



NEW HORIZON
COLLEGE OF ENGINEERING
New Horizon Knowledge Park, Ring Road, Marathalli
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

9th BOARD OF STUDIES MEETING

DATE : 04.10.2023
VENUE : Schneider Electric Laboratory
(Room No: B-001)
TIME : 10 AM – 1 PM

Head of the Department
Department of Electrical and Electronics Engineering
New Horizon College of Engineering
Ring Road, Kadubisanahalli, Bellandur Post.
Bangalore - 560103, Karnataka, India

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AGENDA FOR THE MEETING

Agenda 1: Implementation of revised syllabus details based on previous BoS meeting

Agenda 2: Approval of scheme and syllabus for the AY: 2023-2024, II year (III and IV semester) EEE Program as per NEP 2.

Agenda 3: Approval of scheme and syllabus for the AY: 2023-2024, III year (V and VI semester) EEE Program as per Revised NEP 1

Agenda 4: Revision of Vision, mission of the department, revision of Cos, CO-PO mapping of IV year courses-If any

Agenda 5: Recommendations of the Board

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

LIST OF MEMBERS- BOARD OF STUDIES AY: 2023-2024

S. No	Category	Nomination of the committee	Name of the person	Designation & Affiliation
1	Head of the Department	Chairperson	Dr. Sakthivel Aruchamy	HoD & Professor, NHCE, Bangalore
2	Special Invitees (one academician from Institution of National Eminence, IIT,NIT,IIM,IISC)	1	Dr. Manjunatha	Principal, NHCE
		2	Dr. R. J Anandhi	Dean Academics, NHCE
		3	Dr. L Umanand	Professor, Center for Electronics and Design Technology (CEDT), Indian Institute of Science, Bangalore, lums@iisc.ac.in
		4	Dr. Sanjeev Sharma	Professor & Dean - Quality Assurance and Skill Development Center, NHCE
3	Faculty member at different level with different specialization	Members		
		1	Dr.Sujitha S	Professor, NHCE
		2	Dr.Vinoth Kumar K	Professor, NHCE
		3	Dr.Gunapriya B	Associate Professor, NHCE
		4	Dr Mohan Das R	Associate Professor, NHCE
		5	Ms.Karthika M	Senior Assistant Professor, NHCE
4		Members		
	Subject expert from outside the college nominated by Academic Council	1.	Dr. Amuthan N	Professor Department of EEE AMC Engineering College , Bengaluru-560 083 amuthan.nallathambi@amceducation.in 9632284805
		2.	Dr Surekha P	Asst. Professor (Sr. Gr) EEE, Amrita School of Engineering, Bengaluru, Amrita Vishwa Vidyapeetham, India. p_surekha@blr.amrita.edu 88847 33747

5	Experts from outside the college nominated by VTU	Member		
		1	Dr. Samanvita N	Professor, NITTE Meenakshi Institute of Technology, Bengaluru-560064 samanvita.n@nmit.ac.in 9731777517
6	Representative from Industry / Corporate sector / allied area related to placements, nominated by Academic Council	Members		
		1	Dr B Hariram S Satheesh	R&D Team Manager MOSE - IN Modernization Digital R&D, ABB Global Industries and Services Private Ltd, Bangaluru. Hariram.satheesh@in.ABB.com 7609 98708
		2	Mr K Jeykishan Kumar	Engineering Officer, Central Power Research Institute, Energy efficiency & Renewable Division, CPRI, PB NO.8066, Prof.Sir. CV Raman road, Bangalore-560080, Karnataka. jeykishan@cpri.in 9953795473
7	Under Graduate meritorious alumni nominated by Principal	Members		
		1	Mr. Bhavan N	Controls system engineer, Quest global engineering Pvt Ltd, bhavannreddy@gmail.com
		2	Mr. Naimish Kumar Bareek,	Trainee Automation Engineer, Aideas Engineering Pvt Ltd, babubareek@gmail.com
8	Co-opted members	Members		
		1	Ms Anitha A	Senior Assistant Professor, NHCE
		2	Mr. Vinod Kumar S	Senior Assistant Professor, NHCE
		3	Mr. Sunil S K	Senior Assistant Professor, NHCE
		4	Mr Kartheek Vankadara	Assistant Professor, NHCE
		5	Ms Sangeetha C N	Assistant Professor, NHCE



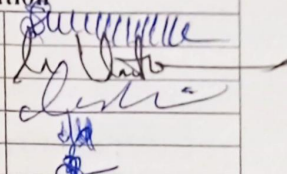
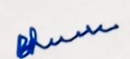
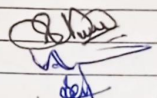
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

