III B.Tech II Semester

SUBJECT:MACHINE LEARNING(CS601PC)

Upon completion of the course the students get an idea of:

Course Code	Course Outcome	Bloom's Taxonomy Levels
CS601PC.1	Distinguish between, supervised, unsupervised and semi-supervised learning	**2**
CS601PC.2	Understand algorithms for building classifiers applied on datasets of non-linearly separable classes	**1**
CS601PC.3	Understand the principles of evolutionary computing algorithms	**1**
CS601PC.4	Design an ensembler to increase the classification accuracy	**6**
CS601PC.5	To understand computational learning theory.	**2**

MAPPING

CourseCode	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CS601PC.1	3	2	2	2	2	1			2	2	3	3	2	3	2
CS601PC.2	2	3	2	1	3		1		2	2	3	3	2	3	2
CS601PC.3	2	2	2	2					1	1	2	3	2	2	2
CS601PC.4	2	2	1	3	1		1	1		1	2	3	2	2	2
CS601PC.5	3	2	3	2	2	1			1		2		3	1	3
Average	**2.4**	**2.2**	**2**	**2**	**2**	**1**	**1**	**1**	**1.5**	**1.5**	**2.4**	**3**	**2.2**	**2.2**	**2.2**

III B.Tech II Semester

SUBJECT: FORMAL LANGUAGES AND AUTOMATA THEORY(CS602PC)

Upon completion of the course the students get an idea of:

Course Code	Course Outcome	Bloom's Taxonomy Levels
CS602PC.1	Understand the concept of abstract machines and their power to recognize the languages	**1**
CS602PC.2	Employ finite state machines for modeling and solving computing problems.	**1**
CS602PC.3	Design context free grammars for formal languages	**2**
CS602PC.4	Distinguish between decidability and undecidability.	**3**
CS602PC.5	Able to gain proficiency with mathematical tools and formal methods	**3**

MAPPING

COURSE CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CS602PC.1	2	3	2	2	2		1			1	1	3	2	2	2
CS602PC.2	2	1	3	1	2			1		1		3	2	2	2
CS602PC.3	2	1	2	1	2	1		1	1	1	2	2	1	1	3
CS602PC.4	2	1	1	1		1			2	2	2	2	2	1	3
CS602PC.5	3	1	1	3	1	1			2	1	3		2	1	3
AVERAGE	**2.2**	**1.4**	**1.8**	**1.6**	**1.8**	**1.0**	**1.0**	**1.0**	**1.7**	**1.2**	**2.0**	**2.5**	**1.8**	**1.4**	**2.6**

III B.Tech II Semester

SUBJECT: ARTIFICIAL INTELLIGENCE (CS603PC)

Upon completion of the course the students get an idea of:

Course Code	Course Outcome	Bloom's Taxonomy Levels
CS603PC.1	Understand the various components of DevOps environment.	**2**
CS603PC.2	Understand different adversarial search techniques.	**2**
CS603PC.3	Apply propositional logic, predicate logic for knowledge representation	**3**
CS603PC.4	Apply AI techniques to solve problems of game playing, and machine learning.	**3**

MAPPING

COURSE CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CS603PC.1	2	2	2	2	1		1			2	1	3	3	2	1
CS603PC.2	3	3	3	3	3	1			2	2		3	3	3	1
CS603PC.3	3	3	3	3	3				3	2	1	3	3	3	1
CS603PC.4	3	3	3	3	3			1	3	2		3	3	3	1
AVERAGE	**2.8**	**2.8**	**2.8**	**2.8**	**2.6**	**1**	**1**	**1**	**2.5**	**1.8**	**1**	**3**	**3**	**2.6**	**1**

III B.Tech II Semester

SUBJECT: SOFTWARE TESTING METHODOLOGIES (CS635PE)

Upon completion of the course the students get an idea of:

Course Code	Course Outcome	Bloom's Taxonomy Levels
CS635PE.1	Understand purpose of testing and path testing	**1**
CS635PE.2	Understand strategies in data flow testing and domain testing	**1**
CS635PE.3	Develop logic-based test strategies	**2**
CS635PE.4	Understand graph matrices and its applications	**1**
CS635PE.5	Implement test cases using any testing automation tool	**3**

