

ECONOMETRICS WORKSHOP USING R

Date: 8-10 May 2024

Organized by
Centre for Faculty Development
Venue: MDP Hall, BIMTECH

ABOUT THE WORKSHOP

The Birla Institute of Management Technology (BIMTECH), Greater Noida is organising an econometrics workshop from 8th to 10th May, 2024, at the Greater Noida Campus. Through a series of lectures and practice sessions, key econometrics concepts and their application in teaching and empirical research will be covered. The focus would be to demonstrate applied econometric model-building skills that are backed by fundamental concepts of econometrics. It will be useful for participants aiming to hone empirical research and data analytics skills. The lectures will be supplemented by hands-on applications using the R software. The workshop will equip the participants with tools and insights of applied econometrics and enhance their ability to perform empirical analysis effectively.

LEARNING OUTCOMES

- Cognitive understanding of econometrics and its principles
- Econometric model-building skills
- Use of R software



WHO SHOULD ATTEND:

The workshop is designed for research scholars, data analysts, and early career faculty members from various functional areas of management domains including finance and economics.

STRUCTURE OF THE WORKSHOP:

The workshop will span 3 days comprising morning and afternoon sessions. Each session shall be of three hours. The sessions would simultaneously deal with concepts behind the econometric techniques listed below and hands-on applications of empirical model using R. Reference to research papers containing the identified techniques, from different domains, shall be provided. The day wise details are as follows:



Day 1 (May 8, 2024)

Session 1 (9:30AM-12:30PM): Review of linear regression techniques

The session will take you through multiple linear regression and estimation methods. The techniques include Ordinary Least Squares, Generalized Least Squares, Method of Moments. The precautions to be taken when using these techniques, associated diagnosis such as specification bias, and multi-collinearity will be demonstrated.

Session 2 (1:30PM-4:30PM): Empirical Estimation using R

The session will cover different aspects of multiple regression analysis: Pre-estimation checks, estimation, post estimation tests (includes multi-collinearity, heteroscedasticity, normality), iterations, and prediction.

Day 2 (May 9, 2024)

Session 3 (9:30AM-12:30PM): Non-linear regression techniques

The session will delve into non-linear regression focusing on Maximum Likelihood estimation technique and various models that are used to make predictions including Probit, Logit, and Neural Network. Participants can learn the estimation procedure, interpretation of results, and prediction using these methods.

Session 4 (1:30PM-4:30PM): Demo estimation/interpretation/prediction

The session will demonstrate estimation of the identified models using several predictors and their applications in explaining success outcomes followed by prediction of success probability, and evaluation of performance of the estimated models.

Day 3 (May 10, 2024)

Session 5 (9:30AM-12:30PM): Panel data estimation using R

The session will provide an understanding of panel data econometrics covering various models including pooled, fixed effects, random effects, and dynamic panel technique. It will show how panel data estimation helps to establish causal relationship when data pertains to many units over multiple time periods (e.g. months, years) where the units of analysis can be individual, household, firm, states, countries, etc. Model selection issues will also be covered.

Session 6 (1:30PM-4:30PM): Review and Reflections

The session will demonstrate the estimation of first and second generation models. Review of concepts learnt, and reflections shall be collected. This session will also include a summative course assessment which will be an essential condition for receiving the certificate of completion.



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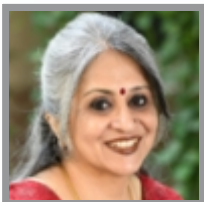


Dr. Wasim Ahmad
*Associate Professor,
Department of
Economic Sciences,
IIT Kanpur*

Prof. Wasim Ahmad is an Associate Professor in the Department of Economic Sciences at IIT Kanpur. He has about 15 years of industry and academic experience. He works in international finance, clean energy finance, and financial econometrics. He is a Post-doctorate from the London School of Economics and Political Science (LSE) and a Visiting Fellow at India Observatory, LSE. He received his Ph.D. from Delhi University in 2014. His research work has appeared in leading journals and has received the Young Economists Award – 2014 from TIES, RBI-Fellowship in 2018, PK Kelkar Young Faculty Research Fellowship 2019-2022, and Excellence-in-Teaching Award – 2022. His research has been funded by the DST-SERB, UKRI-ESRC, ICSSR, and the Asian Development Bank (ADB).

Details: <https://sites.google.com/site/wasimatiitk/>

Google Scholar: <https://scholar.google.co.in/citations?hl=en&user=qXu4zDMAAAAJ>



Dr. Pooja Misra
*Area Chair, Economics
Area, BIMTECH*

Dr. Pooja Misra, Professor in Economics has a work experience of 28 years+ in academics and the Corporate industry. Pooja is currently the Chairperson, Economics, Birla Institute of Management Technology, Greater Noida. Her research interests include macroeconomic dimensions of an economy, compensation and current trends in the business environment. An in-depth exposure to economic concepts and theories coupled with insights of the prevalent economic and business environment gives her the edge in formulating her viewpoints. She has been voicing her thoughts around public policy regularly through leading financial dailies and newspaper articles. Pooja has co-authored a book titled "Resurgent India: The Economics of Atmanirbhar Bharat" wherein major factors affecting Indian economic growth especially during the Covid-19 period have been discussed. She also has authored several research papers in esteemed ABDC category journals.

