA applications may be given in Unit-V.
17.5.10		In the Course, "Electronics Design and Technology" Unit-III title may be renamed as OP-AMP Applications.

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. M. Bakruthen, Assistant Professor (Senior Grade)/EEE thanked all the members for their kind cooperation and the meeting came to an end.

Members Present

CHAIRMAN		
1.	Dr.M.WiljuiceIruthayarajan Professor and Head/ EEE	Board Chairman
INDUSTRIAL EXPERT		
2.	Dr. Santosh Kumar Annadurai GE T&D Ltd., GIS R&D Centre, Unit R&D Head, Padappai, Chennai.	 20/7/2022
INTERNAL MEMBERS		
3.	Dr.L.Kalaivani Professor/ EEE	 20/07/2022
4.	Dr.R.V.Maheswari Professor/ EEE	R.V.Maheswari
5.	Dr.M.Ravindran Associate Professor (S.G) / EEE	M.Ravindran
6.	Dr.N.B.Prakash Associate Professor / EEE	
7.	Dr.M.P.E.Rajamani Assistant Professor(S.G) / EEE	M.P.E.Rajamani
STUDENT MEMBERS		
8.	Mr. J. S. Jekhan, Third Year / EEE	Jekhan
EXPERT MEMBERS ATTENDED THE MEETING BY ONLINE		
9.	Dr. V. Suresh Kumar, Professor, Department of Electrical and Electronics Engineering, Thiagarajar College of Engineering, Madurai, Tamilnadu.	Academic Expert

10.	Dr. Rajesh Joseph Abraham Associate Professor, Department of Avionics, Indian Institute of Space Science and Technology, Valiamala P.O., Thiruvananthapuram, Kerala.	Academic Expert
11.	Dr. Santosh Kumar Annadurai GE T&D Ltd., GIS R&D Centre, Unit R&D Head, Padappai, Chennai.	Industrial Expert
12.	Dr. Hariram Satheesh, Principal Scientist, ABB Global Industries and Services Ltd, Bangalore.	
13.	Mr. M. Ramesh Senior Technical Engineer, Hardware Design and Development, Data Patterns India Pvt. Ltd., Chennai.	
INTERNAL MEMBER ATTENDED THE MEETING BY ONLINE		
14.	Dr.S.Dharmalingam, Adjunct Faculty/EEE	Internal member
STUDENT MEMBER ATTENDED THE MEETING BY ONLINE		
15.	Ms. J. Joyslin Janet, Third Year / EEE	Student Member


CHAIRMAN
BOARD OF STUDIES

Dr. M. WILLJUICE IRUTHAYARAJAN, ME., Ph.D.
 Professor & Head
 Department of Electrical & Electronics Engg.
 National Engineering College
 Kovilpatti - 626 503

Annexure – I

Action Taken on Suggestions from 16th BOS Meeting

Suggestions	Action Taken
The course “Electrical Drives”, Unit-III Title may be modified as Design of Controllers for DC Drives and manual for drives may be given in reference.	Unit-III title has been modified in syllabus
In the course “Power System Dynamics and Control”, reference book may be updated.	Corrections are incorporated in the Syllabus
The course “Power Electronics for Renewable Energy Systems”, generators content may be reduced in the syllabus.	
The course “EHV Power Transmission”, syllabus may be reframed to include FACTS, HVDC, Electromagnetic Fields, online condition Monitoring, etc.	
The courses “Soft Computing for Electrical Engineering” and “MEMS and NEMS, updated versions of books may be included in text and reference books.	Updated version of books has been included in syllabus
In the course “Embedded Systems”, course content may be expanded with overview of latest smart storage memories, and industry related approaches in embedded systems	The content has been included in the syllabus.
In the course “DSP Based System Design”, the contents such as Application related to signal processing, video and image processing may be included.	Application content has been included in the syllabus.
In the course, “Electric Vehicle Machines and Drive Systems”, conventional vehicle drive system and its issues may be included in Unit I. In Unit II and III, content related with motors may be given as overview.	
In the course, “Battery Management System and	

modeling”, basics of batteries may be given in Unit-I. Content related with battery charging, discharging and its performance on EV applications may be added in Unit II. EV charging station, Battery disposal and recycling techniques may be included in Unit V.

In the Course, “Control of Hybrid Electric Vehicles” analysis of Hybrid EV system may be given in detail. Case studies related to energy storage system modeling may be added.

In the Course, “Autonomous Intelligent Vehicle”, sensors related to state estimation of vehicle may be included. Radar tracking system may be added.

Corrections are incorporated in the syllabus.

M. Willjuice Iruthayarajan
EEE Board Chairman

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

Annexure – I

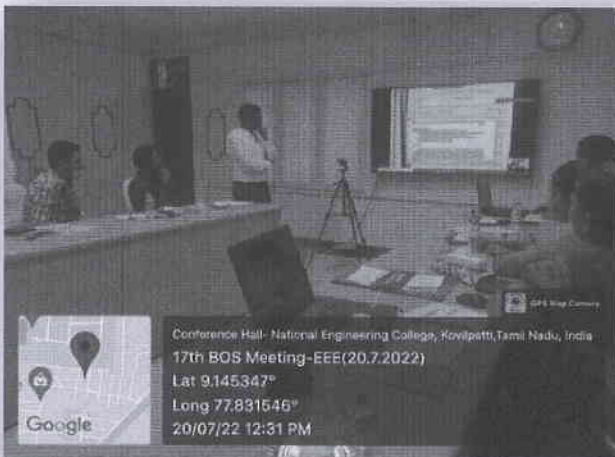
New Courses Intorduced UG (B.E. – EEE) under R 2019

The following new courses have been included in UG Curriculum of B.E. Electrical and Electronics Engineering under R2019.

1. 19EE59E - ELECTRONICS DESIGN AND TECHNOLOGY
2. 19EE27L - PYTHON PROGRAMMING IN RASPBERRY PI AND HARDWARE INTERFACING
3. 19EE28L - ARDUINO PROGRAMMING


EEE Board Chairman

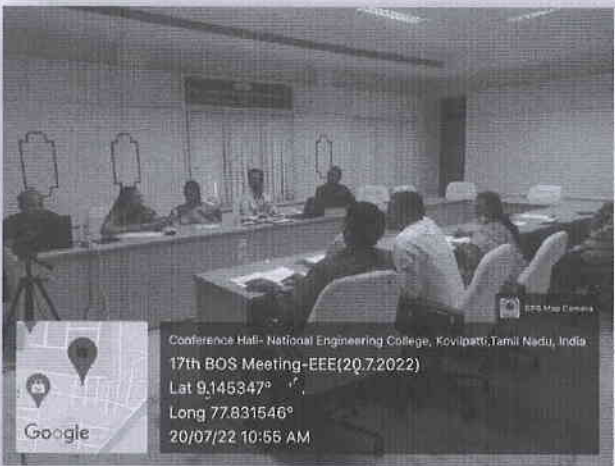
Dr. M. WILLJUICE IRUTHAYARAJAN, ME., Ph.D.
Professor & Head
Department of Electrical & Electronics Engg.
National Engineering College
Kovilpatti - 628 503



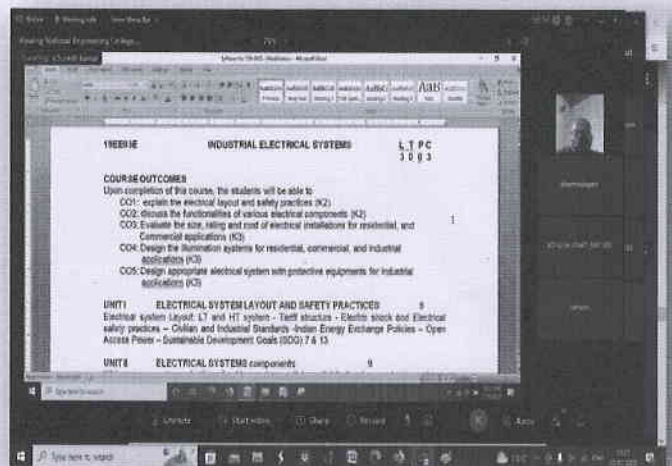
Conference Hall- National Engineering College, Kovilpatti, Tamil Nadu, India
 17th BOS Meeting-EEE(20.7.2022)
 Lat 9.145347°
 Long 77.831546°
 20/07/22 12:31 PM



Conference Hall- National Engineering College, Kovilpatti, Tamil Nadu, India
 17th BOS Meeting-EEE(20.7.2022)
 Lat 9.145347°
 Long 77.831548°
 20/07/22 10:54 AM



Conference Hall- National Engineering College, Kovilpatti, Tamil Nadu, India
 17th BOS Meeting-EEE(20.7.2022)
 Lat 9.145347°
 Long 77.831546°
 20/07/22 10:55 AM



INDUSTRIAL ELECTRICAL SYSTEMS L T P C
 3 0 0 3

COURSE OUTCOMES
 Upon completion of this course, the students will be able to:
 CO1: explain the electrical layout and safety practices (K2)
 CO2: discuss the functionalities of various electrical components (K2)
 CO3: Evaluate the size, rating and cost of electrical installations for residential, and Commercial applications (K3)
 CO4: Design the illumination systems for residential, commercial, and industrial applications (K3)
 CO5: Design appropriate electrical system with protective equipments for industrial applications (K3)

UNIT I ELECTRICAL SYSTEM LAYOUT AND SAFETY PRACTICES 9
 Electrical system layout: LT and HT systems - Tardf structure - Electric shock and Electrical safety practices - Indian and International Standards - Indian Energy Exchange Policies - Open Access Power - Sustainable Development Goals (SDG) 7 & 13

UNIT II ELECTRICAL SYSTEMS components 9

M. Willjuice
EEE Board Chairman

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

17th BOARD OF STUDIES MEETING – Department of EEE on 20.07.2022

The screenshot shows a Webex meeting interface. The main content is a presentation slide titled "SOLAR PHOTOVOLTAIC FUNDAMENTALS AND APPLICATIONS" with a course code "19EE22E" and "LTPC 3.003". The slide lists course outcomes (CO1-CO5) and two units: "UNIT I SOLAR CELL FUNDAMENTALS" and "UNIT II SOLAR CELL FABRICATION". The meeting controls at the bottom include Unmute, Start video, Share, Record, and a red 'X' button. The system tray shows the date as 20-07-2022 and time as 11:01. A notification at the top right says "Hartram left the meeting."

Viewing National Engineering College... 53% +

Speaking: V.Suresh kumar, National Engineering Coll...

19EE22E SOLAR PHOTOVOLTAIC FUNDAMENTALS AND APPLICATIONS LTPC 3.003

COURSE OUTCOMES:
Upon completion of this course, the student will be able to:
CO1: recognize the fundamentals of solar cells. (K2)
CO2: understand the various solar cell fabrication processes. (K2)
CO3: recognize the various solar PV system and their up gradations along with their benefits (K2)
CO4: design and analyze on-grid PV applications. (K3)
CO5: design off-grid PV systems and perform cost benefit analysis of PV installations. (K3)

UNIT I SOLAR CELL FUNDAMENTALS
Fundamentals of Semiconductors, energy band, doping; PN Junction, charge carriers, carrier motion, Photovoltaic effect, Device physics of solar cell-Principle of solar energy conversion, conversion efficiency – losses in solar cells, Solar radiation measurement: Pyranometer - Pyrheliometer.

UNIT II SOLAR CELL FABRICATION

V.Suresh kumar

National Engineering Colle... (CoHost)

Dr. Rajesh Joseph Abraham dharmalingam

JOYSLIN JANET_NEC_EEE ramesh

Unmute Start video Share Record

Type here to search 33°C 11:01 20-07-2022

The screenshot shows a Webex meeting interface. The main content is a presentation slide titled "Outline of the Presentation" with a list of four bullet points. The meeting controls at the bottom include Unmute, Start video, Share, Record, and a red 'X' button. The system tray shows the date as 20-07-2022 and time as 10:18. A notification at the top right says "Hartram left the meeting."

Viewing National Engineering College... 62% +

Dr. Rajesh Joseph Abrah... dharmalingam ramesh JOYSLIN JANET_NEC_EEE Hartram

National Eng... (CoHost)

Outline of the Presentation

- Confirmation of the Minutes and Action Taken for the 16th meeting of Board of studies.
- Remaining Core courses and elective courses for UG degree programmes under R-2019.
- One credit courses and Open elective courses for UG degree programmes under R-2019.
- Any other matter

Unmute Start video Share Record

Type here to search 31°C 10:18 20-07-2022

Department of Civil Engineering

MINUTES of the 14th Meeting of the Board of Studies held on
14th July 2022, 11:00 am

Venue: Through Google Meet (Online)
<https://meet.google.com/adt-tuvp-vrx>
National Engineering College, K.R.Nagar, Kovilpatti – 628503

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

Department of Civil Engineering

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

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

www.nec.edu.in

14th Board of Studies Meeting in the Department of
Civil Engineering

Venue: Through Google Meet (Online)

<https://meet.google.com/adt-tuvp-vrx>

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

Date & Time: 14.07.2022 & 11.00 am

Agenda

BoS / CIVIL14.1	:	Welcome address and Opening Remarks by Chairman, Board of studies in the department of Civil Engineering
BoS / CIVIL14.2	:	Confirmation of the Minutes of the 13 th meeting of Board of studies in the department of Civil Engineering held on 01 st December 2021 and Action taken report of 13 th meeting of Board of studies
BoS / CIVIL14.3	:	Business brought forward by the Chairman, Board of studies 14.3.1 Discussion about the syllabus of Three one credit programme elective laboratory courses for UG degree programme under regulation 2019.
BoS / CIVIL14.4	:	Any other items
BoS / CIVIL14.5	:	Suggestions given by the BoS Members

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

F. No. 1-1/NEC/Civil Engg.

14.07.2022

Dear Sir/Madam,

Sub: *Minutes of the 14th Meeting of the Board of Studies in the Civil Engineering - Reg.*

Kindly find attached herewith the Minutes of the 14th Meeting of Board of studies of the Civil Engineering of the National Engineering College, K.R.Nagar, Kovilpatti – 628503 held on 14.07.2022 at 11.00 AM through Google Meet (online). Hard copy of the Minutes is also being sent to you by speed post.

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

Yours Sincerely



Dr.C.PuthiyaSekar

Department of Civil Engineering

MINUTES OF THE MEETING

The 14th Meeting of the Board of Studies of the Civil Engineering was held on 14th July 2022 at 11:00 am through online Google Meet conducted by Civil Department, National Engineering College, K.R.Nagar, Kovilpatti- 628503.

