DEPARTMENT: INFORMATION TECHNOLOGY

YEAR: FINAL YEAR ENGINEERING

COURSE OUTCOMES

Sr. No.	Name of Subject
1	**414441: Information Storage and Retrieval**

CO1. Understand the concept of Information retrieval and to apply clustering in information retrieval.

CO2. Use an indexing approach for retrieval of text and multimedia data.

CO3. Evaluate performance of information retrieval systems.

CO4. Apply the concepts of multimedia and distributed information retrieval.

CO5. Use appropriate tools in analyzing the web information

CO6. Simulate the working of a search engine and recommender system.

2 414442: Software Project Management

CO1. Apply the practices and methods for successful Software Project Management

CO2. Create Design and Evaluate Project

CO3. Analyze Project Schedule and calculate Risk Management with help of tools.

CO4. Demonstrate different tools used for Project Tracking, Monitoring & Control.

CO5. Identify Staff Selection Process and the issues related to Staff Management.

CO6. Discuss and use modern tools for Software Project Management.

3 **414443: Deep Learning**

CO1. Understand the theoretical foundations, algorithms, and methodologies of Deep Learning.

CO2. Apply the concepts of Convolution Neural Networks and use of popular CNN architectures.

CO3. Compare Feed Forward Neural Network and Recurrent Neural Network and learn modeling the time dimension using RNN and LSTM.

CO4. Elaborate unsupervised deep learning algorithms like Autoencoders.

CO5. Explore Representation Learning and Transfer Learning techniques using variants of CNN architecture.

CO6. Evaluate the performance of deep learning algorithms and to provide solution for various real-world applications.

4 **414444: Elective – III (Mobile Computing)**

CO1. Understand the basic concepts of mobile computing, MAC and different multiplexing technics.

CO2. Understand Protocols, Connection Establishment, Frequency Allocation,Routing of mobile telecommunication system like GSM, GPRS, UMTS.

CO3. Understand the Generations of Mobile Communication Technologies

CO4. Learn mobile IP , Adhoc – Network, Reactive Routing protocols, Multicast Routing.

CO5. Obtaining knowledge of transport layer protocol TCP, File System, and different application layer protocols.

CO6. Gain knowledge about different mobile platforms, operating Systems, Software Development Kit, Security Issues.

5 **414445: Elective – IV (Introduction to DevOps)**

CO1. Understand the fundamental concepts of DevOps

CO2. Link the background of DevOps with other technologies

CO3. Comprehend the concept of continuous integration and continuous delivery

CO4. Compare various stages of continuous deployment and test strategies

CO5. Justify the importance of monitoring system and reliability engineering

CO6. Use the latest tools in DevOps

6 **414446: Lab Practice III**

CO1. Understand the concept of Information retrieval and to apply clustering in information retrieval. CO2. CO3. CO4.

CO2. Use appropriate indexing approach for retrieval of text and multimedia data. Evaluate performance of information retrieval systems.

CO3. Apply appropriate tools in analyzing the web information.

CO4. Map the concepts of the subject on recent developments in the Information retrieval field.

7 **414447: Lab Practice IV**

CO1. Learn and Use various Deep Learning tools and packages.

CO2. Build and train a deep Neural Network models for use in various applications.

CO3. Apply Deep Learning techniques like CNN, RNN Auto encoders to solve real word Problems.

CO4. Evaluate the performance of the model build using Deep Learning.

8 **414448: Project Stage I**

CO1. To apply knowledge of mathematics, science, and engineering to formulate the Problem statement.

CO2. To design and conduct experiments, as well as to analyze and interpret data.

CO3. Understand the professional and ethical responsibility.

CO4. To communicate effectively.

CO5. Get broad education which is necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.

CO6. Recognition of the need for, and an ability to engage in life-long learning.

CO7. To use the techniques, skills, and modern engineering tools necessary for engineering practices.

CO8. 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.

9 **414449A: Audit Course 7 Copyrights and Patents**

CO1. Understand the concepts of Intellectual Property Rights.

