Date: 30/11/2022

Minutes of Meeting – Board of Studies (BOS)

Minutes of Meeting of Board of Studies of Artificial Intelligence and Data Science Department held on 30th November, 2022 at 04.30 P.M in Online mode.

S. No.	Name of the Faculty	Designation	Signature
1	Dr. B. Rajalingam, Professor & HOD (AI & DS), SMEC.	Chairman	
2	Dr. V. Kamakshi Prasad, Professor of CSE & BoS Chairperson, JNTUH College of Engineering, Hyderabad.	University Nominee	
3	Dr. K. Venkatesh Sharma, Professor, Dept. of CSE, CVR College of Engineering, Hyderabad.	Educationist	
4	Dr. P. L. Srinivasa Murthy, Professor, Department of CSE, Institute of Aeronautical Engineering, Dundigal, Hyderabad	Educationist	
5	Mr. Bonthala Mallikarjuna Aswanth Kumar, Lead Technology, Synechron, Hyderabad.	Industrialist	
6	Dr. S.V.S Rama Krishnam Raju, Professor of ECE & Dean Academics, SMEC.	Faculty Member	
7	Dr. R. Santhoshkumar, Professor & HOD, Dept. of CSE, SMEC.	Faculty Member	
8	Dr. R. Nagaraju, Professor & HOD, Dept. of IT, SMEC.	Faculty Member	
9	Dr. K. Srinivas, Professor & HOD, Dept. of CSE (AI & ML), SMEC.	Faculty Member	
10	Dr. D. Ranadheer Reddy, Professor & HOD, Dept. of S&H, SMEC.	Faculty Member	
11	Dr. N. Satheesh, Professor, Dept. of CSE, SMEC.	Faculty Member	
12	Mr. Pannati Nagesh, React Front End Developer, Syncor Solutions, Hyderabad.	Alumni Member	

The meeting began with Chairman, Board of Studies extending a warm welcome to all the members of participating in the meeting.

The following points were discussed and approved during the meeting

1. The following SMEC R22 course structure and detailed syllabus of B. Tech for I-I, I-II, II-I, II-II year were presented, discussed and approved. The total credits for the programme were discussed, finalized and approved.

I YEAR I SEMESTER

S. No.	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
			L	T	P		Internal (CIE)	External (SEE)	Total
1	MA101BS	Matrices and Calculus	3	1	0	4	40	60	100
2	AP102BS	Applied Physics	3	1	0	4	40	60	100
3	CS105ES	Programming for Problem Solving	3	0	0	3	40	60	100
4	ME107ES	Engineering Workshop	0	1	3	2.5	40	60	100
5	EN104HS	English for Skill Enhancement	2	0	0	2	40	60	100
6	CS106ES	Elements of Computer Science & Engineering	0	0	2	1	50	-	50
7	AP103BS	Applied Physics Laboratory	0	0	3	1.5	40	60	100
8	CS107ES	Programming for Problem Solving Laboratory	0	0	2	1	40	60	100
9	EN105HS	English Language and Communication Skills Laboratory	0	0	2	1	40	60	100
		Induction Program							
Total			**11**	**3**	**12**	**20**	**360**	**540**	**370**
Mandatory Course (Non-Credit)									
10	*CH109MC	Environmental Science	3	0	0	0	100	-	100

I YEAR II SEMESTER

S. No.	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
			L	T	P		Internal (CIE)	External (SEE)	Total
1	MA201BS	Ordinary Differential Equations and Vector Calculus	3	1	0	4	40	60	100
2	CH202BS	Engineering Chemistry	3	1	0	4	40	60	100
3	ME208ES	Computer Aided Engineering Graphics	1	0	4	3	40	60	100
4	EE206ES	Basic Electrical Engineering	2	0	0	2	40	60	100
5	EC203ES	Electronic Devices and Circuits	2	0	0	2	40	60	100
6	CH204BS	Engineering Chemistry Laboratory	0	0	2	1	40	60	100
7	EE208ES	Basic Electrical Engineering Laboratory	0	0	2	1	40	60	100
8	CS205ES	Python Programming Laboratory	0	1	2	2	40	60	100
9	CS206ES	IT Workshop	0	0	2	1	40	60	100
Total			**11**	**3**	**12**	**20**	**360**	**540**	**900**