The following members were present:

1	Dr.C.PuthiyaSekar Professor & Head	Chairman
2	Dr.C.Chella Gifta Asso.Prof-Civil	Internal Members
3	Mrs.R.Venkadalakshmi AP(SG)-Civil	
4	Mr.S.Danielraj AP-Civil	
5	Mr.Franchis David AP-Civil	
6	Mrs.M.Balamaheswari AP-Civil	
7	Ms.B.Anitha AP-Civil	
8	Mr.V.Arulpandian AP-Civil	
9	Mr.S.M. Murali Ram Kumar AP-Civil	
10	Mr.B.Gowtham AP-Civil	
11	Mr.S.Kannan AP-Civil	
12	Mr.M.Malaiappan Sindhu AP-Civil	
13	Mr.C.Gurumoorthy AP-Civil	
14	Dr.K.Chinnaraju, Professor, Department of Civil Engineering, College of Engineering Guindy campus, Anna University, Chennai-600 025.	University Nominee
15	Dr.T.Velrajan, Professor, Department of Civil Engineering, Thiagarajar college of Engineering, Madurai- 625 015.	Academic Expert
16	Dr.P.D.Arumairaj, Principal Consultant, AlzumGeoCivil Integrated Services, Thadagam Road, Coimbatore -6414 025.	Industrial Expert
17	Dr.P.Jayabalan Professor , Department of Civil Engineering, National Institute of Technology Trichy	

BoS / CIVIL 14.1	<p>: WELCOME ADDRESS AND OPENING REMARKS BY CHAIRMAN, BOARD OF STUDIES IN THE DEPARTMENT OF CIVIL ENGINEERING</p> <p>The Chairman, BoS of the Civil Engineering welcomed and introduced the members of 14th Board of Studies and thanked each one of them for sparing their valuable time to attend the meeting.</p>
BoS / CIVIL 14.2	<p>: TO CONFIRM THE MINUTES OF TWELFTH BOS MEETING HELD ON 01ST DECEMBER, 2021</p> <p>The minutes of the Thirteenth Board of Studies meeting held on 01st December, 2021 were communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 16th Academic council meeting.</p> <p>➤ Action Taken Report (Enclosed in Annexure I)</p>
BoS/CIVIL 14.3	<p>: TO CONFIRM AND APPROVE THE SYLLABUS OF THREE ONE CREDIT PROGRAMME ELECTIVE LABORATORY COURSES FOR UG DEGREE PROGRAMME UNDER REGULATION 2019.</p> <p>RESOLVED TO approve the Syllabus of three One Credit Programme Elective Laboratory Courses for UG Degree Programme Under Regulation 2019.</p>
BoS / CIVIL 14.4	<p>: ANY OTHER ITEMS, IF ANY, WITH THE PERMISSION OF THE CHAIRMAN OF THE BOS</p> <p>The BoS members had a discussion with the internal members regarding the Curriculum & the syllabus of Programme Eletive Courses under R-2019.</p>
BoS / CIVIL 14.5	<p>: SUGGESTIONS GIVEN BY THE BOS MEMBERS</p>

The suggestions given by the BoS Members on the three one credit programme elective courses are given by.

- 14.5.1 BOS members reviewed the syllabus content and enquired whether the syllabus is different from Basic C Programming learnt in the first year.
- 14.5.2 BOS members reviewed the syllabus content and enquired whether the coding subject is introduced first time in civil engineering curriculum.

- 14.5.3 In C programming application for Civil Engineering I, the question No 11 is based on function level and it is suggested to move the question to C programming application for Civil Engineering II
- 14.5.4 BoS Members suggested to include the course called, Python Programming for Civil Engineering in the curriculum of R 2019 for industry readiness to get software related jobs.
- 14.5.5 In C programming application for Civil Engineering I, the input parameters are mentioned in MKS units in question No 7. BoS Members suggested to use only SI units instead of MKS units in the problem statement .

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

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

- a) The Syllabus of three One Credit Programme Elective Laboratory Courses for UG Degree Programme Under Regulation 2019.

Mr.B.Gowtham AP-Civil thanked all the members for their kind cooperation and the meeting came to an end.

External Members Present Online:

1.	Dr.K.Chinnaraju, Professor, Department of Civil Engineering, College of Engineering Guindy campus, Anna University, Chennai-600 025.	University Nominee
2.	Dr.T.Velrajan, Professor, Department of Civil Engineering, Thiagarajar college of Engineering, Madurai- 625 015.	Academic Expert
3.	Dr.P.Jayabalan, Professor, Department of Civil Engineering, National Institute of Technology, Trichy.	Industrial Expert
4.	Dr.P.D.Arumairaj, Principal Consultant, AlzumGeoCivil Integrated Services, Thadagam Road, Coimbatore -6414 025.	Industrial Expert

Internal Members Present Online

Dr.C.PuthiyaSekar Professor & Head Department of civil Engineering	Chairman
Dr.C.Chella Gifta Asso.Prof-Civil	Internal Members
Mrs.R.Venkadalakshmi AP(SG)-Civil	
Mr.S.Danielraj AP-Civil	
Mr.Franchis David AP-Civil	
Mrs.M.Balamaheswari AP-Civil	
Ms.B.Anitha AP-Civil	
Mr.V.Arulpandian AP-Civil	
Mr.S.M. Murali Ram Kumar AP-Civil	
Mr.B.Gowtham AP-Civil	
Mr.S.Kannan AP-Civil	
Mr.M.Malaiappan Sindhu AP-Civil	
Mr.C.GurumoorthyAP-Civil	



CHAIRMAN

BOARD OF STUDIES

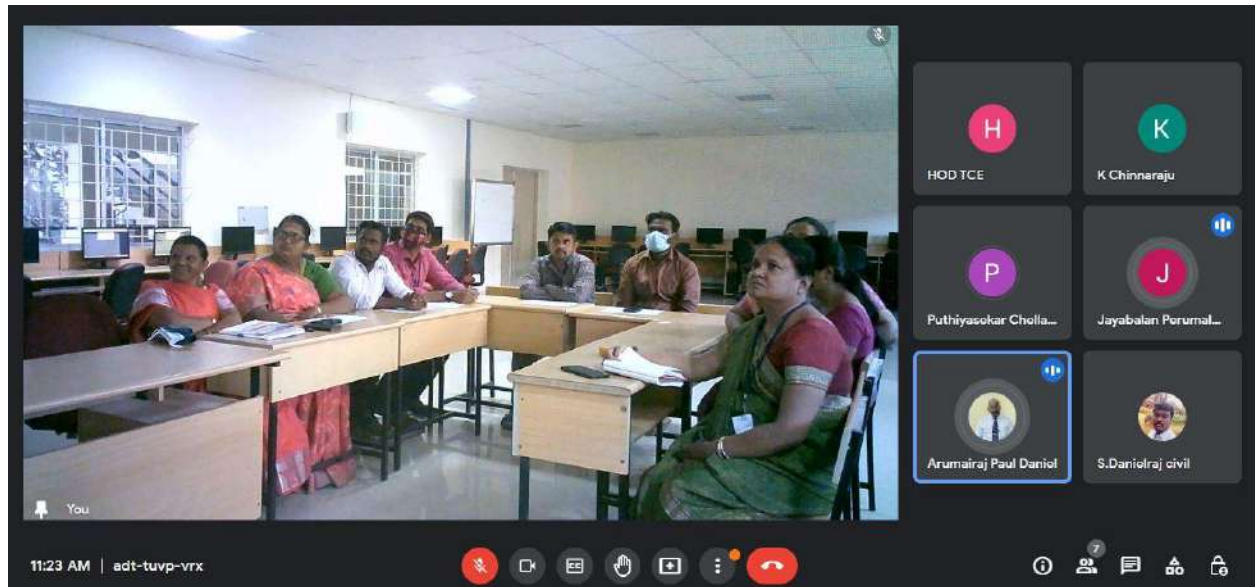
ANNEXURE I

Action taken for Minutes of 13th BoS Meeting

As per BoS Committee Suggestions,

1. The CO statements are modified with suitable verbal words and reframed the CO statement matching exactly with the content available in each unit.
2. For Remote Sensing and GIS for Engineering applications theory course, it is included more content relevant to the GIS application (Water shed management, Corporation Planning) for a Civil Engineering Students and less in Remote sensing area.
3. In Total Station and GPS Surveying Course, it is offered only the basic principles involved in EDM for this outdated technology .
4. It is included that Setting out of Buildings using total station and GPS in Serial No 8 of Total Station and GPS laboratory.

17th BOARD OF STUDIES MEETING – Department of Civil Engineering On
14.07.2022



Department of Information Technology

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

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

www.nec.edu.in

17th Board of studies Meeting in the Department of
Information Technology

Venue: Department of IT, National Engineering College
K.R.Nagar, Kovilpatti – 628503

Date & Time: 02.07.2022 & 11.00 a.m.

Agenda

BoS / IT 17.1	:	Welcome address and Opening Remarks by Chairman, Board of studies in the department of Information Technology
BoS / IT 17.2	:	Confirmation of the Minutes of the 16 th meeting of Board of studies in the department of Information Technology held on 25 th NOV 2021 and Action taken report of 16 th meeting of Board of studies
BoS / IT 17.3	:	Business brought forward by the Chairman, Board of studies 17.3.1 Additional One credit courses for UG degree programmes under R-2019 17.3.2 B.Tech. - Artificial Intelligence and Data Science - Curriculum and Syllabi of UG degree programme under R-2019 17.3.3 Approval for inclusion of Mandatory Elective Course Professional Readiness for Innovation, Employability and Entrepreneurship degree programme under R-2019 17.3.4 Approval for list of examiners for project viva voce examinations
BoS / IT 17.4	:	Any other items
BoS / IT 17.5	:	Suggestions given by the BoS Members

Department of Information Technology

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

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

www.nec.edu.in

F. No. 17.1/NEC/ IT/2021-22

02nd July, 2022

Dear Sir/Madam,

Sub: Minutes of the 17th Meeting of the Board of studies in the Information Technology - Reg.

Kindly find attached herewith the Minutes of the 17th Meeting of Board of studies of the Information Technology of National Engineering College, K.R.Nagar, Kovilpatti – 628503 held on 02nd July, 2022 at 11.00 AM. Hard copy of the minutes is also being sent to you by speed post.

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

Yours Sincerely

(Dr.K.G.Srinivasagan)

Department of Information Technology

MINUTES of 17th Meeting of the Board of studies held on
02nd July, 2022 at 11.00 AM

Venue: Department of IT, National Engineering College
K.R.Nagar, Kovilpatti – 628503

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

Department of Information Technology

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 17th Meeting of the Board of studies of the Information Technology was held on 02nd July 2022 at 11.00 AM through Google Meet.

1. The following members were present:

1.	Dr.K.G.Srinivasagan	Chairman
2.	Dr.R.Muthukumar, Asso. Prof.	Internal Members
3.	Dr.S.Chidambaram, Asst. Prof. (SG)	
4.	Dr.S.Rajagopal, Asst. Prof. (SG)	
5.	Dr.V.Jackins, Asst. Prof. (SG)	
6.	Mr.G.Pandiyarajan, Asst. Prof.	
7.	Ms.V.Anitha, Asst. Prof.	
8.	Ms.S.Santhi, Asst. Prof.	
9.	Dr.S.Swamynathan, Professor, Department of Information Science &Technology, Anna University, Chennai.	University Nominee
10.	Dr.P.Yogesh, Professor, Department of Information Science &Technology, Anna University, Chennai.	Academic/Alumni Expert
11.	Dr. Shajulin Benedict, Assistant Professor, Department of Computer Science and Engineering, IIT - Kottayam.	Special Invitee
12.	Dr. Debasis Samanta, Associate Professor Department of Computer Science & Engineering, IIT - Kharagpur.	Special Invitee
13.	Mr.Antony Arravindh, Senior Project Manager, HCL Technologies, Chennai.	Alumni/Industrial Expert
14.	Dr.K.M.Suceendran, General Manager, Tata Consultancy Services, Chennai.	Industrial Expert
15.	Anandh.A, Third year	Student Members
16.	Anto Rosario.S, Third year	

BoS / IT 17.1	:	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 17 th Board of Studies and thanked each one of them for sparing their valuable time to attend the meeting.
BoS / IT 17.2	:	TO CONFIRM THE MINUTES OF SIXTEENTH BOS MEETING HELD ON 25 th NOV, 2021.
		<p>The minutes of the Sixteenth Board of Studies meeting held on 25th Nov, 2021 were communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 16th Academic council.</p> <p>➤ Action Taken Report</p> <p>(Enclosed in <i>Annexure I</i>)</p>
BoS / IT 17.3.1		TO CONFIRM AND APPROVE ADDITIONAL ONE CREDIT COURSES FOR UG DEGREE PROGRAMMES UNDER R-2019
		RESOLVED TO APPROVE additional one credit courses for UG degree programmes under R2019
BoS / IT 17.3.2		TO CONFIRM AND APPROVE B.TECH. - ARTIFICIAL INTELLIGENCE AND DATA SCIENCE - CURRICULUM AND SYLLABI OF UG DEGREE PROGRAMME UNDER R-2019
		RESOLVED TO APPROVE B.Tech. - Artificial Intelligence and Data Science - Curriculum and Syllabi of UG degree

		programme under R-2019
BoS / IT 17.3.3		TO CONFIRM AND APPROVE INCLUSION OF MANDATORY ELECTIVE COURSE "PROFESSIONAL READINESS FOR INNOVATION, EMPLOYABILITY AND ENTREPRENEURSHIP" DEGREE PROGRAMME UNDER R-2019
		RESOLVED TO APPROVE inclusion of Mandatory Elective Course Professional Readiness for Innovation, Employability and Entrepreneurship degree programme under R-2019
BoS / IT 17.3.4		TO CONFIRM AND APPROVE LIST OF EXAMINERS FOR PROJECT VIVA VOCE EXAMINATIONS
		RESOLVED TO APPROVE list of examiners for project viva voce examinations
BoS / IT 17.4	:	SUGGESTIONS GIVEN BY THE BOS MEMBERS
17.4.1	:	One Credit Courses
		In Arduino Programming , some basic concepts may be included.
		In Mathematics for Machine Learning , some Python based tools may be used to explore statistical concepts. Content is heavy for offering as one credit, and it may be provided as a three credit course.
		In Network Simulation with NS3 one credit course contents related to NS4 may also be included.
		In Python for Data Science , some popular dataset may be specified. In reference books, year may be mentioned.
		In Node JS , some introduction about meanstack development may be provided.

		In Introduction to NoSQL with MongoDB , case study based exercises related to social media applications and IoT based applications may be included
17.4.2	:	Artificial Intelligence and Data Science
		Syllabus of Physics for Information Sciences is exactly same as Digital systems . Either the title should be changed to the syllabus must be updated
		In Data Structures course , syllabus may be framed with some lighter content. In subsequent lab exercises, programs mentioning specific sorting algorithms may be given.
		Courses like Design and Analysis of Algorithms is considered to be given too early in semester 3 and Theory of Computation is too late to be offered in semester 5.
		Before offering Deep Learning course in Semester 6, at least one course may be given on Artificial Neural Network .
		Courses like Computer Networks and Information security must be offered in curriculum.
		As per suggestions from BoS members the first semester subjects in AI&DS may be kept light-weighted following uniformity.
17.4.3	:	Mandatory Elective Course on Professional Readiness for Innovation, Employability and Entrepreneurship may be recommended.
17.4.4		List of examiners to be approved for project viva voce examinations, may be confined to Associate Professor and Professors.

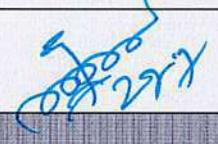



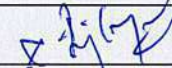
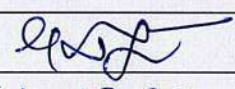
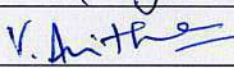
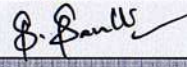
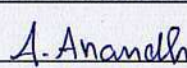
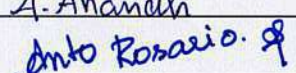
The members had a brainstorming discussion and interaction among themselves. After discussion, fruitful suggestions were incorporated.

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

- a) Additional One credit courses for UG degree programmes under R-2019
- b) B.Tech. - Artificial Intelligence and Data Science - First year Curriculum and Syllabi of UG degree programme under R-2019
- c) Approval for inclusion of Mandatory Elective Course "Professional Readiness for Innovation, Employability and Entrepreneurship" degree programme under R-2019
- d) To get approval for list of examiners for project viva voce examinations

Ms.S.Santhi, Asst. Prof., thanked all the members for their kind cooperation and the meeting came to an end.