CO2. Understand the knowledge about Copyrights and Trademark

CO3. Understand the knowledge how to protect trade secrets.

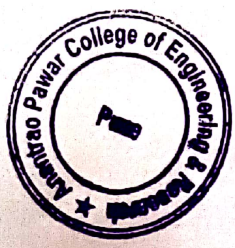
10 **410501: Machine learning and Data Science**

CO1. Apply, build and fit regression models for real time problems. 2. 3. 4 5.

CO2. Apply and build classification models using SVM and random forest classifiers.

CO3. Apply and build clustering models using clustering methods and its corresponding algorithms.

CO4. Design and development of certain scientific and commercial application using computational neural network models.



CO5. Apply text classification and topic modelling methods to solve given problem

11 **414450: Distributed Systems**

CO1. Demonstrate the core concepts of distributed systems.
CO2. Understand the concept of middleware of distributed systems.
CO3. Understand Inter-process communication methods and analyze different coordination algorithms.
CO4. Comprehend the importance of replication to achieve fault tolerance in distributed systems.
CO5. Analyze the design and functioning of existing distributed file systems, distributed multimedia, and distributed web-based systems.
CO6. Understand various Recent Trends in distributed systems

12 **414451: Elective- V (Social Computing)**

CO1. Understand basics of Social Media Analytics.
CO2. Correlate Network Measures for Social Media Data.
CO3. Visualize mining in social media data.
CO4. Discuss the Social Similarities.
CO5. Interpret social media behavior.
CO6. Apply Social Media Computations for Google+.

13 **414452: Elective VI (Business Analytics and Intelligence)**

CO1. Apply conceptual knowledge on how Business Intelligence is used in decision making process CO2. CO3. CO4. CO5. CO6.
CO2. Use modelling concepts in Business Intelligence
CO3. Understand and apply the concepts of business reports and analytics with the help of visualization for business performance management
CO4. Comprehend the model-based decision making using prescriptive analytics
CO5. Analyze the role of analytics and intelligence in Business
CO6. Comprehend different Business Intelligence trends and its future impacts

14 **414453: Startup and Entrepreneurship**

CO1. Able to understand key concepts and framework of innovation and start-up ecosystem.

CO2. Gain knowledge of how to develop start up ecosystem, its key components and how to influence and manage dynamics between them and increase the productivity of ecosystem.

CO3. Understand the role of different stakeholders in ecosystem in building and supporting growth of start-ups.

CO4. Have insight into global trend in start-up ecosystem and product development.

CO5. Mapping different start-up ecosystems and developing performance indicators.

15 **414454: Lab Practice - V**

CO1. Demonstrate knowledge of the core concepts and techniques in distributed systems.

CO2. Learn how to apply principles of state-of-the-Art Distributed systems in practical application.

CO3. Design, build and test application programs on distributed systems

16 **414455: Lab Practice VI (Business Analytics and Intelligence)**

CO1. Compare and analyze different analytical tools used by businesses

CO2. Understand the application of critical notion of KPI using real time case studies

CO3. Design and implement the analytical models using suitable tools

CO4. Create visualizations using suitable tools

17 **414456 : Project-II**

CO1. To apply engineering and mathematical knowledge to investigate / select proper technology / Algorithm suitable to solve the problem in hand. 2. 3. 4. 5. 6.

CO2. To apply knowledge of statistics for analysis of results and express conclusion and justification for the same.

CO3. To design and conduct experiments, as well as to analyze and interpret data or develop prototype model of the application.

CO4. To communicate effectively.

CO5. Get broad education which is necessary to understand the impact of engineering solutions in a global, economic, environmental, ethically and societal context.

CO6. Recognition of the need for, and an ability to engage in life-long learning.

18 **414457B: Audit Course 8 Cyber Laws And Use Of Social Media**

CO1. Understand the importance of IT Act. CO2. CO3. CO4.

CO2. Understand the significance of cyber laws and its practices.

CO3. Identify and Analyze software vulnerabilities and security solutions to reduce the risk of exploitation.

CO4. To study various privacy and security concerns of Online social media.

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