CMR TECHNICAL CAMPUS

Kandlakoya Village, Medchal, Hyderabad, Telangana - 501401

Department of Computer Science and Engineering

Students Association of CSE (ACSE)

Chapter/Student Branch Name: CMR Technical Campus

Region: V

Event Date: 08-01-19 to 12-01-19

Event Title: 5 Days Certification Training on **"Data Science & Big Data Analytics"**

Speakers:
Mr. Somu Shanmughavel,ICT Academy, Training Manager (South -2) – Training & Research, Hyderabad

Gist of the Event:
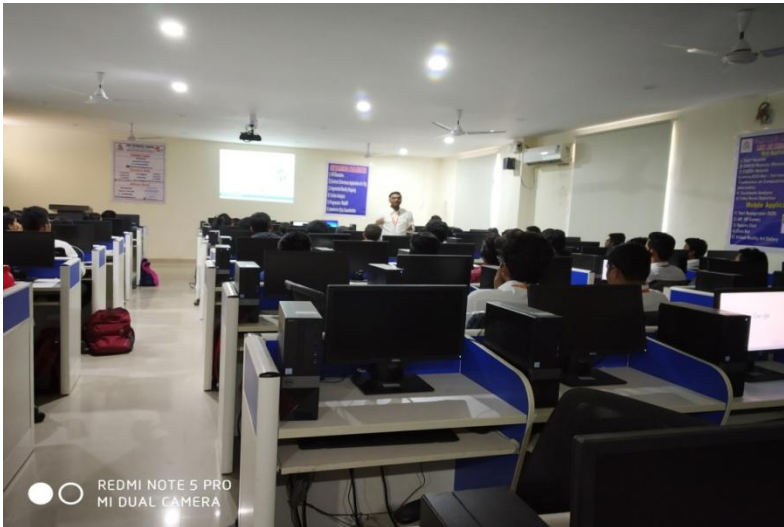Students delivered Concepts on **"Data Science & Big Data Analytics Certification"** and covered following Topics:

Data Science and Big Data Analytics
Session Plan

ICT ACADEMY
Innovate... Collaborate... Educate...

Day	Timings	Topic	Sub Topics
1	Session 1	Module:1 Introduction to Big Data Analytics	Definition of big data, Big data characteristics and considerations☐
	15 minutes	**Tea Break**	
	Session 2	Module:1 Introduction to Big Data Analytics Contd..,	Unstructured data fueling big data analytics, Mini-Case Study
		Module:1 Introduction to Big Data Analytics Contd..,	Analyst perspective on Data Repositories
	45 minutes	**Lunch Break**	
	Session 3	Module:2 Data Analytics Lifecycle	Data Analytics Lifecycle, Roles for a Successful Analytics Project
	15 minutes	**Tea Break**	
	Session 4	Module:2 Data Analytics Lifecycle Contd..,	Roles for a Successful Analytics Project Contd...,
		Module:2 Data Analytics Lifecycle Contd..,	Case Study to apply the data analytics lifecycle
2	Session 1	Lab Exercise 1	Lab Exercise 1: Introduction to Data Environment
		Module:3 Review of Basic Data Analytic Methods Using R	Using the R Graphical User Interface,Getting Data Into (and Out of) R With Practical
	15 minutes	**Tea Break**	
	Session 2	Module:3 Review of Basic Data Analytic Methods Using R Contd..,	Getting Data Into (and Out of) R (Contd..,), Getting Data Into R With Practical
	45 minutes	**Lunch Break**	
	Session 3	Module:3 Review of Basic Data Analytic Methods Using R & Lab Exercise 2	Getting Data Out of R, Lab Exercise 2: Introduction to R
	15 minutes	**Tea Break**	
	Session 4	Module:3 Review of Basic Data Analytic Methods Using R Contd..,	Review of Basic Data Analytic Methods Using R,Analyzing and Exploring the Data
			Lab Exercise 3: Basic Statistics, Visualization and Hypothesis Tests – Part 1 - Workflow

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Day	Timings	Topic	Sub Topics
3	Session 1	Module:3 Review of Basic Data Analytic Methods Using R & Lab Exercise 3 Contd..,	Lab Exercise 3:Working with R Language and Using SQL Server to Connect with R
	15 minutes	**Tea Break**	
	Session 2	Module:3 Review of Basic Data Analytic Methods Using R & Lab Exercise 3 Contd..,	Lab Exercise 4: Basic Statistics, Visualization and Hypothesis Tests – Part 1 - Workflow
	45 minutes	**Lunch Break**	
	Session 3	Module:3 Review of Basic Data Analytic Methods Using R & Lab Exercise 3 Contd..,	Lab Exercise 5: Basic Statistics, Visualization and Hypothesis Tests - Part 2 - Workflow
	15 minutes	**Tea Break**	
	Session 4	Module:4 Review of Basic Data Analytic Methods Using R & Lab Exercise 4	Applying the Data Analytics Lifecycle, Phase 3 - Model Planning & Lab Exercise 6: K-means Clustering
4	Session 1	Module:4 Advanced Analytics – Theory and Methods & Lab Exercise 5, Lab Exercise 6 Contd..,	Association Rules,Lab Exercise 7:Association Rules, Linear Regression with R Example, Lab Exercise 8: Linear Regression
	15 minutes	**Tea Break**	
	Session 2	Module:4 Advanced Analytics – Theory and Methods & Lab Exercise 7 & Lab Exercise 8 Contd..,	Association Rules,Lab Exercise 7:Association Rules, Linear Regression with R Example, Lab Exercise 8: Linear Regression
	45 minutes	**Lunch Break**	
	Session 3	Module:4 Advanced Analytics – Theory and Methods Lab Exercise 9 Contd..,	Lab Exercise 9: Decision Trees, Time Series Analysis, Time Series Analysis with R
	15 minutes	**Tea Break**	
	Session 4	Module:4 Advanced Analytics – Theory and Methods Lab Exercise 10: Time Series Analysis Contd..,	Lab Exercise 10: Time Series Analysis, Text Analysis

Day	Timings	Topic	Sub Topics
5	Session 1	Module 5 Advanced Analytics - Technology and Tools & Lab Exercise 11: Hadoop and HDFS	Analytics for Unstructured Data - MapReduce and Hadoop, Lab Exercise 11: Hadoop and HDFS
	15 minutes	**Tea Break**	
	Session 2	Module 5 Advanced Analytics - Technology and Tools: Hadoop and HDFS Contd..,	Query Languages for Hadoop
	45 minutes	**Lunch Break**	
	Session 3	Exam	
	15 minutes	**Tea Break**	
	Session 4	Valedictory	Valedictory and Feedback

Guest delevering the lecture to Students