Members Present:


Dr.K.G.Srinivasagan, Prof & Head ,Board Chairman	
Industrial Expert	
Dr.K.M.Suceendran, General Manager, Tata Consultancy Services, Chennai.	
Internal Members	
Dr.R.Muthukkumar, Asso. Prof.	
Dr.S.Chidambaram, Asst. Prof. (SG)	
Dr.S.Rajagopal, Asst. Prof. (SG)	
Dr.V.Jackins, Asst. Prof. (SG)	
Mr.G.Pandiyarajan, Asst. Prof.	
Ms.V.Anitha, Asst. Prof.	
Ms.S.Santhi, Asst. Prof.	
Student Members	
Anandh.A, Third year	
Anto Rosario.S, Third year	

Members Present Online:

1.	Dr.S.Swamynathan, Professor, Department of Information Science &Technology, Anna University, Chennai.	University Nominee
2.	Dr.P.Yogesh, Professor, Department of Information Science &Technology, Anna University, Chennai.	Academic Experts

Members Present Online:

1.	Dr.S.Swamynathan, Professor, Department of Information Science &Technology, Anna University, Chennai.	University Nominee
2.	Dr.P.Yogesh, Professor, Department of Information Science &Technology, Anna University, Chennai.	Academic Experts
3.	Dr. Shajulin Benedict, Assistant Professor, Department of Computer Science and Engineering, IIIT - Kottayam.	Special Invitee
4.	Dr. Debasis Samanta, Associate Professor Department of Computer Science & Engineering, IIT - Kharagpur.	
5.	Mr.Antony Arravindh, Senior Project Manager, HCL Technologies, Chennai.	Industrial Experts and Alumni


CHAIRMAN
BOARD OF STUDIES

ANNEXURE I

Actions taken for Minutes of 16th BoS Meeting

As per BOS Committee suggestion,

- Curriculum Restructuring
 - One core course from seventh semester is shifted to sixth semester
 - One elective course from sixth semester is shifted to seventh semester
- Syllabus Reformation – Product Development Laboratory
- Specialization course to be offered in UG degree programme under R-2019
 - Data Science
- Credit Transfer for other online courses like udemy, coursera etc., and norms for credit transfer
- End Semester Examination - Reforms



CHAIRMAN

BOARD OF STUDIES

Anitha Antony Dr. Shajulin Benedict Debasis Samanta Anitha



National Engineering College
(An Autonomous Institution Affiliated to Anna University, Chennai)

**Department
of
Information Technology**

**Welcome all experts for the
17th Board Of Studies Meeting
(02.07.2022)**

Activate Windows
Go to PC settings to activate Windows

nec4982.webex.com is sharing your screen. Stop sharing Hide

Anitha Antony Dr. Shajulin Benedict Debasis Samanta Anitha

AGENDA – 17th BoS Meeting

- Additional One credit courses for UG degree programme under R-2019
- B.Tech. - Artificial Intelligence and Data Science - Curriculum and First year
Syllabi of UG degree programme under R-2019
- Approval for inclusion of Mandatory Elective Course "Professional Readiness for Innovation, Employability and Entrepreneurship"
- Approval for list of examiners for project viva voce examinations
- Any other matter

Activate Windows
Go to PC settings to activate Windows

3 Department of Information Technology nec4982.webex.com is sharing your screen. Stop sharing Hide 7/2/2022

DEPARTMENT OF SCIENCE AND HUMANITIES

MINUTES of 5th Meeting of the Board of studies held on
16th July 2022 at 10.00 am

Venue: Seminar Hall, Department of Science and Humanities
National Engineering College, K.R.Nagar, Kovilpatti

Online Meet: Cisco Webex

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

NATIONAL ENGINEERING COLLEGE, K.R.NAGAR, KOVILPATTI – 628 503
(An Autonomous Institution - Affiliated to Anna University, Chennai)
www.nec.edu.in

5th Board of Studies Meeting in the Department of
SCIENCE AND HUMANITIES

Venue: Seminar Hall, Department of Science and Humanities
National Engineering College, K.R.Nagar, Kovilpatti – 628 503

Cisco WebexLink:

<https://nec4962.webex.com/nec4962/j.php?MTID=m9c2c0276e245726bf288e0f1de9ab411>

Date & Time: 16.07.2022& 10.00 AM

AGENDA

S & H /BoS 5.1	:	Welcome address and Opening Remarks by Chairman, Board of studies, Department of Science and Humanities.
S & H / BoS 5.2	:	Confirmation of the Minutes of the 4 th meeting for the first year UG Degree Programmes in the Department of Science and Humanities held on November 23 rd , 2018
S & H / BoS 5.3	:	Business brought forward by the Chairman, Board of studies 5.3.1. First year Curriculum and Syllabi of B.Tech. – Artificial Intelligence and Data Science under R-2019
S & H / BoS 5.4	:	Transdisciplinary courses
S & H / BoS 5.5	:	Suggestions given by the BoS Members

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

F. No. 1-1/NEC/S & H

16th July 2022

Dear Sir/Madam,

Sub: Minutes of the 5th Meeting of the Board of studies in Science and Humanities-Reg.

Kindly find the attachment herewith the Minutes of the 5th Meeting of Board of studies, Department of Science and Humanities, National Engineering College, K.R.Nagar, Kovilpatti – 628 503 held on 16th July 2022 at 10.00 AM in the Seminar Hall of Department of Science and Humanities.

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

Yours Sincerely



Dr.M.A.Neelakantan

MINUTES OF THE MEETING

The 5th Meeting of the Board of studies of the Science and Humanities was held on 16th July 2022 at 10.00 AM through Cisco Webex online meet of the National Engineering College, K.R.Nagar, Kovilpatti – 628 503

1. The following members were present:

Dr.M.A.Neelakantan Professor & Head	CHAIRMAN
Dr.S. Thalamuthu, Asso.Professor/Chemistry	INTERNAL MEMBERS
Dr.S.Geetha, AP (SG) / Mathematics	
Dr.P.Gomathy, AP (SG) / Physics	
Mrs.S.Rajeswari, AP/Mathematics	
Mrs.M.Annapooopathi, AP/Mathematics	
Dr.S.Chithirai Kumar, AP / Chemistry	
Mr.S.Subash, AP/English	
Dr.A.Nichelson, AP/Physics	
Dr.B.Annaraj, AP / Chemistry	
Ms.S.Thangam, AP / English	
Dr. S. Sanjeevi, Professor, Department of Geology, Anna University, Chennai.	UNIVERSITY NOMINEE
Dr. S.P. Dhanavel, Professor, Department of English, Indian Institute of Technology Madras, Chennai.	ACADEMIC EXPERTS
Dr. N. Rajendran, Professor and Head, Department of Chemistry, Anna University, Chennai.	
Dr. N. Gopalakrishnan, Professor, Department of Physics, National Institute of Technology, Tiruchirapalli.	
Dr. V. Lakshmana Gomathi Nayagam, Associate Professor, Department of Mathematics, National Institute of Technology, Tiruchirapalli.	
Mr.Brijesh Tangi, Specialist Engineer, Canadian National Rail, Canada.	Meritorious Alumnus Nominated by the Principal

Mr. S. Rathina Kumar, Kavitha Match Industries, Manufacturing and Exporters of safety matches, Kovilpatti.	Industrial Expert
Ms.M. Karpagalakshmi , Final year IT	Student Members Nominated by the HOD
Mr.S.Suriya Manikandan, III year ECE	

S & H / BoS 5.1:	Welcome address and Opening Remarks by Chairman, Board of Studies in the Department of Science and Humanities. The Chairman BoS of the Science and Humanities welcomed and introduced the Members of the 5 th Board of Studies and thanked each one of them for sparing their valuable time for attending the meeting.
S & H / BoS 5.2:	TO CONFIRM THE MINUTES OF FOURTH BOS MEETING HELD ON NOVEMBER 23 rd 2018 The minutes of the Fourth Board of Studies meeting held on November 23 rd 2018 was communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 17 th Academic council.
S & H / BoS 5.3:	TO CONFIRM AND APPROVE the syllabi of the first year UG degree programme (Based on OBE & CBCS) B.Tech. – Artificial Intelligence and Data Science to be offered under R-2019. RESOLVED TO APPROVE the syllabi of the first year UG degree programme (BASED ON OBE & CBCS) B.Tech. – Artificial Intelligence and Data Science to be offered under R-2019 ➤ <u>R-2019 B.Tech. – AI & DS Syllabi</u> (Enclosed in Annexure)
S & H / BoS 5.4:	TO CONFIRM AND APPROVE the syllabi of transdisciplinary courses 1) Impact of Social Media on Society 2) Soft Skills and Interpersonal Communication are to be offered under R-2019. RESOLVED TO APPROVE the syllabi of transdisciplinary courses 1) Impact of Social Media on Society 2) Soft Skills and Interpersonal Communication are to be offered under R-2019.

S & H / BoS 5.5:	SUGGESTIONS GIVEN BY THE BOS MEMBERS
------------------	---

	Suggestions	Action Taken
5.5.1	English	
	<ul style="list-style-type: none"> ▪ It was advised to change the title COs into Units ▪ Suggestions were given to change the topic from 'PowerPoint Presentation' into Making Presentations or Practicing Presentation Skills. 	<ul style="list-style-type: none"> ▪ As per the suggestions, the title COs was changed into Units ▪ The title was changed into 'Making Presentations'
5.5.2	Mathematics	
	<ul style="list-style-type: none"> ▪ It was suggested to add reference book for Statistics. ▪ It was advised to change the title COs into Units ▪ Suggestions were given to pay attention on application – oriented contents in the syllabus 	<ul style="list-style-type: none"> ▪ "<i>Mathematical Statistics with Applications by John E. Freund's</i>" has been added as a reference book in the second semester. ▪ As per the suggestions, the title COs were changed into Units ▪ Case Study on sampling theory has been included.
5.5.3	Physics	
	<ul style="list-style-type: none"> ▪ It was suggested to change the "References" as "Reference Books" ▪ It was advised to include the logic gates experiment ▪ It was suggested to change the title of the subject "Physics for Information Science" 	<ul style="list-style-type: none"> ▪ The title "References" changed as "Reference Books" ▪ An experiment entitled 'Study of Logic Gates using Transistors' has been included. ▪ The title has been changed into 'Principles of Digital Electronics'
5.5.4	Chemistry	
	<ul style="list-style-type: none"> ▪ It was advised to change the subject title "Chemistry and Life Science". ▪ It was suggested to change the title of the laboratory course from "Biochemistry lab" into "Chemistry lab" 	<ul style="list-style-type: none"> ▪ The title has been changed to "Chemistry for Artificial Intelligence and Data Science" ▪ The title has been changed into "Chemistry Lab".
5.5.5	Transdisciplinary Courses	
	<ul style="list-style-type: none"> ▪ It was informed to change the preposition in the title "Impact of Social Media in Society". 	<ul style="list-style-type: none"> ▪ The title is changed as "Impact of Social Media on Society".






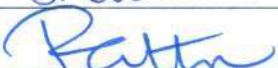



The members had a brainstorming discussion and interaction among themselves. After discussion, fruitful suggestions were incorporated appropriately in the Curriculum and Syllabi.

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 B.Tech. – AI & DS degree programme offered under Regulations 2019.

Dr.S.Geetha, Assistant Professor (SG) / Mathematics thanked all the members for their kind cooperation and the meeting came to an end.

Members Present

CHAIRMAN		
1.	Dr.M.A.Neelakantan Professor & Head	 16.7.22
ACADEMIC EXPERT		
2.	Dr. N. Rajendran, Professor and Head, Department of Chemistry, Anna University, Chennai.	 16/07/22
INDUSTRIAL EXPERT		
3.	Mr. S. Rathina Kumar Kavitha Match Industries Manufacturing and Exporters of safety matches Kovilpatti	
INTERNAL MEMBERS		
4.	Dr.S. Thalamuthu Asso.Professor / Chemistry	
5.	Dr.S.Geetha AP (SG) / Mathematics	
6.	Dr.P.Gomathy , AP (SG) / Physics	
7.	Mrs.S.Rajeswari, AP/Mathematics	
8.	Mrs.M.Annapooathi, AP/Mathematics	
9.	Dr.S.Chithirai Kumar, AP / Chemistry	

10.	Mr.S.Subash AP/English	<i>S. Subash</i>
11.	Dr.A.Nichelson AP/Physics	<i>A. Nichelson</i>
12.	Dr.B.Annaraj, AP / Chemistry	<i>B. Annaraj</i>
13.	Ms.S.Thangam,AP / English	<i>S. Thangam</i>
STUDENT MEMBERS		
14.	Ms.M. Karpagalakshmi , Final year IT	<i>Karpagalakshmi</i>
15.	Mr.Suriya Manikandan, III yearECE	<i>Suriya Manikandan</i>
ACADEMIC EXPERT MEMBERS ATTENDED THE MEETING BY ONLINE		
16.	Dr. S. Sanjeevi, Professor, Department of Geology, Anna University, Chennai	UNIVERSITY NOMINEE
17.	Dr. S.P. Dhanavel, Professor, Department of English, Indian Institute of Technology Madras, Chennai	ACADEMIC EXPERTS
18.	Dr. V. Lakshmana Gomathi Nayagam, Associate Professor, Department of Mathematics, National Institute of Technology, Tiruchirapalli	
19.	Dr. N. Gopalakrishnan Professor, Department of Physics, National Institute of Technology, Tiruchirapalli	
20.	Mr.Brijesh Tangi Specialist Engineer Canadian National Rail Canada	Meritorious Alumnus

[Signature]
16.7.22

**CHAIRMAN
BOARD OF STUDIES**

**5th BOARD OF STUDIES MEETING – Department of Science and Humanities On
16.07.2022**

5th BOS DISCUSSION AND APPROVAL
16.07.2022

B.Tech – Artificial Intelligence and Data Science
I Year Curriculum and Syllabi
R2019

Dhanavel Brijesh Tangi sanjeevi

CO2: demonstrate the voltage - current characteristics of different diodes (K3)
CO3: analyze the characteristics of transistors (K3)

LIST OF EXPERIMENTS

1. Determination of angle of divergence of laser beam and acceptance angle, numerical aperture of optical fibre.
2. Determination of wavelength of laser using grating and particle size of lycopodium powder
3. Determination of V-I characteristics of PN junction diode
4. Determination of V-I characteristics of Zener junction diode
5. Determination of V-I characteristics of light emitting diode
6. Determination of characteristics of BJT
7. Determination of characteristics of FET

A minimum of FIVE experiments shall be offered.

REFERENCES

Dhanavel GOPALA KRISH... sanjeevi Lakshmana Gom...

Department of Mechanical Engineering

MINUTES of 18th Meeting of Board of Studies held on
23th December, 2022 at 10.30 a.m.

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

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

(An Autonomous Institution Affiliated to Anna University, Chennai)

www.nec.edu.in

**18th Board of Studies Meeting
Department of Mechanical Engineering**

Venue: Conference Hall,
National Engineering College

Date & Time: 23.12.2022 & 10.30 a.m.

