Board of Studies

in

Department of Artificial Intelligence and Data Science

[UG – B.TECH]

5th BOS Meeting Held on 15.07.2025

Minutes of the Meeting

Department of Artificial Intelligence and Data Science

Adhiyamaan College of Engineering

[An Autonomous Institution Affiliated to Anna University, Chennai]

Accredited by NAAC

Dr.M.G.R Nagar, Krishnagiri [Dt], Hosur – 635109, Tamil Nadu.

ADHIYAMAAN COLLEGE OF ENGINEERING, HOSUR – 635 109

[An Autonomous Institution under Anna University, Chennai]

BOARD OF STUDIES FOR DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

5th BOS Meeting to be held on 15.07.2025

AGENDA

32.1 Welcome Address

32.2 Review the minutes of the 4th meeting of the Board of Studies in Department Of Artificial Intelligence And Data Science held on 17.12.2024.

32.3 To discuss on Outcome-Based Curriculum Framework.

32.4.1 Presentation of CO/PO Attainment Data of Odd Sem (2024-2025) **(ANNEXURE –I)**

32.4.2 Review of Gaps and Proposed Corrective Strategies. **(ANNEXURE –II)**

32.4.3 To discuss on Faculty Development Strategies

32.5. To discuss on Incorporating IKS into Elective Curriculum

32.6 To identify NPTEL courses that are equivalent to elective subjects offered during the odd semester (2025-2026) under regulation 2022. **(ANNEXURE –III)**

32.7.1 To discuss on Mapping Curriculum of Regulation 2025 to NSQF Levels.

32.7.2 Review on Skill-based Add-on/Protosem Courses

32.7.3 To discuss on NSDC-Aligned Curriculum and Job Role Integration

32.8.1 Review and Enhancement of Internship Structure for Skill Development

32.8.2 Review of Industry Feedback on Current Curriculum

32.8.3 Integration of Employability Skills in Curriculum

32.9 Review and Planning of New Elective Courses of Regulation 2022 and 2025

32.10 Stakeholder Feedback Analysis and Curriculum Benchmarking

32.11.1 To consider the Curriculum & Syllabi of 5th semester of B.Tech. (Artificial Intelligence and Data Science) Programme to be offered for the batch of students admitted from 2023-2024 under the Regulations 2022 (CBCS). **(ANNEXURE –IV)**

32.11.2 To consider the U.G Curriculum (3rd to 8th Semester) of of B.Tech. (Artificial Intelligence and Data Science) Programme to be offered for the batch of students admitted in 2025-2026 under the Regulations 2025 (CBCS). **(ANNEXURE –V)**

32.11.3 To review and prescribe additional courses required for readmitted or transferred students to align with the current academic regulations following a change in curriculum.

32.12 Presentation and Approval of Key Resolutions

32.13 Acknowledgement and Closure of Meeting

Chairperson-BOS

Date: 7-7-2025

AI&DS
Professor & Head
Dept. of Artificial Intelligence
& Data Science
A.C.E, Hosur.

ADHIYAMAAN COLLEGE OF ENGINEERING

[An Autonomous Institution under Anna University, Chennai]

HOSUR – 635 109

BOARD OF STUDIES IN ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

5th BOS Minutes of the Meeting

Members present for 5th meeting held on 15-07-2025 at 11.00 am @ R&D LAB, Main Block.

MEMBERS PRESENT

1. Dr.G.Shanmugapriya, Chairperson, BOS & HOD/ AI&DS
2. Dr. J.B.Jona, University Nominee
3. Dr. J.Lenin, Subject Expert other than Parent University
4. Dr. T.John Peter, Subject Expert other than Parent University
5. Mr.D.V.Jeyakumar, Industry Representative
6. Mr.S.Karthick, Alumni Representative
7. Mr. D.Senthilkumar, Subject Expert – Special Course
8. Ms.K.Oviya, Member of the Faculty
9. Mrs.SM.Hemalatha, Member of the Faculty
10. Mr. G.Dineshbabu, Member of the Faculty
11. Mrs.S.Shyamala, Member of the Faculty
12. Mrs.J.Ephi Smily, Member of the Faculty

5.1 Dr. G.Shanmugapriya, Chairperson of the Board of Studies (BOS) and Head of the Department of Artificial Intelligence and Data Science (AI&DS), welcomed the gathering for BOS meeting and set the context for the discussions.

