



VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

[Sponsored by Lavu Educational Society]

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad.)

Kondapur (V), Ghatkesar (M), Medchal - Malkajgiri (D) - 501 301 Phone: +91 96529 10002/3



Department of Computer Science and Engineering

III B. Tech II Semester

SUBJECT: Machine Learning (CS601PC)

At the end of the course, the student will be able to

S.No.	COURSE OUTCOMES	BT Level
CO1	Distinguish between, supervised, unsupervised and semi-supervised learning	4
CO2	Understand algorithms for building classifiers applied on datasets of non-linearly separable classes	2
CO3	Understand the principles of evolutionary computing algorithms	3
CO4	Design an ensembler to increase the classification accuracy	6
CO5	Demonstrate teamwork, documentation, and communication in ML-based projects	1

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	3	2	3	2	-	-	-	-	-	-	-	2	2	-
CO2	3	2	3	2	3	-	-	-	-	-	-	-	3	2	-
CO3	3	2	3	1	3	-	-	-	-	-	-	-	3	3	-
CO4	3	3	3	3	3	-	-	-	-	-	-	-	3	3	-
CO5	3	3	3	3	3	-	-	-	-	-	-	-	3	3	-
Average	2.8	2.6	2.8	2.4	2.8	-	-	-	-	-	-	-	2.8	2.6	-

SUBJECT: Formal Languages and Automata Theory (CS602PC)

At the end of the course, the student will be able to

S.No.	COURSE OUTCOMES	BT Level
CO1	Understand basic concepts of formal languages, grammars, and automata	2
CO2	Design finite automata and regular expressions for pattern recognition	6
CO3	Construct context-free grammars and pushdown automata for language processing	6
CO4	Analyze Turing machines and decidability issues in computation	4
CO5	Apply theoretical foundations to solve problems in compiler design and software engineering	3

MAPPING

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SUBJECT: Artificial Intelligence (CS603PC)

At the end of the course, the student will be able to

S.No.	COURSE OUTCOMES	BT Level
CO1	Understand search strategies and intelligent agents	2
CO2	Understand different adversarial search techniques	2
CO3	Apply propositional logic, predicate logic for knowledge representation	3
CO4	Apply AI techniques to solve problems of game playing, and machine learning.	4
CO5	Evaluate the performance of AI systems using appropriate metrics, analyze ethical implications and societal impact of artificial intelligence, and communicate AI solutions effectively while demonstrating awareness of contemporary AI challenges and responsible AI practices.	5

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	3	2	2	2	2	-	-	2	2	3	2	3	2	-
CO2	2	3	3	2	2	2	-	2	2	2	3	-	3	2	-
CO3	2	3	3	2	2	2	-	3	3	-	3	2	3	2	3
CO4	2	3	2	3	2	2	-	2	3	3	3	-	3	3	2
CO5	2	3	3	2	3	2	-	2	3	3	3	3	3	2	2
Average	2	3	2.6	2.2	2.2	2	-	2.25	2.6	2.5	3	2.33	3	2.2	2.33



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SUBJECT: Full Stack Development (Professional Elective – III) (CS631PE)

At the end of the course, the student will be able to

S.No.	COURSE OUTCOMES	BT Level
CO1	Understand Full stack components for developing web application.	2
CO2	Apply packages of NodeJS to work with Data, Files, Http Requests and Responses.	3
CO3	Use MongoDB data base for storing and processing huge data and connects with NodeJS application.	3
CO4	Design faster and effective single page applications using Express and Angular.	6
CO5	Create interactive user interfaces with react components	6

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	-	-	2	-	-	-	-	-	-	-	2	3	2
CO2	3	3	3	2	3	-	-	-	-	-	-	-	3	3	2
CO3	3	3	3	2	3	-	-	-	-	-	-	-	3	2	3
CO4	3	3	3	2	3	-	-	-	-	-	-	-	2	3	2
CO5	3	3	3	2	3	-	-	-	-	-	-	-	3	3	2
Average	3	2.8	3	2	2.8	-	-	-	-	-	-	-	2.6	2.8	2.2



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SUBJECT: Disaster Preparedness & Planning Management(OE – I) (CE511OE)

At the end of the course, the student will be able to

S.No.	COURSE OUTCOMES	BT Level
CO1	Understand environmental hazards, disasters, and stress factors	2
CO2	Analyze types of natural and man-made disasters	4
CO3	Apply ecological approaches to disaster management	3
CO4	Evaluate disaster preparedness and mitigation strategies	5
CO5	Demonstrate ethical responsibility and teamwork in disaster response planning	1

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	-	-	-	-	-	2	2	2	-	2	-	-	-	2
CO2	2	-	-	-	-	2	-	2	2	-	2	-	-	-	2
CO3	-	-	-	-	-	-	-	-	2	-	2	-	-	-	2
CO4	-	-	-	-	-	-	-	-	3	-	2	-	-	-	2
CO5	3	-	-	-	-	-	2		3	-	2	-	-	-	2
Average	2.33	-	-	-	-	2	2	2	2.4	-	2	-	-	-	2



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SUBJECT: Machine Learning Lab (CS604PC)