AGENDA

BoS / MECH18.1	:	Welcome address and Opening Remarks by Chairman, Board of Studies, Department of Mechanical Engineering
BoS / MECH18.2	:	Action taken report of 17 th meeting of Board of Studies
BoS / MECH18.3	:	Business brought forward by the Chairman, Board of studies
	18.3.1	Verticals for awarding Honours, Honours with specialization and Minor degree under R 2019.
	18.3.2	Syllabus for Professional Elective Courses for UG degree Programmes under R-2019
	18.3.3	Additional Elective courses for PG degree programmes under R-2019.
BoS / MECH18.4	:	Suggestions given by the BOS Members
BoS / MECH18.5	:	Any other items

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

F. No. 1-1/NEC/ MECH

23rd December, 2022

Dear Sir/Madam,

Sub: *Minutes of the 18th Meeting of Board of Studies in the Mechanical Engineering - Reg.*

Kindly find attached herewith the Minutes of the 18th Meeting of Board of Studies of Mechanical Engineering of National Engineering College, K.R.Nagar, Kovilpatti – 628503 held on 23rd December 2022 at 10.30 a.m. in Conference Hall, National Engineering College. Hard copy of the Minutes is also being sent to you by speed post.

It is requested that comments on the Minutes, if any, may please be sent by email at hodmech@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,

h.u - 82
23/12/22
(Dr.K.Manisekar)

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

Department of Mechanical Engineering

MINUTES OF THE MEETING

The 18th Meeting of the Board of Studies of the Mechanical Engineering was held on 23rd December 2022 at 10.30.00 a.m.in the Conference Hall, National Engineering College, K.R.Nagar, Kovilpatti – 628 503

1. The following members were present

1.	Dr.K.Manisekar, Professor & Head, Department of Mechanical Engg.	Chairman
2.	Dr. K. Srithar, Professor, Department of Mechanical Engineering, Thiagarajar College of Engineering, Madurai – 625015.	University Nominee
3.	Dr. M. Venkata Ramanan, Professor & Director Institute for Energy Studies, CEG, Anna University, Chennai–600025	Academic Experts
4.	Dr.-Ing. M. Duraiselvam, Professor / Production Engineering, National Institute of Technology, Tiruchirappalli	
5.	Dr.A.Arockiarajan, Professor / Applied Mechanics, Indian Institute of Technology Madras, Chennai	
6.	Dr. K. Murugan, Scientist –E, Centre for Sol-Gel Coatings, ARCI, Hyderabad – 500 005, Telangana.	Meritorious Alumnus Nominated by the Principal
7.	Mr. R. Kanda Subburaj, Managing Director, Gulf Asia Engineering and Projects Pvt. Ltd, Chennai.	Industrial Experts
8.	Mr. Sivaram Sundaram, Senior Director, Comcast India Engineering Centre, Thoraipakkam, Chennai - 97	

9.	Dr.S.Iyah Raja, Professor / Mechanical Engineering	Internal Members
10.	Dr. D.Venkat Kumar, Professor / Mechanical Engineering	
	Dr. R.Harichandran, Professor / Mechanical Engineering	
11.	Dr. M.Kathiresan, Professor / Mechanical Engineering	
12.	Dr. P.Ramanan, Assistant Professor (S.G) / Mechanical Engineering	
13.	Dr. D.Vignesh Kumar, Assistant Professor (S.G) / Mechanical Engineering	
14.	Dr.F.Michael Thomas Rex, Assistant Professor (S.G) / Mechanical Engineering	
15.	Dr. W.Beno Wincy, Assistant Professor / Mechanical Engineering	
16.	Mr. S.R. Sundara Bharathi, Assistant Professor / Mechanical Engineering	
17.	Mr. K.Thoufiq Mohammed, Assistant Professor / Mechanical Engineering	
18.	Mr.C.Veera Ajay, Assistant Professor / Mechanical Engineering	Student Members
19.	S. Manivannan, IV Year / Mechanical Engineering	
20.	S. Keerthivasan, IV Year / Mechanical Engineering	
21.	R.T. Ezhil Azhagan, III Year / Mechanical Engineering	

2. The following member could not attend the meeting due to their prior commitments and unavoidable reasons and they were granted leave of absence.

1.	Mr.P.Muniyandi, Principal Scientific Officer, Controllerate of Quality Assurance (Ordnance Factory Vehicles) Jabalpur- 482009, Madhya Pradesh.	Industrial Experts
2.	Mr.P.S.Sriram, Joint Executive President Ultratech in Aditya Birla Group, Pune, Maharashtra.	

BoS / MECH 18.1	:	WELCOME ADDRESS AND OPENING REMARKS BY CHAIRMAN, BOARD OF STUDIES, DEPARTMENT OF MECHANICAL ENGINEERING
		The Chairman, BOS of the Mechanical Engineering welcomed and introduced the members of 18 th Board of Studies and thanked each one of them for sparing their valuable time to attend the meeting.
BoS / MECH 18.2	:	TO CONFIRM THE MINUTES OF SEVENTEENTH BOS MEETING HELD ON 09 th July, 2022
		The minutes of the Seventeenth Board of Studies meeting held on 09 th July, 2022 were communicated to the members. The comments given by the members have been incorporated and placed for confirmation. The same was approved by the 17 th Academic council. (Enclosed in Annexure – I)
BoS / MECH 18.3.1	:	TO CONFIRM AND APPROVE Verticals for awarding Honours, Honours with specialization and Minor degree under R 2019. (Enclosed in Annexure – II)
BoS / MECH 18.3.2	:	TO CONFIRM AND APPROVE Syllabus for Professional Elective Courses for UG degree programmes under R-2019. <ul style="list-style-type: none"> • Surface Engineering • Precision Engineering • Warehouse Management • Material Handling Equipments Repair and Maintenance • Energy Efficient Buildings (Enclosed in Annexure – III)
BoS / MECH 18.3.3	:	TO CONFIRM AND APPROVE Additional Elective courses for PG degree programmes under R-2019. <ul style="list-style-type: none"> • Solar Energy Conservation Technologies • Computational Fluid Dynamics for Energy Systems (Enclosed in Annexure – IV)
BoS / MECH 18.4	:	Suggestions Given by the Members
18.4.1	:	Regulations for Honours, Honours with Specialization and Minor Degree were presented to the BoS Members

	<p>Minor Degree – Basic Courses of Mechanical Engineering can be offered in the department so that other department students can take up the courses.</p>
<p>18.4.2 :</p>	<ul style="list-style-type: none"> • Hydrogen Energy, Energy Conservation in Industries and Hybrid E Vehicles can be Added in the Vertical “1”, “Clean and Green Technology”. • Energy Storage System can be added in the vertical “Thermal System” and “Applied Nano Technology” can be common course for the Vertical “1 & 2”. • Internal Combustion Engines can be removed from the vertical “2” Thermal System. • Digital Electronics for Engineers in the vertical “Modern Mobility Systems” can be renamed as Fundamental of Digital Electronics for Mechanical Engineers. • Modeling and Simulation in the vertical “5” is more generic and it could common for vertical “5&6”. • Marketing Management can be added in the vertical “7” and Statistical Quality Control can be removed and a separate unit can be included in the Total Quality Management. <p>Precision Engineering</p> <ul style="list-style-type: none"> • Unit I – Introduction, Requirements of the course, Importance for the defence and space can be added. • Unit V Syllabus – is enormous and it can be reduced. <p>Surface Engineering</p> <ul style="list-style-type: none"> • Surface modification technologies can be fully concentrated and the syllabus can be reoriented. • Process based units may be framed like coating and Thermal Spray Based on Process Texturing etc. • Industrial Safety Engineering course may be added in the vertical 7 “Industrial Management” <p>Material Handling Equipments</p> <ul style="list-style-type: none"> • Conveyor and its types can be added in unit II • Use of computer in maintenance Can be redefined

		<ul style="list-style-type: none"> • Drone and Robot Material handling may be added • The word quarries can be removed in Unit II <p>Ware House management</p> <ul style="list-style-type: none"> • Unit II Title rename as “Retail Warehousing” • Role of Government in warehousing can be changed as “Regulations in ware housing” <p>Energy Efficient Buildings</p> <ul style="list-style-type: none"> • Unit I – Introduction should be modified. • Building Management system and Building Automation may be added. • Unit V can be modified for the “Renewable Energy in Buildings” <p>Solar Energy Conservation Technologies</p> <ul style="list-style-type: none"> • Design of PV Systems in unit V is to be added in Unit III and Unit IV. • Unit V to be titled as “Solar Appliances” wherein all solar energy appliances are to be discussed viz., Cookers, Water Heaters, Refrigerators, VARS based ACs, Pumps, Stills, Desalination Systems, Furnaces, Dryers, Hot Air Generators etc.,
BoS / MECH18.5	:	Any other items
18.5.1	:	<ul style="list-style-type: none"> • Separate Code System can be followed for Minor Degree courses. • Vertical “9”, Industrial Monitoring and Control can be removed. Since there are more number of verticals. • Internship / In plant Training and Project work and Industry Practice were discussed.


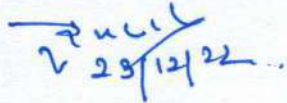



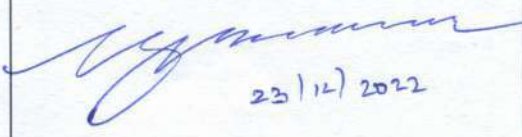
The members had a brainstorming discussion and interaction among themselves. After discussion, fruitful suggestions were incorporated appropriately in the curriculum and syllabus of R2019.

After discussion, BoS resolved to recommend the verticals prescribed in Mechanical Engineering (Annexure II) after carry out the modifications suggested by the members.

Based on the suggestions given by the members, BOS resolved to recommend the Syllabus for Professional elective course courses – B.E. Mechanical Engineering Programme under Regulation 2019 and Additional Elective courses for PG degree programmes under R-2019 to the Academic Council for further approval.

Dr. R.Harichandran, Professor / Mechanical Engineering proposed vote of thanks for the kind cooperation of the members and the meeting came to an end.

Members Present

CHAIRMAN	
Dr.K.Manisekar, Professor & Head / Mechanical	 h.u - 86 23/12/22
UNIVERSITY NOMINEE	
Dr. K. Srithar, Professor, Department of Mechanical Engineering, Thiagarajar College of Engineering, Madurai – 625015.	 K. Srithar 23/12/22
ACADEMIC EXPERT	
Dr. M. Venkata Ramanan, Professor & Director Institute for Energy Studies, CEG, Anna University, Chennai-600025	 M/R 23/12/22
Dr.-Ing. M. Duraiselvam Professor / Production Engineering, National Institute of Technology, Tiruchirappalli	 M. Duraiselvam 23/12/22
Dr.A.Arockiarajan Professor / Applied Mechanics, Indian Institute of Technology, Chennai	 A. Arockiarajan
MERITORIOUS ALUMNUS NOMINATED BY THE PRINCIPAL	
Dr. K. Murugan, Scientist -E, Centre for Engineering Coatings, ARCI, Hyderabad – 500 005, Telangana.	 K. Murugan 23/12/2022

INDUSTRIAL EXPERTS

Mr. R. Kanda Subburaj
Managing Director,
Gulf Asia Engineering and Projects Pvt. Ltd,
Chennai.

R. Kanda

Mr. Sivaram Sundaram,
Senior Director,
Comcast India Engineering Centre,
Thoraipakkam, Chennai - 97

Sivaram
23/12/2022

INTERNAL MEMBERS

Dr.S.Iyah Raja,
Professor/Mechanical

Iyah Raja
23/12/22

Dr. D.Venkat Kumar,
Professor/Mechanical

D. Venkat Kumar

Dr. R.Harichandran,
Professor/ Mechanical

R. Harichandran

Dr.M.Kathiresan,
Associate Professor/Mechanical

Kathiresan
23/12/22

Dr. P.Ramanan,
Assistant Professor (S.G)/Mechanical

P. Ramanan

Dr. D.Vignesh Kumar,
Assistant Professor (S.G)/Mechanical

D. Vignesh Kumar

Dr.F.Michael Thomas Rex,
Assistant Professor (S.G)/Mechanical

F. Michael Thomas Rex

Dr.W.Beno Wincy,
Assistant Professor/Mechanical

Beno Wincy

Mr.S.R.Sundara Bharathi,
Assistant Professor/Mechanical

S. R. Sundara Bharathi

Mr.A.Andrews,
Assistant Professor/Mechanical

A. Andrews

Mr. K.Thoufiq Mohammed,
Assistant Professor/Mechanical

K. Thoufiq Mohammed

Mr.C.Veera Ajay,
Assistant Professor/Mechanical

Ajay

STUDENT MEMBERS	
Mr. S. Manivannan, IV Year / Mechanical	S. Mani 23-12-22
Mr. S. Keerthivasan, IV Year / Mechanical	S. Keerthivasan 23-12-2022
Mr. R.T. EzhilAzhagan, IV Year / Mechanical	Ezhil Azhagan 23/12/2022

h.u - 82
23/12/22
CHAIRMAN
BOARD OF STUDIES

ANNEXURE – I

Action taken for Minutes of 17thBoS Meeting

Sl.No	Suggestions by BOS Committee	Action Taken
1.	<p>“Project Management and Finance”</p> <ul style="list-style-type: none"> • Finance management shall be considered to be offered as an exclusive elective. • The topic Big data analytics in the unit 3 was suggested to be removed considering the relevance. • Financial feasibility, analytics and capital budgeting shall be included. • Product based mini projects shall be offered to the students. 	<p>Incorporated in syllabus</p> <p>The topic big data analytics removed</p> <p>Financial feasibility, analytics and capital budgeting were incorporated in Unit 5</p>
2.	<p>“Indian Economy” – The Syllabus coverage shall be ensured in the listed reference books.</p>	<p>Syllabus coverage ensured and added in the reference books in reference section</p>
3.	<p>“Sustainable developments and practices” - Suggested to include 17 goals of sustainable development.</p>	<p>The topics were included in “Sustainable developments and practices”</p>
4.	<p>R2019 – project Phase - I and Project Phase – II</p> <ul style="list-style-type: none"> • The quality of projects and involvement of faculty and the external supervisors from industry shall be ensured. • Suggested to redefine the process of project. • Suggested to brainstorm the project batches in the 5th semester itself. 	<p>Incorporated</p>
5.	<p>Curriculum structure for R2023 has been discussed.</p> <ul style="list-style-type: none"> • Suggested to include AI, ML Machine vision topics in core subjects. • Suggested to provide programming basics to the students. <p>Suggested to provide industry related problems as student projects.</p>	<p>Yet to be implemented</p>