LIST OF BOS MEMBERS PRESENT IN THE MEETING (AY: 2023-2024) -

04.10.2023

S.NO	NAME	DESIGNATION & AFFILIATION	SIGNATURE
BoS Chairman			
1	Dr. Sakthivel Aruchamy	HoD/Professor, NHCE, Bangalore	
Special Invitees			
2	Dr. Manjunatha	Principal, NHCE	
3	Dr. R. J Anandhi	Dean Academics, NHCE	
4	Dr. L Umanand	Professor, Center for Electronics and Design Technology (CEDT), Indian Institute of Science, Bangalore, lums@iisc.ac.in	
5	Dr. Sanjeev Sharma	Professor & Dean - Quality Assurance and Skill Development Center, NHCE	
Academic Expert			
6	Dr. Amuthan N	Professor Department of EEE AMC Engineering College , Bengaluru-560 083 amuthan.nallathambi@amceducation.in 9632284805	
7	Dr Surekha P	Asst. Professor (Sr. Gr) EEE, Amrita School of Engineering, Bengaluru, Amrita Vishwa Vidyapeetham, India. p_surekha@blr.amrita.edu 88847 33747	
VTU nominee			
8	Dr. Samanvitha N	Professor, NITTE Meenakshi Institute of Technology, Bengaluru-560064 samanvitha.n@nmit.ac.in 9731777517	
Industry Experts			
9	Mr K Jeykishan Kumar	Engineering Officer, Central Power Research Institute, Energy efficiency & Renewable Division, CPRI, PB NO.8066, Prof.Sir. CV Raman road, Bangalore-560080, Karnataka.	ON LINE

		jeykishan@cpri.in 9953795473	
Faculty member at different level with different specialization			
10	Dr.Sujitha S	Professor, NHCE	
11	Dr.Vinoth Kumar K	Professor, NHCE	
12	Dr.Gunapriya B	Associate Professor, NHCE	
13	Dr. Mohan Das R	Associate Professor, NHCE	
14	Ms.Karthika M	Senior Assistant Professor, NHCE	
Meritorious alumni			
15	Mr. Bhavan N	Controls system engineer, Quest global engineering Pvt Ltd, bhavannreddy@gmail.com	
Co-opted faculty members			
16	Mr.Vinodkumar S	Senior Assistant Professor, NHCE	
17	Mr Kartheek Vankadara	Assistant Professor, NHCE	
18	Ms Sangeetha C N	Assistant Professor, NHCE	

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
WELCOME ADDRESS BY THE CHAIRMAN OF BOS AND INTRODUCTION OF MEMBERS

Minutes

Dr.Sakthivel Aruchamy, Chairman of BOS, welcomed the BoS members and introduced the significance of autonomy in the context of engineering education from industry perspective. The chairman briefed the gathering about the various regulations being followed in the department and emphasized the need for revision in curriculum and syllabi based on the inputs from various stake holders.

AGENDA -1

Implementation of revised syllabus details based on previous BoS meeting

Minutes

- *Based on the previous BoS meeting suggestions, the following courses were implemented and incorporated in the curriculum.*

S.No	BoS member	Recommendations	Implementation
1.	<i>Dr Lakshiminarayana C,VTU nominee, BMS College of Engineering, Bangalore.</i>	<i>Dr Lakshiminarayana C recommended that the course electromagnetic field theory has to be included in the NEP scheme. Since, the course is important for GATE exam preparation and for getting placed in industries and for higher education</i>	<ul style="list-style-type: none"> ▪ <i>21EEE545- Electromagnetic Field Theory is included for V semester (2021-2025 Scheme) as a PE course</i> <i>21EEE454-Electromagnetic Field Theory is included for IV semester (2022-2026 Scheme) as A ESC course</i>
2.	<i>Dr Lakshiminarayana C , VTU nominee, BMS College of Engineering, Bangalore.</i>	<i>Dr Lakshiminarayana C suggested to include fundamental courses and design thinking courses for higher semesters.</i>	<i>21EEK58-Innovation and Design Thinking course is included for the V semester (2021-2025 Scheme)</i>
3.	<i>Dr Lakshiminarayana C, VTU nominee, BMS College of</i>	<i>The VTU nominee suggested to include E-books, video links and you tube links related to</i>	<i>The E-books, video links and you tube links related to particular course in reference section of syllabus is included</i>

	<i>Engineering, Bangalore</i>	<i>particular course in reference section of syllabus</i>	
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AGENDA -2

Approval of scheme and syllabus for the AY: 2023-2024, II year (III and IV semester) EEE Program as per NEP 2.

