NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

Department of Artificial Intelligence and Machine Learning

5th BOARD OF STUDIES MEETING

Agenda, List of Members

&

Minutes of the Meeting

Academic year 2025 -2026

DATE: 13 / 08 / 2025

VENUE: A006

Room NO: AOO6, NSB Block, NHCE

MODE: Hybrid

TIME: 10 .30 am to 1 pm

HOD
Department of
Artificial Intelligence and Machine Learning
New Horizon College of Engineering
Ring Road, Bellandur Post, Bangalore - 560 103

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AGENDA FOR THE MEETING

1. Welcome address by the chairman, BoS
2. Presentation of draft of Scheme from 3rd to 4th (Revised NEP 160 Credit Course-2024 Scheme), Presentation of draft of Scheme from 5th to 6th (Revised NEP 160 Credit Course-2022 Scheme) and 7thand 8th Semester (NEP Credit Course-2022 Scheme)
3. Proposed course details for the academic year 2024-2025 (Revised NEP-2022 Scheme)
4. Proposed course details for the academic year 2024-2025 (Revised NEP-2022 Scheme)
5. Proposed course details for the academic year 2024-2025 (Revised NEP-2024 Scheme)
6. Presentation of Syllabus of Fourth Year (NEP 160 Credit Course), Third Year (Revised NEP 160 Credits Course) and Second Year (Revised NEP 160 Credits Course) in detail
7. Recommendations / Suggestions of BOS members.
8. Implementation of recommendation of BOS MEMBERS
9. Approval of scheme & Syllabus of Second Year / Third Year / Fourth Year of AI & ML Engineering Subjects
10. Vote of Thanks by the chairman of BOS

AGENDA 1

Welcome Address by the Chairman of BoS

The 5th Board of Studies meeting for Department of AI&ML was scheduled on 13.08.2025 at Subash Chandra Bose Block, Hall N: A006, NHCE.

At the outset. Chairman Dr. N V Uma Reddy, Professor & Head- Department of AI & ML, welcomed the members for attending the 5th Board of studies meeting held in Subash Chandra Bose Block, Hall No.006, NHCE as a blended mode.

The chairman introduced Dr. Manjunatha, Principal, NHCE and Dr. Anandhi R J Professor & Dean-Academics, NHCE to the members of Board of Studies and welcomed them for the ensuing proceedings.

The chairman further expressed special thanks to, an expert Dr. Latha C A, nominated by VTU., Dr. Shyam Lal, expert from NITK, Surathkal, Karnataka, for sparing the time from their busy schedule to attend the meeting.

The chairman also expressed her gratitude to industrial nominees, Mr. Chandrashekara R S, AVP – SI Head of Digitalization, SIEMENS, Bangalore.

The meeting was attended by Meritorious Alumnus Mr. Rohan S Siddeshwara and Ms. Bhoomika S., nominated by the principal.

The meeting was also attended by Co-opted members **Mr. K. Muralidharan,** Sr. HR- Manager, NHCE and NHCE Internal faculty members Dr. Rajalakshmi, Dr. Umamaheswaran S, B, Dr. Sowmya HK, Dr. Sreejith S, Dr. Sonia Maria D'souza, Dr. Sanjeev P Kaulgud, Dr. Rajashree R S. and Dr. Jimsha K Mathew.

AGENDA 2

Presentation by Chairman of Bos About Department Scheme and Syllabus

The chairman of BOS Dr. N V Uma Reddy, Professor & Head, Department of AI&ML, presented draft of Scheme (Revised NEP 160 Credits-2022 Scheme) & Syllabus of 7th and 8th semester and presented draft of scheme (Revised NEP 160 credit -2022 Scheme) & Syllabus of 5th and 6th semester then presented Scheme (Revised NEP 160 Credit-2024 Scheme) & Syllabus of 3rd and 4th Semester in the current academic year 2024-2025.

