Theory and Practice of Efficiency and Productivity

Overview

This course challenges the neoclassical assumption that all firms operate rationally and efficiently and presents concepts, models and tools needed to analyze and quantify the levels of inefficiency and productivity at a point in time and their movement over time for each firm. Conventional neoclassical paradigm assumes that all firms operate efficiently. This is, however, not the case in reality. Firms, no matter, what type of business they are involved often fail to operate with their full potential. Presence of inefficiency results in lower output, higher cost, lower profit. This course helps us to assess the extent of this inefficiency and its effects on output, cost, revenue, profit, etc.

This course uses an econometric approach (known as stochastic frontier approach) to identify and estimate the magnitude and possible sources of inefficiency using both cross-sectional and panel data. The focus is on both technical and allocative inefficiency components. The course also examines the impact of inefficiency on productivity growth and profitability. Models are formulated to estimate the potential loss of productivity and profit when firms fail to operate with their full potential. We also address issues related to differential technology and distinguish between technology gap and efficiency.

Course Participants will learn the theories concerning efficiency and productivity measurement and will develop proficiency with software to facilitate the initiation of their own research in efficiency and productivity measurement using Stochastic Frontier Approach (SFA). The course deals with both conceptual and methodological issues.

Modules :	**15 hours Lectures and 10 hours Tutorials/LAB: December 18 to December 22, 2017** **Number of participants for the course will be limited to 25**
You Should Attend If…	• You are a MA/MSc/PhD student of Economics and allied disciplines • You are a PhD student of Finance • You are a Faculty of Economics and Finance • You are Post-doc Candidate/ Research Associate working at any University/Institution of India or Abroad in the area of Economics, or allied disciplines. • You are corporate Professional working in research wing of any Private or Public Organizations.
Fees :	The participation fees for taking the course is as follows: **Participants from abroad : US $500** **Industry/ Research Organizations: Rs. 10,000** **Academic Institutions/ Faculty: Rs. 5000** **Students & Research Scholars: Rs. 2000** Above fees include all instructional materials, computer use for tutorials, 24 hr free internet facility. The participants will be provided with accommodation on payment basis.
Mode of Registration :	All prospective participants need to do web registration for the course on GIAN (http://www.gian.iitkgp.ac.in/GREGN/Index) portal by making onetime non-refundable payment of Rs. 500/. After the mandatory web registration, only the shortlisted participants will be informed by email to register for the course by making full payment of the course registration fee either by NEFT (Account holder name: **The Registrar, IIT Ropar**, Account No.30836125653; IFSC Code:SBIN0013181; Bank:SBI; Branch Name : IIT Ropar) or by sending a demand draft in favour of "Registrar, IIT Ropar" payable at Rupnagar-140001, Punjab before the last date of registration. Please send an email to course coordinator in case of any question: samaresh@iitrpr.ac.in

Foreign Faculty

Prof. Subal C. Kumbhakar is a Distinguished Research Professor in Economics in Binghamton in University. Hereceived his PhD from the University of Southern California in 1986. His research interests lie in applied micro-econometrics with a focus on estimation of productivity and efficiency. Professor Kumbhakar is a world-renowned leading expert in productivity and performance measurement, with particular emphasis on the theory and application of stochastic frontier analysis (SFA). Professor Kumbhakar has published more than 200 papers in these and related areas in refereed international journals, and is the co-author of two books, *Stochastic Frontier Analysis* (2000), and *A Practitioner's Guide to Stochastic Frontier Analysis Using Stata* (2015). He is a Fellow of Journal of Econometrics (1998). He holds an Honorary Doctorate degree from Gothenburg University, Sweden (1997). Currently, he is a co-editor of *Empirical Economics* and an associate editor of eight international journals. Additionally, he has guest edited many special issues of *Journal of Econometrics*, *Empirical Economics*, *Journal of Productivity Analysis* and other international journals. Prior to coming to Binghamton in 2001, he taught at the University of Texas from 1986-2000.

Host Faculty

Dr. Samaresh Bardhan is a faculty member in Economics in the Department of Humanities and Social Sciences, Indian Institute of Technology Ropar. His primary research interests are related to macroeconomic issues of growth and finance, issues related to banking regulation, efficiency with special reference to India.

Course Co-ordinator

Dr. Samaresh Bardhan
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