Minutes

- *Scheme & Syllabus of II-year -2022-2026 Batch (III & IV semesters) has been reviewed.*
- *Suggestions from BoS members have been acknowledged and discussed in detail.*
- *Scheme & Syllabus of II Year 2022-2026 Batch (III & IV semesters) as per NEP2 has been unanimously approved by all the members.*

NEW HORIZON COLLEGE OF ENGINEERING

B. E. in Electrical and Electronics Engineering

Scheme of Teaching and Examinations for 2022- 2026 BATCH (2022 Scheme)

III Semester													
S. No.	Course and Course Code		Course Title	BoS	Credit Distribution				Overall Credits	Contact Hours	Marks		
					L	T	P	S			CIE	SEE	Total
1	BSC	22EEE31	Applied Mathematics-III	BS	3	0	0	0	3	3	50	50	100
2	PCC	22EEE32	DC Machines and Transformers	EE	3	0	0	0	3	3	50	50	100
3	PCCL	22EEL32	DC Machines and Transformers Laboratory	EE	0	0	1	0	1	2	50	50	100
4	PCC	22EEE33	Electric Circuit Theory	EE	3	0	0	0	3	3	50	50	100
5	PCCL	22EEL33	Electric Circuit Theory Laboratory	EE	0	0	1	0	1	2	50	50	100
6	ESC	22EEE34X	ESC/ ETC/ PLC	EE	If the course is ESC/ETC					50	50	100	
					3	0	0	0	3				3
					If the course is PLC								
					2	0	1	0	3	4			
7	AEC	22EEE35X	Ability Enhancement Course-III	EE	If the course is a Theory					50	50	100	
					1	0	0	0	1				1
					If the course is a Laboratory								
					0	0	1	0	1	2			
8	BSC	22BIK36	Bio Inspired Design	Any Dept	3	0	0	0	3	3	50	50	100
9	NCMC	22NSK37	National Service Scheme (NSS)	NSS coordinator	0	0	0	0	0	2	50	--	50
		22PEK37	Physical Education (PE) (Sports and Athletics)	Physical Education									

		22YOK37	Yoga	Yoga Teacher									
10	UHV	22SCK38	Social Connect and Responsibility	Any Dept	1	0	0	0	1	2	50	--	50
Total									19	24/25/26	500	400	900
11	NCMC	22DMAT31	Basic Applied Mathematics -I	BS	0	0	0	0	0	2	50	--	50

BSC: Basic Science Course, **PCC:** Professional Core Course, **PCCL:** Professional Core Course laboratory, **UHV:** Universal Human Value Course, **NCMC:** Non Credit Mandatory Course, **AEC:** Ability Enhancement Course, **L:** Lecture, **T:** Tutorial, **P:** Practical **S:** SDA: Self Study for Skill Development, **K:** This letter in the course code indicates common to all the stream of engineering. **ESC:** Engineering Science Course, **ETC:** Emerging Technology Course, **PLC:** Programming Language Course, **CIE:** Continuous Internal Evaluation, **SEE:** Semester End Evaluation.

Programming Language Course (PLC): Credit for PLC is 03 (L : T : P:S) can be considered as (2 : 1 : 0). The theory part of the PLC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by only CIE (no SEE). However, questions from the practical part of PLC shall be included in the SEE question paper.

22DMAT311*: This non-credit mandatory course to be offered with only CIE and no SEE to Lateral entry students.

Engineering Science Course / Emerging Technology Course / Programming Language Course (ESC/ETC/PLC)			
22EEE341	Object Oriented programming using JAVA (2:0:1:0)	22EEE343	Measurements and Instrumentation (3:0:0:0)
22EEE342	Sensors and Actuators (3:0:0:0)	22EEE344	Signals and Systems (3:0:0:0)

Ability Enhancement Course-III (For EEE, all are Laboratory Courses 0-0-1-0)			
22EEE351	Microcontroller and Embedded Systems	22EEE353	SCI LAB for DC Machines and Transformers
22EEE352	Introduction to MATLAB	22EEE354	555 IC Laboratory

National Service Scheme /Physical Education/Yoga: All students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education (PE) (Sports and Athletics), and Yoga(YOG) with the concerned coordinator of the course during the first week of III

semesters. Activities shall be carried out between III semester to the VI semester (for 4 semesters). Successful completion of the registered course and requisite CIE score is mandatory for the award of the degree. The events shall be appropriately scheduled by the colleges and the same shall be reflected in the calendar prepared for the NSS, PEd, and Yoga activities. These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the course is mandatory for the award of degree.