5.2 Review the minutes of the 4th meeting of the Board of Studies in Department of Artificial Intelligence and Data Science held on 17.12.2024.

RESOLVED that the minutes of the 4th meeting of the Board of Studies in Department of Artificial Intelligence and Data Science held on 17.12.2024 has been reviewed and action taken was appreciated.

5.3 To discuss on Outcome-Based Curriculum Framework.

RESOLVED that the Outcome-Based Curriculum framework is incorporated in Regulation 2022 and 2025

5.4.1 Presentation of CO/PO Attainment Data of Odd Sem (2024-2025) **(ANNEXURE –I)**

CO/PO Attainment Data for the Odd Semester (2024– 2025) was reviewed and approved

5.4.2 Review of Gaps and Proposed Corrective Strategies. **(ANNEXURE –II)**

The Gap analysis and Proposed Corrective Strategies was reviewed and **RESOLVED** thatthe proposed corrective strategies were approved

5.4.3 To discuss on Faculty Development Strategies

RESOLVED that the the proposed Faculty Development Strategies of conducting FDP, Faculty Internships, aimed at enhancing the academic and professional growth of faculty members, were thoroughly discussand were approved

5.5. To discuss on Incorporating IKS into Elective Curriculum

RESOLVED that the incorporation of IKS into the curriculum of Regulation 2022 and 2025 was approved

5.6 To identify NPTEL courses that are equivalent to elective subjects offered during the odd semester (2025-2026) under regulation 2022 **(ANNEXURE –III)**

RESOLVED that identified NPTEL courses equivalent to elective subjects offered during the Odd Semester (2025–2026) under regulation 2022 was approved

5.7.1 To discuss on Mapping Curriculum to NSQF Levels.

RESOLVED that the mapping of the Regulation 2022 and 2025 curriculum to NSQF levels was approved.

5.7.2 Review on Skill-based Add-on/Protosem Courses

RESOLVED that the skill-based add-on/Protosem courses were approved and well appreciated.

5.7.3 To discuss on NSDC-Aligned Curriculum and Job Role Integration

RESOLVED that the NSDC-aligned curriculum with relevant job roles be integrated in Regulation 2025

5.8.1 Review and Enhancement of Internship Structure for Skill Development

RESOLVED that the enhancement of the internship structure for skill development was approved .

5.8.2 Review of Industry Feedback on Current Curriculum

RESOLVED that the industry feedback on the current curriculum of Regulation 2022 was reviewed and approved

5.8.3 Integration of Employability Skills in Curriculum

RESOLVED that employability skills be integrated into the curriculum of Regulation of 2025 across relevant courses

5.9 Review and Planning of New Elective Courses

RESOLVED that the new elective courses proposed for the odd semester (2025-2026) under regulation 2022 in alignment with emerging industry trends were **reviewed in detail**, and **approved** their inclusion in the academic offerings

5.10 Stakeholder Feedback Analysis and Curriculum Benchmarking

RESOLVED that stakeholder feedback analysis and curriculum benchmarking be undertaken to align academic offerings with industry and academic standards

5.11.1 To consider the Curriculum & Syllabi of 5th semester of B.Tech. (Artificial Intelligence and Data Science) Programme to be offered for the batch of students admitted from 2023-2024 under the Regulations 2022 (CBCS). **(ANNEXURE –IV)**

RESOLVED that the Curriculum & Syllabi of 7th semester of B.Tech. (Artificial Intelligence and Data Science) Programme to be offered for the batch of students admitted from 2023-2024 under the Regulations 2022 (CBCS), be approved.

