



Mahavir Education Trust's  
**Shah & Anchor Kutchhi Engineering College,**  
 Chembur, Mumbai 400 088  
**UG Program in Information Technology**

Academic Year 2020-21  
 Semester – VIII

<b>Information Technology</b> <b>Academic Year 2020-21</b>				
VIII	ITC801	Big Data Analytics	3.ITC801.1	Explain the motivation for big data systems and identify the main sources of Big Data in the real world.
			3.ITC801.2	Demonstrate an ability to use frameworks like Hadoop, NOSQL and MapReduce to efficiently store retrieve and process Big Data for Analytics.
			3.ITC801.3	Implement several Data Intensive tasks using the Map Reduce Paradigm for big data.
			3.ITC801.4	Apply several newer algorithms for Clustering, Classifying and finding associations in Big Data
			3.ITC801.5	Design algorithms to analyze Big data like streams, Web Graphs and Social Media data
			3.ITC801.6	Design and implement successful Recommendation engines for Big Data applications.
VIII	ITC802	Internet of Everything	5.ITC802.1	Apply the concepts of IOT
			5.ITC802.2	Identify the different technology
			5.ITC802.3	Apply IOT to different applications
			5.ITC802.4	Analysis and evaluate protocols used in IOT
			5.ITC802.5	Design and develop smart city in IOT
			5.ITC802.6	Analysis and evaluate the data received through sensors in IOT
VIII	ITDLO8041	User Interaction Design	9.ITDLO8041.1	Identify and criticize bad features of interface designs
			9.ITDLO8041.2	Determine and predict good features of interface designs.
			9.ITDLO8041.3	Describe & illustrate and analyze user needs and formulate user design specifications
			9.ITDLO8041.4	Recognize ,interpret and evaluate the data collected during the process
			9.ITDLO8041.5	Study & Explain and evaluate designs based on theoretical frameworks and methodological approaches.
			9.ITDLO8041.6	Produce/show better techniques to improve the user interaction design interfaces.
VIII	ILO8021	Project Management	9.ILO8021.1	Identify importance of Project management and role of project manager
			9.ILO8021.2	Apply selection criteria and select an appropriate project from different options
			9.ILO8021.3	Write work breakdown structure for a project, develop a schedule and resource estimation



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			9.ILO8021.4	Identify opportunities and threats to the project and decide on an approach to deal with them strategically
			9.ILO8021.5	Use Earned value technique and determine & predict status of the project
			9.ILO8021.6	Capture lessons learned during project phases and document them for future reference
VIII	ILO8027	IPR and Patenting	9.ITM805.1	Recognize the importance of Intellectual Property assets.
			9.ILO8027.2	Associate with individuals and organizations in IPR capacity building.
			9.ILO8027.3	Explore for development, promotion, protection, compliance, and enforcement of Intellectual Property and Patenting
			9.ILO8027.4	Acquire the knowledge of patent search and patent filing procedure and applications.
			9.ILO8027.5	Compare Indian scenario of IPR with other country's scenario.
			9.ILO8027.6	Figure out enforcement and emerging issues in IPR.
VIII	ITL801	Big Data Lab	ITL801.1	Demonstrate capability to use Big Data Frameworks like Hadoop
			ITL801.2	Program applications using tools like Hive, Pig, NO SQL and MongoDB for Big data Applications
			ITL801.3	Construct scalable algorithms for large Datasets using Map Reduce techniques
			ITL801.4	Construct algorithms for Clustering, Classifying and finding associations in Big Data
			ITL801.5	Design and implement algorithms to analyze Big data like streams, Web Graphs and Social Media data and construct recommendation systems.
			ITL801.6	Apply the knowledge of Big Data gained to fully develop a BDA application for real life applications.
VIII	ITL802	Internet of Everything Lab	ITL802.1	Identify the requirements for the real world problems.
			ITL802.2	Conduct a survey of several available literatures in the preferred field of study.
			ITL802.3	Study and enhance software/ hardware skills
			ITL802.4	Demonstrate and build the project successfully by hardware/sensor requirements, coding, emulating and testing
			ITL802.5	To report and present the findings of the study conducted in the preferred domain
			ITL802.6	Demonstrate an ability to work in teams and manage the conduct of the research study



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VIII	ITL803	DevOps Lab	ITL803.1	Outline the importance of DevOps tools used in software development life cycle
			ITL803.2	Illustrate different Version Control strategies using Git
			ITL803.3	Demonstrate the importance of Jenkins to Build, Deploy and Test Software Applications
			ITL803.4	Illustrate the Containerization of OS images and deployment of applications over Docker
			ITL803.5	Summarize the importance of continuous software testing in DevOps
			ITL803.6	Construct the provisioning using Chef/Puppet/Ansible or Saltstack
VIII	ITL804	R Programming Lab	ITM805.1	To create system in line with design
			ITM805.2	To test and evaluate performance of the system
			ITM805.3	To verify whether system requirements have been accomplished
			ITM805.4	To apply change control to system
			ITM805.5	Capture lessons learnt during project phases and document them for future reference
			ITM805.6	To Document and present the findings of the study conducted in the preferred domain
VIII	ITM805	Project-II	9.ITM805.1	To create system in line with design
			9.ITM805.2	To test and evaluate performance of the system
			9.ITM805.3	To verify the whether system requirement have been accomplished
			9.ITM805.4	To apply change control to system
			9.ITM805.5	Capture lessons learnt during project phases and document them for future reference
			9.ITM805.6	To Document and present the findings of the study conducted in the preferred domain