

## Short Term Course

**Topic : Data Analysis using R**  
**Duration : June 29, 24 - July 21, 24**  
**Place : Kalyani Regional Centre, NSOU**  
**Admission closes on: June 26, 24**

NETAJI SUBHAS OPEN  
UNIVERSITY (NSOU)

CENTRE FOR PROPAGATION OF  
SCIENTIFIC KNOWLEDGE (CPSK)



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**COURSE**

**BROCHURE**

## Salient Features

- 44 Hours of hands on
- Duration : 4 Weeks
- Weekend Classes
- Online Doubt Clearance Sessions
- Weekly Assignments
- Case Study from different domains
- State of the art laboratory
- Participation Certificate
- No of seats available : 35



## Centre for Propagation of Scientific Knowledge (CPSK), NSOU:

The Centre for Propagation of Scientific Knowledge organizes different Educational Programmes in the frontier areas of Science, and Technology to disseminate scientific knowledge by stimulating and supporting scientific interactions and communications between the faculties and different interested stakeholders under the aegis of School of Sciences, NSOU.

## About Netaji Subhas Open University (NSOU):

Netaji Subhas Open University is the only open university (grade A by NAAC) in west Bengal, delivers to build up the quality human resource base of the State and moves towards the improvement of the quality of open distance education,



## SHORT-TERM COURSE ON "Data Analysis using R" at NSOU Reginal Centre - Kalyani

**4<sup>th</sup> May – 9<sup>th</sup> June 2024**

### Call for Registration and Participation

#### Coordinator

Mrinal Nath

Assistant Professor of Computer Science  
School of Sciences, NSOU

#### Assistant Coordinator

Dr. Chandan Kr. Mondal

Assistant Professor of Mathematics  
School of Sciences, NSOU

#### Advisor

Dr. Soumen Nandi

Associate Professor of Computer Science  
School of Sciences, NSOU

**All laboratory sessions of the course will be organized at Kalyani Regional Centre, NSOU. The complete address is:**

Kalyani Regional Centre, NSOU  
Ghoshpara Station Road, Kalyani  
Nadia - 741235.  
(Opposite to Kalyani University)

### Detailed Schedule:

Week No	Offline Laboratory Session		Online session	
	Date	Time	Date	Time
Week - 1	June 29 (Saturday)	11 am – 5-15 pm Break: 1-30 pm – 2-15 pm.	July 03 (Wednesday)	7 pm – 9pm
	June 30 (Sunday)	11 am – 5-15 pm Break: 1-30 pm – 2-15 pm		
Week - 2	July 06 (Saturday)	11 am – 5-15 pm Break: 1-30 pm – 2-15 pm.	July 10 (Wednesday)	7 pm – 9pm
	July 07 (Sunday)	11 am – 5-15 pm Break: 1-30 pm – 2-15 pm		
Week - 3	July 13 (Saturday)	11 am – 5-15 pm Break: 1-30 pm – 2-15 pm.	July 17 (Wednesday)	7 pm – 9pm
	July 14 (Sunday)	11 am – 5-15 pm Break: 1-30 pm – 2-15 pm		
Week - 4	July 20 (Saturday)	11 am – 5-15 pm Break: 1-30 pm – 2-15 pm.	NA	NA
	July 21 (Sunday)	11 am – 5-15 pm Break: 1-30 pm – 2-15 pm		



## Overview of the short term course:

This course aims to equip participants with the fundamental knowledge and practical skills necessary to perform data analysis tasks efficiently using R.

### Objective:

- Introduce participants to the fundamentals of R programming language.
- Familiarize participants with statistical analysis techniques and methods using R.
- Enable participants to generate visualizations to communicate data insights effectively.
- Provide hands-on experience with practical data analysis using real-world datasets from diverse domains such as Social Science, Biological Science, Economics, Finance, etc.

### Course Content:

W1

Introduction to R environments, Basic Syntax, Vector, Matrix, Sequence, Import-Export, Data Cleaning and pre-processing

W2

dplyr package and different verbs for data analysis, ggplot2 package and building graphs like Box Plot, Scatter Plot, Contour Plot etc, Building probability distribution in R.

W3

Hypothesis Test, Case study problems - t – test, anova, Post hoc analysis, chi-square, F-test etc and their implementation in R.

W4

•Corelation and its use in R, Case study- Simple Linear regression, Multiple Linear Regression and their implementation in R. Introduction to advance methods of statistical learning.

## Resource Persons:

### Mrinal Nath

Assistant Prof. of Comp Sc., NSOU  
M.C.A. (JU), NET(CS), GATE(CS),  
9 Years of teaching exp. in UG and PG Level,  
10 Years of industrial exp. of handling large data and complex programming problems in MNCs.

### Dr. Soumen Nandi

Associate Prof. of Comp. Sc., NSOU  
M.Sc., M.C.A., M.Tech, Ph.D.(ISI)  
17 Years of teaching exp. in UG and PG Level  
12 Years of research exp. in theoretical computer science.

### Dr. Chandan Kumar Mondal

Assistant Prof. of Mathematics., NSOU  
M.Sc., Ph.D.(University of Burdwan)  
5 Years of teaching exp. in UG and PG Level  
8 Years of research exp. in Differential Geometry, Functional Analysis, Linear Algebra .

### Registration is open for:

- Undergraduate students (Honours or general) in science, social science, commerce, engineering seeking to grasp data analysis principles and methods for their future careers.
- Master's degree students across disciplines aiming to pursue careers in Data Science or Analytics.
- Research scholars requiring data analysis skills to support their research.
- Working professionals looking to enhance their data analysis abilities for current or prospective job roles

## Registration Fee:

**Course Fee:  
(Payable at the time of  
Admission)**

**Rs. 2500/-**

Participants will receive certificate after competing the course..

### How to apply:

Eligible candidates may apply for admission to the course using following link before 26th June 2024.

## [Admission Form.](#)

The bank details for payment is provided in the admission form. The candidate must upload the screenshot of the payment, The screenshot must have the payment reference number..

**Last Date for submitting  
Admission form :  
26<sup>th</sup> June 2024**

### Confirmation on Participation:

After submitting the admission fee, participants will receive a confirmation email and message on their registered email and phone number. Seats are limited, and admission will be granted on a first-come, first-served basis.