5.11.2 To consider the U.G Curriculum (3rd to 8th Semester) of B.Tech. (Artificial Intelligence and Data Science) Programme to be offered for the batch of students admitted from 2025-2026 under the Regulations 2025 (CBCS). **(ANNEXURE –V)**

RESOLVED that the U.G Curriculum (3rd to 8th Semester) of B.Tech. (Artificial Intelligence and Data Science) Programme to be offered for the batch of students admitted in 2025-2026 under the Regulations 2025 (CBCS), be approved.

5.11.3 To review and prescribe additional courses required for readmitted or transferred students to align with the current academic regulations following a change in curriculum

RESOLVED THAT the additional courses required for readmitted and transferred students, due to a change in curriculum regulations, were **reviewed** and no students are registered under this category.

5.12 Presentation and Approval of Key Resolutions

RESOLVED that the key resolutions presented during the meeting was approved

5.13 Acknowledgements and Closure of Meeting

As per the suggestions provided by the Board of Members, the following changes have been made to the V Semester syllabus.

Department of Artificial Intelligence and Data Science				
Sem	**Course Code**	**Name of the course**	**Remarks (New Courses Introduced /Content incorporated in the corresponding courses)**	**Suggestions**
2025 - 2026 – 5th BOS Meeting				
V	522ADT01	Machine Learning	Newly Introduced course with the following units. **Unit I** : INTRODUCTION TO MACHINE LEARNING **Unit II** : SUPERVISED LEARNING DEVELOPMENT **Unit III** : ENSEMBLE TECHNIQUES AND UNSUPERVISED LEARNING **Unit IV**: NEURAL NETWORKS **Unit V:** DESIGN AND ANALYSIS OF MACHINE LEARNING EXPERIMENTS	Dr.J.Lenin, Subject Expert other than Parent University has suggested to include more use cases relevant to the concepts.
V	522ADP07	Machine Learning Laboratory	Newly Introduced Laboratory in line with theory	Dr.J.B.Jona, University Nomineee has suggested to include Linear Regression, Logistic, Random forest and follow in line with the theory concepts.
Feedback obtained about curriculum and syllabus from stakeholders (faculty, students, alumni and employers) were also discussed and concluded.				

List of Courses Newly Introduced in Regulation 2025

S.No	Name of the course	Credits	Remarks
1	Knowledge Engineering		
2	Natural Language Processing		

3	Agile software Development	3	
4	Reinforcement Learning	3	
5	AI in Health Care	3	
6	Generative Deep Learning	3	
7	Ethics in AI	3	
8	Robotics	3	
3	Quantum Computing	3	
4	Generative Deep Learning Lab	1	
5	Business Intelligence	3	
6	High Performance Computing	3	
7	Quantum Artificial Intelligence	3	As suggested by the Subject Expert, Industry Nominee, Alumni Nominee, and feedback by Stakeholders, the recommended courses have been duly included in the curriculum
8	Generative AI	3	
9	Artificial IOT	3	
10	Agent Based Intelligent Systems	3	
11	Artificial Intelligence Search Methods For Problem Solving	3	
12	Data Analytics With Python	3	
13	Business Intelligence & Analytics	3	
14	Fundamentals Of Edge Computing	3	
15	Data Cleaning &Preprocessing	3	
16	Data Acquisition And Visualization	3	
17	Deep Learning For Data Analytics	3	
18	Mining Massive Datasets	3	
19	Fundamentals of Quantization	3	
20	Quantum Software Development	3	
21	Quantum Cryptography	3	
22	Quantum Resistant Block Chain	3	

23	Quantum Machine Learning	3
24	Quantum Imaging	3
25	Quantum Artificial Intelligence	3
26	Ethical Hacking	3
27	Digital And Mobile Forensics	3
28	Social Network Security	3
29	Modern Cryptography	3
30	Engineering Secure Software Systems	3
31	Network Security	3
32	Security And Privacy In Cloud	3
33	Multi Media And Animation	3
34	Visual Effects	3
35	Video Creation And Editing	3
36	Augmented Reality And Virtual Reality	3
37	Virtualization	3
38	Software Defined Networks	3
39	Data Warehousing	3
40	Storage Technologies	3
41	Security & Privacy In Cloud	3
42	Cloud Services Management	3
43	Stream Processing	3

BOS MEMBERS

BOS CHAIRPERSON

Professor & Head
Dept. of Artificial Intelligence
& Data Science
A.C.E, Hosur.

