

### **RAJAGIRI SCHOOL OF ENGINEERING & TECHNOLOGY (AUTONOMOUS)**

# CERTIFICATE COURSE ON STATISTICAL FOUNDATIONS FOR DATA SCIENCE DEPARTMENT OF MATHEMATICS

#### **ABOUT THE DEPARTMENT**

The Department of Mathematics was made an independent Department on 22nd June 2020 in order to promote research activities and interdisciplinary projects. The Center for Topology and Applications (CETA) established under the Department is supported by the National Board of Higher Mathematics, Department of Atomic Energy and Department of Science and Technology, Govt. of India. Several programs are conducted by the department in association with CETA

#### **ABOUT THE COURSE**

This course provides various testing methods, covers important topics of data analysis and helps to gain better knowledge in statistical analysis.

#### **ELIGIBILITY**

Any undergraduate or post graduate students, faculty, research scholars and working professionals with basic knowledge in higher secondary level Mathematics. Entire course will be conducted in Hybrid mode.

#### **SYLLABUS**

**Module 1 (9 hours):** Probability spaces, conditional probability, independence; Random variables, distribution functions, probability mass and density functions, Properties and simple problems

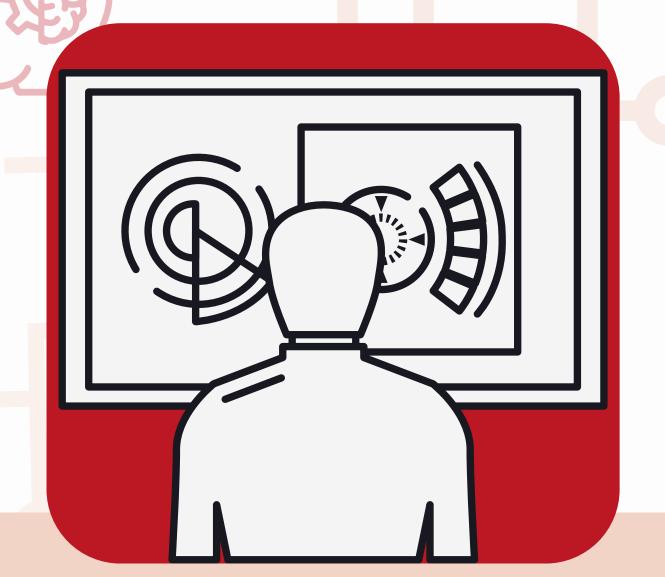
**Module 2 (12 hours):** Functions of random variables, standard univariate discrete and continuous distributions; Mathematical expectations, moments, moment generating functions, Properties.

**Module 3 (12 hours):** Inequalities; Random vectors, joint, marginal, and conditional distributions, conditional expectations, independence.

**Module 4 (12 hours):** Covariance, correlation, standard multivariate distributions, functions of random vectors; Law of large numbers, central limit theorem, Sampling Distributions.

#### **FEE STRUCTURE**

For Rajagiri students: Rs.1000/and
for others Rs. 2000/( Send the payment receipt to:
rsetcc\_dma@rajagiritech.edu.in )



## REGISTER ON OR BEFORE OCT 18, 2023

To register go to :https://tinyurl.com/yjavuavb

For details contact:

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