At the end of the course, the student will be able to

S.No.	COURSE OUTCOMES	BT Level
CO1	Understand modern notions in predictive data analysis	2
CO2	Select data, model selection, model complexity and identify the trends	3
CO3	Understand a range of machine learning algorithms along with their strengths and weaknesses	2
CO4	Build predictive models from data and analyze their performance	6
CO5	Demonstrate teamwork, documentation, and communication in ML projects	1

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	3	-	2	-	-	-	2	2	2	2	-	2	2
CO2	3	3	3	-	2	-	-	-	2	2	2	2	-	3	2
CO3	3	3	3	-	3	-	-	-	3	3	2	3	-	3	2
CO4	3	3	3	-	3	-	-	-	3	3	3	3	-	3	2
CO5	2	2	2	-	2	-	-	-	3	3	3	2	-	2	3
Average	2.8	2.8	2.8	-	2.4	-	-	-	2.6	2.6	2.4	2.4	-	2.6	2.2

SUBJECT: Artificial Intelligence Lab (CS605PC)

At the end of the course, the student will be able to

S.No.	COURSE OUTCOMES	BT Level
CO1	Understand the fundamental concepts of artificial intelligence, intelligent agents, problem-solving approaches, and search strategies including uninformed and informed search algorithms to solve computational problems.	2
CO2	Apply knowledge representation techniques, predicate logic, semantic networks, frames, and reasoning mechanisms to model real-world problems and develop knowledge-based systems.	3
CO3	Implement machine learning algorithms including supervised, unsupervised, and reinforcement learning techniques to build intelligent systems that learn from data and improve performance over time.	3
CO4	Design and develop AI applications using expert systems, natural language processing, computer vision, and neural networks to solve complex real-world problems across various domains.	6
CO5	Evaluate the performance of AI systems using appropriate metrics, analyze ethical implications and societal impact of artificial intelligence, and communicate AI solutions effectively while demonstrating awareness of contemporary AI challenges and responsible AI practices.	5

MAPPING

CO	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PSO1	PSO2	PSO3
CO1	3	2	2	-	3	-	-	-	-	-	-	-	3	3	-
CO2	3	3	3	-	3	-	-	-	-	-	-	-	3	3	-
CO3	3	3	3	-	3	-	-	-	-	-	-	-	3	3	-
CO4	3	3	3	-	3	-	-	-	-	-	-	-	3	3	-
CO5	2	2	2	-	2	-	-	-	-	-	-	-	2	2	-
Average	2.8	2.6	2.6	-	2.8	-	-	-	-	-	-	-	2.8	2.8	-

SUBJECT: Full Stack Development Lab (Professional Elective – III) (CS611PE)

At the end of the course, the student will be able to

S.No.	COURSE OUTCOMES	BT Level
CO1	Design flexible and responsive Web applications using Node JS, React, Express and Angular.	6
CO2	Perform CRUD operations with MongoDB on huge amount of data.	2
CO3	Develop real time applications using react components.	6
CO4	Use various full stack modules to handle http requests and responses.	4
CO5	Deploy full stack applications using cloud platforms and DevOps practices, implement testing strategies, debug and optimize application performance, document code and APIs effectively, and evaluate security vulnerabilities while demonstrating ethical responsibility in web development.	5

MAPPING

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SUBJECT: Software Testing Methodologies Lab (PE – III) (CS615PE)

At the end of the course, the student will be able to

S.No.	COURSE OUTCOMES	BT Level
CO1	Design and develop the best test strategies in accordance with the development model.	6
CO2	Design and develop GUI, Bitmap and database checkpoints	6
CO3	Develop database checkpoints for different checks	6
CO4	Perform batch testing with and without parameter passing	4
CO5	Demonstrate teamwork, documentation, and communication in testing projects	1

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	3	-	2	-	-	-	2	2	2	2	-	2	2
CO2	3	3	3	-	2	-	-	-	2	2	2	2	-	3	2
CO3	3	3	3	-	3	-	-	-	3	3	2	3	-	3	2
CO4	3	3	3	-	3	-	-	-	3	3	3	3	-	3	2
CO5	2	2	2	-	2	-	-	-	3	3	3	2	-	2	3
Average	2.8	2.8	2.8	-	2.4	-	-	-	2.6	2.6	2.4	2.4	-	2.6	2.2

SUBJECT: Big Data-Spark (CS606PC)

At the end of the course, the student will be able to

S.No.	COURSE OUTCOMES	BT Level
CO1	Develop MapReduce Programs to analyze large dataset Using Hadoop and Spark	6
CO2	Write Hive queries to analyze large dataset Outline the Spark Ecosystem and its components	2
CO3	Perform the filter, count, distinct, map, flatMap RDD Operations in Spark.	3
CO4	Build Queries using Spark SQL, apply Spark joins on Sample Data Sets	6
CO5	Make use of sqoop to import and export data from hadoop to database	5

MAPPING

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SUBJECT: Environmental Science (MC609)

At the end of the course, the student will be able to

S.No.	COURSE OUTCOMES	BT Level
CO1	Understand the structure and function of ecosystems	2
CO2	Analyze natural resources and their sustainable use	4
CO3	Evaluate biodiversity and its conservation strategies	5
CO4	Examine environmental pollution and control measures	4
CO5	Demonstrate awareness of environmental ethics and disaster management	1

MAPPING

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