ANNEXURE – I

Course Code	Course Name	Direct CO Attainment	Indirect CO Attainment	Total CO Attainment(%) (80% *Direct Attainment+20%* Indirect attainment)
322DMT01	DISCRETE MATHEMATICS	2.59	3.00	2.67
322CI102	DIGITAL ELECTRONICS	2.36	3.00	2.49
322CIT03	FOUNDATIONS OF DATA SCIENCE	2.53	3.00	2.62
322ADT04	INTRODUCTION TO AI	2.45	3.00	2.56
322CIT05	DATA STRUCTURES	2.64	3.00	2.71
322CIT06	COMPUTER ORGANIZATION	2.50	3.00	2.60

ANNEXURE – II

Course Code	Course Name	Gap Analysis	Action Taken
322DMT01	DISCRETE MATHEMATICS	Lack of proficiency in direct, contrapositive, and induction proofs Reduces ability to handle theoretical CS problems	Conducted proof practice session weekly
322CII02	DIGITAL ELECTRONICS	Logics are difficult to understand	Conducted special class
322CIT03	FOUNDATIONS OF DATA SCIENCE	Limited understanding of statistical concepts and methods	Explained statistical concepts using real-world analogies (e.g., coin flips for probability, polls for sampling)
322ADT04	INTRODUCTION TO AI	Focus on basic concepts so students struggle to write complex program	Focus on advanced features and implementation, more use cases, motivate the students to solve more no of problems
322CIT05	DATA STRUCTURES	Lack of preparation in Non linear structure of data and it's algorithms is akey gap in the current state of Data structures.	Motivated the students to practice and build a knowledge by doing NASSCOM and NPTEL courses
322CIT06	COMPUTER ORGANIZATION	Computer Organization, which typically refers to the study and practical understanding of how computer systems are structured and function — including architecture, components, performance, and system-level	Encouraged mini-projects like basic CPU design, ALU simulation, or simple operating system kernel understanding

		integration.	

ANNEXURE – III

S. No	Course Code	Course Title	Equivalent NPTEL Course		
			Course Code	Course Name	Duration
1	X22CIE26	Social Network Security	noc25-cs102	Social Networks	12 Weeks
2	X22CIE21	Security and Privacy in Cloud	noc25-cs117	Privacy and Security in Online Social Media	12 Weeks
3	X22CSE37	Neural Networks and deep learning	noc25-cs93	Deep Learning for Computer Vision	12 Weeks
4	X22xxExx	Cyber Security	noc25-cs116	Cyber Security and Privacy	12 Weeks
5	X22CIE22	Ethical Hacking	noc25-cs142	Ethical Hacking	12 Weeks
6	X22CIE14	Software Testing and Automation	noc25-cs113	Software Testing	12 Weeks
7	X22XXExx	Game	noc25-cs151	Algorithmic Game	12 Weeks

		Development		Theory	

ANNEXURE – IV

SEMESTER – V

S. No	CAT	COURSE CODE	COURSE TITLE	L	T	P	C	MARKS		
								CA	EA	TOT
1	PC	522ADT01	Machine Learning	3	0	0	3	40	60	100
2	PC	522ITI02	Embedded Systems and IoT	3	0	2	4	40	60	100
3	PC	522ADT03	Cloud Computing	3	0	0	3	40	60	100
4	PC	522CIT04	Web Essentials	3	0	0	3	40	60	100
5	PE	522ADXXX	Professional Elective –I	3	0	0	3	40	60	100
6	OE	522ADOXX	Open Elective -I	3	0	0	3	40	60	100
7	MC	522MCTXX	Mandatory Course-I	1	0	0	0	100	-	100
			PRACTICALS							
8	PC	522ADP07	Machine Learning Laboratory	0	0	2	1	60	40	100
9	PC	522CIP08	Web Essentials Laboratory	0	0	2	1	60	40	100
10	EEC	522ADP09	Internship	0	0	4	2	100	-	100
			TOTAL MANDATORY CREDITS				23			