<p>Credit Definition: 1-hour Lecture (L) per week=1Credit 2-hours Tutorial(T) per week=1Credit 2-hours Practical / Drawing (P) per week=1Credit 2-hours Self Study for Skill Development (SDA) per week = 1 Credit</p>	<p>03-Credits courses are to be designed for 40 hours in Teaching-Learning Session 02- Credits courses are to be designed for 25 hours of Teaching-Learning Session 01-Credit courses are to be designed for 15 hours of Teaching-Learning Sessions</p>
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Programming Language Course (PLC): Credit for PLC is 03 (L : T : P:S) can be considered as (2 : 1 : 0). The theory part of the PLC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by only CIE (no SEE). However, questions from the practical part of PLC shall be included in the SEE question paper.

22DMAT411*: This non-credit mandatory course to be offered with only CIE and no SEE to Lateral entry students.

Engineering Science Course / Emerging Technology Course / Programming Language Course (ESC/ETC/PLC)			
22EEE451	Programming of Internet of Things (2:0:1:0)	22EEE453	Web design Technologies (2:0:1:0)
22EEE452	Advanced Data Structures and Algorithms (2:0:1:0)	22EEE454	Electro Magnetic Field Theory (3:0:0:0)

Ability Enhancement Course-IV (For EEE, all are Laboratory Courses 0-0-1-0)			
22EEE461	AUTOCAD for Electrical Engineering	22EEE463	Sci Lab for Electrical Engineering
22EEE462	Advanced Arduino Programming	22EEE464	PCB Design Laboratory

Mini-project work: Mini Project is a laboratory-oriented/hands on course that will provide a platform to students to enhance their practical knowledge and skills by the development of small systems/applications etc. Based on the ability/abilities of the student/s and

recommendations of the mentor. A student can do mini project as

- (i) A group of 2 if mini project work is single discipline (applicable to all IT allied branches)
- (ii) A group of 2- 4 if mini project work is single discipline (applicable to all Core Branches)
- (iii) A group of 2 - 4 students if the Mini Project work is a multidisciplinary (Applicable to all Branches)

CIE procedure for Mini-project:

(i) **Single discipline:** The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two faculty members of the Department, one of them being the Guide. The CIE marks awarded for the Mini-project work shall be based on the evaluation of the project report, project presentation skill, and question and answer session in the ratio of 50:25:25. The marks awarded for the project report shall be the same for all the batches mates.

(ii) **Interdisciplinary:** Continuous Internal Evaluation shall be group-wise at the college level with the participation of all the guides of the project.

The CIE marks awarded for the Mini-project, shall be based on the evaluation of the project report, project presentation skill, and question and answer session in the percentage ratio of 50:25:25. The marks awarded for the project report shall be the same for all the batch mates

National Service Scheme /Physical Education/Yoga: All students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education (PE) (Sports and Athletics), and Yoga (YOG) with the concerned coordinator of the course during the first week of III semesters. Activities shall be carried out between III semester to the VI semester (for 4 semesters). Successful completion of the registered course and requisite CIE score is mandatory for the award of the degree. The events shall be appropriately scheduled by the colleges and the same shall be reflected in the calendar prepared for the NSS, PE, and Yoga activities. These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the course is mandatory for the award of degree.

Credit Definition:

1-hour Lecture (L) per week=1Credit
2-hours Tutorial(T) per week=1Credit
2-hours Practical / Drawing (P) per week=1Credit
2-hours Self Study for Skill Development (SDA) per week = 1 Credit

03-Credits courses are to be designed for 40 hours in Teaching-Learning Session
02- Credits courses are to be designed for 25 hours of Teaching-Learning Session
01-Credit courses are to be designed for 15 hours of Teaching-Learning Sessions

NEW HORIZON COLLEGE OF ENGINEERING

B. E. in Electrical and Electronics Engineering

Scheme of Teaching and Examinations for 2022- 2026 BATCH (2022 Scheme)

