



Department of Artificial Intelligence and Data Science Engineering

Academic Year 2024-25

Semester- ODD

Structure of Course

Class	B. Tech. Sem. -V
Course Code and Course Title	BTAIC501 Computer Network and Cloud Computing
Prerequisite/s	Computer Fundamentals, Fundamentals of Digital Communication
Teaching Scheme: Lecture/Tutorial/Practical	01/08/2024
Credits	04
Evaluation Scheme: CA / MSE / ESE	20/20/60

Course Outcomes:

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:		Blooms Level
BTAIC501_1	Analyse the requirements for a given organizational structure and select the most appropriate networking architecture and technologies	L3
BTAIC501_2	Specify and identify deficiencies in existing protocols, and then go onto select new and better protocols.	L3
BTAIC501_3	Have a basic knowledge of installing and configuring networking applications	L2
BTAIC501_4	Understand the different cloud computing environments	L2
BTAIC501_5	Apply concepts of virtualization and various cloud services to design, develop and deploying cloud applications.	L3

Mapping of CO's with PO's and PSO's:

Course Outcomes	Programme Outcomes														
	1	2	3	4	5	6	7	8	9	10	11	12	PSO 1	PSO 2	PSO 3
BTAIC501_1	3	3	3	3	3	2				3	1	1	2	2	3
BTAIC501_2	3	3	3	3	3	1				3	1		2		2
BTAIC501_3	3	3	3	3	3	3			1	3		2	2	2	2
BTAIC501_4	3	3	3	3	3	2			1	3	2	1	3	2	2
BTAIC501_5	3	3	3	3	3	2				3	2	1	3		3
Total	15	15	15	15	15	10			2	15	6	5	12	6	12
Average	3	3	3	3	3	2			1	3	1.5	1.25	2.4	2	2.4
BTAIC501															

CO Attainment Targets:

CO	501_1	501_2	501_3	501_4	501_5
Previous Attainment	-	-	-	-	-
Target for CAY	3	3	3	3	3

Prepared by
Course Coordinator

Verified by
Academic Coordinator



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HOD- AI & DS

HOD
Artificial Intelligence
and
Data Science Engg.

Yashoda Technical Campus Satara

Vision: Developing AI & DS applications that addresses regional challenges and empowering innovation and challenges, to become a leading rural AI & DS hub.

Mission:

M1: Emphasizing responsible AI development that considers social and environmental factors specific to the region.

M2: Educating the public about the potential benefits and responsible use of AI & DS technologies.

M3: Facilitating internships and research projects with AI & DS companies to bridge the gap between theory and practice.



Department of Artificial Intelligence and Data Science Engineering

Academic Year 2024-25

Semester- ODD

Structure of Course

Class	B. Tech. Sem. -V
Course Code and Course Title	BTAIC502 Machine Learning
Prerequisite/s	Data Analysis, Python Programming Language
Teaching Scheme: Lecture/Tutorial/Practical	01/08/2024
Credits	04
Evaluation Scheme: CA / MSE / ESE	20/20/60

Course Outcomes:

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:		Blooms Level
BTAIC502_1	Develop a good understanding of fundamental principles of machine learning	L6
BTAIC502_2	Formulation of a Machine Learning problem	L4
BTAIC502_3	Develop a model using supervised/unsupervised machine learning algorithms for classification/prediction/clustering	L6
BTAIC502_4	Evaluate performance of various machine learning algorithms on various data sets of a domain.	L5
BTAIC502_5	Design and Concrete implementations of various machine learning algorithms to solve a given problem using languages such as Python	L6

Mapping of CO's with PO's and PSO's:

Course Outcomes	Programme Outcomes														
	1	2	3	4	5	6	7	8	9	10	11	12	PSO 1	PSO 2	PSO 3
BTAIC502_1	3	3	3	3	3	2	2			3	1	1	3	3	3
BTAIC502_2	3	3	3	3	3	1				3	1		3	3	3
BTAIC502_3	3	3	3	3	3	3	2			3		2	3	3	3
BTAIC502_4	3	3	3	3	3	2				3	2	1	3	3	3
BTAIC502_5	3	3	3	3	3	2	1			3	2	1	3	3	3
Total	15	15	15	15	15	10	5			15	6	5	15	15	15
Average	3	3	3	3	3	2	1.6			3	1.5	1.2	3	3	3
BTAIC501															

CO Attainment Targets:

CO	502_1	502_2	502_3	502_4	502_5
Previous Attainment	-	-	-	-	-
Target for CAY	3	3	3	3	3

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Department of Artificial Intelligence and Data Science Engineering

Academic Year 2024-25

Semester- ODD

Structure of Course

Class	B. Tech. Sem. -V
Course Code and Course Title	BTAIHM503C Knowledge Reasoning and AI Ethics.
Prerequisite/s	None
Teaching Scheme: Lecture/Tutorial/Practical	01/08/2024
Credits	04
Evaluation Scheme: CA / MSE / ESE	20/20/60

Course Outcomes:

Course Outcomes (COs):		Blooms Level
Upon successful completion of this course, the student will be able to:		
BTAIHM503C_1	Apply the knowledge and reasoning based concepts	L3
BTAIHM503C_2	Specify and identify the logical agents.	L2
BTAIHM503C_3	Apply Probabilistic Reasoning & Uncertainty along with rules.	L3
BTAIHM503C_4	Understand the human psychology and social ethics to use AI	L2
BTAIHM503C_5	Apply concepts of virtualization and various cloud services to design, develop and deploying cloud applications.	L3

