

PG-Diploma in Big Data Analytics (PG-DBDA)

Program Objectives:

The theoretical and practical mix of the Post Graduate Diploma in Big Data Analytics (PG-DBDA) programme has the following focus:

- To explore the fundamental concepts of big data analytics
- To develop in-depth knowledge and understanding of the big data analytic domain.
- To learn to analyze the big data using intelligent techniques.
- To understand the various search methods and visualization techniques.
- To learn to use various techniques for mining data stream.
- To understand the applications using Map Reduce Concepts
- To analyze and solve problems conceptually and practically from diverse industries, such as government manufacturing, retail, education, banking/ finance, healthcare and pharmaceutical.
- To undertake consulting projects with significant data analysis component for better understanding of the theoretical concepts from statistics, economics and related disciplines.
- To undertake industrial research projects for the development of future solutions in the domain of data analytics to make an impact in the technological advancement.
- To use advanced analytical tools/ decision-making tools/ operation research techniques to analyze the complex problems and get ready to develop such new techniques for the future.
- To learn Cloud Computing, accessing resources and services needed to perform functions with dynamically changing needs.
- To understand the cloud privacy and security concepts to create secure cloud environment and module will explore various cloud platforms to implement real time cloud applications.
- To learn Clustering, Parallel Programming and HPC Solutions and their applications.

Qualification & Experience:

- Graduate in Engineering (10+2+4 or 10+3+3 years) in IT / Computer Science / Electronics / Telecommunications / Electrical / Instrumentation. OR MSc/MS (10+2+3+2 years) in Computer Science, IT, Electronics.
- Mathematics in 10+2 (exempted for candidates with Diploma + Engineering) OR
- Post Graduate Degree in Engineering Sciences with corresponding basic degree (e.g. MSc in Computer Science, IT, Electronics) OR
- 4-year Graduation in Bioinformatics, OR
- Post Graduate Degree in Mathematics / Statistics / Physics / MBA Systems, OR MCA

PG-DBDA will educate the aspirants who want to make an impact in the corporate and academic world in the domain of big data analytics as data scientist and researcher, big data leads/administrators/managers, business analysts and data visualization specialists. The course is also suitable for those who are already working in analytics to enhance their theoretical and conceptual knowledge as well as those with analytical

aptitude and would like to start career in big data analytics in different business sectors. The collaboration with the different multi-national companies at the level of mutual research interests and customer related projects will ease the path for campus recruitment. The students will be able to work with big data platform, analyze various big data analysis techniques for useful business applications, design efficient algorithms for mining the data from large volumes, analyze the HADOOP and Map Reduce technologies associated with big data analytics, and explore big data applications. Modules covered in PG-DBDA are:

- Linux Programming and Cloud Computing
- Python and R programming
- Object Oriented Programming with Java 8
- Advanced Analytics using Statistics
- Data Collection and DBMS (Principles, Tools & Platforms)
- Big Data Technologies
- Data Visualization - Analysis and Reporting
- Practical Machine Learning
- Aptitude & Effective Communication
- Project