IV Semester													
S. No.	Course and Course Code		Course Title	BoS	Credit Distribution				Overall Credits	Contact Hours	Marks		
					L	T	P	S			CIE	SEE	Total
1	BSC	22EEE41	Applied Mathematics-IV	EE	3	0	0	0	3	3	50	50	100
2	PCC	22EEE42	Analog Electronics and Integrated Circuits	EE	3	0	0	0	3	3	50	50	100
3	PCCL	22EEL42	Analog Electronics and Integrated Circuits Laboratory	EE	0	0	1	0	1	2	50	50	100
4	PCC	22EEE43	Digital Logic Design	EE	3	0	0	0	3	3	50	50	100
5	PCCL	22EEL43	Digital Logic Design Laboratory	EE	0	0	1	0	1	2	50	50	100
6	PCC	22EEE44	Synchronous and Induction Machines	EE	3	0	0	0	3	3	50	50	100
7	PCCL	22EEL44	Synchronous and Induction Machines Laboratory	EE	0	0	1	0	1	2	50	50	100
8	ESC	22EEE45X	ESC/ ETC/ PLC	EE	If the course is ESC/ETC				3	3	50	50	100
					3	0	0	0					
9	AEC	22EEE46X	Ability Enhancement Course-IV	EE	If the course is PLC				3	4			
					2	0	1	0					
					If the course is a Theory				1	0	0	0	1
If the course is a Laboratory				0	0	1	0	1	2				
10	NCMC	22NSK47	National Service Scheme (NSS)	NSS	0	0	0	0	0	2	50	--	50

		22PEK47	Physical Education (PE) (Sports and Athletics)	Physical Education										
		22YOK47	Yoga	Yoga Teacher										
11	UHV	22UHK48	Universal Human Values	Any Dept	1	0	0	0	1	2	50	--	50	
12	PROJ	22EEE49	Mini Project	EE	0	0	1	0	1	0	50	50	100	
Total										21	26/27/28	600	500	1100
13	NMC	22DMAT41	Basic Applied Mathematics -II	BS	0	0	0	0	0	2	50	--	50	

Programming Language Course (PLC): Credit for PLC is 03 (L : T : P:S) can be considered as (2 : 1 : 0). The theory part of the PLC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by only CIE (no SEE). However, questions from the practical part of PLC shall be included in the SEE question paper.

22DMAT411*: This non-credit mandatory course to be offered with only CIE and no SEE to Lateral entry students.

Engineering Science Course / Emerging Technology Course / Programming Language Course (ESC/ETC/PLC)

22EEE451	Programming of Internet of Things (2:0:1:0)	22EEE453	Web design Technologies (2:0:1:0)
22EEE452	Advanced Data Structures and Algorithms (2:0:1:0)	22EEE454	Electro Magnetic Field Theory (3:0:0:0)

Ability Enhancement Course-IV (For EEE, all are Laboratory Courses 0-0-1-0)

22EEE461	AUTOCAD for Electrical Engineering	22EEE463	Sci Lab for Electrical Engineering
22EEE462	Advanced Arduino Programming	22EEE464	PCB Design Laboratory

Mini-project work: Mini Project is a laboratory-oriented/hands on course that will provide a platform to students to enhance their practical knowledge and skills by the development of small systems/applications etc. Based on the ability/abilities of the student/s and recommendations of the mentor. A student can do mini project as

- (iii) A group of 2 if mini project work is single discipline (applicable to all IT allied branches)
- (iv) A group of 2- 4 if mini project work is single discipline (applicable to all Core Branches)
- (iii) A group of 2 - 4 students if the Mini Project work is a multidisciplinary (Applicable to all Branches)

CIE procedure for Mini-project:

(iii)Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two faculty members of the Department, one of them being the Guide. The CIE marks awarded for the Mini-project work shall be based on the evaluation of the project report, project presentation skill, and question and answer session in the ratio of 50:25:25. The marks awarded for the project report shall be the same for all the batches mates.

(iv) Interdisciplinary: Continuous Internal Evaluation shall be group-wise at the college level with the participation of all the guides of the project.

The CIE marks awarded for the Mini-project, shall be based on the evaluation of the project report, project presentation skill, and question and answer session in the percentage ratio of 50:25:25. The marks awarded for the project report shall be the same for all the batch mates

National Service Scheme /Physical Education/Yoga: All students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education (PE) (Sports and Athletics), and Yoga (YOG) with the concerned coordinator of the course during the first week of III semesters. Activities shall be carried out between III semester to the VI semester (for 4 semesters). Successful completion of the registered course and requisite CIE score is mandatory for the award of the degree. The events shall be appropriately scheduled by the colleges and the same shall be reflected in the calendar prepared for the NSS, PE, and Yoga activities. These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the course is mandatory for the award of degree.