Google Scholar: https://scholar.google.co.in/citations?hl=en&user=Tiv_9kwAAAAJ



Dr. Khanindra Ch. Das
*Faculty (Economics Area)
BIMTECH*

Dr. Khanindra Ch. Das has rich experience in econometric modelling. During his academic career he has delivered econometric analysis courses at the post graduate and doctoral programs. Some of his research work using econometric analysis are published in reputed peer-reviewed international journals such as Energy Economics, Resources Policy, Journal of Asian Economics, The Australian Economic Review, The Singapore Economic Review, International Journal of Emerging Markets, Journal of Global Information Technology Management, Journal of Emerging Market Finance, among others. His teaching philosophy is to impart up-to-date knowledge drawn from relevant discipline that can be applied in business and society. He is editor of BIMTECH Business Perspectives.

<https://scholar.google.co.in/citations?user=eVh5SEcAAAAJ&hl=en>

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Dr. Smruti Ranjan Sahoo
IIFT Delhi.

Dr. Smruti Ranjan Sahoo is currently working as a Research Fellow in the Trade Intelligence and Analytics (TIA) Wing of the Department of Commerce (DoC), Government of India. Dr. Sahoo has rich experience in econometric modelling. His research is primarily centered on the analysis of firms and industries, utilizing panel econometric techniques. Further, he has been involved in a number of research projects. The most recent one is related to productivity growth under market imperfections. His research paper has been published in peer-reviewed journals such as 'The Indian Economic Journal' and he also has co-authored a chapter in a book published by Routledge.

Google Scholar: <https://scholar.google.co.in/citations?hl=en&user=Lgl1Q28AAAAJ>



Dr. Namrata Thapa
Faculty (Economics Area)
BIMTECH

Dr. Namrata Thapa has a rich background in quantitative analysis. During the course of her career, she has been actively engaged in several research projects and has the experience of analyzing both primary and secondary data using appropriate econometric and statistical tools and drawing inferences with relevance for theory and policy.

Google Scholar: https://scholar.google.co.in/citations?hl=en&user=bPQg2_wAAAAJ



Birla Institute of Management Technology was established in 1988 under the aegis of the Birla Academy of Art and Culture, and supported by the Birla group of companies. Late Basant Kumar Birla and Sarala Birla, chairperson of B K Birla Group of companies, are the founders of the business school.

BIMTECH provides a highly conducive academic environment, facilitated by interaction with a healthy mix of Professors from both academia and industry. BIMTECH has maintained its position as one of the top management institutes in India. The institute has been accredited by prestigious bodies such as The Association to Advance Collegiate Schools of Business (AACSB), the National Assessment and Accreditation Council (NAAC), and the National Board of Accreditation (NBA). BIMTECH has also been ranked in India's top 50 business schools by the National Institutional Ranking Framework (NIRF) and Business World B-school rankings. BIMTECH is the 1st Indian B-school to be awarded the EFMD Business School Impact System (BSIS) label; it now joins global B-schools like CEIBS, and HEC. It is the first time any Business School in India has completed this assessment.

The institute offers a range of programs in management and related fields. Its flagship program is the two-year full-time Post Graduate Diploma in Management (PGDM), which is approved by the All India Council for Technical Education (AICTE) and accredited by the National Board of Accreditation (NBA). It also offers several other PGDM specialized programs, such as PGDM in International Business, PGDM in Retail Management, and PGDM in Insurance Business Management.

BIMTECH also offers a doctoral program in management, executive programs and ONLINE PGDM for working professionals.



BIRLA INSTITUTE OF MANAGEMENT TECHNOLOGY

Plot No. 5, Knowledge Park II, Greater Noida (NCR)
Uttar Pradesh 201306, India

- +91 120 6843000 - 10, +91 9355024501 - 10
- +91 8287404008 / 8287077647
- Toll Free 1800 5723 999
- www.bimtech.ac.in

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Information for participants

For the smooth conduct of the workshop and to enhance their learning experience, every participant needs to bring along a laptop. Towards the end of the workshop, participants shall complete a short assessment involving the key concepts and techniques learnt during the sessions. A certificate of completion will be provided to the participants. Prizes will be given to the top performers.

Registration fees:

Rs1,650/- only (plus 18% GST). The accommodation is free for participants from outside Delhi NCR. Lunch on all three days and light refreshments during tea breaks are included.

Seats are limited to 30. Kindly register by 30th April 2024. Outstation participants can contact organizer before registration. Refer to contact information (email / phone) given at the end of this document.

Registration & Payment Link:

<https://www.bimtech.ac.in/event-registration/>



Ms. Madhavi Sharma

Manager, Centre for Faculty
Development BIMTECH

Email: madhavi.sharma@bimtech.ac.in

Phone Number: 9540314888.