



**SRI SATHYA SAI INSTITUTE OF HIGHER LEARNING**  
(Deemed to be University)



**DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES**

PRASANTHI NILAYAM CAMPUS

FACULTY DEVELOPMENT PROGRAM ON

# THE EMPIRICS OF CAUSALITY

**26th–30th October, 2024**

## COURSE CONTENTS

**INSTRUMENTAL VARIABLES:  
THEORY AND APPLICATIONS**

**IV: LAB SESSION ON R/STATA**

**DIFFERENCE-IN-DIFFERENCES:  
THEORY AND APPLICATIONS**

**DID: LAB SESSION ON R/STATA**

**REGRESSION DISCONTINUITY DESIGN:  
THEORY AND APPLICATIONS**

**RDD: LAB SESSION ON R/STATA**

## Resource Persons

1. Dr. Olivier Dagnelie, Sri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam
2. Prof. Vincenzo Verardi, Louvain School of Management, UCLouvain, Belgium
3. Dr. Anand Shrivastava, Azim Premji University, Bangalore
4. Prof. Jean-François Maystadt, Economic School of Louvain, UCLouvain, Belgium

# ABOUT THE FDP

## FACULTY DEVELOPMENT PROGRAM ON THE EMPIRICS OF CAUSALITY

26-30 October, 2024 | PRASANTHI NILAYAM CAMPUS

Department of Humanities and Social Sciences, (DHSS), Sri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam, is organising a 5-day Faculty Development Programme (FDP) on “The Empirics of Causality” from October 26-30, 2024.

In numerous empirical research works in the health, social and behavioural sciences, the objective is to highlight causal relationships rather than correlations in order, for instance, to assess the causal effect of interventions or public policies. Impact evaluations are essential for understanding the true effects of policy interventions and ensuring that outcomes are due to the intervention itself, and not due to some confounding factors. The growing emphasis on evidence-based policy-making has increased the popularity of these methods, as they provide crucial insights for effective decision-making.

How should we proceed to estimate the effect of air pollution on health status while, in most cases, those exposed to pollution are poorer than those enjoying cleaner living conditions? Does providing Indian girls with bicycles increase secondary school enrollment? What is the effect of class size on test scores? This FDP will present empirical methods allowing to address such apparently simple, yet important questions. Three of the most popular methods in empirical research will be put forward during this workshop: Difference-in-Differences (DiD), Instrumental Variables (IV) and Regression Discontinuity Design (RDD). Numerous applications of these methods are found in various fields of research: economics, marketing, education, political science, psychology, public health, medicine, environmental science etc.

The workshop will be organized as follows: after a first day with a focus on introducing the topic and a refresher training on regression analysis, morning sessions will be dedicated to theory and illustrations while afternoon sessions will be devoted to practical applications on statistical software's (R and/or Stata). The pedagogical approach is meant to be interactive and experiential and will emphasize intuitions, graphical representations and interpretations.

This FDP is open for all faculty members and research scholars who, as a result of attending this program, should be able to apply these empirical methods in their teaching and research work. All the teaching materials, i.e. slides, datasets, codes, will be available for download for all participants.



# 26th–30th October 2024

## Program Schedule

<b>26/10/2024</b>	<b>8.55 AM – 12.00 PM</b>	<b>Inaugural Session</b>
	<b>2.00 PM – 5.00 PM</b>	<b>Introduction: Correlation vs. Causation Refresher Training</b>
<b>27/10/2024</b>	<b>9.30 AM – 12.30 PM</b>	<b>Difference-in-Differences(DiD): Theory and Applications</b>
	<b>2.00 PM – 5.00 PM</b>	<b>DiD: Lab session on R/Stata</b>
<b>28/10/2024</b>	<b>9.30 AM – 12.30 PM</b>	<b>Instrumental variables: Theory and Applications</b>
	<b>2.00 PM – 5.00 PM</b>	<b>IV: Lab session on R/Stata</b>
<b>29/10/2024</b>	<b>9.30 AM – 12.30 PM</b>	<b>Regression Discontinuity Design (RDD): Theory and Applications</b>
	<b>2.00 PM – 5.00 PM</b>	<b>RDD: Lab Session on R/Stata</b>
<b>30/10/2024</b>	<b>9.30 AM – 12.30 PM</b>	<b>Coding, Data &amp; Reproducible Research</b>
	<b>2.00 PM – 5.00 PM</b>	<b>Valedictory Session</b>

