INTRODUCTION TO ENVIRONMENTAL ECONOMICS

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INTENDED AUDIENCE: BE/Btech/MSc Students
INDUSTRIES APPLICABLE TO: NTPC/NALCO/Coal India/ONGC/SAIL/Green Industries

COURSE OUTLINE:
We are going through so many issues and debates in the context of economy, development and the environment. In this respect, the course deals in understanding the complexity among the economy, economic activities and the environmental systems. Basic theories of environmental and collective goods; environment, economic growth and development linkage; welfare economics dealing with environmental valuation, environmental regulations policy highlighting the economics of pollution, etc. will be dealt at length.

ABOUT INSTRUCTOR:
Dr. Diptimayee Nayak did her PhD from IIT Delhi and her research interests are in the broad areas of environmental economics- ecosystem services, non-market environmental valuations, environmental policy and sustainability.

Professor S. P. Singh has been teaching economics for the last 25 years and his research interest fringe into broad development and policy issues addressing agricultural, environmental and rural development.

COURSE PLAN:

Week 1: Basic concepts and tools from microeconomics and welfare economics;
   environmental economics; ecological economics and natural resource economics

Week 2: Goods- public, private and collective; collective action problem- Hardins’ thesis,
   Prisoners’ dilemma game and Olson’s logic of collective actions and group behavior,

Week 3: Poverty, environment and economic growth linkage- Environmental Kuznets Curve,
   Environmental goods and ecosystem services,

Week 4: Environmental sustainability- ecological foot prints and environmental performance index
Week 5: Values, environmental values and valuations, consumer demand of environmental goods and welfare effects of price change
Week 6: Benefit cost analysis and non-market environmental valuation- Revealed preference methods
Week 7: Non- market valuation methods- stated preference methods
Week 8: Market- efficiency, optimality, consumers and producers surplus
Week 9: Optimum provision of provision of public goods and bads
Week 10: Externality and market failure, Pigouvian fees
Week 11: Coase theorem and property right
Week 12: Environmental Regulations and basic regulatory instruments- command and control approaches and market based approaches