AGENDA 3

Proposed course for the academic year 2025-2026(7th and 8th semester, 160 credit-2022 Scheme)

NEW HORIZON COLLEGE OF ENGINEERING
B. E. in Artificial Intelligence and Machine Learning
Scheme of Teaching and Examinations for 2022- 2026 BATCH (2022 Scheme)

VII 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	22AIM71	Advanced Machine Learning	AIML	3	0	0	0	3	3	50	50	**100**
2	PCCL	22AIL71	Advanced Machine Learning Lab	AIML	0	0	1	0	1	2	50	50	**100**
3	PCC	22AIM72	Generative AI	AIML	3	0	0	0	3	3	50	50	**100**
4	PCCL	22AIL72	Generative AI Lab	AIML	0	0	1	0	1	2	50	50	**100**
5	PCC	22AIM73	Reinforcement Learning	AIML	3	0	0	0	3	3	50	50	**100**
6	PROJ	22AIM74	Project Phase - II	AIML	0	0	10	0	10	20	100	100	**200**
7	OEC	23NHOP7XX	Industrial Open Elective Course-II	Offering Dept.	3	0	0	0	3	3	50	50	**100**
								Total	**24**	**36**	**400**	**400**	**800**

PCC: Professional Core Course, **PCCL**: Professional Core Course laboratory, **PEC**: Professional Elective Course, **OEC**: Open Elective Course, **PROJ**: Project work**, L:** Lecture, **T**: Tutorial, **P**: Practical **S: SDA**: Self Study for Skill Development, C**IE**: Continuous Internal Evaluation, **SEE**: Semester End Evaluation.

Industrial Open Elective Courses-II:

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.

Project Phase-II:

The objective of the Project work is:

(i) To encourage independent learning and the innovative attitude of the students.

(ii) To develop interactive attitude, communication skills, organization, time management, and presentation skills.

(iii) To impart flexibility and adaptability.

(iv) To inspire team working.

(v) To expand intellectual capacity, credibility, judgment and intuition.

(vi) To adhere to punctuality, setting and meeting deadlines.

(vii) To install responsibilities to oneself and others.

(viii) To train students to present the topic of project work in a seminar without any fear, face the audience confidently, enhance communication skills, involve in group discussion to present and exchange ideas.

CIE procedure for Project Work:

1) **Single discipline:** The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.

   The CIE marks awarded for the project work, shall be based on the evaluation of the project work 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 batchmates.

2) **Interdisciplinary:** Continuous Internal Evaluation shall be group-wise at the college level with the participation of all guides of the college. Participation of external guide/s, if any, is desirable. The CIE marks awarded for the project work, shall be based on the evaluation of project work 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.

SEE procedure for Project Work: SEE for project work will be conducted by the two examiners appointed by the University. The SEE marks awarded for the project work shall be based on the evaluation of project work Report, project presentation skill, and question and answer session in the percentage ratio of 50:25:25.

Credit Definition: 1-hour Lecture (L) per week=1Credit 2-hoursTutorial(T) per week=1Credit 2-hours Practical / Drawing (P) per week=1Credit 2-hous 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 Artificial Intelligence and Machine Learning
Scheme of Teaching and Examinations for 2022- 2026 BATCH (2022 Scheme)

VIII 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	PEC*	22AIM81X	Professional Elective Courses -III	AIML	3	0	0	0	3	3	50	50	**100**
2	PEC*	22AIM82X	Professional Elective Courses -IV	AIML	3	0	0	0	3	3	50	50	**100**
3	INT	22AIM83	Internship	AIML	0	0	10	0	10	20	100	100	**200**
							Total		**16**	**26**	**200**	**200**	**400**

PEC*: Professional Elective Course (Online/Hybrid), **L:** Lecture, **T**: Tutorial, **P**: Practical **S: SDA**: Self Study for Skill Development, **INT**: Industry Internship/Research Internship/Rural Internship, **CIE**: Continuous Internal Evaluation, **SEE**: Semester End Evaluation.

Professional Elective Course-III

22AIM811	Recommender System	22AIM814	Optimization Techniques
22AIM812	Quantum Computing	22AIM815	Cryptography and Network Security
22AIM813	Agentic AI		

Professional Elective Course-IV

22AIM821	AI Ethics for AIML Engineers	22AIM824	Pattern Recognition
22AIM822	Social Network Analysis	22AIM825	Blockchain Technologies
22AIM823	Mobile Computing		

Elucidation:

At the beginning of IV years of the program i.e., after VI semester, VII semester classwork and VIII semester Internship shall be permitted to be operated simultaneously by the University so that students have ample opportunity for an internship. In other words, a good percentage of the class shall attend VII semester classwork and a similar percentage of others shall attend to Internship.

