

### INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

CENTRE FOR TEACHING LEARNING AND VIRTUAL SKILLING (CTLVS)

SHORT TERM COURSE ON QUANTITATIVE DATA ANALYSIS AND INTERPRETATION USING SPSS

1st Sep-10th Sep 2025 Time: 6 PM - 8 PM (Online Mode)



### Course Overview:

This comprehensive 10-day workshop is designed to provide participants with a comprehensive understanding of statistical techniques and their application in data analysis using SPSS software. This course is ideal for researchers, data analysts, and students who wish to enhance their skills in quantitative data analysis and gain practical experience with one of the most widely used statistical software packages. Over ten days, participants will explore various statistical tests, understand the underlying concepts, and learn how to interpret results effectively.

### **Course Content**

- Day 1: Introduction to variables, scales of measurement, and differences between parametric and non-parametric statistics.
- Day 2: Conducting independent samples t-test in SPSS and interpreting the results.
- Day 3: Performing correlated (paired samples) t-test in SPSS and understanding the output.
- Day 4: Conducting One-Way ANOVA in SPSS and interpreting the results, including post-hoc analysis.
- Day 5: Performing Two-Way ANOVA in SPSS, focusing on interaction effects and main effects.
- Day 6: Introduction to Three-Way ANOVA in SPSS, focusing on main effects, interaction effects, and higher-order interactions.
- Day 7: Conducting One-Way ANCOVA in SPSS, with emphasis on covariate adjustment and interpretation.
- Day 8: Performing Two-Way ANCOVA in SPSS, incorporating multiple covariates and interpreting the results.
- Day 9: Introduction to Three-Way ANCOVA in SPSS, focusing on complex interactions and covariate effects.
- Day 10: Introduction to One-Way MANOVA and its Interpretation in SPSS.

#### Course Benefits

- Develop hands-on experience using SPSS software to perform complex data analyses.
- Learn to interpret statistical output effectively and make informed decisions based on data.
- Improve your ability to conduct and analyze research with quantitative methods.
- Insights from leading expert in quantitative data analysis.

# **Experts**



# Dr. Kaushal Kumar Bhagat

Assistant Professor Advanced Technology Development Centre Vice Chairman, Centre for Teaching Learning and Virtual Skilling

Indian Institute of Technology Kharagpur



Dr. D. N. Sansanwal

Head and Dean (Retd.)
Faculty of Education, Devi Ahilya University,
Indore.



Dr. Swati Varshney

Research Officer AIIMS, New Delhi E-certificates will be provided on successful completion of the course. Attendance is mandatory.

How to Register https://erp.iitkgp.ac.in/CEP/courses.htm

Use the link: https://erp.iitkgp.ac.in/CEP/courses.htm to apply ONLINE.



Payment is to be done ONLINE after getting short listed for the program.



Scan Me to apply ONLINE



#### **Contact:**

**Dr. Kaushal Kumar Bhagat** Email: kaushal.dgp@gmail.com

Mobile: 9647931583

Course fee

Students: 3000 INR

Working professionals: 3500 INR

**Important dates:** 

Registration deadline: 27th Aug 2025 Payment deadline: 29th Aug 2025