ANNEXURE - II

VERTICALS FOR HONOURS DEGREE / HONOURS DEGREE WITH SPECIALIZATION / MINOR DEGREE								
National Engineering College, K.R.Nagar, Kovilpatti – 628503 - Department of Mechanical Engineering								
PROFESSIONAL ELECTIVE COURSES VERTICALS								
Sl No.	Vertical 1	Vertical 2	Vertical 3	Vertical 4	Vertical 5	Vertical 6	Vertical 7	Vertical 8
	<i>CLEAN AND GREEN TECHNOLOGY</i>	<i>THERMAL SYSTEM</i>	<i>MODERN MOBILITY SYSTEMS</i>	<i>ROBOTICS AND AUTOMATION</i>	<i>PRODUCT & PROCESS DEVELOPMENT</i>	<i>MANUFACTURING ENGINEERING</i>	<i>INDUSTRIAL MANAGEMENT</i>	<i>LOGISTICS AND SUPPLY CHAIN MANAGEMENT</i>
1	Renewable Energy Sources	Refrigeration System	Automobile Engineering	Introduction to Robotics	Product Design and Development	Unconventional Machining Processes	Principles of Management	Operations Research
2	Solar Photovoltaic Energy Conversion	Heating Ventilation and Air Conditioning Systems	Automotive Electronics	Mechanics of Robots	New Product Development	Welding Technology	Total Quality Management	Supply Chain and Logistic Management
3	Cogeneration and Waste Heat Recovery	Design of Heat Exchanger and Pressure Vessel	Hybrid Electrical Vehicles	Control of Robotic Systems	Design for Manufacture, Assembly and Environments	Quality Control of Welded Structures	Implementation of Quality Management System	Ecommerce
4	Power Plant Engineering	Thermal Design and Management of Electronic Equipments	Vehicle Systems Design	Electrical Drives and Control	Product Life Cycle Management	Non-Destructive Evaluation	Marketing Management	Warehouse Automation
5	Energy Conservation in Industries	Turbo machines	Fundamentals of Digital Electronics	Mechatronics	Piping Design Engineering	Additive Manufacturing	Production Planning and Control	Production and Operations Management
6	Energy Storage Systems	Computational Fluid Dynamics	Thermal Management of Batteries and Fuel Cells	Hydraulics and Pneumatics	Computer Graphics and Virtual Reality	Lean Manufacturing	Process Planning and Cost Estimation	Material Handling Equipments Repair and Maintenance
7	Applied Nano Technology	Gas Dynamics and Propulsion Systems	Automotive Materials Components Design and Testing	MEMS Devices – Design and Fabrication	Modelling and Simulation	Machine Tool Control	Engineering Economics and Cost Analysis	
8	Energy Efficient Buildings	Energy Storage System		Industry 4.0	Advanced Modeling Techniques	Precision Engineering	Accounting for Engineers	
9	Hydrogen Energy	Applied Nano Technology		Microprocessor, Microcontroller and Applications	Materials Technology	Computer Integrated Manufacturing	Human Resource Management	
10	Hybrid Electrical Vehicles	Thermal Management of Batteries and Fuel Cells				Modelling and Simulation	Industrial Psychology and Organizational Behavior	
11	Fuel Cells					Materials Technology	Industrial Safety Engineering	

ANNEXURE - II

VERTICALS FOR HONOURS DEGREE / HONOURS DEGREE WITH SPECIALIZATION / MINOR DEGREE								
National Engineering College, K.R.Nagar, Kovilpatti – 628503 - Department of Mechanical Engineering								
PROFESSIONAL ELECTIVE COURSES VERTICALS								
Sl No.	Vertical 1	Vertical 2	Vertical 3	Vertical 4	Vertical 5	Vertical 6	Vertical 7	Vertical 8
	<i>CLEAN AND GREEN TECHNOLOGY</i>	<i>THERMAL SYSTEM</i>	<i>MODERN MOBILITY SYSTEMS</i>	<i>ROBOTICS AND AUTOMATION</i>	<i>PRODUCT & PROCESS DEVELOPMENT</i>	<i>MANUFACTURING ENGINEERING</i>	<i>INDUSTRIAL MANAGEMENT</i>	<i>LOGISTICS AND SUPPLY CHAIN MANAGEMENT</i>
1	Renewable Energy Sources	Refrigeration System	Automobile Engineering	Introduction to Robotics	Product Design and Development	Unconventional Machining Processes	Principles of Management	Operations Research
2	Solar Photovoltaic Energy Conversion	Heating Ventilation and Air Conditioning Systems	Automotive Electronics	Mechanics of Robots	New Product Development	Welding Technology	Total Quality Management	Supply Chain and Logistic Management
3	Cogeneration and Waste Heat Recovery	Design of Heat Exchanger and Pressure Vessel	Hybrid Electrical Vehicles	Control of Robotic Systems	Design for Manufacture, Assembly and Environments	Quality Control of Welded Structures	Implementation of Quality Management System	Ecommerce
4	Power Plant Engineering	Thermal Design and Management of Electronic Equipments	Vehicle Systems Design	Electrical Drives and Control	Product Life Cycle Management	Non-Destructive Evaluation	Marketing Management	Warehouse Automation
5	Energy Conservation in Industries	Turbo machines	Fundamentals of Digital Electronics	Mechatronics	Piping Design Engineering	Additive Manufacturing	Production Planning and Control	Production and Operations Management
6	Energy Storage Systems	Computational Fluid Dynamics	Thermal Management of Batteries and Fuel Cells	Hydraulics and Pneumatics	Computer Graphics and Virtual Reality	Lean Manufacturing	Process Planning and Cost Estimation	Material Handling Equipments Repair and Maintenance
7	Applied Nano Technology	Gas Dynamics and Propulsion Systems	Automotive Materials Components Design and Testing	MEMS Devices – Design and Fabrication	Modelling and Simulation	Machine Tool Control	Engineering Economics and Cost Analysis	
8	Energy Efficient Buildings	Energy Storage System		Industry 4.0	Advanced Modeling Techniques	Precision Engineering	Accounting for Engineers	
9	Hydrogen Energy	Applied Nano Technology		Microprocessor, Microcontroller and Applications	Materials Technology	Computer Integrated Manufacturing	Human Resource Management	
10	Hybrid Electrical Vehicles	Thermal Management of Batteries and Fuel Cells				Modelling and Simulation	Industrial Psychology and Organizational Behavior	
11	Fuel Cells					Materials Technology	Industrial Safety Engineering	

Department of Computer Science and Engineering

MINUTES of 18th Meeting of the Board of Studies held on
24th December, 2022 at 10.00 AM

Venue: CSE seminar 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

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

18th Board of Studies Meeting in the Department of
Computer Science and Engineering

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

Date & Time: 24.12.2022 & 10.00 AM

Agenda

- BoS / CSE 18.1 : Welcome address and Opening Remarks by Chairman, Board of Studies in the department of Computer Science and Engineering
- BoS / CSE 18.2 : Confirmation of the Minutes of the 17th meeting of Board of studies in the department of Computer Science and Engineering held on 9th July 2022 and Action taken report of 17th meeting of Board of studies
- BoS / CSE 18.3 : Business brought forward by the Chairman, Board of studies
- 18.3.1. Verticals for awarding Honors, Honors with specialization and Minor degree
- 18.3.2. Approval of syllabi for additional Elective / One Credit courses for B.E.CSE programme under R-2019.
- 18.3.3. Approval of Verticals for Honors / Honors with Specialization (Artificial Intelligence & Machine Learning [AI&ML], Augmented Reality & Virtual Reality [AR &VR])
- 18.3.4. Approval of Verticals for Minor Degree in "Computational Programming"
- 18.3.5. To confirm the minutes of the 26th Standing Committee Meeting held on 22.08.2022
- BoS / CSE 18.4 : Any other items.
- BoS / CSE 18.5 : Suggestions given by the BoS Members

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

F. No. 1-1/NEC/CSE

24th December, 2022


Dear Sir,

Sub: Minutes of the 18th Meeting of the Board of studies in the Computer Science and Engineering -Reg.

Kindly find attached herewith the Minutes of the 18th Meeting of Board of studies of the Computer Science and Engineering of the National Engineering College, K.R.Nagar, Kovilpatti – 628 503 held on 24th December 2022 at 10.00 AM) in the CSE Seminar hall of National Engineering college. Hard copy of the Minutes is also being sent to you by speed post.

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

Yours Sincerely


Dr.V.Gomathi

Department of Computer Science and Engineering

MINUTES OF THE MEETING

The 18th Meeting of the Board of studies of the Computer Science and Engineering was held on 24th December, 2022 at 10.00 AM in the CSE Seminar Hall of National Engineering College.

The following are the Board of Studies members for CSE Board:

1.	Dr.V.GOMATHI Professor & Head	Chairman
2.	Dr.D.Manimegalai, Professor & COE	Internal BoS members
3.	Dr.K.MohaideenPitchai, Professor	
4.	Dr.S.Kalaiselvi, Associate Professor	
5.	Dr.J.Naskath, Assistant Professor (SG)	
6.	Dr.R.Rajakumari, Assistant Professor (SG)	
7.	Mr.D.Vijayakumar, Assistant Professor (SG)	
8.	Dr.G.Sivakamasundari, Assistant Professor (SG)	
9.	Dr.G.R.Hemalakshmi, Assistant Professor (SG)	
10.	Dr.B.Shunmugapriya, Assistant Professor (SG)	
11.	Ms.D.Thamarai Selvi, Assistant Professor	
12.	Dr. G.Madhupriya Associate Professor, Dept. of Computer Science and Engineering Thiagarajar College of Engineering, Madurai.	Anna university Nominee
13.	Dr.C.Mala, Professor, Dept. of Computer Science and Engineering, National Institute of Technology, Trichy,	Academic Experts
14.	Dr.C.Krishna Mohan, Professor & Head, Dept. of Computer Science and Engineering, Indian Institute of Technology Hyderabad, Hyderabad	
15.	Dr.G.R.Karpagam ,	

	Professor, Dept. of Computer Science and Engineering, PSG College of Technology, Coimbatore	
16.	Dr. G. Kousalya Professor & Head, Dept. of Computer Science and Engineering, Coimbatore Institute of Technology, Coimbatore.	
17.	Mr.S.Maheswaran Engineering Manager & HBT Madurai Leader, Honeywell Technology Solutions, Madurai.	Industrial Experts
18.	Mr. V. Manikandaraman Digital Modernization Leader I Global Delivery Lead & Chief Architect, Cognizant Technology Solutions Corp, Chennai.	
19.	Mr.Srinivasan Rajendren , Service Delivery Manager, Tata Consultancy Services, Chennai	
20.	Mr.D.Siddharthan, Delivery manager, Wipro Technologies Pvt Ltd, Chennai	
21.	Mr.Roy Antony Arnold, Lead – Education and Research, Infosys Pvt Ltd, Chennai	
22.	Ms.G.Maria Justin Mary Lead S/W Engineer, Lowe’s India, Bengaluru.	Alumni and Industrial Experts
23.	Mr. Kalyana Sundaram M, III year CSE.	Student Members Nominated by the HOD
24.	Ms. Keerthikasri G, III year CSE.	

The following Academic Expert Dr.C.Mala, Professor, Dept. of Computer Science and Engineering, National Institute of Technology, Trichy, Dr.C.Krishna Mohan, Professor & Head, Dept. of Computer Science and Engineering, Indian Institute of Technology Hyderabad, Hyderabad, Dr.G.R.Karpagam , Professor,Dept. of Computer Science and Engineering,PSG College of Technology, Coimbatore, and the industrial experts Mr.Srinivasan Rajendren ,Service Delivery Manager,Tata Consultancy Services,Chennai, Mr.D.Siddharthan, Delivery manager, Wipro Technologies Pvt Ltd, Chennai, Mr.Roy Antony Arnold, Lead – Education and Research,

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

BoS / CSE 18.1	:	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 18 th Board of Studies and thanked each one of them for sparing their valuable time to attend the meeting.
BoS / CSE 18.2	:	TO CONFIRM THE MINUTES OF 17 th BOS MEETING HELD ON 9 th JULY , 2022
		<p>The minutes of the 17th Board of Studies meeting held on 9th July 2022 were communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 17th Academic council.</p> <p>➤ Action Taken Report</p> <p>(Enclosed in Annexure I)</p>
BoS/CSE 18.3.1	:	<p>TO CONFIRM AND APPROVE OF Verticals for awarding Honors, Honors with specialization and Minor degree</p> <p>RESOLVED TO approve Verticals for awarding Honors, Honors with specialization and Minor degree</p>
BoS/ CSE 18.3.2	:	<p>TO CONFIRM AND APPROVE OF syllabi for additional Elective / One Credit courses for B.E.CSE programme under R-2019.</p> <p>RESOLVED TO Approval of syllabi for additional Elective / One Credit courses for B.E.CSE programme under R-2019.</p>
BoS/ CSE 18.3.3	:	TO CONFIRM AND APPROVE OF Verticals for Honors / Honors with Specialization (Artificial Intelligence & Machine Learning [AI&ML],

		<p>Augmented Reality & Virtual Reality [AR & VR])</p> <p>RESOLVED TO Approval of Verticals for Honors / Honors with Specialization (Artificial Intelligence & Machine Learning [AI&ML], Augmented Reality & Virtual Reality [AR & VR])</p>
BoS/ CSE 18.3.4	:	<p>TO CONFIRM AND APPROVE of Verticals for Minor Degree in "Computational Programming"</p> <p>RESOLVED TO Approval of Verticals for Minor Degree in "Computational Programming"</p>
BoS/ CSE 18.3.5	:	<p>TO CONFIRM AND APPROVE the minutes of the 26th Standing Committee Meeting held on 22.08.2022</p> <p>RESOLVED TO confirm the minutes of the 26th Standing Committee Meeting held on 22.08.2022</p>
BoS/CSE 18.4	:	<p>ANY OTHER ITEMS, IF ANY, WITH THE PERMISSION OF THE CHAIRMAN OF THE BOS</p> <p>On the whole, this new initiative was very much appreciated by all members. The challenges faced by the students (if any) should be periodically discussed with them. They also congratulated the faculty members for their team efforts towards continuing Education.</p>
BoS / CSE 18.5	:	SUGGESTIONS GIVEN BY THE BOS MEMBERS
18.5.1	:	Bos members appreciated for introducing the hot-core vertical on "Augmented Reality & Vertical Reality", in addition to the popular Artificial Intelligence & Machine Learning" vertical.
18.5.2	:	Also, BoS members welcomed the Minor verticals on "Computational Programming" for the benefit of IT related Jobs for other Core Engineering branches.
18.5.3	:	In the regulation for awarding Honor / Minor degree, BoS members

		suggested the following points:
18.5.3.1		To conduct a short-term bridge course / value-added course / video-based tutorials with assessment, prior to enroll into the verticals.
18.5.3.2		To allow the interested and eligible students to register for Honors/Minor Degrees, without restricting the batch size.
18.5.3.3		If a particular student not able to attend the end semester exam due to medical emergency / critical family circumstances, that course may not be considered as an attempt.
18.5.4	:	For Artificial Intelligence & Machine Learning vertical,
18.5.4.1		Scripting language C# should be included as one credit course, which is the prerequisite for learning UNITY software.
18.5.4.2		In visual effects syllabus, include poster and banner design, watermarking and digital marketing.
18.5.4.3		Mixed reality course may be included in the curriculum along with the prerequisite courses such as cloud fundamentals and design in Azure platform.
18.5.4.4		BoS member, Mr.S.Maheswaran, Honeywell appreciated for offering “Metaverse Development”, which is the crux of learning outcomes in AR & VR verticals.
18.5.5	:	BoS members advised that, faculty enablement with the required skill-sets for verticals, has to be ensured.
18.5.6		In R2019, introducing “Industry Practice” with 100% external valuation, as equivalent to Project Work is welcomed by the industrial experts. This would be helpful for industries in connecting the intern-students in high-confidential industrial projects during their 8th semester.

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.

- Verticals for awarding Honors, Honors with specialization and Minor degree.
- Approval of syllabi for additional Elective / One Credit courses for B.E.CSE programme under R-2019.
- Approval of Verticals for Honors / Honors with Specialization (Artificial Intelligence & Machine Learning [AI&ML], Augmented Reality & Virtual Reality [AR &VR])
- Approval of Verticals for Minor Degree in "Computational Programming"
- To confirm the minutes of the 26th Standing Committee Meeting held on 22.08.2022

Dr.B.Shunmugapriya, Assistant Professor (SG), thanked all the members for their valuable suggestions and cooperation and the meeting came to an end.