Credit Definition:

1-hour Lecture (L) per week=1Credit
2-hours Tutorial(T) per week=1Credit
2-hours Practical / Drawing (P) per week=1Credit
2-hours Self Study for Skill Development (SDA) per week = 1
Credit

03-Credits courses are to be designed for 40 hours in Teaching-Learning Session
02- Credits courses are to be designed for 25 hours of Teaching-Learning Session
01-Credit courses are to be designed for 15 hours of Teaching-Learning Sessions

AGENDA -3

Approval of scheme and syllabus for the AY: 2023-2024, III year (V and VI semester) EEE
Program as per Revised NEP 1

Minutes

- *Scheme & Syllabus of III-year -2021-2025 Batch (V and VI semester) has been reviewed.*
- *Suggestions from BoS members have been acknowledged and discussed in detail.*
- *Scheme & Syllabus of III Year 2021-2025 Batch (V & VI semesters) as per NEP1 has been unanimously approved by all the members.*

NEW HORIZON COLLEGE OF ENGINEERING
B. E. in Electrical and Electronics Engineering
Scheme of Teaching and Examinations for 2021- 2025 BATCH (2021 Scheme)

V Semester													
S. No.	Course and Course Code		Course Title	BoS	Credit Distribution				Overall Credits	Contact Hours	Marks		
					L	T	P	S			CIE	SEE	Total
1	PCC	21EEE51	Power Electronics	EE	3	0	0	0	3	3	50	50	100
2	PCCL	21EEL51	Power Electronics Laboratory	EE	0	0	1	0	1	2	50	50	100
3	PCC	21EEE52	Industrial Automation	EE	3	0	0	0	3	3	50	50	100
4	PCCL	21EEL52	Industrial Automation Laboratory	EE	0	0	1	0	1	2	50	50	100
5	PCC	21EEE53	Transmission Distribution and Protection	EE	3	0	0	0	3	3	50	50	100
6	PEC	21EEE54 X	Professional Elective Course-I	EE	3	0	0	0	3	3	50	50	100
7	AEC	21EEL55 X	Ability Enhancement Course-V	EE	0	0	1	0	1	2	50	50	100
8	MP	21EEE56	Mini Project	EE	0	0	1	0	1	0	50	50	100
9	AEC	21EEK57	Research Methodology and IPR	EE	1	0	0	0	1	2	50	50	100
10	UHV	21EEK58	Innovation and Design Thinking	Any Dept.	1	0	0	0	1	1	50	50	100
Total									18	21	500	500	1000

NCMC	21NSS84	National Service Scheme (NSS)	NSS coordinator	All students have to register for any one of the courses namely National Service Scheme, Physical Education (PE) (Sports and Athletics) and Yoga with the concerned coordinator of the course during the first week of V semester. The activities shall be carried out from (for 4
	21PES84	Physical Education (PE) (Sports and Athletics)	Physical Education Director	

	21YOG84	Yoga	Yoga Teacher	<p>semesters) between V semester to VIII semester. SEE in the above courses shall be conducted during VIII semester examinations and the accumulated CIE marks shall be added to the SEE marks.</p> <p>Successful completion of the registered course is mandatory for the award of the degree.</p> <p>The events shall to be reflected in the calendar prepared for the NSS, PE and Yoga activities.</p>
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PCC: Professional Core Course, **PCCL:** Professional Core Course laboratory, **UHV:** Universal Human Value Course, **NMC:** Non-Credit Mandatory Course, **AEC:** Ability Enhancement Course, **PEC:** Professional Elective Course, **PROJ:** Mini Project work **L:** Lecture, **T:** Tutorial, **P:** Practical **S:** **SDA:** Self Study for Skill Development, **CIE:** Continuous Internal Evaluation, **SEE:**Semester End Evaluation

Professional Elective Course-I			
21EEE541	Object Oriented programming using JAVA	21EEE543	Advanced Control Systems
21EEE542	Signals and Systems	21EEE544	Professional Ethics
21EEE545	Electromagnetic Field Theory		

Ability Enhancement Course-V (For EEE, all are Laboratory Courses 0-0-1-0)			
21EEE551	Simulation tools in Electrical Engineering	21EEE553	Advanced Arduino programming
21EEE552	Power System Protection	21EEE554	Introduction to MATLAB/SCILAB

Professional Elective Courses (PEC): A professional elective (PEC) course is intended to enhance the depth and breadth of educational experience in the Engineering and Technology curriculum. Multidisciplinary courses that are added supplement the latest trend and advanced technology in the selected stream of engineering.

