



National Institute of Electronics & Information
Technology Near IIT Patna, Amhara, Bihta,
Patna(Bihar) -801106

Details of the Course

Name of The Course: Industrial Training & Internship in Data Analytics

Duration (in Hrs.): 60(6 weeks)

Course Fee-2974

Eligibility: B.Tech/ In Electronics, Electrical, Instrumentation Engineering, Computer Science, IT or its equivalent/MBA/BBA (Completed or Pursuing)/MCA/BCA/Diploma in CS/ECE

Course Content:

Sl .No	Topic	Subtopic	Duration(in Hrs)
1	Fundamentals of Data Analytics	Understanding the role of data analytics in business, Overview of key concepts and terminology, Importance of data-driven decision-making, Descriptive and Predictive Data Analytics, Business analyst life cycle, case studies, and projects	05
2	Python Programming for Data Analysis	Python Programming fundamentals, Installing Python IDE, Data Types, Operators and expressions, Variable assignments, Mutable and Immutable data, String, List, Tuple, Dictionary, Properties and Methods, Python Conditional Statements, Modules and Packages in Python, Python Packages for Data Analytics (Numpy, Pandas matplotlib and Seaborn), Scikitlearn, Data Preprocessing Techniques	15
3	Data Analytics Tools	Introduction to Data analytics tools, Google Data Studio, Metabase, Data Cleaning in Excel, Data Validation and Conditional Formatting , Pivot Tables & Pivot Charts , Basic Data Visualization in Excel , Introduction to Excel Power Query Introduction to Databases and SQL , Writing SQL Queries to Extract Data , Filtering and Sorting Data . Aggregation and Grouping (GROUP BY, HAVING) , Joins (INNER, LEFT, RIGHT, FULL), Subqueries and Common Table Expressions (CTEs), Apache Spark, Spark SQL, Creating tables and querying data , SQL syntax and functions, Introduction to PySpark Using Python with Spark, Spark Dataframe operations	13
4	Tableau	Data visualization, Tableau Basics, Creating sheets, Data Extraction, Data Control, Time	7

		Series, Aggregation, Maps, Plots, Filter, Dashboard, Joining, Blending, Data Interpreter, Clustering, Modelling, Data cleansing, Structure, Pivots, Tables	
5	Power BI	Power BI Overview, Connecting and shaping data, Different visualizations, Matrices, Bar Charts, text box, Image and Shapes, Filtering, Buttons and Actions, Page Navigation and Drill through actions, Ribbon and waterfall charts, Scatter, Pie, Funnel charts, Mapping, Pattern recognition, Anomaly and outlier detection, Data Transformation, Conditional Formatting, Statistical and Mathematical functions , Dashboard Development and Enhancement	20