

Managing the Transition towards Low-Carbon Society

Overview

Massive developments in technology and productivity of the last century have not only radically changed our lives and increased our dependency on energy but have also shown us the impact of our actions and lifestyle on the environment which is now undergoing rapid qualitative changes the most devastating manifestation of which is global warming.

Earth's climate is entering a state never experienced in the last 3 million years. The world's biosphere is also entering a state without historical analogue, a consequence of massive burning of fossil fuel, widespread deforestation, and degradation of land, air and water bodies and loss of species. This demands speedy transition of the societies across the globe to low or zero carbon energy system to stabilise concentrations of greenhouse gases consistent with the target 2C and this is possible only through cut in emissions by at least 50% by the mid-century. COP15 United Nations Summit on Climate Change has brought a lot of attention to the environmental challenges that our Planet will face in the near future. In this background of rapidly changing environment, the societies across the world are also expected to undergo considerable transformative change as their regional and global environments are remodelled. Scenarios on low-carbon futures and energy transition pathways have in recent years recurred as a strategic element in climate and energy policy. The overall message from various scenarios and analyses is that radical emission reductions are urgently needed and it is technically feasible to achieve at reasonable economic costs to society. In other words, there is relatively broad consensus on what needs to be done. However, low-carbon scenarios are seldom explicit on how to make the transitions towards low-carbon futures happen. Alas, the policy, governance and institutional challenges implied are largely underestimated or not addressed. Carrying out such transitions involves unprecedented challenges for political institutions and processes, and most likely requires new and innovative approaches to governance. The course deals with socio-techno-ecological transformation towards low- or zero-carbon societal systems. The underlying trends, lock-in into fossil energy system, and path dependence of long-term structural change are explored and explained.

The objective of the course is to anticipate and analyse the above mentioned challenges, and explore possible ways forward. Such transitions appear feasible based on resource availability, existing and projected technologies, and associated costs, but require purposeful steering by states and other key actors in society. The course deals with socio-techno-ecological transformation towards low- or zero-carbon societal systems. The underlying trends lock-in into fossil energy system, and path dependence of long-term structural change are explored and explained.

Upon the completion of the course the participant is expected to be able to: i) understand the concepts of sustainable innovation and system transition, II) work with complex sustainability challenges, and develop solutions that support sustainable socio-technical development.

Modules	Integrated single Module spanning over the period 21 November to 27th November, 2016 Number of participants for the course will be limited to fifty.
You Should Attend If...	<ul style="list-style-type: none"> ▪ you are an engineer, scientist, manager, policy maker involved/interested in developing/ implementing low carbon technology and managing transition to low carbon society ▪ you are PG student/researcher/faculty member involved/interested in learning about development and/management of sustainable low carbon technology/alternate energy resources/ socio-techno-ecological transformation towards low- or zero-carbon societal systems
Fees	<p>The participation fees for taking the course is as follows:</p> <p>Participants from abroad : US \$200</p> <p>Industry/ Research Organizations: INR 3000/-</p> <p>Academic Institutions: ` INR 2000/-</p> <p>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 with advance booking information.</p>

The Faculty

Professor Lassi Linnanen

Lassi Linnanen, D.Sc. (Econ.), is professor of environmental economics and management. His fields of expertise include sustainability of energy and food systems, transition management, sustainable innovations, corporate responsibility strategies, life cycle assessment, as well as environmental and energy policy. He has published about 50 articles in international refereed journals and book series.. In addition to his academic merits, he has extensive managerial and business experience. Before joining academia in 2000, he was the CEO and co-founder of Gaia Group Ltd, a leading Finnish energy and environmental consultancy. After Gaia, he has engaged in active management of over ten other start-up and spin-off companies, all having their business ideas around sustainable technology and management.

Professor Mousumi Roy

Professor Mousumi Roy, PhD. (Econ.), is Professor and Former Head of the Department of Management Studies, National Institute of Technology Durgapur. Her fields of expertise include Environmental Economics & Sustainable Industrial Management, Knowledge management, Green Marketing management, Econometrics & Statistics. Dr. Roy joined academics in 1988. Before that she was working with NABARD. She has 28 years of experience of teaching & research in Govt. academic Institutes with 36 publications in peer reviewed journals.

Course Co-ordinator

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