**AMRUTVAHINI COLLEGE OF ENGINEERING, SANGAMNER**

## Department of Information Technology

**Course Outcomes**

| **B.E. I.T – 2019 Course** | | | |
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| **Course Code** | **Course Name** | **Course Outcomes** | |
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| **C414441** | **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. |
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| **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. |
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| **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 Auto encoders. |
| | | 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. |
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| **414444** | **Elective – III (Mobile Computing)** | CO1 | Understand the basic concepts of mobile computing, MAC and different multiplexing technics. |

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| | | 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. |
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| **414445** | **Elective – IV (Wireless Communication)** | CO1 | Articulate the fundamental concept of cellular system. |
| | | CO2 | Analyse the fundamentals of cellular systems. |
| | | CO3 | Illustrate multiple access technique for effective utilization of spectrum. |
| | | CO4 | Design and analyse the WAP Programming Model in networking environment. |
| | | CO5 | Learn and understand security issues, challenges and tools in wireless communication. |
| | | CO6 | Explore the emerging trends and applications in wireless communication. |
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| **14446** | **Lab Practice III** | CO1 | Understand the concept of Information retrieval and to apply clustering in information retrieval. |
| | | 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. |
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| **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. |
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| **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. |

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| | | 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 | awTo 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. |
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| **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. |
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| **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. |
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| **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+ |
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| **414452** | **Elective-VI (Blockchain Technology)** | CO1 | Understand the concept of cryptography and decentralization. |
| | | CO2 | Acquire fundamental knowledge of blockchain with issues associated with it. |
| | | CO3 | Acquire knowledge of Ethereum blockchain platform. |
| | | CO4 | Understand hyper ledger fabric platform. |
| | | CO5 | Acquire the knowledge regarding working of tokenization. |
| | | CO6 | Describe the applications and risk involved |
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| **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. |
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| **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 |
| **414455)** | **Lab Practice VI (Blockchain Technology)** | CO1 | To implement small blockchain experimentations. |
| | | CO2 | Identify Consensus mechanism for Blockchain Application |
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| **414456** | **Project-II** | CO1 | Apply engineering and mathematical knowledge to investigate / select proper technology / Algorithm suitable to solve the problem in hand. |
| | | CO2 | Apply knowledge of statistics for analysis of results and express conclusion and justification for the same. |
| | | CO3 | Design and conduct experiments, as well as to analyze and interpret data or develop prototype model of the application. |
| | | CO4 | 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. |