MAPPING

COURSE CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CS307PC.1	3	3	2	2	2			1	1		2	3	1		2
CS307PC.2	2	2	2	1	2	1	1			2	2	3	2	2	2
CS307PC.3	2	2	1	2	2	1				2	3	3	1	2	3
CS635PE.4	2	3	2	1	1	1				2	3	2	3	2	3
CS635PE.5	2	2	2	2	1				1	1	3	2	3	3	2
AVERAGE	**2.2**	**2.4**	**1.8**	**1.6**	**1.6**	**1.0**	**1.0**	**1.0**	**1.0**	**1.8**	**2.6**	**2.6**	**2.0**	**2.3**	**2.4**

III B.Tech II Semester

SUBJECT: DATABASE MANAGEMENT SYSTEMS(CS612OE)

Upon completion of the course the students get an idea of:

Course Code	Course Outcome	Bloom's Taxonomy Levels
CS612OE.1	Gain knowledge of fundamentals of DBMS, database design and normal forms	**1**
CS612OE.2	Master the basics of SQL for retrieval and management of data.	**3**
CS612OE.3	Be acquainted with the basics of transaction processing and concurrency control.	**4**
CS612OE.4	Familiarity with database storage structures and access techniques	**2**
CS612OE.5	Understand transaction properties, concurrency control and recovery techniques and Explain various data storage and security mechanisms	**2**

MAPPING

COURSECODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CS612OE.1	3	2	2	1	1				1	2		2	2	2	2
CS612OE.2	2	3	2	2	1				2	2		2	2	2	2
CS612OE.3	2	2	2	3	2	1	1		1	1		2	2	2	2
CS612OE.4	2	3	2	2	1	1		1	2	2	3	3	2	1	3
CS612OE.5	3	3	2	3	3	1			2	2	3	3	2	1	3
AVERAGE	**2.4**	**2.6**	**2**	**2.2**	**1.6**	**1**	**1**	**1**	**1.6**	**1.8**	**3**	**2.4**	**2**	**1.6**	**2.4**

III B.Tech II Semester

SUBJECT:MACHINE LEARNING LAB(CS604PC)

Upon completion of the course the students get an idea of:

Course Code	Course Outcome	Bloom's Taxonomy Levels
CS604PC.1	Understand modern notions in predictive data analysis	**2**
CS604PC.2	Select data, model selection, model complexity and identify the trends	2
CS604PC.3	Understand a range of machine learning algorithms along with their strengths and weaknesses	**3**
CS604PC.4	Build predictive models from data and analyze their performance	**1**
CS604PC.5	To understand computational learning theory.	**2**

MAPPING

COURSE CODE	PO1	PO 2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CS505PC.1	3	2	2	2	2	1			2	2	3	3	2	3	2
CS505PC.2	2	3	2	1	3		1		2	2	3	3	2	3	2
CS505PC.3	2	2	2	2					1	1	2	3	2	2	2
CS505PC.4	2	2	1	3	1		1	1		1	2	3	2	2	2
CS604PC.5	3	2	3	2	2	1			1		2		3	1	3
AVERAGE	**2.4**	**2.2**	**2**	**2**	**2**	**1**	**1**	**1**	**1.5**	**1.5**	**2.4**	**3**	**2.2**	**2.2**	**2.2**

III B.Tech II Semester

SUBJECT:ARTIFICIAL INTELLIGENCE LAB(CS605PC)

Upon completion of the course the students get an idea of:

Course Code	Course Outcome	Bloom's Taxonomy Levels
CS605PC.1	Apply basic principles of AI in solutions that require problem solving, knowledge representation, and learning.	**3**
CS605PC.2	Apply various pre-processing techniques on different datasets	**3**
CS605PC.3	Construct Machine learning programs for Supervised, Unsupervised and Semi Supervised learning models.	**4**
CS605PC.4	Develop Deep learning programs for Supervised & Unsupervised learning models.	**5**
CS605PC.5	Identify and Apply Artificial Intelligence concepts to solve real world problems	**4**

MAPPING

COURSECODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CS605PC.1	2	1	3	1	1	2	1	1	1	2		2	1	2	2
CS605PC.2	2	1	3	2	1		1			2	3	2	1	2	2
CS605PC.3	2	1	3		2	2		1	2	2	2	2	2	1	2
CS605PC.4	2	1	1	2	1	1			3	1	1	2	2	1	2
CS605PC.5	2	1		1		1			2	1		2	2	1	2
AVERAGE	**2**	**1**	**2.5**	**1.5**	**1.25**	**1.5**	**1**	**1**	**2**	**1.6**	**2**	**2**	**1.6**	**1.4**	**2**

