

# Public Policy-making, Organisational Choices and Information Transmission: A Game Theoretic Approach

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## Overview

In today's world, policy makers are often faced with complicated choices where the effects of the policies chosen depend crucially on the actions of other agents who are maximising their own self-interests, which may not be perfectly aligned with that of the policy maker. A similar challenge is faced by managers in firms as well, who need to routinely make important calls regarding the strategies to be adopted in their organisations. In this regard, the broad democratic setup that the agents operate under influences, to a large extent, the socio-economic policies that are chosen by the electorate, which in turn affect the payoffs from the specific policies chosen by the managers or policy makers.

In this GIAN course, we offer for the first time an overarching perspective (backed by rigorous game theoretic analysis) that ties together the strands of strategic policy-making, optimal organisational choices, and the economies of democracy. There are relatively few universities/Institutes across the globe offering a course covering these aspects. To the best of our knowledge, no such course is available in India.

The course will begin by introducing and equipping participants with the basic game theory and information economics tools that will be required for a deeper understanding of strategic policy-making. These will include various forms of strategic frameworks, notions of equilibria, extensions to Bayesian games, delicate issues concerning equilibrium selection and refinements, and detailed study of information theory including signalling, cheap talk and information design. It will then discuss two important results from Social Choice Theory that lay the foundation to any study of preference aggregation, namely, (i) the problem, on one hand, of being unable to obtain well-defined social preferences even when each individual voter's preferences are well-defined and (ii) the possibility, on the other hand, of the median voter being the decisive agent.

After establishing these two fundamental results, the course will move towards the study of elections as a mechanism for determining public policy. Among others, we will analyse models that stress the role of information in the determination of public policy. Finally, the course will introduce students to the role of scientists and experts in both advising governments or company CEOs and thereby affecting policy-making by an elected party or group of managers. These insights will be shown to be readily usable while acting as advisors or consultants in private organisations.

<b>Modules</b>	<b>Jan 5<sup>th</sup>, 2024 - Jan 10<sup>th</sup>, 2024</b> <b>Number of participants for the course will be limited to fifty.</b>
<b>You Should Attend If...</b>	<ul style="list-style-type: none"><li>▪ you are in a public policy making role and have to regularly take strategic decisions in an environment characterized by a degree of imperfect information.</li><li>▪ you are in a managerial role or are a consultant in a private organization.</li><li>▪ you are a student or faculty from an academic institution interested in learning how to analyse the topic of strategic decision making using a game theoretic perspective.</li></ul>
<b>Fees</b>	The participation fees for taking the course is as follows: <b>Participants from abroad : US \$500</b> <b>Industry/ Research Organizations: 30000</b> <b>Academic Institutions: ` 10000</b> The above fee include all instructional materials, computer use for tutorials and assignments, laboratory equipment usage charges, 24 hr free internet facility. The participants will be provided with accommodation on payment basis.

## The Faculty



**Prof. Jaideep Roy** is a Professor of Economics at the University of Bath, UK where he teaches and researches in Political Economy, Information Economics (with applications in politics, organisations, markets and finance), Game Theory/Bargaining Theory, Experimental/Behavioural Economics and Microeconomic Theory. He is a leading Political Economist and has published widely in many top academic journals. He is a member of the American Economic Association, The Royal Economic Society and the Association of Public Economic Theory. He is a regular reviewer of scientific papers in leading journals including The Journal of Economic Theory, Theoretical Economics, The Economic Journal, Journal of the European Economic Association, Games and Economic Behaviour, Social Choice and Welfare, Journal of Development Economics.

Professor Roy has advised several university boards on research and teaching. He has taught in various prestigious institutions and universities in India, USA, UK, Australia, Ireland, Denmark, Spain and Poland.



**Dr. Saptarshi P. Ghosh** is an Assistant Professor at the Department of Humanities and Social Sciences, IIT Bombay. He has completed his PhD in Economics from the University of Birmingham, UK. He has an MA in Economics from the Pennsylvania State University, USA and a Masters in Quantitative Economics from the Indian Statistical Institute, Kolkata.

Saptarshi's research interests broadly lie in the areas of Game Theory, Applied Microeconomics, Development Economics, Political Economy and Public Policy. He has had his papers published in Games and Economic Behavior, which is widely acclaimed to be among the best journals in Game Theory globally. At present, he is working on issues relating to: Strategic Information Diffusion Theory, Institutional Design, Voting, and Consumer Herding..

## Course Co-ordinator

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