
Brief Report on "TWO-WEEK PROFESSIONAL DEVELOPMENT PROGRAM On Inferential Statistics for Data Science to Achieve the Sustainable Development Goals"

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TWO-WEEK PROFESSIONAL DEVELOPMENT PROGRAM

On

***Inferential Statistics for Data Science to
Achieve the Sustainable Development Goals*****July 20, 2022 - August 02, 2022**

Organized By

DEPARTMENT OF MATHEMATICS & STATISTICS**Brief Report**

Department of Mathematics & Statistics, Integral University organized a Two-Week Professional Development Program on the topic “**Inferential Statistics for Data Science to Achieve the Sustainable Development Goals**” from **July 20 to August 02, 2022**.

The Inaugural Session was held on 20-07-2022 started with the welcome address by DR. Abdul Wadood Khan, head, Department of Mathematics & Statistics. He emphasized the relevance of this Programme and highlighted the importance of data science in day to day life and its wide scope in the different fields of studies. Prof. Aqil Ahmad, Professor of Eminence, in his inaugural speech briefly explained how the Data science and analytics play a major role in achieving the sustainable development goals, particularly measuring social impact, managing resources, tackling climate change, and improving the quality education. The field encompasses preparing data for analysis, formulating data science problems, analyzing data, developing data-driven solutions, and presenting the findings to high-level decisions in a broad range of application domain

The modules of PDP were designed to enhance the professional knowledge and skill of Faculty Members, Research Scholars and Students in the field of Inferential Statistics to accomplish the UN Sustainable Development Goals. The modules were delivered by the renowned resource persons of the respective fields followed by discussion and question answer sessions with the participants.

PROFESSIONAL DEVELOPMENT PROGRAM
ON
INFERENTIAL STATISTICS FOR DATA SCIENCE TO ACHIEVE THE SUSTAINABLE DEVELOPMENT GOALS

28 JULY-01 AUGUST 2022



Organized by
Department of Mathematics & Statistics
Faculty of Science
Integral University
Lucknow-226026



About the University

Integral University is situated in Lucknow, a city known for its culture, elegance, monuments and role in the freedom struggle. Integral University has a unique culture of achievement, diversity, personal and intellectual integrity and value-based education. The University is duly approved by the UGC under section 2(f) and 12B of the UGC Act, 1956, Medical Council of India, Pharmacy Council of India, Indian Nursing Council, Council of Architecture, Bar Council of India, Indian Association of Physiotherapists, National Council for Teacher Education, UP State Medical Faculty and Distance Education Bureau. Integral University is not only an academic institution but also a mission and a vision to make the country progressive and prosperous in all walks of life.

About the Department

The Department of Mathematics & Statistics from its very inception in 1998 has aimed to be a centre of excellence in Mathematics and been vigorously engaged in teaching and research of high quality. The vision of the department is not only to transform young people to be competent and motivated professionals but also to contribute to the overall development of the nation through their expertise, research and academic activities.

About the Program

The objective of this FDP is to facilitate an academically interactive platform among researchers and academicians to learn more about the challenges and opportunities in the field of data science and to explore its new avenues. Data science is an interdisciplinary field that focuses on scientific methods, processes, algorithms and systems to extract knowledge and insights from typically large data sets and applying these knowledge and insights to solve problems in a wide range of application domains. Data science is related to data mining, machine learning and big data. The field encompasses preparing data for analysis, formulating data science problems, analyzing data, developing data-driven solutions, and presenting the findings to high-level decisions in a broad range of application domains. Data science and statistics play a major role in achieving the sustainable development goals, particularly measuring social impact, managing resources, tackling climate change, and improving quality education.

Patron:

Dr. Aqil Ahmad
Professor of Excellence
Department of Mathematics & Statistics

Resource Persons:

Dr. Mohammad Rizwanullah
Department of Mathematics and Statistics
Manipal University, Jaipur
Dr. Quazzafi Rabbani
Department of Mathematics & Statistics
Integral University, Lucknow
Dr. Abdul Quddoos
Department of Mathematics & Statistics
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Program Duration: 2 Weeks

Mode of Program: Online (face to face)

Platform: Google Meet

Registration Details:

Registration Fee: ₹ 100

Pay registration fee through UPI id: 9796906162@upi



Or Scan the QR Code

Registration Link:

<https://forms.gle/cD5BmUilKm5r4ar9>

E-Certificate will be provided after successful completion of course activities

Convenor:

Dr. Abdul Wadood Khan
Head, Department of Mathematics & Statistics
E-mail: hwadood@iul.ac.in, Mob: 9415791160

Highlights of the Modules:

MODULE-1

Delivered by **Dr. Mohammad Rizwanullah** Associate Professor, Department of Mathematics and Statistics, Manipal University, Jaipur on the topic “Basics of Statistics” also explained the procedures to define the Objective of analysis, Collection of Data, Data Visualization, Data Processing, Data Modeling, and Interpretation of Data followed by interaction session with quizzes & Assignments.

MODULE-2

Delivered by **Dr. Mohammad Rizwanullah**, Associate Professor, Department of Mathematics and Statistics, Manipal University, Jaipur on the topic “Inferential Statistics & Estimation” which included Sampling distribution, Parameter, Statistic & Estimator, Point and Interval Estimations followed by interaction session with quizzes & Assignments

MODULE-3

Delivered by **Dr. Mohammad Rizwanullah**, Associate Professor, Department of Mathematics and Statistics, Manipal University, Jaipur on the topic “Testing of Hypothesis” which included large and small sample tests, parametric and non parametric tests followed by interaction session with quizzes & Assignments

MODULE-4

Delivered by **Dr. Quazzafi Rabbani**, Associate Professor, Department of Mathematics and Statistics, Integral University, Lucknow on the topic “Introduction to SPSS” which included the Getting Started SPSS, Menu Interface, Creating data file, Defining Variables, Entering Data, Output Viewer, Reading in Data from Excel to SPSS, Saving Results (output), Export Output to Word File followed by interaction session with quizzes & Assignments

MODULE-5

Delivered by **Dr. Quazzafi Rabbani**, Associate Professor, Department of Mathematics and Statistics, Integral University, Lucknow on the topic “Data Analysis by SPSS” which included summarizing the data, visualization of data through bar diagram, histogram and pie chart, prediction, testing of hypothesis for parametric & non parametric distributions followed by interaction session with quizzes & Assignments

MODULE-6

Delivered by **Dr. Abdul Quddood**, Assistant Professor, Department of Mathematics and Statistics, Integral University, Lucknow on the topic “Introduction to R Software” which included

introduction to R and R Studio, R Studio interface and basics, Basic arithmetic and variable assignment, Comparison and logical operators, Data types, Vectors, Functions, Loops and conditionals, Data frames, Data visualization followed by interaction session with quizzes & Assignments

There were daily interactive sessions with assignments and quizzes. About 80 participants from various disciplines and institutes registered in this program. The participants attended the training with dedication. The distribution of e-Certificate was based on participant's attendance, submitted assignments and performance in the quizzes. The Program marked its end with the Valedictory Session held on 02-08-2022. The PDP was successfully coordinated by Dr. Shadab Ahmad Khan, Dr. Malik Rashid Jamal and Dr. Mohd. Aasim Khan. The PDP was well anchored by Ms. Uzma, Research Scholar of the department.