Internship: The mandatory Internship is for **14 to 20 weeks**. The internship shall be considered as a head of passing and shall be considered for the award of a degree. Those, who do not take up/complete the internship shall be declared to fail and shall have to complete it during the subsequent SEE examination after satisfying the internship requirements. If the students are opting for the 8th semester, the following internship options are available:

- Industry Internship
- Research Internship
- Skill Enhancement Courses
- Post-Placement Training as Internship
- Online Internship

Industry internship: It is an extended period of work experience undertaken by students to supplement their degree for professional development. It also helps them learn to overcome unexpected obstacles and successfully navigate organizations, perspectives, and cultures. Dealing with contingencies helps students recognize, appreciate, and adapt to organizational realities by tempering their knowledge with practical constraints. Students undertaking industry internships must ensure the organization is listed on the VTU Internship Portal. If not, request the organization to register on the portal.

Research internship: A research internship is intended to offer the flavor of current research going on in the research field. It helps students get familiarized with the field and imparts the skill required for carrying out research. Research internships must be carried out in recognized research centers. Ensure that these centers are registered on the portal.

Skill Enhancement Courses: Students can take Skill-based courses with credits totalling the same as those of the internship. Students must be taken from registered providers listed on the VTU Internship Portal.

Post-Placement Training as Internship: The post-placement training is also considered an internship. For students placed during their 6th/7th semester and willing to take the training during their final year, colleges must inform the recruiting companies in advance to register on the VTU Internship Portal.

Online Internship: Reputed online internship platforms, including those identified by NSDC, are already listed on the VTU Internship portal. If colleges come across other eligible organizations not yet listed, they are informed to ask the organization to register on the VTU Internship portal.

The faculty coordinator or mentor has to monitor the student's internship progress and interact with them to guide for the successful completion of the internship. The students are permitted to carry out the internship anywhere in India or abroad. University shall not bear any expenses incurred in respect of the internship. With the consent of the internal guide and Principal of the Institution, students shall be allowed to carry out the internship at their hometown (within or outside the state or abroad), provided favorable facilities are available for the internship and the student remains regularly in contact with the internal guide.

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Credit Definition: 1-hour Lecture (L) per week=1Credit 2-hoursTutorial(T) per week=1Credit 2-hours Practical / Drawing (P) per week=1Credit 2-hous 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 4

Proposed course for the academic year 2025-2026(5th and 6th semester-160 Credits-NEP 2022 Scheme)

NEW HORIZON COLLEGE OF ENGINEERING
B. E. in Artificial Intelligence and Machine Learning
Scheme of Teaching and Examinations for 2023- 2027 BATCH (2022 Scheme)

V Semester

Sl No.	Course and Course Code		Course Title	BoS	Credit Distribution				Overall Credits	Contact Hrs	Marks		
					L	T	P	S			CIE	SEE	Total
1	HSMS	22AIM51	Software Engineering and Project Management	AIML	3	0	0	0	3	3	50	50	**100**
2	PCC	22 AIM52	Machine Learning	AIML	3	0	0	0	3	3	50	50	**100**
3	PCCL	22AIL52	Machine Learning Lab	AIML	0	0	1	0	1	2	50	50	**100**
4	PCC	22 AIM 53	Natural Language Processing	AIML	3	0	0	0	3	3	50	50	**100**
5	PCCL	22AIL53	Natural Language Processing Lab	AIML	0	0	1	0	1	2	50	50	**100**
6	PEC	22AIM54X	Professional Elective Course-I	AIML	3	0	0	0	3	3	50	50	**100**
7	AEC	22RMK55	Research Methodology and IPR	AIML	1	1	0	0	2	3	50	50	**100**
8	AEC	22SDK56	Critical and Creative Thinking Skills	AIML	0	0	1	0	1	2	50	--	**50**
9	UHV	22ESK57	Environmental Studies	Any Dept	1	0	0	0	1	1	50	50	**100**
10	PROJ	22AIM58	Mini Project-II	AIML	0	0	1	0	1	0	50	50	**100**
11	NCMC	22NSS50	National Service Scheme (NSS)	NSS coordinator	0	0	0	0	0	2	50	--	**50**
		22PED50	Physical Education (PE) (Sports and Athletics)	PE Director									
		22YOG50	Yoga	Yoga Teacher									
Total									**19**	**24**	**550**	**450**	**1000**