Mini-project work: Mini Project is a laboratory-oriented/hands on course that will provide a platform to students to enhance their practical knowledge and skills by the development of small systems/applications etc. Based on the ability/abilities of the student/s and

recommendations of the mentor. A student can do mini project as

- (v) A group of 2 if mini project work is single discipline (applicable to all IT allied branches)
- (vi) A group of 2- 4 if mini project work is single discipline (applicable to all Core Branches)
- (S) A group of 2 – 4 students if the Mini Project work is a multidisciplinary (Applicable to all Branches)

CIE procedure for Mini-project:

(v) Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two faculty members of the Department, one of them being the Guide. The CIE marks awarded for the Mini-project work shall be based on the evaluation of the project report, project presentation skill, and question and answer session in the ratio of 50:25:25. The marks awarded for the project report shall be the same for all the batches mates.

(vi) Interdisciplinary: Continuous Internal Evaluation shall be group-wise at the college level with the participation of all the guides of the project.

The CIE marks awarded for the Mini-project, shall be based on the evaluation of the project report, project presentation skill, and question and answer session in the percentage ratio of 50:25:25. The marks awarded for the project report shall be the same for all the batch mates

Credit Definition:

1-hour Lecture (L) per week=1Credit
2-hours Tutorial(T) per week=1Credit
2-hours Practical / Drawing (P) per week=1Credit
2-hours Self Study for Skill Development (SDA) per week = 1 Credit

03-Credits courses are to be designed for 40 hours in Teaching-Learning Session
02- Credits courses are to be designed for 25 hours of Teaching-Learning Session
01-Credit courses are to be designed for 15 hours of Teaching-Learning Sessions

NEW HORIZON COLLEGE OF ENGINEERING
B. E. in Electrical and Electronics Engineering
Scheme of Teaching and Examinations for 2021- 2025 BATCH (2021 Scheme)

VI Semester													
S. No.	Course and Course Code		Course Title	BoS	Credit Distribution				Overall Credits	Contact Hours	Marks		
					L	T	P	S			CIE	SEE	Total
1	HSMC	21EEE61	Operation Research and Management	EE	3	0	0	0	3	3	50	50	100
2	PCC	21EEE62	Advanced Industrial and Building Automation	EE	3	0	0	0	3	3	50	50	100
3	PCCL	21EEL62	Advanced Industrial and Building Automation Laboratory	EE	0	0	1	0	1	2	50	50	100
4	PCC	21EEE63	Power System Analysis	EE	3	0	0	0	3	3	50	50	100
5	PCCL	21EEL63	Power System Analysis Laboratory	EE	0	0	1	0	1	2	50	50	100
6	PEC	21EEE64X	Professional Elective Course-II	EE	3	0	0	0	3	3	50	50	100
7	UHV	21EEK65	Social Connect and Responsibility	EE	0	0	1	0	1	2	50	-	50
8	INT	21EEE66	Innovation/Entrepreneurship/Societal Internship	EE	0	0	3	0	3	0	50	50	100
9	MP	21EEE67	Mini project	EE	0	0	1	0	1	0	50	50	100
10	OEC	21NHOP6XX	Industrial Open Elective Course-I	Offering Dept.	3	0	0	0	3	3	50	50	100
Total									22	21	500	450	950

HSMC: Humanity and Social Science & Management Course, **PCC:** Professional Core Course, **PCCL:** Professional Core Course

laboratory, **NCMC**: Non-Credit Mandatory Course, **AEC**: Ability Enhancement Course, **PEC**: Professional Elective Course, **OEC**: Open Elective Course, **PROJ**: Project work, **L**: Lecture, **T**: Tutorial, **P**: Practical **S**: **SDA**: Self Study for Skill Development, **CIE**: Continuous Internal Evaluation, **SEE**:Semester End Evaluation.

Industrial Open Elective Course-I (OEC): Credit for OEC is 03 (L: T: P: S) can be considered as (3: 0: 0 : 0). The teaching and learning of these Courses will be based on hands-on. The Course Assessment will be based on CIE and SEE in practical mode. This Courses will be offered by Centre of Excellence to students of all the branches. Registration to Industrial open electives shall be documented and monitored on college level.

Professional Elective Courses (PEC): A professional elective (PEC) course is intended to enhance the depth and breadth of educational experience in the Engineering and Technology curriculum. Multidisciplinary courses that are added supplement the latest trend and advanced technology in the selected stream of engineering.