Mapping of CO's with PO's and PSO's:

Course Outcomes	Programme Outcomes														
	1	2	3	4	5	6	7	8	9	10	11	12	PSO 1	PSO 2	PSO 3
BTAIHM503C_1	3	3	3	3	3	2				1	1	1	2	3	1
BTAIHM503C_2	3	3	3	3	3	2				1	1	2	3	2	
BTAIHM503C_3	3	3	3	3	3	3				1	1	2	2	3	1
BTAIHM503C_4	3	3	3	3	3	2				1	2	1	3	1	1
BTAIHM503C_5	3	3	3	3	3	2				1	2	1	3	3	2
Total	15	15	15	15	15	11				7	7	7	13	12	5
Average	3	3	3	3	3	2.2				1	1.4	1.4	2.6	2.4	1.25
BTAIC501															

CO Attainment Targets:

CO	503C_1	503C_2	503C_3	503C_4	503C_5
Previous Attainment	-	-	-	-	-
Target for CAY	3	3	3	3	3

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Vision: Developing AI & DS applications that addresses regional challenges and empowering innovation and change through AI & DS hub.

Mission:

- M1: Emphasizing responsible AI development that considers social and environmental factors specific to the region.
- M2: Educating the public about the potential benefits and responsible use of AI & DS technologies.
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Artificial Intelligence & Data Science Department

Academic Year 2024-25

Semester- ODD

Structure of Course

Class	B. Tech. Sem. -V
Course Code and Course Title	BTAIPE504C Sensors and Robotics Technology
Prerequisite/s	None
Teaching Scheme: Lecture/Tutorial/Practical	03/01/00
Credits	04
Evaluation Scheme: CA / MSE / ESE	20/20/60

Course Outcomes:

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:		Blooms Level
BTAIPE504C_1	Classify various robot essential transducers and explain their working principles with examples.	L2
BTAIPE504C_2	Predict the expected performance of various sensors	L2
BTAIPE504C_3	Familiar with the history, concept development and key components of robotics technologies.	L1
BTAIPE504C_4	Implement basic mathematics manipulations of spatial coordinate representation and transformation.	L3
BTAIPE504C_5	Calculate Gripping Force required for object manipulation by various robotic end effectors	L4

Mapping of CO's with PO's and PSO's:

Course Outcomes	Programme Outcomes														
	1	2	3	4	5	6	7	8	9	10	11	12	PSO 1	PSO 2	PSO 3
BTAIPE504C_1	3	3	2		3							2		1	2
BTAIPE504C_2	3	3	2		3							2		1	2
BTAIPE504C_3	3	3	2		3							2		1	2
BTAIPE504C_4	3	3	2		3							2		1	2
BTAIPE504C_5	3	3	2		3							2		1	2
Total	15	15	10		15							10		5	10
Average	3	3	2		3							2		1	2
BTAIPE504C	3	3	2		3							2		1	2

CO Attainment Targets:

CO	504C 1	504C 2	504C 3	504C 4	504C 5
Previous Attainment	NA	NA	NA	NA	NA
Target for CAY					

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Vision of the Department

Developing AI & DS applications that addresses regional challenges and empowering innovation and challenges, to become a leading rural AI & DS hub.

Mission of the Department

M1: Emphasizing responsible AI development that considers social and environmental factors specific to the region.

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Yashoda Shiksha Prsarak Mandals

Yashoda Technical Campus

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Faculty of Engineering

Department of Artificial Intelligence and Data Science Engineering

Academic Year 2024-25 Semester- ODD

Structure of Course

Class	TY B.Tech. Sem. -V
Course Code and Course Title	BTAIOE505C Software Engineering and Testing
Prerequisite/s	
Teaching Scheme: Lecture/Tutorial/Practical	03/01
Credits	04
Evaluation Scheme: CA / MSE / ESE	20/20/60

Course Outcomes:

Course Outcomes (COs):	Blooms Level
Upon successful completion of this course, the student will be able to:	
BTAIOE505C_1 To use the techniques, skills, and modern engineering tools necessary for engineering practice.	L2
BTAIOE505C_2 To design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.	L3
BTAIOE505C_3 To apply software testing knowledge and its processes to software applications.	L3
BTAIOE505C_4 To identify various software testing problems and solving software testing problems by designing and selecting software test models, criteria, strategies and methods.	L3
BTAIOE505C_5 To apply the techniques learned to improve the quality of software development.	L3

Mapping of CO's with PO's and PSO's:

Course Outcomes	Programme Outcomes												PSO 1	PSO 2	PS O3	
	1	2	3	4	5	6	7	8	9	10	11	12				
BTAIOE505C_1	3				3								1		3	
BTAIOE505C_2	3		3			2							1	2		
BTAIOE505C_3	1	2											3	3		
BTAIOE505C_4		3	2	2	2								2			
BTAIOE505C_5	2	2		1									3	3		
Total	9	7	5	3	5	2							10	8	3	
Average	2.25	2.3	2.5	1.5	2.5	2							2	2.66	3	
BTAIOE505C	2	2	3	2	3	2							2	3	3	

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Mission of the Department

- M1: Emphasizing responsible AI development that addresses environmental factors specific to the region.
- M2: Educating the public about the potential of AI & DS and the societal impacts of AI & DS technologies.
- M3: Facilitating internships and research projects with AI & DS companies to bridge the gap between theory and practice.