PCC: Professional Core Course, **PCCL**: Professional Core Course laboratory, **UHV**: Universal Human Value Course, **NCMC:** 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

22AIM541	Architecting AI Systems & Operating Systems	22AIM544	Information Storage and Retrieval
22AIM542	Internet of Things (IoT)	22AIM545	Computational Intelligence
22AIM543	Advanced Java Programming		

22XXX51(HSMS)- 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 and Entrepreneurship

Mini-project: 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
A group of 2 if mini project work is single discipline (applicable to all IT allied branches)

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:

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.

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 can be added to supplement the latest trend and advanced technology in the selected stream of engineering.

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-hr. Lecture (L) per week=1Credit 2-hrsTutorial (T) per week=1Credit 2-hrs. Practical / Drawing (P) per week=1Credit 2-hous Self Study for Skill Development (SDA) per week = 1 Credit	03-Credits courses are to be designed for 40 hrs. in Teaching-Learning Session 02- Credits courses are to be designed for 25 hrs. of Teaching-Learning Session 01-Credit courses are to be designed for 15 hrs. of Teaching-Learning Sessions

VI Semester													
Sl. No.	**Course and Course Code**		**Course Title**	**BoS**	**Credit Distribution**				**Overall Credits**	**Contact Hrs.**	**Marks**		
					L	**T**	**P**	**S**			**CIE**	**SEE**	**Total**
1	PCC	22AIM61	Deep Learning	AIML	3	0	0	0	3	3	50	50	**100**
2	PCCL	22AIL61	Deep Learning Lab	AIML	0	0	1	0	1	2	50	50	**100**
3	PCC	22AIM62	Big Data & Cloud Technologies	AIML	3	0	0	0	3	3	50	50	**100**
4	PCCL	22AIL62	Big Data & Cloud Technologies Lab	AIML	0	0	1	0	1	2	50	50	**100**
5	PCC	22AIM63	Ethical Cyber Security	AIML	2	1	0	0	3	4	50	50	**100**
6	PEC	22AIM64X	Professional Elective Course-II	AIML	3	0	0	0	3	3	50	50	**100**
7	PROJ	22AIM65	Project Phase I	AIML	0	0	2	0	2	0	50	50	**100**
8	AEC	22SDK66	Problem Solving Skills	AIML	0	0	1	0	1	2	50	--	**50**
9	AEC	22AIM67X	Ability Enhancement Course – V	AIML	0	0	1	0	1	2	50	50	**100**
10	OEC	23NHOP6XX	Industrial Open Elective Course-I	Offering Dept.	3	0	0	0	3	3	50	50	**100**
11	NCMC	22NSS60	National Service Scheme (NSS)	NSS coordinator	0	0	0	0	0	2	50	--	**50**
		22PED60	Physical Education (PE) (Sports and Athletics)	PE Director									
		22YOG60	Yoga	Yoga Teacher									
Total									**21**	**26**	**550**	**450**	**1000**

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, C**IE**: Continuous Internal Evaluation, **SEE**:Semester End Evaluation.

Professional Elective Course-II			
22AIM641	Computer Networks	22AIM644	Augmented and Virtual Reality
22AIM642	Computer Vision	22AIM645	Randomized Algorithms
22AIM643	Embedded Systems		

Ability Enhancement Course – V			
22AIM671	AI powered UI design	22AIM674	Mobile Application Development
22AIM672	API and Microservices	22AIM675	Software Testing and Quality Assurance
22AIM673	Web Frameworks		

Industrial Open Elective Courses-I: 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 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.

Project Phase-I: Students have to discuss with the mentor /guide and with their help he/she has to complete the literature survey and prepare the report and finally define the problem statement for the project work.

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 can be added to supplement the latest trend and advanced technology in the selected stream of engineering.

