



Admission Open 2023

Kingston School of Management & Science



Post Graduate Diploma in Data Science

Duration : 1 Year



**Affiliated to Maulana Abul Kalam Azad
University of Technology, West Bengal**

INFRASTRUCTURE

The College provides high quality, state-of-the-art infrastructure to facilitate the students and faculty members to conduct and promote quality teaching and research in a plural and diverse atmosphere. Our classrooms are highly conducive, organized, stimulating and comfortable for the students. The whole college is connected under a Wi-Fi network system. Our campus provides fully equipped computer labs and up to data stored library where the students can improve their hard skills. A ragging free environment immensely focuses on making our students successful in this competitive world.



PLAY GROUND

28 Acres Green Campus

The college has a total of two sprawling playgrounds; the main one spreads over an immense area of 81,000 sq.ft. and another secondary playground towards the back of the college building spreads over a little more than 27,000 sq.ft.



ELIGIBILITY CRITERIA

Any graduate having degree in B.Sc Mathematics (H), B.Sc Statistics (H), B.Sc Computer Sc (H), BCA, B.Sc Computer Application (H) or equivalent from a recognized university.

PROGRAM OVERVIEW

It is evident that Data Science is an upcoming domain which has been recognized as an important and obligatory practice to be adopted by almost all business organizations irrespective of their size and line of activities. A significant capability enhancement has taken place, particularly in the last decade regarding data or information acquisition. This has led to the need of analyzing the same and for taking out meaningful insights, then plugging those with decision-making and updating policies for better organizational functions.

Post Graduate Diploma in Data Science & Analytics will help professionals to succeed in any industry and teach them newer trends & improvise basic processes. There is practically no sector which has remained untouched from the reach of Data Science. Data Scientists, with the right set of skills and expertise, are in demand in a wide range of industries where businesses are realizing the potential of enabling analytics in their organization.

Though the demand for Data Scientists in our country and abroad is significantly high, there is a huge dearth of skilled professionals in the respective field. The Post Graduate Diploma in Data Science & Analytics has been conceptualized to prepare professionals in DataScience, who are keen to make a career in this exciting field.

DURATION

Two Semesters (One Year) with 16 weeks per Semester & 40 lectures per Semester.

CURRICULUM

Semester 1

- Big Data & Hadoop
- o Introduction to Big Data Tools and Technologies
- o Introduction to Unix & PYTHON
- o Introduction to HDFS
- o Map-Reduce and its assignment
- o Introduction to Sqoop
- o HIVE
- o PIG
- o SPARK
- o SPARK + Python & Case Study (LOG ANALYSIS)
- o Oozie
- o HBASE/ MongoDB
- o Project I [Retail DOMAIN]
- o Using all above tools
- o Project II: Banking sector
- o Project III Sentiment
- o Analytics
- o Introduction to R software
- Business Analytics
- o Data and Basic Statistics
- o Linear Regression
- o Logistic Regression
- o Time Series Modelling - ARIMA
- o Market Mix Modelling
- o Decision Trees
- o Email Marketing Optimization
- R Integration with Hadoop

Semester 2

- Data Visualization
- o Getting data to data mart for faster visuals
- o Metabase open source, Apache superset open source visualizers
- o Plotting data based on classifications/buckets, time, trending
- o Drill downs to provide more details
- o Building dashboards using individual charts
- o Implementing security on visual data visibility
- o Automatic alerting based on data dashboards
- Machine Learning
- o Introduction: Statistical Decision Theory - Regression, Statistical Decision Theory - Classification, Bias Variance"
- o Linear Regression, Multivariate Regression, Subset Selection, Shrinkage Methods, Principal Component Regression, Partial Least squares
- o Linear Classification, Logistic Regression, LDA
- o Perceptron, SVM
- o Neural Networks - Introduction, Early Models, Perceptron Learning, Neural Networks - Backpropagation, Neural Networks - Initialization, Training & Validation, Parameter Estimation
- o Decision Trees, Regression Tree, Decision Trees - Stopping Criterion & Pruning, Loss functions, Decision Trees - Categorical Attributes, Multiway Splits, Missing Values, Decision Trees - Instability, Example, Evaluation Measures-1"
- o Bootstrapping & Cross Validation, Class Evaluation Measures, ROC curve, MDL, Ensemble Methods - Bagging, Committee Machines and Stacking, Ensemble Methods - Boosting"
- o Gradient Boosting, Random Forests, Multi-class Classification, Naive Bayes, Bayesian Networks"
- o Undirected Graphical Models, HMM, Variable elimination, belief propagation
- o Partitional Clustering, Hierarchical Clustering, Birch Algorithm, CURE Algorithm, Density-based Clustering"
- o Gaussian Mixture Models, Expectation Maximization"
- o Learning Theory, Introduction to Reinforcement Learning + Optional videos (RL framework and TD Learning, Solution Methods and Applications)
- Case Study