Members Present

Dr.V.Gomathi Chairman	V.L →
<i>Internal Members</i>	
Dr.D.Manimegalai, Professor & COE	D.M
Dr.K.MohaideenPitchai, Professor	K.M.P
Dr.S.Kalaiselvi, Associate Professor	S.K
Dr.J.Naskath, Assistant Professor (SG)	J.N
Dr.R.Rajakumari, Assistant Professor (SG)	R.R
Mr.D.Vijayakumar, Assistant Professor (SG)	D.V
Dr.G.Sivakamasundari, Assistant Professor (SG)	G.S
Dr.G.R.Hemalakshmi, Assistant Professor (SG)	G.R.H
Dr.B.Shunmugapriya, Assistant Professor (SG)	B.S
Ms.D.Thamarai Selvi, Assistant Professor	D.T.S

Experts attended the meeting**Anna University Nominee**

Dr. G.Madhupriya
Associate Professor,
Dept. of Computer Science and Engineering
Thiagarajar College of Engineering,
Madurai.

G. Madhupriya
24/12/2022

Academic Experts

Dr. G. Kousalya
Professor & Head,
Dept. of Computer Science and Engineering,
Coimbatore Institute of Technology,
Coimbatore.

GMR
24/12/2022

Industrial Experts

Mr.S.Maheswaran
Engineering Manager & HBT Madurai Leader,
Honeywell Technology Solutions,
Madurai.

M. Maheswaran
24/12/2022

Mr. V. Manikandaraman
Digital Modernization Leader I Global Delivery Lead & Chief Architect,
Cognizant Technology Solutions Corp, Chennai.

V. Manikandaraman
24/12

Alumni

Mrs.G.Maria Justin Mary
Lead S/W Engineer, Lowe's India, Bengaluru

M. Justin Mary
24/12

Student Members Nominated by the HOD

Mr. Kalyana Sundaram M, III year CSE.

Kalyan

Ms. Keerthikasri G, III year CSE.

G. Keerthikasri.

V.C. 24/12/22

CHAIRMAN
BOARD OF STUDIES

Annexure I

Action Taken Report for Minutes of 17th BOS

As per BOS committee suggestions,

- 19CS30L - Microprocessor and Microcontroller to be offered in 3rd or 4th Sem
- Suggested corrections were incorporated in 19CS30E-Advanced Java Programming, 19CS29L-Full stack development (for B.E. CSE R-2019) and 19CT21C-Advanced Algorithms (for M.E. CSE R-2019).


29/12/22
CHAIRMAN

BOARD OF STUDIES

Department of Electronics and Communication Engineering

MINUTES of 18th Meeting of the Board of Studies was held on
30th December 2022 at 10.00 AM

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

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

18th 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: 30.12.2022 & 10.00 AM

AGENDA

ECE/BoS 18.1	:	Welcome address and Opening Remarks by the Chairman, Board of studies of the Department of Electronics and Communication Engineering
ECE/BoS 18.2	:	Confirmation of the Minutes and action taken report of the 17 th Board of studies meeting of the Department of Electronics and Communication Engineering held on 2 nd July 2022.
ECE/BoS 18.3	:	Business brought forward by the Chairman, Board of studies 18.3.1. Additional Elective courses, One credit courses for UG degree programmes under R-2019. 18.3.2. Verticals for awarding Honours, Honours with specialization and Minor degree 18.3.3. To confirm the minutes of the 26 th Standing Committee Meeting held on 22.08.2022.
ECE/BoS 18.4	:	Any other matter
ECE /BoS 18.5	:	Suggestions given by the BoS Members

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

F. No. 1-1/NEC/Branch/ECE

2nd January 2023

Dear Sir/Madam,


Sub: *Minutes of the 18th Board of Studies Meeting of the Department of Electronics and Communication Engineering - Reg.*

The 18th Board of Studies Meeting of the Electronics and Communication Engineering department of National Engineering College, K.R. Nagar, Kovilpatti – 628 503 was held on 30th December 2022 at 10.00 AM 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.A.Shenbagavalli)

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

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

www.nec.edu.in

Department of Electronics and Communication Engineering

MINUTES OF THE MEETING

The 18th Meeting of the Board of studies of the Department of Electronics and Communication Engineering was held on 30th December 2022 at 10.00 AM in the Conference Hall of the National Engineering College, K.R. Nagar, Kovilpatti– 628503.

The Board of Studies members are as follows,

1.	Dr.A.Shenbagavalli Professor & Head	Chairman
2.	Dr.S.Shanmugavel, Director	Internal Members
3.	Dr. S.Tamilselvi, Professor	
4.	Dr. T.S. Arun Samuel, Professor	
5.	Dr. V.R.S.Mani, Asso. Prof (SG)	
6.	Dr.N.Arumugam, Asso Prof	
7.	Dr.V.Suresh, Asso. Prof	
8.	Dr. K.J.Prasanna Venkatesan, Asso. Prof	
9.	Dr. T. Vijay Anandh, Asst. Prof (SG)	
10.	Dr. A. Saravana Selvan, Asst. Prof (SG)	
11.	Mr. C. Cammillus, Asst. Prof (SG)	
12.	Mr. K.Subramanian, Asst. Prof (SG)	
13.	Mr. V. Arun Janarthanan, Adjunct faculty	

14.	Dr. R.A. Alaguraja Associate professor, Department of ECE, Thiagarajar College of Engineering, Madurai - 625 015	Academic Expert nominated by Anna University, Chennai
15.	Dr.K.Murugan, Professor, Ramanujan Computing Centre, College of Engineering, Anna University, Chennai - 600025.	Academic Experts
16.	Dr.R.Pandeeswari, Associate Professor, Department of ECE, NIT Trichy - 620015.	
17.	Dr.Klutto Milleth, Chief Technologist, Centre of Excellence in Wireless Technology, IIT Madras Research Park, Chennai – 600113.	Meritorious Alumnus
18.	Mr. S. Kaliraj, Chief Scientist and Co-Founder, Vlinder Labs Pvt Ltd, Bengaluru - 560102 .	
19.	Mr.S.Madhusudhan, Director, Vlinder Labs Pvt Ltd, Bengaluru - 560102.	Industrial Experts
20.	Mr.Irshadh Abdul Rasheed K.A, Associate Partner Cyber Security, Ernst and Young LLP, Chennai - 600113.	
21.	Mrs.Mehala Balasundaram, Sr.Technical Writer II Synopsys, Bangalore - 560016.	Special Invitee
22.	Ms. G.Mithra Sri, III Year ECE	Student Members
23.	Mr.S.K.Ganapathy, III Year ECE	

The Academic Expert member Dr.R.Pandeeswari, Associate Professor, Department of ECE, NIT Trichy, Trichy – 620015, Meritorious Alumnus Mr. S. Kaliraj, Chief

Scientist and Co-Founder, Vlinder Labs Pvt Ltd, Bengaluru - 560102 and Industrial Expert member Mr.Irshadh Abdul Rasheed K.A, Associate Partner Cyber Security, Ernst and Young LLP, Chennai – 600113, could not attend the meeting due to their prior commitments and unavoidable reasons and were granted leave of absence.

BoS/ECE18.1	<p>: WELCOME ADDRESS AND OPENING REMARKS BY THE CHAIRMAN, BOARD OF STUDIES OF THE DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING</p> <p>The Chairman, BoS of the department of Electronics and Communication Engineering, welcomed and introduced the 18th Board of Studies members.</p>
BoS/ECE 18.2	<p>: TO CONFIRM THE MINUTES OF SEVENTEENTH BOS MEETING HELD ON 2nd JULY 2022.</p> <p>The minutes of the seventeenth Board of Studies meeting held on 2nd July 2022 were communicated to the members. The comments received have been properly analyzed and corrections have been carried out in the syllabus. Then it was presented in the 17th Academic Council meeting held on 26th July 2022 and the same was approved.</p> <p>➤ Action Taken Report</p> <p>(Enclosed in <i>Annexure D</i>)</p>
BoS/ECE18.3.1	<p>: Additional Elective courses, One credit courses for UG degree programmes under R-2019.</p> <p>➤ 19EC71E - Web Application Development</p> <p>Resolved to approve the additional elective courses for UG Degree Programme Under R-2019.</p>
BoS/ECE18.3.2	<p>: Verticals for awarding Honours, Honours with specialization and Minor degree</p> <p>➤ VERTICAL 1 - VLSI</p> <p>➤ VERTICAL 2 - Signal Processing and its Applications</p> <p>➤ VERTICAL 3 - Cyber Security</p>

		Resolved to approve the Verticals for awarding Honours, Honours with specialization and Minor degree for UG Degree Programme Under R-2019
BoS/ECE18.3.3	:	To confirm the minutes of the 26th Standing Committee Meeting held on 22.08.2022. (Enclosed in <i>Annexure II</i>)
		Resolved to confirm the minutes of the 26th Standing Committee Meeting held on 22.08.2022.
BoS/ECE 18.4	:	ANY OTHER MATTER
	:	As per Anna University's instruction, the elective course "Professional readiness for innovation, employability, and entrepreneurship" has been implemented in the seventh semester. This elective course may be shifted to the sixth semester.
BoS/ECE 18.5	:	SUGGESTIONS GIVEN BY THE BOS MEMBERS
18.5.1	:	➤ 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.
18.5.2	:	<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)."
18.5.3	:	➤ In Vertical 2 – Signal Processing proposed in the 18 th BoS meeting, the experts suggested to revise the vertical name as


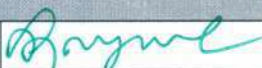
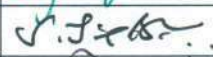
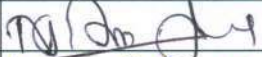
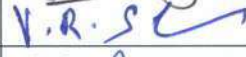









		<p>"Signal Processing and its Applications."</p> <ul style="list-style-type: none"> ➤ Experts suggested that three courses related to the applications of signal processing in Communication may be included in this vertical.
18.5.4	:	<ul style="list-style-type: none"> ➤ In Vertical 3 – Cyber Security proposed 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.
18.5.5	:	<p>In the 2019 curriculum, 19EC81C-Project work II (6 credits) was approved in the previous BoS meeting.</p> <p>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.</p> <ul style="list-style-type: none"> ➤ 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.



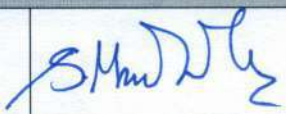

The members had a brainstorming discussion and interaction among themselves. Based on the suggestions given by the members, BOS resolved to recommend the following to the Academic Council for further approval.


1. Additional Elective courses, One credit courses for UG degree programmes under R-2019
2. Verticals for awarding Honours, Honours with specialization and Minor degree
3. To confirm the minutes of the 26th Standing Committee Meeting held on 22.08.2022
4. 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
1.	Dr. A. Shenbagavalli Professor & Head, Department of ECE, National Engineering College, Kovilpatti.	
Internal Members		
2.	Dr.S.Shanmugavel, Director	
3.	Dr. S.TamilSelvi, Professor	
4.	Dr. T.S. Arun Samuel, Professor	
5.	Dr. V.R.S.Mani, Asso. Prof (SG)	
6.	Dr.N.Arumugam, Asso. Prof	
7.	Dr.V.Suresh, Asso. Prof	
8.	Dr. K.J.Prasanna Venkatesan, Asso. Prof	
9.	Dr. T. Vijay Anandh, Asst. Prof (SG)	
10.	Dr. A. Saravana Selvan, Asst. Prof (SG)	
11.	Mr. S. Cammillus, Asst. Prof(SG)	
12.	Mr. K.Subramanian, Asst. Prof (SG)	
13.	Mr. V. Arun Janarthanan, Adjunct faculty	
Academic Expert nominated by Anna University, Chennai		
14.	Dr. R.A. Alaguraja Associate professor, Department of ECE ,Thiagarajar College of Engineering, Madurai - 625 015.	

Academic Experts		
15.	Dr.K.Murugan, Professor, Ramanujan Computing Centre, College of Engineering, Anna University, Chennai - 600025.	 30/12/2020
16.	Dr.R.Pandeeswari, Associate Professor, Department of ECE, NIT Trichy - 620015.	- AB -
Meritorious Alumnus		
17.	Dr.KluttoMilleth, Chief Technologist, Centre of Excellence in Wireless Technology, IIT Madras Research Park, Chennai - 600113.	
Industrial Experts		
18.	Mr.S.Madhusudhan, Director, Vlinder Labs Pvt Ltd, Bengaluru - 560102.	
19.	Mr.Irshadh Abdul Rasheed K.A, Associate Partner Cyber Security, Ernst and Young LLP, Chennai - 600113.	
Special Invitee		
20.	Mrs.MehalaBalasundaram, Sr.Technical Writer II Synopsys, Bangalore - 560016.	
Student Members		
21.	Ms.G.Mithra Sri, III Year ECE	G. Mithraasri
22.	Mr.S.K.Ganapathy, III Year ECE	S. K. Ganapathy


CHAIRMAN
BOARD OF STUDIES

Annexure - I

Minutes of 17th BoS Meeting - Action Taken Report

S.No	Suggestion given by expert members	Action taken
1.	In the "Blockchain and Applications" elective course under R2019 regulation, the practical sessions can be included and this course may be defined as an Integrated course (Theory + Lab).	Implemented
2.	The elective course "Professional readiness for innovation, employability and entrepreneurship" is introduced by Anna University to all affiliated colleges.	Implemented

Department of Electrical and Electronics Engineering

MINUTES 18th Meeting of the Board of studies held on
27th December 2022 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

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

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

www.nec.edu.in

18th Board of studies Meeting in the Department of Electrical and Electronics Engineering

Venue: Conference Hall, National Engineering College

Date & Time: 27.12.2022 & 10.00 AM

AGENDA

BoS / EEE 18.1	:	Welcome address and Opening Remarks by Chairman, Board of studies in the Department of Electrical and Electronics Engineering
BoS / EEE 18.2	:	Confirmation of the Minutes of the 17 th meeting of Board of Studies in the Department of Electrical and Electronics Engineering held on 20 th July 2022, and Action Taken report of 17 th meeting of Board of studies
BoS / EEE 18.3	:	Business brought forward by the Chairman, Board of studies
	18.3.1	Verticals for awarding Honors, Honors with specialization and Minor degree
	18.3.2	Introduction of Verticals in curriculum under R-2019
	18.3.3	Modification in syllabus of elective courses for incorporating verticals under R-2019
	18.3.4	Introduction of new elective courses for incorporating verticals under R-2019
	18.3.5	Discussion – Project work / Industry Practice
BoS / EEE 18.4	:	Any other items
BoS / EEE 18.5	:	Suggestions given by the BoS Members

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

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

27th December, 2022

Dear Sir/Madam,

Sub: Minutes of the 18th Meeting of the Board of studies in the EEE-Reg.

Kindly find attached herewith the Minutes of the 18th Meeting of Board of studies of the Electrical and Electronics Engineering of the National Engineering College, K.R.Nagar, Kovilpatti – 628503 held on 27th December, 2022 at 10.00 AM in National Engineering college, conference hall. Hard copy of the Minutes is also being sent to you by speed post.