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 to VI semesters (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 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:	03-Credit courses are to be designed for 40 hrs. in Teaching-Learning Sessions
1-hr. Lecture (L) per week=1Credit	
2-hrs. Tutorial (T) per week=1Credit	02-Credit courses are to be designed for 25 hrs. of Teaching-Learning Sessions
2-hrs. Practical / Drawing (P) per week=1Credit	

2-hrs. Self-Study for Skill Development (SDA) per week = 1 Credit	01-Credit courses are to be designed for 15 hrs. of Teaching-Learning Sessions

AGENDA 5

Proposed course for the academic year 2025-2026(3rd and 4th Semesters-160 Credits-Revised NEP 2024 Scheme)

NEW HORIZON COLLEGE OF ENGINEERING
B. E. in Artificial Intelligence and Machine Learning
Scheme of Teaching and Examinations for 2024- 2028 BATCH (2024 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*	24MAC31	Mathematical Foundation for Computing Sciences	BS	2	1	0	0	3	4	50	50	**100**
2	PCC*	24CSK32	Advanced Data Structures	CSE	3	0	0	0	3	3	50	50	**100**
3	PCCL*	24CSLK32	Advanced Data Structures Lab	CSE	0	0	1	0	1	2	50	50	**100**
4	PCC	24AIM33	Data Science	AIML	3	0	0	0	3	3	50	50	**100**
5	PCCL	24AIL33	Data Science Lab	AIML	0	0	1	0	1	2	50	50	**100**
6	PCC	24AIM34	Introduction to Artificial Intelligence	AIML	3	0	0	0	3	3	50	50	**100**
7	HSMS*	24CSK35	Software Engineering and Project Management	CSE	3	0	0	0	3	3	50	50	**100**
8	AEC	24AIM36X	Ability Enhancement Course – III	AIML	0	0	1	0	1	2	50	50	**100**
9	UHV*	24DTK37	Design Thinking and Fabrication	AIML	1	0	0	0	1	1	50	50	**100**
10	NCMC*	24NSS30	National Service Scheme	-	0	0	0	0	0	2	50	--	**50**
		24PED30	Physical Education and Sports	-									
		24YOG30	Yoga	-									
				Total					**19**	**25**	**500**	**450**	**950**
11	NCMC*	24DMAT31	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

24DMAT31*: This non-credit mandatory course to be offered to Lateral entry students.

Ability Enhancement Course – III (0-0-1-0)			
24AIM361	Introduction to OpenCV	24AIM364	Data Visualization with Power BI
24AIM362	GoLang Programming	24AIM365	Bio-Inspired Design and Innovation (1-0-0-0)
24AIM363	Project Management with Git		

24CSK35(HSMS)- 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 and Entrepreneurship.

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	03-Credits courses are to be designed for 40 hours in Teaching-Learning Session

2-hoursTutorial(T) per week=1Credit 2-hours Practical / Drawing (P) per week=1Credit 2-hous Self Study for Skill Development (SDA) per week = 1 Credit	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 Artificial Intelligence and Machine Learning

Scheme of Teaching and Examinations for 2024- 2028 BATCH (2024 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*	24MAC41	Discrete Mathematics and Graph Theory	BS	2	1	0	0	3	4	50	50	**100**
2	PCC*	24CSK42	Object Oriented Programming using Java	CSE	3	0	0	0	3	3	50	50	**100**
3	PCCL*	24CSLK42	Object Oriented Programming using Java Lab	CSE	0	0	1	0	1	2	50	50	**100**
4	PCC	24AIM43	Machine Learning	AIML	3	0	0	0	3	3	50	50	**100**
5	PCCL	24AIL43	Machine Learning Lab	AIML	0	0	1	0	1	2	50	50	**100**
6	PCC*	24CSK44	Database Management System	CSE	3	0	0	0	3	3	50	50	**100**
7	PCCL*	24CSLK44	Database Management System Lab	CSE	0	0	1	0	1	2	50	50	**100**
8	PEC	24AIM45X	Professional Elective Course-I	AIML	3	0	0	0	3	3	50	50	**100**
9	AEC	24AIM46X	Ability Enhancement Course – IV	AIML	0	0	1	0	1	2	50	50	**100**
10	UHV*	24UHK47	Universal Human Values and Life Skills	Any Dept	1	0	0	0	1	2	50	50	**100**
11	PROJ	24AIM48	Mini Project	AIML	0	0	1	0	1	2	50	50	**100**
12	NCMC*	24NSS40	National Service Scheme	-	0	0	0	0	0	2	50	--	**50**
		24PED40	Physical Education and Sports	-									
		24YOG40	Yoga	-									
Total									**21**	**30**	**600**	**550**	**1150**