ANNEXURE –V

Semester	Course Categories	Subjects / Activities	Credits (Approx.)
III	BS	Mathematics – 3(Discrete Mathematics)	4
	ES	Microprocessor and Microcontroller	3
	PC	Data Structures	3
	PC	Object Oriented Programming(CDIO)	3
	PC	Foundations of Data Science (Skill based Course)	4
	PC	Operating Systems	3
	PC	Data Structures Lab	1
	PC	OOPs Lab	1
	EEC	Internship-1	1
	AC	IKS/UHV	0
		Total	23

Semester	Course Categories	Subjects / Activities	Credits (Approx.)
IV	PC	Network Essentials	4
	PC	Database Management Systems	3
	PC	Design and Analysis of Algorithms	3
	PC	Web Essentials (Skill based Course)/CDIO	3
	PE	Professional Elective-1	3
	PE	Interdisciplinary course-1(IOT & Embedded System)	4
	PC	DBMS & Web Essentials Lab	1
	EEC	Internship-2	1
	EEC	Exploration of Engineering	1
		Total	23

Semester	Course Categories	Subjects / Activities	Credits (Approx.)
V	HS	Entrepreneurship and Start-ups (Protosem)	2
	PC	**Artificial Intelligence and Machine Learning**	3
	PC	**Compiler Design**	4
	PE-2	Professional Elective-2	4
	PE-3	Professional Elective-3(Industry Tech Group)	4
	OE-1	Open Elective-1	3
	PC	**Artificial Intelligence and Machine Learning Lab**	1
		Total	21

Semester	Course Categories	Subjects / Activities	Credits (Approx.)
VI	PC	**Cryptography and Block chain**	4
	PC	**Cloud Computing**	3
	PC	**Mobile Application Development (Skill Based)**	4
	PC	**Agile software Development**	3
	PE-4	Professional Elective-4	3
	OE-2	Open Elective-2	3
	PC	**Cloud Computing Lab**	1
	EEC	Mini Project-1	2
		Total	23

Semester	Course Categories	Subjects / Activities	Credits (Approx.)
VII	OE	Open Elective-3	3
	OE	Open Elective-4(Management Elective)	3
	PC	**Generative Deep Learning**	3
	PC	**Quantum Computing**	3
	PC	**Mixed Reality**	4
	PE-5	Professional Elective-6 (Industry/Tech. group)	4
	PC	**Generative Deep Learning Lab**	1
		Total	21

Semester	Course Categories	Subjects / Activities	Credits (Approx.)
VIII	EEC	Design Major Project or Start-up Or Research in Industry/ Other Academic or Research Institute	10
		Total	10

PROFESSIONAL ELECTIVE COURSES-VERTICALS

VERTICAL I- ARTIFICIAL INTELLIGENCE

S. No	Category	Course Code	Course Title	L	T	P	C	Marks		
								CA	EA	TOT
THEORY										
1	PE		Business Intelligence	3	0	0	3	40	60	100
2	PE		High Performance Computing	3	0	0	3	40	60	100
3	PE		Quantum Artificial Intelligence	3	0	0	3	40	60	100
4	PE		Generative AI	3	0	0	3	40	60	100
5	PE		Artificial IOT	3	0	0	3	40	60	100
6	PE		Agent Based Intelligent Systems	3	0	0	3	40	60	100
7	PE		Artificial Intelligence Search Methods For Problem Solving	3	0	0	3	40	60	100

