



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

### Details of the Course

**Name of The Course: Internship in Data Science using Python Programming**

**Duration (in Hrs.): 40**

**Fee (in Rs.): Rs 1983/-**

**Eligibility:** Diploma/B.Sc./B.Tech/ In Electronics, Electrical, Instrumentation Engineering, Computer Science, IT or its equivalent. (Completed or Pursuing).

#### **Course Content:**

Sl .No	Topic	Subtopic	Duration
1	Python Programming	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 Statements, If, elif, else, for, while, list comprehension, Functions in Python, Variable argument function, inbuilt functions , Lambda Expression , Map, Filter, Tuple Unpacking, OOps concepts, Python as oops, Modules and Packages in Python, Collection, OS module, Math, Random, Regular Expressions	10
2	Data Science	Python Packages for Data Science (Numpy, Pandas and Matplotlib), Statistics and Machine Learning , Statistics and Its types , Numerical and Categorical data, Mean, Median, Mode, Range, Variance, Standard Deviation, Percentile, Z-score, Quartiles, Skewness, Probability, joint, marginal and conditional probabilities, Bayes' Theorem, Data Preparation, Dataset, Data Preprocessing, Outlier detection, Missing value imputation, Encoding Categorical Data, Splitting Data, Feature scaling, Tools for Data Analytics, Tableau	20
3	Machine Learning	Introduction to machine learning, Machine learning approaches, Basics of Statistics and Probability, Regression method, Simple linear regression, Classification method, Logistic Regression K-NN	10