13	NCMC*	24DMAT41	Basic Applied Mathematics-II	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, **PROJ**: Mini Project work, **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.

24DMAT41*: This non-credit mandatory course to be offered to Lateral entry students.

Professional Elective Course-I			
24AIM451	AI Ethics for AIML Engineers	24AIM454	Introduction to Embedded Systems
24AIM452	Computer Networks	24AIM455	Fundamentals of Sensor Technology
24AIM453	Computer Architecture		

Ability Enhancement Course – IV			
24AIM461	Exploratory Data Analysis	24AIM464	Typescript Programming
24AIM462	Cloud Service Management	24AIM465	Problem Solving using Scala
24AIM463	Digital Electronics using HDL		

Mini-project: 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:

(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-hoursTutorial(T) per week=1Credit 2-hours Practical / Drawing (P) per week=1Credit 2-hous 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 6

Presentation of draft of scheme & syllabus for the commencement semesters of (2022 and 2024) schemes for ratification

The Chairperson presented the draft of scheme and contents of syllabus. The details were scrutinized by the members of the Board.

The presentation for the ratification of a draft scheme and syllabus for semester courses is a crucial step in the academic process. The members formally accepted and appreciated the proposal of new courses. The objective of this presentation is to provide a comprehensive overview of the proposed courses, including their structure, content, assessment methods, and alignment with learning objectives.

In summary, the presentation session for draft scheme and syllabus ratification was very informative aimed at presenting comprehensive details about all intrinsic details of Core (Theory & Lab), Professional Electives, PLC (Programming Language Courses) and AEC (Ability Enhancement courses). After emphasizing the courses' content, structure, assessment methods, and alignment with learning outcomes, ultimately seeking approval and endorsement from panel of external experts and university nominee.

AGENDA 7

Recommendations/Suggestions of BOS members

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

Dr. Latha C A, Professor, RVMIT, Bengaluru, Dr. Shyam Lal, Assistant Professor, Dept. of ECE, NITK, Surathkal and Mr. Chandrashekara R S, SIEMENS, Bengaluru, Dr. R J Anandhi, Dean Academics, NHCE. Mr. Rohan Siddeshwara, Associate Data Scientist, Akaike Technologies, Ms. Bhoomika, Associate Data Scientist, Akaike Technologies. The members appreciated the curriculum and syllabus.

- Dr. N. V. Uma Reddy initiated the meeting by welcoming the guests and participants.
- Madam provided a detailed overview of the following schemes:
  • Scheme of Teaching and Examinations for 2022- 2026 BATCH 2022 Scheme (160 Credits) VII & VIII Semester
  • Scheme of Teaching and Examinations for 2023- 2027 BATCH 2022 Scheme (160 Credits) V & VI Semester
  • Scheme of Teaching and Examinations for 2024- 2028 BATCH 2024 Scheme (160 Credits) III & IV Semester
- Dr. Shyam Lal recommended shifting certain concepts from Advanced Machine Learning to the basic Machine Learning course.
- He suggested incorporating Time Series Models related to Machine Learning into the basic ML syllabus.
- Topics like Gradient Descent, XGBoost, and Support Vector Machines (SVM) were proposed to be included in the foundational ML course.
- Dr. Chandrashekara R. S. suggested reducing some existing topics to make room for the following additions:
  1. Increased emphasis on practical use cases.
  2. Integration of ethics in every semester to promote responsible use of technology.
  3. Inclusion of sustainability-focused problem statements for students to solve.
- Dr. Latha C. A. proposed offering integrated courses similar to the existing PLC courses.
- She recommended shifting the Software Engineering and Project Management subjects to higher semesters.
- Emphasis was also placed on aligning the curriculum more closely with the Program Objectives.
- Alumni representatives suggested incorporating more Python programming exercises and usage of APIs (Industry based) to enhance practical skills.