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. With Kind Regards,

Yours Sincerely


Dr. M. Willjuice Iruthayarajan

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

Department of Electrical and Electronics Engineering

MINUTES OF THE MEETING

The 18th Meeting of the Board of studies of the Electrical and Electronics Engineering was held on 27th July, 2022 at 10.00 AM in National Engineering College,

Venue: Conference Hall, National Engineering College

The following members were present:

1.	Dr.M.Willjuice Iruthayarajan 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.M.P.E.Rajamani Assistant Professor(S.G) / EEE	
6.	Dr. R.Francis, Associate Professor/EEE, Government College of Engineering, Bargur.	University Nominee
7.	Dr. V. Suresh Kumar, Professor, Department of Electrical and Electronics Engineering, Thiagarajar College of Engineering, Madurai, Tamilnadu.	Academic Expert
8.	Dr. Rajesh Joseph Abraham Associate Professor, Department of Avionics, Indian Institute of Space Science and Technology, Valiamala P.O., Thiruvananthapuram, Kerala.	
9.	Dr. Santosh Kumar Annadurai GE T&D Ltd., GIS R&D Centre, Unit R&D Head, Padappai, Chennai.	Industrial Expert
10.	Mr. J. S. Jekhan, Final Year / EEE	Student Members
11.	Ms. R. Yamini Rajam, Final Year / EEE	

Industrial Experts Dr. Hariram Satheesh, Principal Scientist, ABB Global Industries and Services Ltd, Bangalore, Dr.S.Paramasivam, R&D Head, Electrical Drives, Danfoss Industries Ltd, Chennai, Mr. Ramesh Senior Technical Engineer, Hardware Design and Development Data Patterns India Pvt. Ltd., Chennai and Mr.R.

Jayakumar, Engineering Leader, Altimetrik Pvt, Ltd., Chennai & could not attend the meeting due to their prior commitments and unavoidable reasons and were granted leave of absence.

BoS / EEE 18.1	<p>: WELCOME ADDRESS AND OPENING REMARKS BY CHAIRMAN, BOARD OF STUDIES IN THE DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING</p> <p>The Chairman, BOS of the Electrical and Electronics Engineering welcomed and introduced the members of 18th Board of Studies and thanked each one of them for sparing their valuable time to attend the meeting.</p>
BoS / EEE 18.2	<p>: TO CONFIRM THE MINUTES OF SEVENTEENTH BOS MEETING HELD ON 20th JULY 2022.</p>
	<p>The minutes of the Seventeenth Board of Studies meeting held on 20th July 2022 were communicated to the members vide letter No. F. No. 1-1/NEC/EEE, Dated 20.07.2022.The comments received have been incorporated and placed for confirmation. The same was approved by the 17th Academic council.</p> <p style="text-align: center;"><u>Action Taken Report</u> (Enclosed in Annexure I)</p>
BoS / EEE 18.3.1	<p>: TO CONFIRM AND APPROVE THE VERTICALS FOR AWARDING HONORS, HONORS WITH SPECIALIZATION AND MINOR DEGREE FOR UG (B.E. – EEE) PROGRAMME UNDER R-2019</p>
	<p>RESOLVED TO approve the Verticals for awarding Honors, Honors with specialization and Minor degree for UG (B.E. – EEE) PROGRAMME under R-2019.</p>
Bos/EEE 18.3.2	<p>: TO CONFIRM AND APPROVE THE INTRODUCTION OF VERTICALS FOR UG (B.E. – EEE) PROGRAMME UNDER R-2019</p>
	<p>RESOLVED TO approve the introduction of verticals for UG (B.E. – EEE) PROGRAMME under R-2019.</p>


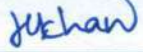
Bos/EEE 18.3.3	:	TO CONFIRM AND APPROVE THE MODIFICATION IN SYLLABUS OF ELECTIVE COURSES FOR INCORPORATING VERTICALS FOR UG (B.E. – EEE) PROGRAMME UNDER R-2019
		RESOLVED TO approve the Modification in syllabus of elective courses for incorporating verticals for UG (B.E. – EEE) PROGRAMME under R-2019.
Bos/EEE 18.3.4	:	TO CONFIRM AND APPROVE THE INTRODUCTION OF NEW ELECTIVE COURSES FOR INCORPORATING VERTICALS FOR UG (B.E. – EEE) PROGRAMME UNDER R-2019
		RESOLVED TO approve the introduction of new elective courses for incorporating verticals for UG (B.E. – EEE) PROGRAMME under R-2019.
Bos/EEE 18.4	:	ANY OTHER ITEMS, IF ANY, WITH THE PERMISSION OF THE CHAIRMAN OF THE BOS
18.5.1	:	The BoS members insisted the BoS EEE chairman to verify the total number of credits to be registered in a particular semester for regular courses, online courses and additional elective courses.
Bos/EEE 18.6	:	SUGGESTIONS GIVEN BY THE BOS MEMBERS
		In the course, “Design of Power Converters Laboratory” study of power converters may be included instead of overview of power converters.
		In the course, “Electric Vehicles Simulation Laboratory”, software tools name should be avoided in the syllabus.
		In the course, “Condition Monitoring of High Voltage Power Equipment”, syllabus should be revised with additional content.

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. M. Bakrutheen, Assistant Professor (Senior Grade)/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>M. Willjuice Iruthayarajan</i> 27/12/2022
INTERNAL MEMBERS		
2.	Dr.L.Kalaivani Professor/ EEE	<i>L. Kalaivani</i> 27/12/22
3.	Dr.R.V.Maheswari Professor/ EEE	<i>R.V. Maheswari</i> 27/12/22
4.	Dr.N.B.Prakash Professor / EEE	<i>N.B. Prakash</i> 27/12/22
5.	Dr.M.P.E.Rajamani Assistant Professor (S.G) / EEE	<i>M.P.E. Rajamani</i> 27.12.22
UNIVERSITY NOMINEE		
6.	Dr. R.Francis, Associate Professor/EEE, Government College of Engineering, Bargur.	<i>R. Francis</i> 27/12/22
ACADEMIC EXPERT		
7.	Dr. V. Suresh Kumar, Professor, Department of Electrical and Electronics Engineering, Thiagarajar College of Engineering, Madurai, Tamilnadu.	<i>V. Suresh Kumar</i> 27/12/2022
8.	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> 27/12/2022

INDUSTRIAL EXPERT		
9.	Dr. Santosh Kumar Annadurai GE T&D Ltd., GIS R&D Centre, Unit R&D Head, Padappai, Chennai.	
STUDENT MEMBER		
10.	Mr. J. S. Jekhan, Final Year / EEE	
11.	Ms. R. Yamini Rajam, Final Year / EEE	R. Yamini Rajam


25/12/2022
CHAIRMAN

BOARD OF STUDIES

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

Department of Information Technology

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

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

www.nec.edu.in

18th Board of studies Meeting in the Department of
Information Technology

Venue: Department of IT, National Engineering College
K.R.Nagar, Kovilpatti – 628503

Date & Time: 24.12.2022 & 11.30 a.m.

Agenda

BoS / IT 18.1	:	Welcome address and Opening Remarks by Chairman, Board of studies in the department of Information Technology
BoS / IT 18.2	:	Confirmation of the Minutes of the 17 th meeting of Board of studies in the department of Information Technology held on 02 nd JULY 2022 and Action taken report of 17 th meeting of Board of studies
BoS / IT 18.3	:	Business brought forward by the Chairman, Board of studies 18.3.1 Verticals for awarding Honors, Honors with specialization and Minor degree - B.Tech Information Technology 18.3.2 Refinement of II Semester Courses for B.Tech Artificial Intelligence & Data Science (R-2019)
BoS / IT 18.4	:	Any other items
BoS / IT 18.5	:	Suggestions given by the BoS Members

Department of Information Technology

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

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

www.nec.edu.in

F. No. 18.1/NEC/ IT/2021-22

24th Dec, 2022

Dear Sir/Madam,

Sub: *Minutes of the 18th Meeting of the Board of studies in the Information Technology - Reg.*

Kindly find attached herewith the Minutes of the 18th Meeting of Board of studies of the Information Technology of National Engineering College, K.R.Nagar, Kovilpatti – 628503 held on 24th Dec, 2022 at 11.30 AM. Hard copy of the minutes is also being sent to you by speed post.

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

Yours Sincerely

(Dr.K.G.Srinivasagan)

Department of Information Technology

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 18th Meeting of the Board of studies of the Information Technology was held on 24th Dec 2022 at 11.30 AM.

1. The following members were present:

1.	Dr.K.G.Srinivasagan, Prof & Head	Chairman
2.	Dr.R.Muthukumar, Professor	Internal Members
3.	Dr.L.Jerart Julus, Asso. Prof.	
4.	Dr.S.Chidambaram, Asst. Prof. (SG)	
5.	Dr.S.Rajagopal, Asst. Prof. (SG)	
6.	Mr.V.Manimaran, Asst. Prof. (SG)	
7.	Ms.V.Anitha, Asst. Prof.	
8.	Ms.S.Sanathi, Asst. Prof.	
9.	Dr.G.Madhupriya, Associate Professor, Department of Computer Science & Engineering, Thiagarajar College of Engineering, Madurai.	University Nominee
10.	Dr B L Velammal, Associate Professor, Department of Computer Science and Engineering Anna University, Chennai.	Academician
11.	Dr.S.Nickolas, Professor, Department of Computer, Applications National Institute of Technology, Tiruchirappalli.	Academician
12.	Mr. Sudeesh Sankaravel Associate Fellow - Data Science Verizon, Chennai.	Industrial Expert
13.	Dr.K.M.Suceendran, General Manager, Tata Consultancy Services, Chennai.	Industrial Expert
14.	Dr.R.Jagadeesh Kannan, Professor, School of Computer Science & Engineering, Vellore Institute of Technology, Chennai Campus.	Alumni Expert
15.	Dr. Shajulin Benedict, Assistant Professor, Department of Computer Science & Engineering IIIT- Kottayam.	Special Invitee
16.	Anandh.A, Final year	Student Members
17.	Anto Rosario.S, Final year	

BoS / IT 18.1	:	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 18 th Board of Studies and thanked each one of them for sparing their valuable time to attend the meeting.
BoS / IT 18.2	:	TO CONFIRM THE MINUTES OF SEVENTEENTH BOS MEETING HELD ON 02 nd JULY, 2022.
		The minutes of the Seventeenth Board of Studies meeting held on 02 nd July, 2022 were communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 17 th Academic council. ➤ Action Taken Report (Enclosed in <i>Annexure I</i>)
BoS / IT 18.3.1	:	TO CONFIRM AND APPROVE VERTICALS FOR AWARDING HONORS, HONORS WITH SPECIALIZATION AND MINOR DEGREE - B.TECH INFORMATION TECHNOLOGY
		RESOLVED TO APPROVE Verticals for awarding Honors, Honors with specialization and Minor degree - B.Tech Information Technology
BoS / IT 18.3.2	:	TO CONFIRM AND APPROVE REFINEMENT OF II SEMESTER COURSES FOR B.TECH ARTIFICIAL INTELLIGENCE & DATA SCIENCE (R-2019)
		RESOLVED TO APPROVE Refinement of II Semester Courses for B.Tech Artificial Intelligence & Data Science (R-2019)
BoS / IT 18.4	:	SUGGESTIONS GIVEN BY THE BOS MEMBERS
18.4.1	:	Only six courses are proposed to be offered as verticals in the programme. Number of courses may be increased, that helps students to choose from multiple options.
18.4.2	:	Faculty members those who will be handling verticals must be

		assigned well in advance (at least one semester ahead), so that they may deliver the course appropriately.
18.4.3	:	One credit courses such as Deep learning, Reinforcement learning and Natural Language Processing may be included as verticals.
18.4.4	:	Course Outcomes may be reframed to map with the knowledge level appropriately.
18.4.5	:	In Introduction to Data Science verticals some packages may be included for Visualization in Unit 3. Contents relate to SciPy, NumPy looks too complex. Hence it may be simplified.
18.4.6	:	In Machine Learning Techniques verticals , Unit 4 and 5 are heavily loaded. Hence Deep Learning and Reinforcement learning may be offered as a separate one credit course. Lecture hours can therefore be reduced and Lab components may be added in the course.
18.4.7	:	Course name for “Data Engineering Concepts and Tools” verticals, the course may be renamed as “Data Engineering” . Unit 5 may be renamed as “Data Analysis” .
18.4.8	:	Course name for Business Intelligence and Analytics verticals, the course may be renamed as “Business Intelligence” .
18.4.9	:	Course name for “Data Visualization and analytics” verticals, the course may be renamed as “Data Visualization” . Content related to Matplotlib may be removed.
18.4.10	:	Course name for “Data Preservation and Privacy” verticals, the course may be renamed as “Data Privacy” . Contents related to Data Governance may also be included in the course. Title of Unit 5 may be renamed.
18.4.11	:	In the Second Semester Courses for B.Tech Artificial Intelligence & Data Science (R-2019) the LTPC of the course 19AD26C – “Python Programming” , may be changed to L:2,T:0,P:2,E:2 and the number of credits may be changed to 4.
18.4.12	:	In experienced learning courses, societal or industrial problems may be practiced and the outcomes may be evaluated as internal assessment.

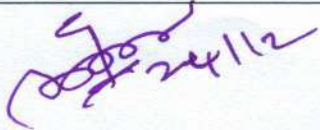

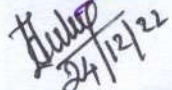
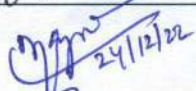


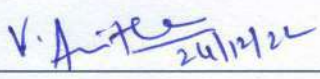
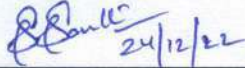
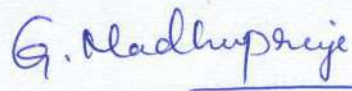
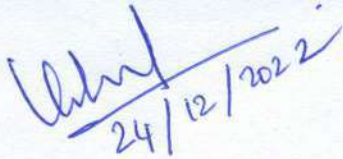
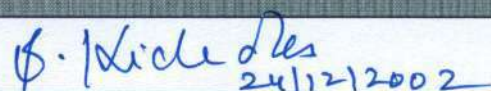
The members had a brainstorming discussion and interaction among themselves. After discussion, fruitful suggestions were incorporated.


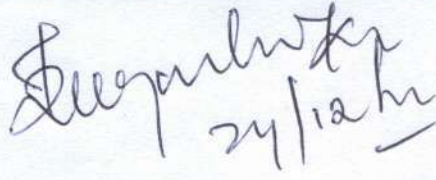
Based on the suggestions given by the members, BOS resolved to recommend the following to the Academic Council for further approval.

- a) Verticals for awarding Honors, Honors with specialization and Minor degree - B.Tech Information Technology
- b) Refinement of II Semester Courses for B.Tech Artificial Intelligence & Data Science (R-2019)

Ms.V.Anitha, Asst. Prof., thanked all the members for their kind cooperation and the meeting came to an end.