**FACULTY DEVELOPMENT PROGRAM ON  
THE EMPIRICS OF CAUSALITY**

26-30 October, 2024 | PRASANTHI NILAYAM CAMPUS

**Correlation vs. Causation  
Difference-in-Differences  
Regression Discontinuity Design**

**Estimation Techniques in  
Statistical Modeling:  
Exploring MLE, GMM, and Beyond**

**Of Successful  
and Unsuccessful  
use of IV in Research**

**How to write an empirical  
research paper?**

**26th-30th OCTOBER, 2024**

**FOR FDP REGISTRATION**

[CLICK TO REGISTER](#)

**FDP RESOURCE PERSONS**

SPEAKER 1

**Dr. Olivier Dagnelie**

Adjunct Faculty  
Sri Sathya Sai Institute of Higher  
Learning, Prasanthi Nilayam



SPEAKER 2

**Prof. Vincenzo Verardi**

Professor at Louvain School of  
Management, UCLouvain,  
Belgium



SPEAKER 3

**Dr. Anand Shrivastava**

Associate Director and Associate  
Professor at School of Arts  
and Science, Azim Premji University,  
Bangalore



SPEAKER 4

**Prof. Jean-François  
Maystadt**

Research Associate at F.N.R.S.  
Professor at Economic School of Louvain,  
UCLouvain, Belgium  
Senior Lecturer at Lancaster University, UK





# SRI SATHYA SAI INSTITUTE OF HIGHER LEARNING

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## DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

PRASANTHI NILAYAM CAMPUS | 2024



### PATRONS

- Prof. B. Raghavendra Prasad, Vice-Chancellor, SSSIHL
- Dr. Srikanth Khanna, Registrar, SSSIHL



### The Department Faculty

- Dr. G Raghavender Raju, DHSS, SSSIHL
- Dr. M R Geetha Bala, DHSS, SSSIHL
- Prof. R Prabhakara Rao, DHSS, SSSIHL
- Dr. Rajabhushan Jagadish Nayak, DHSS, SSSIHL
- Dr. Siva Kiran Guptha K, DHSS, SSSIHL
- Sri Dinesh Kumar Choudhury, DHSS, SSSIHL
- Sri Sai Prabhakar Balantrapu, DHSS, SSSIHL

### FDP Organizer

Dr. Rajiv Gurung

Assistant Professor

Department of Humanities and Social Sciences  
Sri Sathya Sai Institute of Higher Learning  
Andhra Pradesh, India

### FOR ANY QUERIES RELATED TO THE FDP CONTACT

DR. G RAGHAVENDER RAJU

Head of the Department

Department of Humanities and Social Sciences  
Sri Sathya Sai Institute of Higher Learning  
Contact no: **9440555329**  
Email Id: [hoddhss@sssihl.edu.in](mailto:hoddhss@sssihl.edu.in)

### **CERTIFICATION**



"Certificates will be provided to all participants upon successful completion of the FDP."

### TARGET AUDIENCE

Faculty members and Research Scholars from Economics, Management, Sociology, Education and other Social Sciences.

**Last date for Payment & Registration**

**24th Oct, 2024**

**Confirmation & Invitation Link**

**25th Oct, 2024**

**MODE of FDP**

**ONLINE:GOOGLE MEET**

**REGISTRATION FEE: RS. 1000**

**FOR FDP REGISTRATION**

**[CLICK TO REGISTER](#)**

### **Payment Details:**

ACCOUNT NAME: **SRI SATHYA SAI INSTITUTE OF HIGHER LEARNING**

A/C NO: **2351101005980**

BANK & BRANCH: **CANARA BANK, PUTTAPARTHI BRANCH**

IFSC CODE : **CNRB0002351**