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AGENDA 8

Implementation of Recommendation of BOS Members

The chairperson constituted the following groups to review and implement the recommendations of the BOS members in the scheme and syllabus of the curriculum based on industry needs.

7th and 8th Semester (2022 Scheme):
Dr. S. Umamaheswaran
Dr. S. Sreejith
Dr. Sanjeev

3rd and 4th Semester (2024 Scheme):
Dr. H K. Sowmya
Dr. Rajashree R S
Dr. Jimsha K Mathew
Dr. Akshatha P S

AGENDA 9

Approval of scheme & syllabus of agenda 3&4, 5 & 6 and 7 &8

The Board of Studies members reviewed the modified draft of the scheme & syllabus with their recommendations/suggestions being incorporated appropriately for the following:

1. Scheme-2022 -7th – 8th BE (AIML) scheme & syllabus

2. Scheme-2022 - 5th - 6th BE (AIML) scheme & syllabus

3. Scheme-2024- 3rd -4th BE (AIML) scheme and syllabus.

Finally, the members approved the draft of the same with the modifications for final implementation.

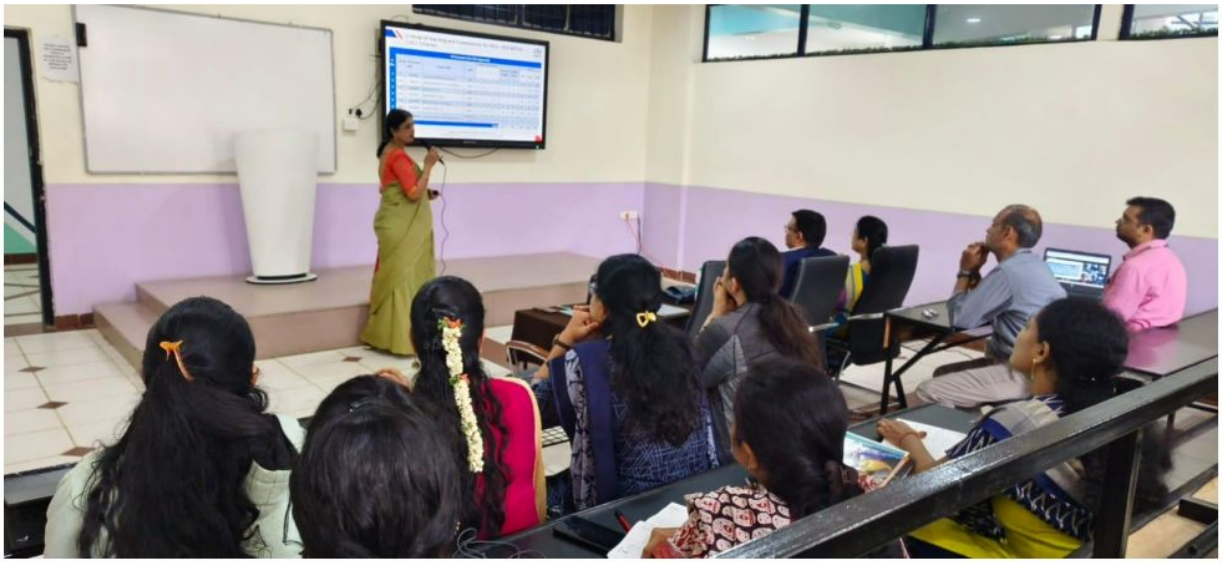
AGENDA 10

Vote Of Thanks by the Chairman of BOS

The chairman of BOS thanked the external members for their fruitful participation on behalf of the Principal and the Management. She also thanked Dr. Latha C A, Mr. Chandrashekara R S., Dr. Shyam Lal, Mr. Rohan Siddeshwara, Ms. Boomika and all the other members of the BOS for their active participation.

Annexure -A

Photos:




Ratification of NEP Scheme & Syllabus

BoS Chairman	Dean-Academics	Principal
Dr. N.V.Uma Reddy	Dr. Anandhi R J	Dr. Manjunatha