21XXX61(HSMC)- This course must be pertaining to economics and management of the concerned degree program. The course syllabus should have both economics and management topics and the course title should bear the word Management.
For IT allied Branches: Software Product Management
For Core Branches: Engineering Economics and Management / Industrial Management / Construction Management

Professional Elective Course-II			
21EEE641	Introduction to Cyber Security	21EEE643	CMOS VLSI Design
21EEE642	Data Structures and Algorithms using Python	21EEE644	High Voltage Engineering
21EEE645	Special Electrical Machines		

Credit Definition: 1-hour Lecture (L) per week=1Credit 2-hoursTutorial(T) per week=1Credit 2-hours Practical / Drawing (P) per week=1Credit	03-Credits courses are to be designed for 40 hours in Teaching-Learning Session 02- Credits courses are to be designed for 25 hours of Teaching-Learning Session
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2-hours Self Study for Skill Development (SDA) per week = 1 Credit	01-Credit courses are to be designed for 15 hours of Teaching-Learning Sessions
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AGENDA -4

Revision of Vision, mission of the department, revision of Cos, CO-PO mapping of IV year courses-If any

- *All the BoS members are agreed to retain the Vision and Mission of the department and suggested to make modifications in the Program Specific Outcomes.*



Department of Electrical and Electronics Engineering
BoS meeting-AY: 2023-2024

RECOMMENDATIONS OF THE BOARD

The agenda was already circulated among the committee members and the following discussions were made based on the agenda.

Dr Samanvita N, VTU nominee, Professor in EEE, NITTE Meenakshi Institute of Technology, Bengaluru attended the meeting along with Dr. Amuthan N, Professor, AMC Engineering College, Bengaluru, Dr Surekha P, Asst. Professor (Sr. Gr), EEE, Amrita School of Engineering, Bengaluru, Mr K Jeykishan Kumar (Industry expert), Engineering Officer, Central Power Research Institute, Energy efficiency & Renewable Division, CPRI, Bengaluru and Mr. Bhavan N (Meritorious alumni), Controls system engineer, Quest global engineering Pvt Ltd, Bengaluru. The members appreciated the curriculum and syllabi.

Subject 1: Ability enhanced courses- MATLAB and SCI lab courses can be replaced with domain based laboratory courses

Dr. Amuthan N recommended that the Ability enhanced courses- MATLAB and SCI lab courses can be replaced with domain based laboratory courses, since those packages can be included in the laboratory curriculum with hardware experiments. Also, He has added not to mention the specific name of the tool and to represent in terms of course name.

Subject 2: Suggestion to include Measurements and Instrumentation and Signals and Systems as a Professional core course

Dr. Amuthan N suggested to include Measurements and Instrumentation and Signals and Systems as a Professional core course instead of elective course. Since, the course is important for GATE exam preparation and for getting placed in industries and for higher education.

Subject 3: Indexing of text book chapters in syllabus is not necessary

Dr Surekha P opined that the indexing of text book chapters in syllabus is not necessary. It restricts the student to refer different books and narrow down their ability of referring text books.

Subject 4: Sensors and Actuators can be a laboratory course

Dr Surekha P suggested to include Sensors and Actuators as a laboratory course, since mini projects and major projects are done with the sensors. Alumni Mr Bhavan also endorsed this point, as it will be helpful for the students those are working in control system area.

Subject 5: Inclusion of Cloud computing

Dr. Amuthan N opined that the cloud computing course can be included in the curriculum. This course is the on-demand delivery of computing services over the internet which will provide the industry placements to the students.

Subject 6: Suggestions for Ability Enhancement Courses

Dr Samanvita N suggested to include Quantum computing as Ability Enhancement course, as this course will be having good opportunities in future.

Dr. Amuthan N suggested to include IPR, Patent design and Innovation and Design thinking Courses as AEC and advised to train the students in this domain.

Dr Surekha P suggested few courses viz., Semiconductor Physics, Material Science for Electrical Engineering, Arm Processors and Green Computing. As these courses are having opportunities in the industry sectors.

Subject 7: Web design technologies course can be replaced with app development courses:

Dr. Amuthan N opined that the web design technologies course can be removed as it is an outdated course with less package and it can be replaced with the app development courses.

Subject 8: Revision of Vision, Mission, PEOS and PSOs:

All the BoS members are agreed to retain the Vision and Mission of the department and suggested to make modifications in the Program Specific Outcomes (PSOs).

VOTE OF THANKS BY THE CHAIRMAN-BoS

The Chairman thanked all the members for having participated in the meeting and contributed in framing the curriculum and syllabus for 2021-2025 batch and 2022-2026 batch.

Glimpses of BoS meeting for the AY: 2023-2024 -Dt: 04.10.2023



