

## REGISTRATION FORM

Online One Week Short Term Course on  
**Data Analytics and Predictive Technologies**  
(5<sup>th</sup> -10<sup>th</sup> July 2021)

Under the aegis of  
**Interdisciplinary Data Analytics and  
Predictive Technology (IDAPT)**

Name \_\_\_\_\_

Designation \_\_\_\_\_

Institute \_\_\_\_\_

Gender: Male / Female

Postal Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Email ID \_\_\_\_\_

Telephone / Mobile No. \_\_\_\_\_

Undertaking:

I shall abide by rules and regulations and shall attend course. Failing which certificate may not be issued.

\_\_\_\_\_  
Signature of Candidate

(With date)

## ORGANIZING TEAM

### Patron and Advisor

**Prof. Pramod Kumar Jain**  
Director, IIT (BHU), Varanasi

### Coordinator, IDAPT

**Prof. Rajiv Prakash**  
Dean (R&D), IIT (BHU), Varanasi

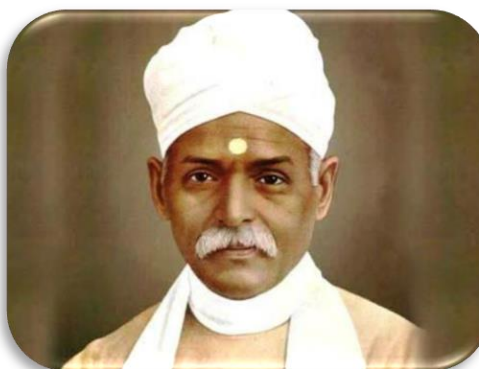
### Course Coordinator

**Prof. Sanjay Kumar Singh**  
Professor & Head  
Department of Computer Science & Engineering  
Indian Institute of Technology (BHU), Varanasi

### Course Co-Coordinator

**Dr. Rajeev Kumar Singh**  
Associate Professor  
Department of Electrical Engineering  
Indian Institute of Technology (BHU), Varanasi

## FOUNDER OF THE BANARAS HINDU UNIVERSITY



Pandit Madan Mohan Malaviya



One Week Short Term Course  
On  
**Data Analytics and  
Predictive Technologies**  
05-10 July 2021



### SUPPORTED BY



A TECHNOLOGICAL INNOVATION HUB ON  
INTERDISCIPLINARY DATA ANALYTICS AND  
PREDICTIVE TECHNOLOGY (IDAPT)

## INTRODUCTION

Recently, data analytics has become very popular and frequently used in any business. Businesses today around the world have some portion of their operations being automated, which concurrently has meant that a lot of data about these processes is being collected (from sensors or internal company data etc). A combination of AI, big data analytics, and data science techniques seems to be a growing trend in many industry sectors, with predictive analytics being one of the most well-known. Vast numbers of software platforms are available for data extraction, scrubbing, analysis, and visualization. Some of these platforms are specialized for carrying out one of the above-listed aspects of data analytics, while others offer a generalist tool to carry out almost all tasks ranging from data scrubbing to visualization. This course gives an overview of different data analytic mechanisms and also provides a brief knowledge of various data analytics tools. After the completion of this course, participants can apply the data analytics model in real-life problem solving.

## COURSE CONTENTS (Tentative)

- Data Analytics Scope & Applications
- Data Analysis Techniques
- Predictive and Descriptive Data Analysis
- Introduction to Statistical Learning
- Introduction to Python for Data Analytics
- Regression & Classification Problems
- Linear and Logistic Regression
- Decision Trees, Support Vector Machines
- K-NN Algorithm, Principal Component Analysis, Cluster Analysis
- Deep Learning: Deep Neural Network, Convolutional Neural Network,
- Recurrent Neural Network,
- Introduction to transfer Learning
- Analyzing the categorical data, streams data etc.
- Applications in Health, Energy, Agriculture, Smart Infrastructure etc.

## EXPERTS

Subject experts will be drawn from premier institution like IITs, NITs and industry.

## PROGRAM DURATION

**One Week (5-10 July 2021)**

Short term course will be conducted in ONLINE MODE. Link will be shared to registered participants

## WHO CAN PARTICIPATE?

This program can be attended by all UG/PG/PhD students, faculties and researchers/industry personnel from any branch of Engineering who are interested to work in the field of Data Analytics.

## REGISTRATION

### Registration Link:

<https://forms.gle/VW8AghkSZy84GfpL7>

Intending participants are requested to register their names by filling the online registration form.

**Course Mode: Online**

**Certificate: Yes**

### Registration Fees:

**UG, PG and PhD students: Rs. 100/-**

**Faculties, Scientists and PDFs: Rs. 1000/-**

**Industry Personnel: 4000/-**

### Account Details for Online Payment:

**Branch: SBI, IIT(BHU) Varanasi**

**IFSC Code: SBIN0011445**

**Name: I-DAPT-HUB-FOUNDATION**

**Account No: 39818711510**

**Last Date of Registration: 30 June 2021**

## NM-ICPS and IDAPT

The National Mission on Cyber-Physical Systems (NM-ICPS) is identified as one such emerging field to have a significant impact on health care, urban transportation, water distribution, energy, urban air quality, manufacturing and governance. The activities envisioned under this Mission will give a impetus to Indian manufacturing via the invention of new products, services and the creation of skilled young human resource from technicians to, researchers and entrepreneurs. It will have modernisation and digitalisation of socio-technical systems and services. The Interdisciplinary Data Analytics and Predictive Technologies (IDAPT) has been regarded as one of the most prominent fields whose progress will add significant impact on various socio-economic issues. At IIT (BHU) five verticals 1) Telecommunications, 2) Power, 3) Road Transport and Highways, 4) Defence Research and Development, and 5) Health and Family Welfare have been identified under IDAPT. The endeavour shall catalyse the creation of skilled young engineers, researchers, technicians, and entrepreneurs, together with human resource at all levels, besides becoming a key contributor to realizing the vision of "Digital India", "Innovate in India", and "Make in India".

## ADDRESS FOR CORRESPONDENCE

Prof. Sanjay Kumar Singh  
(Course Coordinator)

Department of Computer Science & Engineering  
Indian Institute of Technology (BHU)  
Varanasi-221005, UP, India

**Email: [coordinatorstc.idapt@gmail.com](mailto:coordinatorstc.idapt@gmail.com)**