VERTICAL II- DATA ANALYTICS

S. No	Category	Course Code	Course Title	L	T	P	C	Marks		
								CA	EA	TOT
THEORY										
1	PE		Data Analytics With Python	3	0	0	3	40	60	100
2	PE		Business Intelligence & Analytics	3	0	0	3	40	60	100
3	PE		Fundamentals Of Edge Computing	3	0	0	3	40	60	100
4	PE		Data Cleaning & Preprocessing	3	0	0	3	40	60	100
5	PE		Data Acquisition And Visualization	3	0	0	3	40	60	100
6	PE		Deep Learning For Data Analytics	3	0	0	3	40	60	100
7	PE		Mining Massive Datasets	3	0	0	3	40	60	100

VERTICAL III- QUANTUM TECHNOLOGIES

S.No	Category	Course Code	Course Title	L	T	P	C	Marks		
								CA	EA	TOT
THEORY										
1	PE		Fundamentals of Quantization	3	0	0	3	40	60	100
2	PE		Quantum Software Development	3	0	0	3	40	60	100
3	PE		Quantum Cryptography	3	0	0	3	40	60	100
4	PE		Quantum Resistant Block Chain	3	0	0	3	40	60	100
5	PE		Quantum Machine Learning	3	0	0	3	40	60	100
6	PE		Quantum Imaging	3	0	0	3	40	60	100
7	PE		Quantum Artificial Intelligence	3	0	0	3	40	60	100

VERTICAL IV-CYBER SECURITY

S.No	Category	Course Code	Course Title	L	T	P	C	Marks		
								CA	EA	TOT
THEORY										
1	PE		Ethical Hacking	3	0	0	3	40	60	100
2	PE		Digital And Mobile Forensics	3	0	0	3	40	60	100
3	PE		Social Network Security	3	0	0	3	40	60	100
4	PE		Modern Cryptography	3	0	0	3	40	60	100
5	PE		Engineering Secure Software Systems	3	0	0	3	40	60	100
6	PE		Network Security	3	0	0	3	40	60	100
7	PE		Security And Privacy In Cloud	3	0	0	3	40	60	100

VERTICAL V- CREATIVE MEDIA

S. No	Category	Course Code	Course Title	L	T	P	C	Marks		
								CA	EA	TOT
THEORY										
1	PE		Multi Media And Animation	3	0	0	3	40	60	100
2	PE		Digital Marketing	3	0	0	3	40	60	100
3	PE		UI And UX Design	3	0	0	3	40	60	100
4	PE		Visual Effects	3	0	0	3	40	60	100
5	PE		Game Development	3	0	0	3	40	60	100
6	PE		Video Creation And Editing	3	0	0	3	40	60	100
7	PE		Augmented Reality And Virtual Reality	3	0	0	3	40	60	100

VERTICAL VI: CLOUD COMPUTING AND DATA CENTER TECHNOLOGIES

S. No	Category	Course Code	Course Title	L	T	P	C	Marks		
								CA	EA	TOT
THEORY										
1	PE		Virtualization	3	0	0	3	40	60	100
2	PE		Software Defined Networks	3	0	0	3	40	60	100
3	PE		Data Warehousing	3	0	0	3	40	60	100
4	PE		Storage Technologies	3	0	0	3	40	60	100
5	PE		Security & Privacy In Cloud	3	0	0	3	40	60	100
6	PE		Cloud Services Management	3	0	0	3	40	60	100
7	PE		Stream Processing	3	0	0	3	40	60	100

ADHIYAMAAN COLLEGE OF ENGINEERING - HOSUR

(Autonomous)

B.TECH. ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

PROPOSED CURRICULUM –R2025

(Applicable to the students admitted from the Academic year 2025-2026 onwards)

S.NO.	Semester	Credits
1	I	22
2	II	21
3	III	23
4	IV	23
5	V	21
6	VI	23
7	VII	21
8	VIII	10
	TOTAL	**164**