II YEAR I SEMESTER

S. No.	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
			L	T	P		Internal (CIE)	External (SEE)	Total
1	MA303BS	Mathematical and Statistical Foundations	3	0	0	3	40	60	100
2	EC311PC	Digital Electronics	3	0	0	3	40	60	100
3	CS301PC	Data Structures	3	0	0	3	40	60	100
4	CS303PC	Object Oriented Programming through Java	3	0	0	3	40	60	100
5	CS302PC	Computer Organization and Architecture	3	0	0	3	40	60	100
6	EC312PC	Digital Electronics Lab	0	0	2	1	40	60	100
7	CS313PC	Introduction to Data Structures Lab	0	0	3	1.5	40	60	100
8	IT308PC	Java Programming Lab	0	0	3	1.5	40	60	100
9	CS310PC	Data visualization- R Programming/ Power BI	0	0	2	1	40	60	100
Total			**15**	**0**	**10**	**20**	**360**	**540**	**900**
Mandatory Course (Non-Credit)									
10	*CI309MC	Constitution of India	3	0	0	0	100	-	100

II YEAR II SEMESTER

S. No.	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
			L	T	P		Internal (CIE)	External (SEE)	Total
1	CS401PC	Discrete Mathematics	3	0	0	3	40	60	100
2	CSM406PC	Introduction to Artificial Intelligence	3	0	0	3	40	60	100
3	CS405PC	Database Management Systems	3	0	0	3	40	60	100
4	CS402PC	Operating Systems	3	0	0	3	40	60	100
5	CS403PC	Software Engineering	3	0	0	3	40	60	100
6	CS406PC	Operating Systems Lab	0	0	2	1	40	60	100
7	CS407PC	Database Management Systems Lab	0	0	2	1	40	60	100
8	AID410PC	Real-time Research Project/Field Based Research Project	0	0	4	2	50	-	50
9	CS411PC	Node JS/ React JS/ Django	0	0	2	1	40	60	100
Total			**15**	**0**	**10**	**20**	**360**	**540**	**370**
Mandatory Course (Non-Credit)									
10	*GS409MC	Gender Sensitization Lab	0	0	2	0	100	-	100

***MC – Satisfactory/ Unsatisfactory**

1. The following SMEC R22 course structure of B.Tech for III-I, III-II, IV-I and IV-II year were presented, discussed and approved. The total credits for the programme were discussed, finalized and approved.

III YEAR I SEMESTER

S. No.	Course Title	Hours per Week			Credits	Maximum Marks		
		L	T	P		Internal (CIE)	External (SEE)	Total
1	Design and Analysis of Algorithms	3	1	0	4	40	60	100
2	Introduction to Data Science	3	0	0	3	40	60	100
3	Computer Networks	3	0	0	3	40	60	100
4	Business Economics & Financial Analysis	3	0	0	3	40	60	100
5	Professional Elective-I	3	0	0	3	40	60	100
6	Introduction to Data Science using R Lab	0	0	2	1	40	60	100
7	Computer Networks Lab	0	0	2	1	40	60	100
8	Advanced English Communication Skills lab	0	0	2	1	40	60	100
9	ETL-Kafka/Talend	0	0	2	1	40	60	100
Total		**15**	**1**	**08**	**20**	**360**	**540**	**900**
Mandatory Course (Non-Credit)								
10	Intellectual Property Rights	3	0	0	0	100	-	100

III YEAR II SEMESTER

S. No.	Course Title	Hours per Week			Credits	Maximum Marks		
		L	T	P		Internal (CIE)	External (SEE)	Total
1	Automata theory and Compiler Design	3	0	0	3	40	60	100
2	Machine Learning	3	0	0	3	40	60	100
3	Big Data Analytics	3	0	0	3	40	60	100
4	Professional Elective – II	3	0	0	3	40	60	100
5	Open Elective-I	3	0	0	3	40	60	100
6	Principles of Machine Learning Lab	0	0	3	1.5	40	60	100
7	Big Data Analytics Lab	0	0	3	1.5	40	60	100
8	Industrial Oriented Mini Project/ Internship/Skill Development Course (UI design- Flutter)	0	0	4	2	-	100	100
Total		**15**	**0**	**10**	**20**	**320**	**280**	**520**
Mandatory Course (Non-Credit)								
9	Environmental Science	3	0	0	0	100	-	100

Environmental Science in III Yr II Sem Should be Registered by Lateral Entry Students Only.

