Title: State Dependent Sharing and Efficiency in Teams

Abstract: Most models in the existing literature on moral hazard in teams do not capture the kind of team production settings that we often observe where the random element affecting the final team output can also be observed ex-post. In such situations it is natural to allow the team's sharing rule to depend on the observed realisations of both the final output and the random element. So, we examine a team problem in which the share of each team member is a function of the observed realisations of the final output and the random element. We provide a necessary and sufficient condition for implementing an efficient outcome. When the production function has a separable structure, namely, the output can be written as a function of the random element and a composite action: (i) we show that efficient outcomes cannot be implemented if everyone has quasi-linear utility functions; (ii) when the quasi-linearity assumption is dropped, we present some examples in which there are implementable efficient outcomes and derive some conditions for implementing efficient outcomes. When the production function does not have a separable structure, we present an example which shows that efficient outcomes may be implementable even when all individuals have quasi-linear utility functions and provide a necessary and sufficient condition for locally implementing efficient outcomes. Finally, when validity of the first-order approach and nondecreasing share functions are required for implementing any given outcome, we show that it is without loss of generality to consider only the class of sharing rules that are linear in the final output and efficient outcomes cannot be implemented in this case.

About the speaker: Shasikanta Nandeibam is a Professor of Economics at University of Bath. His research is specialized in Asymmetric Information & Incentives; Social Choice; Decision Theory; Economics of Waste Management; Measurements of Poverty, Deprivation and Vulnerability. Nandeibam's works are published in journals such as Journal of Economic Theory, Econometric Theory, Social Choice and Welfare, Ecological Economics, Journal of Economic Behaviour and Organization, Review of Income and Wealth