ABP ANANDA SHIKSHA SAMMAN 2022
Mrs. Uma Bhattacharjee, Secretary,
KEI received the prestigious award
"Ananda Shiksha Samman"
for Diploma Engineering College.

**EXCELLENCE IN
PLACEMENT & INFRASTRUCTURE**



**TIMES
POWER
WOMEN
EAST
2022**

CERTIFICATE OF RECOGNITION 2022



Honoured with prestigious
award for Excellence in
Undergraduate Management,
Commerce & Hospitality in
Eastern India.

EDUCATION EXCELLENCE 2022



**Leadership
Convlate 2023**
Mrs. Uma Bhattacharjee,
Secretary, KEI received
the prestigious award.

LEADERSHIP CONVULATE 2023

UNINTERRUPTED LEARNING

When the Covid-19 pandemic outbreak forced schools and colleges to shut down in March 2020, the teaching staff and the management of Kingston Educational Institute turned the seemingly difficult challenges into opportunities by using their expertise in integrating technology in the teaching-learning process. They used a wide array of digital tools such as Microsoft Teams to introduce an innovative online learning solution for all classes.

Microsoft 365



TRAINING AND PLACEMENT

Students are groomed through various technical & non-technical training, group discussions, workshops, seminars, hard skills & soft skills and personality development programmes to make them market ready. In this process, strength & weakness of each and every student is brought into limelight so that they are rectified in due course. The Training & Placement Department of KEI has tie-up with several organizations and companies for training & placement purpose.

The Training and placement Partners



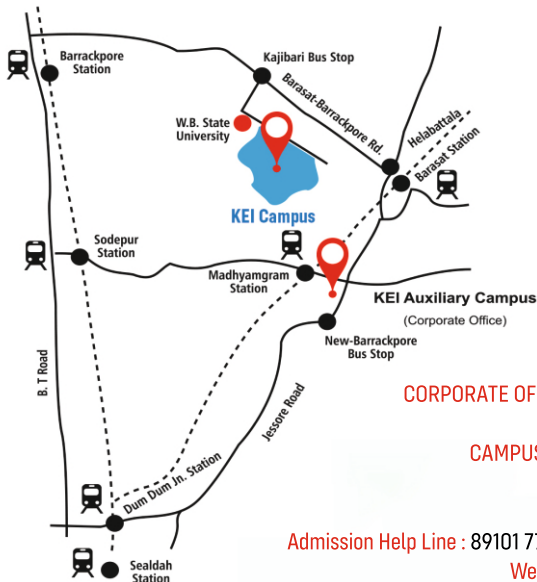
OUR EVENTS

Apart from conventional education, our institution organizes various student centric events like Kingstoxication, Run for Education - Run for Health, Basanta Utsav and Rannabazi.



INTERNATIONAL TOUR

KEI sponsored an Educational and Cultural Tour for its students to Indonesian Universities namely Universitas Airlangga & Universitas of Lampung Province.



ROUTE MAP OF KEI CAMPUS & CORPORATE OFFICE



Kingston School of Management and Science

CORPORATE OFFICE : Purbasa, Opp. Bimala Cinema, Jessore Road, Madhyamgram, Kolkata = 700129.

CAMPUS : Berunanpukuria, P.O. malikapur, P.S. Duttapukur, Adjacent to West Bengal State University, Barasat Kolkata - 700126

Admission Help Line : 89101 77339 | 82409 00443 | 91233 89933 | 91233 99543

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