Academic Year 2019-20

Semester - VIII

Unique Course Number: ITC801   **Course Name: Big Data Analytics**

Unique CO Number	Course Outcome (CO) Statement
ITC801.1	Explain the motivation for big data systems and identify the main sources of Big Data in the real world.
ITC801.2	Demonstrate an ability to use frameworks like Hadoop, NOSQL and MapReduce to efficiently store retrieve and process Big Data for Analytics.
ITC801.3	Describe several Data Intensive tasks using the Map Reduce Paradigm for big data.
ITC801.4	Apply several newer algorithms for Clustering, Classifying and finding associations in Big Data
ITC801.5	Discuss algorithms to analyse Big data like streams, Web Graphs and Social Media data.
ITC801.6	Elaborate successful Recommendation engines for Big Data applications.

Unique Course Number: ITC802   **Course Name: Internet of Everything**

Unique CO Number	Course Outcome (CO) Statement
8.ITC802 .1	Apply the concepts of IOT.
8.ITC802 .2	Identify the different technology
8.ITC802 .3	Apply IOT to different applications
8.ITC802 .4	Analysis and evaluate protocols used in IOT
8.ITC802 .5	Design and develop smart city in IOT
8.ITC802 .6	Analysis and evaluate the data received through sensors in IOT

Unique Course Number: ITDLO8041   **Course Name: User Interaction Design**

Unique CO Number	Course Outcome (CO) Statement
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.

Unique Course Number: ILO8021　　　　**Course Name: Project Management**

Unique CO Number	Course Outcome (CO) Statement
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.
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

Unique Course Number: ILO8027　　　　**Course Name: IPR and Patenting**

Unique CO Number	Course Outcome (CO) Statement
9.ILO8027.1	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.

Unique Course Number: ITL801　　　　**Course Name: Big Data Lab**

Unique CO Number	Course Outcome (CO) Statement

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.

Unique Course Number: ITL802   **Course Name: Internet of Everything Lab**

Unique CO Number	Course Outcome (CO) Statement
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

Unique Course Number: ITL803   **Course Name: DevOps Lab**

Unique CO Number	Course Outcome (CO) Statement
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

Unique Course Number: ITL804　　　　　　　　　　**Course Name: R Programming Lab**

Unique CO Number	Course Outcome (CO) Statement
2.ITL804.1	Install and use R for simple programming tasks
2.ITL804.2	Extend the functionality of R by using add-on packages
2.ITL804.3	Extract data from files and other sources and perform various data manipulation tasks on them.
2.ITL804.4	Code statistical functions in R
2.ITL804.5	Use R Graphics and Tables to visualize results of various statistical operations on data .
2.ITL804.6	Apply the knowledge of R gained to data Analytics for real life applications.

Unique Course Number: ITM805　　　　　　　　　　**Course Name: Project-II**

Unique CO Number	Course Outcome (CO) Statement
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