

# NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR



## WORKSHOP ON FUNDAMENTALS OF RESEARCH METHODOLOGY USING APPLICATION SOFTWARE (**ONLINE MODE**)



Date

*24<sup>th</sup> June 2024-28<sup>th</sup> June 2024*



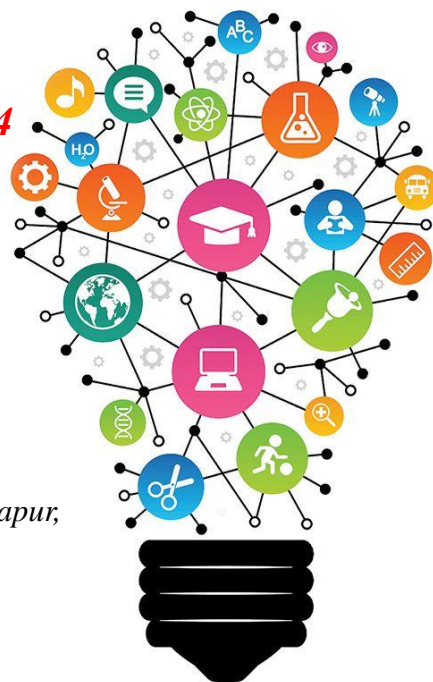
Programme Coordinators

*Dr. Amlan Ghosh &  
Prof. Gautam Bandyopadhyay*



Venue

*NIT DURGAPUR  
Mahatma Gandhi Avenue,  
National Institute of Technology Durgapur,  
Durgapur, West Bengal  
India – 713209*



*Organized by:*

**Department of Management Studies  
NATIONAL INSTITUTE OF TECHNOLOGY  
DURGAPUR**



## FOCUS AREAS:

### Descriptive

#### 1. Basics of Statistics and its Application

Data type and measure

Descriptive Statistics

Data visualization

### Diagnostic

#### 2. Probability

Concepts of Prior Probability & Posterior Probability

Concept of Random Variable

Concepts of Discrete & Continuous Probability

Distribution

#### 3. Sampling

Probabilistic Sampling & Deterministic Sampling

SRSWR & SRSWOR

Stratified Random Sampling

#### 4. Inferences

Z Test,  $\chi^2$  Test, t Test, F Test and application.

### Predictive

#### 5. ANOVA

One –Way ANOVA

Two- Way ANOVA

One-Way ANCOVA

#### 6. Regression

Concept of covariance and correlation

Concept of Simple Correlation, Multiple Correlation & Partial correlation

Simple regression & multiple regression

Logistic Regression

#### 7. Mediation and Moderation

#### 8. Principle Component Analysis and Factor Analysis

#### 9. Cluster Analysis

#### 10. Time Series Analysis

### RESEARCH TOOLS TO BE USED:

statistical software

SPSS/JAMOVIE/Views/ R Studio

## WHAT YOU EXPECT

Participants are required to devote full time during the workshop and actively participate in the discussions. We would also spend meaningful time on hands-on experiences with different statistical software. Participants will receive soft copies of study materials and a programme certificate at the end of the successful completion of the workshop.

### FOR WHOM:

Young and budding researchers who are planning to start the research work, have already started their work but yet to get the research topic/s or just began their research journey and also for the young faculty members to refresh their minds for their future research.

### PROGRAMME DURATION:

Programme Commencement: **24<sup>th</sup> June 2024**

Programme Conclusion: **28<sup>th</sup> June 2024**

### PROGRAMME FEES:

Rs 1000/- for Research Scholars, Rs 1500/- for Faculties & Practitioners.

### HOW TO APPLY:

Participants are required to fill the registration form using the link below:

<https://forms.gle/g1ujD2v4FWUVJg5EA>

### Mode of Registration:

Programme fees are required to be credited directly to “**CEP NIT DURGAPUR**” bearing Account. No. **37850318679**, STATE BANK OF INDIA, NIT CAMPUS , **IFSC Code : SBIN0002108**.

## ABOUT DEPARTMENT OF MANAGEMENT STUDIES

The Department of Management Studies (DoMS) at the National Institute of Technology (NIT) was established in the year 2011 and offers undergraduate, postgraduate and doctoral programs in Management. The DoMS currently offers specialization in the functional areas of Marketing, Finance, Systems & Operations, Human Resource Management & Organizational Behavior, and International Business & Econometrics. The department has a strong focus on research and encourages students to engage in research activities.

**Last Date of Registration: 17/06/2024**

## ABOUT NIT DURGAPUR

National Institute of Technology (NIT) Durgapur, also known as NIT Durgapur, is a premier engineering institute located in Durgapur, West Bengal, India. Founded in 1960, NIT Durgapur has a rich history of providing quality education and research opportunities in engineering and Management. The institute offers undergraduate, postgraduate, and doctoral programs in various fields of Engineering and Management. NIT Durgapur is known for its strong faculty, state-of-the-art facilities, and research-oriented approach to education.

# Resource Persons



**Prof. Tathagata Bandyopadhyay**  
Ex-Professor, IIM Ahmedabad &  
Director, Dhirubhai Ambani Institute of  
Information and Communication Technology  
Ahmedabad, Gujrat



**Dr. Surupa Chakraborty**  
Associate Professor  
Department: Statistics  
St Xavier's College (Autonomous),  
Kolkata



**Prof. Gautam Bandyopadhyay**  
Professor  
Department of Management Studies  
National Institute of Technology Durgapur



**Dr. Amlan Ghosh**  
Associate Professor  
Department of Management Studies  
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**Dr. Kaushik Mandal**  
Associate Professor  
Department of Management Studies  
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**Dr. Anupam Dey**  
Associate Professor  
Department of Management Studies  
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**Chief Patron**  
**Prof Arvind Choubey**  
**Director**

National Institute of Technology Durgapur  
West Bengal

**Patron**  
Dr. Kaushik Mandal  
HOD  
Department of Management  
National Institute of Technology Durgapur

## **Coordinators**

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