Members Present:

Dr.K.G.Srinivasagan, Prof & Head, Board Chairman	 24/12
Internal Members	
Dr.R.Muthukumar, Professor.	 24.12.22
Dr.L.Jerart Julius, Asso. Prof.	 24/12/22
Dr.S.Chidambaram, Asst. Prof. (SG)	 24/12/22
Dr.S.Rajagopal, Asst. Prof. (SG)	 24/12/22
Mr.V.Manimaran, Asst. Prof. (SG)	 24/12/22
Ms.V.Anitha, Asst. Prof.	 24/12/22
Ms.S.Santhi, Asst. Prof.	 24/12/22
University Nominees	
Dr.G.Madhupriya, Associate Professor, Department of Computer Science & Engineering, Thiagarajar College of Engineering, Madurai.	 24/12/2022
Academician	
Dr B L Velammal, Associate Professor, Department of Computer Science and Engineering Anna University, Chennai.	 24/12/2022
Academician	
Dr.S.Nickolas, Professor,	 24/12/2002

Department of Computer, Applications National Institute of Technology, Tiruchirappalli.	
Industrial Expert	
Mr. Sudeesh Sankaravel Associate Fellow – Data Science Verizon, Chennai.	 24/12/22
Alumni Expert	
Dr.R.Jagadeesh Kannan, Professor, School of Computer Science & Engineering, Vellore Institute of Technology, Chennai Campus.	 24/12/22
Student Members	
Anandh.A, Final year	A. Anandh 24/12/2022
Anto Rosario.S, Final year	of. Anto Rosario 24/12/2022


CHAIRMAN
BOARD OF STUDIES

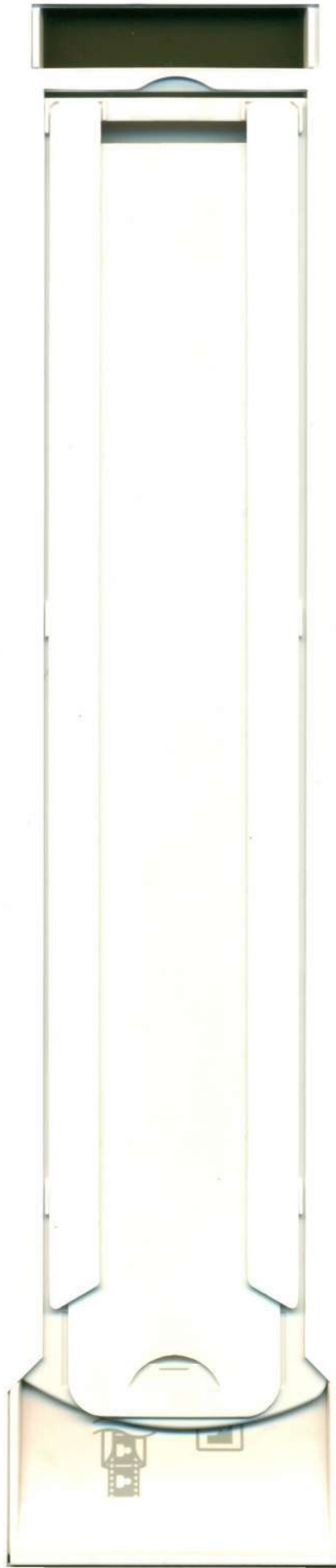
ANNEXURE I

Actions taken for Minutes of 17th BoS Meeting

As per BOS Committee suggestion,

- In **Arduino Programming**, some basic concepts may be included.
- In **Mathematics for Machine Learning**, some Python based tools may be used to explore statistical concepts. Content is heavy for offering as one credit, and it may be provided as a three credit course.
- In **Network Simulation with NS3** one credit course contents related to NS4 may also be included.
- In **Python for Data Science**, some popular dataset may be specified. In reference books, year may be mentioned.
- In **Node JS**, some introduction about meanstack development may be provided.
- In **Introduction to NoSQL with MongoDB**, case study based exercises related to social media applications and IoT based applications may be included
- Curriculum and syllabus of **Artificial Intelligence & Data Science** programme is recommended
- Mandatory Elective Course on **Professional Readiness for Innovation, Employability and Entrepreneurship** may be recommended.
- **List of examiners** to be approved for **project viva voce examinations**, may be confined to Associate Professor and Professors.


CHAIRMAN
BOARD OF STUDIES



Department of Civil Engineering

MINUTES of the 15th Meeting of the Board of Studies held on
29th December 2022, 11:00 am

Venue: Civil Department CADD Lab
National Engineering College, K.R.Nagar, Kovilpatti – 628503

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

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

www.nec.edu.in

Department of Civil Engineering

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

15th Board of Studies Meeting in the Department of
Civil Engineering

Venue: Civil Department CADD Lab
National Engineering College, K.R.Nagar, Kovilpatti– 628503

Date & Time: 29.12.2022 & 11.00 am

Agenda

BoS / CIVIL15.1	:	Welcome address and Opening Remarks by Chairman, Board of studies in the department of Civil Engineering
BoS / CIVIL15.2	:	Confirmation of the Minutes of the 14 th meeting of Board of studies in the department of Civil Engineering held on 14 th July 2022 and Action taken report of 14 th meeting of Board of studies
BoS / CIVIL15.3	:	Business brought forward by the Chairman, Board of studies 15.3.1 Introduction of verticals for awarding B.E honors, honors with specialization, and minor degree under Regulation 2019. 15.3.2 Discussion about the syllabus of 15 new programme elective courses under Regulation 2019.
BoS / CIVIL15.4	:	Any other items
BoS / CIVIL15.5	:	Suggestions given by the BoS Members

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

F. No. 1-1/NEC/Civil Engg.

29.12.2022

Dear Sir/Madam,

Sub: *Minutes of the 15th Meeting of the Board of Studies in the Civil Engineering - Reg.*

Kindly find attached herewith the Minutes of the 15th Meeting of Board of studies of the Civil Engineering of the National Engineering College, K.R.Nagar, Kovilpatti – 628503 held on 29.12.2022 at 11.00 AM in Civil Department CADD Lab, National Engineering College. Hard copy of the Minutes is also being sent to you by speed post.

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

Yours Sincerely



Dr.C.PuthiyaSekar

Department of Civil Engineering

MINUTES OF THE MEETING

The 15th Meeting of the Board of Studies of the Civil Engineering was held on 29th December 2022 at 11:00 am in Civil Department CADD Lab conducted by Civil Department, National Engineering College, K.R.Nagar, Kovilpatti- 628503.

The following members were present:

1	Dr.C.PuthiyaSekar Professor & Head	Chairman
2	Dr.V.Kannan., Asso.Prof-Civil	Internal Members
3	Dr.C.ChellaGifita., Asso.Prof-Civil	
4	Mr.S.Danielraj., AP-Civil	
5	Mr.M.Franchis David., AP-Civil	
6	Mr.V.Arulpandian., AP-Civil	
7	Mr.S.M Murali Ram Kumar., AP-Civil	
8	Mr.B.Gowtham.,AP-Civil	
9	Mr.S.Kannan.,AP-Civil	
10	Mr.C.Gurumoothy., AP-Civil	
11	Mr.P.Kasirajan., AP-Civil	
12	Dr.K.Muthukkumaran, Professor, Department of Civil Engineering, National Institute of Technology, Trichy- 620 015.	Academic Expert
13	Dr.S.Chandran, Associate Professor, Department of Civil Engineering, Thiagarajar college of Engineering, Madurai- 625 015.	Academic Expert
14	Dr.M.Murugan, Assistant Professor, Department of Civil Engineering, Government College of Engineering, Triunelveli- 627 007.	Academic Expert
15	Dr.S.Adishkumar, Assistant Professor, Department of Civil Engineering, Anna University Regional Centre,	Academic Expert

	Tirunelveli -627 007.	
16	Mr. Karthikeyan Balasubramanian Managing Director (Operations) Ridh Engineering Services Madurai – 625 018	Industrial Expert

BoS / CIVIL 15.1	:	<p>WELCOME ADDRESS AND OPENING REMARKS BY CHAIRMAN, BOARD OF STUDIES IN THE DEPARTMENT OF CIVIL ENGINEERING</p> <p>The Chairman, BoS of the Civil Engineering welcomed and introduced the members of 15th Board of Studies and thanked each one of them for sparing their valuable time to attend the meeting.</p>
BoS / CIVIL 15.2	:	<p>TO CONFIRM THE MINUTES OF FOURTEENTH BOS MEETING HELD ON 14TH JULY, 2022</p> <p>The minutes of the Fourteenth Board of Studies meeting held on 14th July, 2022 were communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 17th Academic council meeting.</p> <p>➤ Action Taken Report (Enclosed in Annexure I)</p>
BoS/CIVIL 15.3.1	:	<p>TO CONFIRM AND APPROVE THE INTRODUCTION OF VERTICALS FOR AWARDING B.E HONORS, HONORS WITH SPECIALIZATION, AND MINOR DEGREE UNDER REGULATION 2019.</p> <p>RESOLVED TO approve the Introduction of verticals for awarding B.E Honors, Honors with specialization, and Minor Degree under Regulation 2019.</p>
BoS/CIVIL 15.3.2	:	<p>TO CONFIRM AND APPROVE THE SYLLABUS OF 15 NEW PROGRAMME ELECTIVE COURSES UNDER REGULATION 2019.</p> <p>RESOLVED TO approve the Introduction of verticals for awarding B.E Honors, Honors with specialization, and Minor Degree under Regulation 2019.</p>
BoS / CIVIL 15.4	:	<p>ANY OTHER ITEMS, IF ANY, WITH THE PERMISSION OF THE CHAIRMAN OF THE BOS</p> <p>The BoS members had a discussion with the internal members regarding the Curriculum & the syllabus of Programme Eletive Courses under R-2019.</p>
BoS / CIVIL 15.5	:	<p>SUGGESTIONS GIVEN BY THE BOS MEMBERS</p>

The suggestions given by the BoS Members are given by.

- 15.5.1 BOS members suggested to offer all vertical to the students and the ensure the availability of specialized faculties to handle different domains included in the verticals.
- 15.5.2 Experts advised to offer the minimum knowledge in core courses before the students opting for the specified vertical as prerequisite.
- 15.5.3 In Vertical I (Structures) experts from structures domain suggested to include Basics of Dynamics and Aseismic Design course. Also the member suggested to include Tall Building course in Vertical VIII (Diversified course).
- 15.5.4 In Vertical IV (Environmental) academic expert suggested to include the institution advisory board of our country like NABC and case studies in Climate change and adaptation course. Suggested to offer Reference books updated version.
- 15.5.5 In Vertical V (Water resources) academic expert suggested to add the knowledge level missing in few courses.
- 15.5.6 Industrial expert member suggested considering Building information modelling (BIM) course under Civil Engineering Management Vertical VI Domain in near future.
- 15.5.7 In general they reported the combination of courses in each vertical are excellent and also they suggested to add few important management course like Integrated water resource management, Urban water management, Town Planning management, Engineering Quality management & Sustainable development and Practices etc. under Civil Engineering Management Vertical VI Domain in near future.
- 15.5.8 BoS members suggested to add Metro rails, Satellite city, Smart city topics as a seperate course which provides more employability opportunities for the graduates in near future.
- 15.5.9 Members also suggested giving flexibility for the consideration of Project work/ Industry based project for the final year students without affecting their career settlement.
- 15.5.10 BOS members recommended to included industrial lecture, survey camp and suggested to combine content of few core courses in the forth coming regulation.


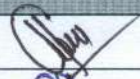



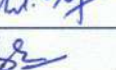
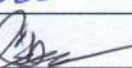
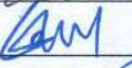



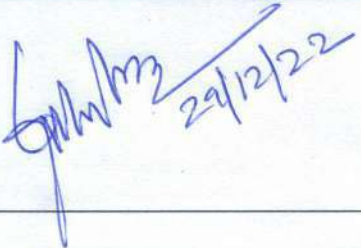
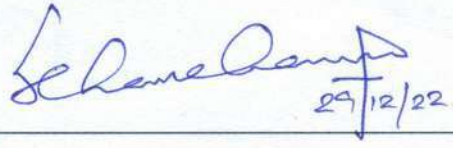


The members had a brainstorming discussion and interaction among themselves. After discussion, fruitful suggestions were incorporated appropriately in the Specialization course, Curriculum and Syllabi.

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

- a) The Syllabus of three One Credit Programme Elective Laboratory Courses for UG Degree Programme Under Regulation 2019.


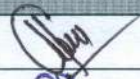



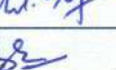
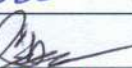
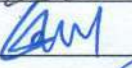



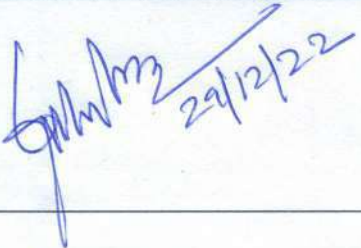



Mr.B.Gowtham AP-Civil thanked all the members for their kind cooperation and the meeting came to an end.




Members Present

<i>Board Chairman</i>	
Dr.C.PuthiyaSekar Professor & Head, Department of civil Engineering, National Engineering college, K.R.Nagar, Kovilpatti-628503.	
<i>Internal Members</i>	
Dr.V.Kannan., Asso.Prof-Civil	
Dr.C.ChellaGifita., Asso.Prof-Civil	
Mr.S.Danielraj., AP-Civil	
Mr.M.Franchis David., AP-Civil	
Mr.V.Arulpandian., AP-Civil	
Mr.S.M Murali Ram Kumar., AP-Civil	
Mr.B.Gowtham., AP-Civil	
Mr.S.Kannan., AP-Civil	
Mr.C.Gurumoothy., AP-Civil	
Mr.P.Kasirajan., AP-Civil	
<i>Academic Experts</i>	
Dr.K.Muthukkumaran, Professor, Department of Civil Engineering, National Institute of Technology, Trichy- 620 015.	
Dr.S.Chandran, Associate Professor, Department of Civil Engineering, Thiagarajar college of Engineering, Madurai- 625 015.	
Dr.M.Murugan, Assistant Professor, Department of Civil Engineering, Government College of Engineering, Triunelveli- 627 007.	
Dr.S.Adishkumar, Assistant Professor, Department of Civil Engineering, Anna University Regional Centre, Tirunelveli -627 007.	

Mr.B.Gowtham AP-Civil thanked all the members for their kind cooperation and the meeting came to an end.

Members Present

<i>Board Chairman</i>	
Dr.C.PuthiyaSekar Professor & Head, Department of civil Engineering, National Engineering college, K.R.Nagar, Kovilpatti-628503.	
<i>Internal Members</i>	
Dr.V.Kannan., Asso.Prof-Civil	
Dr.C.ChellaGifita., Asso.Prof-Civil	
Mr.S.Danielraj., AP-Civil	
Mr.M.Franchis David., AP-Civil	
Mr.V.Arulpandian., AP-Civil	
Mr.S.M Murali Ram Kumar., AP-Civil	
Mr.B.Gowtham., AP-Civil	
Mr.S.Kannan., AP-Civil	
Mr.C.Gurumoothy., AP-Civil	
Mr.P.Kasirajan., AP-Civil	
<i>Academic Experts</i>	
Dr.K.Muthukkumaran, Professor, Department of Civil Engineering, National Institute of Technology, Trichy- 620 015.	
Dr.S.Chandran, Associate Professor, Department of Civil Engineering, Thiagarajar college of Engineering, Madurai- 625 015.	
Dr.M.Murugan, Assistant Professor, Department of Civil Engineering, Government College of Engineering, Triunelveli- 627 007.	
Dr.S.Adishkumar, Assistant Professor, Department of Civil Engineering, Anna University Regional Centre, Tirunelveli -627 007.	

<i>Industrial Experts</i>	
Mr. Karthikeyan Balasubramanian Managing Director (Operations) Ridh Engineering Services Madurai – 625 018	
<i>Student Members Nominated by the HOD</i>	
Ms.Abinaya N., Final Civil	
Mr.Sriram M., Final Civil	


CHAIRMAN

BOARD OF STUDIES

ANNEXURE I

Action taken for Minutes of 14th BoS Meeting

As per BoS Committee Suggestions,

- 1 In C programming application for Civil Engineering I, the question No 11 is based on function level. Hence, it is moved to C programming application for Civil Engineering II
- 2 In C programming application for Civil Engineering I, the input parameters are mentioned in MKS units in question No 4 are changed as SI units.