ADHIYAMAAN COLLEGE OF ENGINEERING (An Autonomous Institution), Hosur

B.TECH. ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

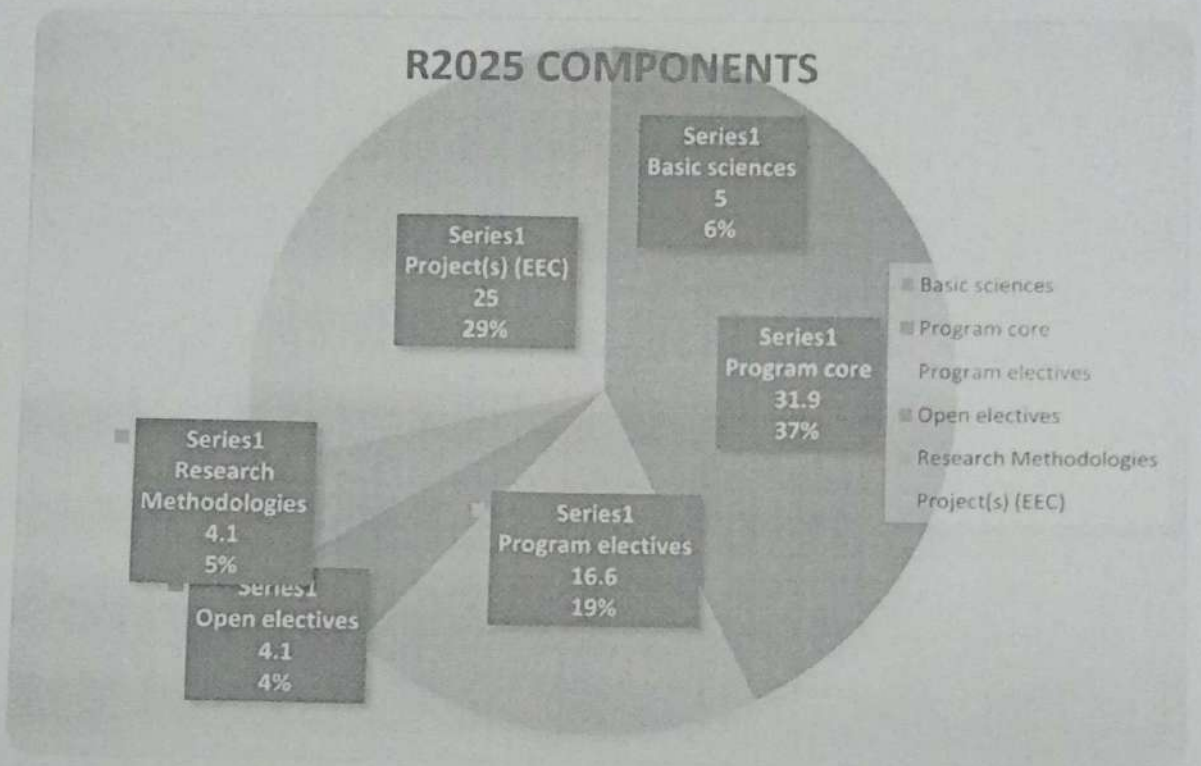
REGULATION 2025

PROPOSED CURRICULUM

Choice Based Credit System

PROFESSIONAL ELECTIVES - DOMAIN -II (DIGITAL SECURITY & PRIVACY)

S. No	Category	Course Code	Course Title	L	T	P	C	Marks		
								CA	EA	TOT
THEORY										
1	PE		Crypto Currency & Blockchain Technologies	3	0	0	3	40	60	100
2	PE		Ethical Hacking	3	0	0	3	40	60	100
3	PE		Digital And Mobile Forensics	3	0	0	3	40	60	100
4	PE		Security And Privacy In Cloud	3	0	0	3	40	60	100
5	PE		Cyber Digital Twins	3	0	0	3	40	60	100


R2025 COMPONENTS
Series1
Basic sciences
5
6%
Series1
Project(s) (EEC)
25
29%
Series1
Program core
31.9
37%
Series1
Research
Methodologies
4.1
5%
Series1
Program electives
16.6
19%
Series1
Open electives
4.1
4%
Basic sciences
Program core
Program electives
Open electives
Research Methodologies
Project(s) (EEC)