IV YEAR I SEMESTER

S. No.	Course Title	Hours per Week			Credits	Maximum Marks		
		L	T	P		Internal (CIE)	External (SEE)	Total
1	Introduction to Predictive Analytics	2	0	0	2	40	60	100
2	Web and Social Media Analytics	3	0	0	3	40	60	100
3	Professional Elective -III	3	0	0	3	40	60	100
4	Professional Elective -IV	3	0	0	3	40	60	100
5	Open Elective – II	3	0	0	3	40	60	100
6	Professional Practice, Law & Ethics	0	0	4	2	40	60	100
7	Professional Elective -III Lab	0	0	2	1	40	60	100
8	Project Stage – I	0	0	6	3	-	-	-
Total		**14**	**0**	**12**	**20**	**380**	**280**	**420**

IV YEAR II SEMESTER

S. No.	Course Title	Hours per Week			Credits	Maximum Marks		
		L	T	P		Internal (CIE)	External (SEE)	Total
1	Professional Elective – V	3	0	0	3	40	60	100
2	Professional Elective – VI	3	0	0	3	40	60	100
3	Open Elective – III	3	0	0	3	40	60	100
4	Project Stage – II including Seminar	0	0	22	11	40	60	100
Total		**9**	**0**	**22**	**20**	**160**	**240**	**400**

#Skill Course - 1 credit with 2 Practical Hours

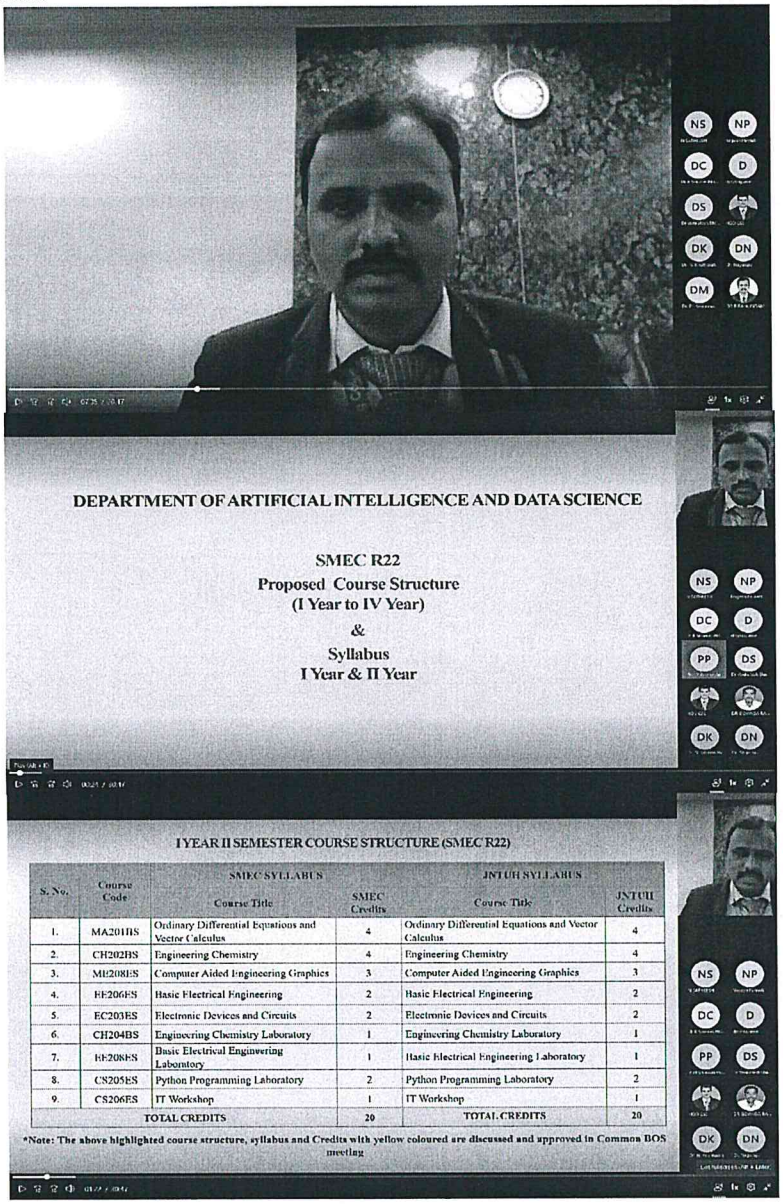
Professional Elective-I	**Professional Elective - II**
Graph Theory	Software Testing Methodologies
Advanced Computer Architecture	Information Retrieval Systems
Web Programming	Pattern Recognition
Image Processing	Computer Vision and Robotics
Computer Graphics	Data Warehousing and Business Intelligence
Professional Elective - III	**Professional Elective -IV**
Internet of Things	Quantum Computing
Data Mining	Expert Systems
Scripting Languages	Cloud Computing
Mobile Application Development	Game Theory
Cryptography and Network Security	Knowledge Representation and Reasoning
Professional Elective - V	**Professional Elective – VI**
Social Network Analysis	Speech and Video Processing
Federated Machine Learning	Robotic Process Automation
Augmented Reality & Virtual Reality	Randomized Algorithms
Web Security	Cognitive Computing
Ad-hoc & Sensor Networks	Semantic Web