III B.Tech II Semester

SUBJECT: SOFTWARE TESTING METHODOLOGIES LAB (CS615PE)

Upon completion of the course the students get an idea of:

Course Code	Course Outcome	Bloom's Taxonomy Levels
CS615PE.1	Design and develop the best test strategies in accordance with the development model.	**6**
CS615PE.2	Design and develop GUI, Bitmap and database checkpoints	**6**
CS615PE.3	Develop database checkpoints for different checks	**6**
CS615PE.4	Perform batch testing with and without parameter passing	**4**
CS615PE.5	To develop skills in software test automation and management using latest tools.	**2**

MAPPING

COURSECODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CS615PE.1	3	3	2	2	2			1	1		2	3	1		2
CS615PE.2	2	2	2	1	2	1	1			2	2	3	2	2	2
CS615PE.3	2	2	1	2	2	1				2	3	3	1	2	3
CS615PE.4	2	3	2	1	1	1				2	3	2	3	2	3
CS615PE.5	2	2	2	2	1				1	1	3	2	3	3	2
AVERAGE	**2.2**	**2.4**	**1.8**	**1.6**	**1.6**	**1.0**	**1.0**	**1.0**	**1.0**	**1.8**	**2.6**	**2.6**	**2.0**	**2.3**	**2.4**

III B.Tech II Semester

SUBJECT:BIG DATA-SPARK(CS606PC)

Upon completion of the course the students get an idea of:

Course Code	Course Outcome	Bloom's Taxonomy Levels
CS606PC.1	Develop Map Reduce Programs to analyze large dataset Using Hadoop and Spark	**6**
CS606PC.2	Write Hive queries to analyze large dataset Outline the Spark Ecosystem and its components	**6**
CS606PC.3	Perform the filter, count, distinct, map, flat Map RDD Operations in Spark.	**3**
CS606PC.4	Build Queries using Spark SQL	**2**
CS606PC.5	Apply Spark joins on Sample Data Sets	**3**
CS606PC.6	Make use of sqoop to import and export data from hadoop to database and vice-versa	**2**

MAPPING

COURSECODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CS606PC.1	2	1	3	1	1	2	1	1	1	2		2	1	2	2
CS606PC.2	2	1	3	2	1		1			2	3	2	1	2	2
CS606PC.3	2	1	3		2	2		1	2	2	2	2	2	1	2
CS606PC.4	2	1	1	2	1	1			3	1	1	2	2	1	2
CS606PC.5	2	1		1		1			2	1		2	2	1	2
CS606PC.6	2	1	1			2			1	1		2	2		2
AVERAGE	**2**	**1**	**2.5**	**1.5**	**1.25**	**1.5**	**1**	**1**	**2**	**1.6**	**2**	**2**	**1.6**	**1.4**	**2**

III B.Tech II Semester

SUBJECT:ENVIRONMENTAL SCIENCE(MC609)

Upon completion of the course the students get an idea of:

Course Code	Course Outcome	Bloom's Taxonomy Levels
MC609.1	Demonstrate mastery of core ecological and physical science concepts and methods as they pertain to environmental problem-solving.	**1**
MC609.2	Produce a culminating/multi-scale piece of work demonstrating the ability to synthesize concepts and methods to make a contribution to environmental solutions.	**5**
MC609.3	Understand key concepts from economic, political, and social analysis as they pertain to the design and evaluation of environmental policies and institutions.	**2**
MC609.4	Appreciate concepts and methods from ecological and physical sciences and their application in environmental problem solving.	**3**
MC609.5	Understand key concepts from economic, political, and social analysis as they pertain to the design and evaluation of environmental policies and institutions.	**2**

MAPPING

COURSECODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
MC609.1	2	1	3	1	1	2	1	1	1	2		2	1	2	2
MC609.2	2	1	3	2	1		1			2	3	2	1	2	2
MC609.3	2	1	3		2	2		1	2	2	2	2	2	1	2
MC609.4	2	1	1	2	1	1			3	1	1	2	2	1	2
MC609.5	2	1		1		1			2	1		2	2	1	2
AVERAGE	**2**	**1**	**2.5**	**1.5**	**1.25**	**1.5**	**1**	**1**	**2**	**1.6**	**2**	**2**	**1.6**	**1.4**	**2**