 # Courses in PE - III and PE - III Lab must be in 1-1 correspondence.

Open Elective -I	Open Elective -II	Open Elective -III
Fundamentals of AI	Introduction to Natural Language Processing	Chat bots
Machine Learning Basics	AI applications	Genetic Algorithms & Fuzzy logic

The following points were suggested in the BOS meeting

The meeting ended with chairman thanking members for their lively and useful interaction to evolve a best possible course structure and syllabus for the B. Tech Artificial Intelligence and Data Science (AI & DS) programme.



DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

SMEC R22
Proposed Course Structure
(I Year to IV Year)
&
Syllabus
I Year & II Year

I YEAR II SEMESTER COURSE STRUCTURE (SMEC R22)

S. No.	Course Code	SMEC SYLLABUS Course Title	SMEC Credits	JNTUH SYLLABUS Course Title	JNTUH Credits
1.	MA201BS	Ordinary Differential Equations and Vector Calculus	4	Ordinary Differential Equations and Vector Calculus	4
2.	CH202BS	Engineering Chemistry	4	Engineering Chemistry	4
3.	ME208ES	Computer Aided Engineering Graphics	3	Computer Aided Engineering Graphics	3
4.	EE206ES	Basic Electrical Engineering	2	Basic Electrical Engineering	2
5.	EC203ES	Electronic Devices and Circuits	2	Electronic Devices and Circuits	2
6.	CH204BS	Engineering Chemistry Laboratory	1	Engineering Chemistry Laboratory	1
7.	EE208ES	Basic Electrical Engineering Laboratory	1	Basic Electrical Engineering Laboratory	1
8.	CS205ES	Python Programming Laboratory	2	Python Programming Laboratory	2
9.	CS206ES	IT Workshop	1	IT Workshop	1
		TOTAL CREDITS	20	TOTAL CREDITS	20

*Note: The above highlighted course structure, syllabus and Credits with yellow coloured are discussed and approved in Common BOS meeting

Copy to:
1. **Principal**
2. **IQAC**

Chairman

Dr. B.Rajalingam
HOD (AI & DS)

Head of the Department
Department of Artificial Intelligence and
Data Science (AI & DS)
St. Martin's Engineering College
Dhulapally, Secunderabad, Telangana-500100.