

Sustainable Development: From Principles to Implementation



भारतीय प्रौद्योगिकी संस्थान खड़गपुर



INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Coordinators

Aradhna Malik & Ram Babu Roy

Vinod Gupta School of Management / Rajendra Mishra School of Engineering Entrepreneurship
IIT Kharagpur

Resource Persons

Archana Chatterjee

National Coordinator, Mangroves For the Future,
International Union for the Conservation of Nature (IUCN)
New Delhi

Ashok Das

SunMoksha Power Pvt. Ltd.
Bengaluru, India

Farrokh Mistree

University of Oklahoma, Norman, Oklahoma, USA

Atasi Mohanty

Centre for Educational Technology, IIT Kharagpur

Sangram Mudali

NIST, Baharampur, Odisha

Sandeep Saha

Aerospace Engineering, IIT Kharagpur

Sponsored by Dr. Asoke Deysarkar, Alumnus 1971 Chemical Engineering (B. Tech.) in furtherance of infusing convergence between engineering and the social sciences in the Transdisciplinary Program in Petroleum Engineering.

Dates	Monday, 23 rd of May, 2016 (9:00 a.m.) to Saturday, 28 th of May, 2016 (Noon)	
Location	Indian Institute of Technology (IIT), Kharagpur, West Bengal, INDIA	
Objective	This workshop is designed with the express aim at creating a partnership between people from university, industry and government to address a problem of mutual interest associated with rural, sustainable development. Through working together on a "Question for the Workshop", participants will have the opportunity to internalize some principles of sustainable development, and thence, postulate a plan for implementation for rural development.	
Question for this workshop (Q4W)	<p>We imagine a future in which individuals are empowered to participate in the value network where geographically distributed people (including engineers) collaboratively develop, build, and test solutions to complex socio-techno-eco engineered systems. Hence, the question for this workshop for which a business plan and lessons learned by you are required, is:</p> <p>"Imagine that you are operating a product or service creation enterprise in a wired and interconnected world anchored in India where individuals are empowered to participate directly in the value network.</p> <p>What are the characteristics and features of a cloud-based internet of things to promote sustainable development of off-grid villages in environmentally sensitive areas in India that need to be electrified?"</p>	
Who should attend	Faculty, professionals and research scholars, individuals involved in NGOs, CSR activities, and social justice projects, and policy makers etc. in promoting rural sustainable development.	
Participant take-aways	<p>On the completion of this workshop we expect the participants, by working together on developing an answer to the Question for the Workshop, to:</p> <ul style="list-style-type: none"> • internalize key principles of sustainable development in general and rural sustainable development in particular, • learn how to postulate a plan that is anchored in principles and is implementable, and • identify avenues of collaboration in research, teaching and practice. 	
Format of the workshop	<p><i>Logistics</i> Number of days: 5.5 Number of sessions: 11</p> <p><i>Session format</i> Time for each formal session: 3 hours</p> <ul style="list-style-type: none"> • Keynote talk to frame the questions in each session – 60 minutes • Two short commentaries to delve into questions – 30 minutes • Exercise from workbook – 90 minutes 	
Contents	<ul style="list-style-type: none"> • Managing expectations • Defining sustainable development and its value proposition • Identifying stakeholders • Identifying tool user/tool maker competencies and learning statements • Field Trip • Principles of sustainable development • Sustainability triangle • Framing the problem embodied in the Question for the Workshop • Team presentations of answers to the Question for the Workshop • Strategies for implementation 	
Important Dates	Registration opens Registration closes Last date for requesting refund Amount of refund	April 22, 2016 May 13, 2016 May 18, 2016 Total less Rs. 1000/-
	It will take us AT LEAST six weeks after the completion of the workshop to process the refunds.	
Registration Fee (Limited to 30 participants)	Research Organizations: Industry participants and CSR personnel from corporate organizations:	Rs. 30,000/- Rs. 30,000/-

	<p>Academic Institutions:</p> <table border="0"> <tr> <td>Teachers:</td> <td>Rs. 10,000/-</td> </tr> <tr> <td>NGOs:</td> <td>Rs. 10,000</td> </tr> <tr> <td>Research Scholars:</td> <td>Rs. 2,000/-</td> </tr> <tr> <td>Participants from abroad:</td> <td>US \$500/-</td> </tr> </table> <p>The fee includes all instructional materials, field trip, 24 hr free internet facility, refreshments during the workshop not including lunch and dinner, and transportation between the Guest House and the workshop venue.</p> <p>To register for the workshop, please take a printout of the form on the last page of this brochure, enter the required information, sign it, and send it to us. You may email us a scanned copy of the form by the deadline and hand over the physical copy to us upon your arrival in Kharagpur.</p>	Teachers:	Rs. 10,000/-	NGOs:	Rs. 10,000	Research Scholars:	Rs. 2,000/-	Participants from abroad:	US \$500/-
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<p>Mode of Payment</p>	<p>Participants are requested to send a Demand Draft in favor of 'CEP-STC, IIT Kharagpur' payable at Kharagpur, with a printout of the Registration Form, by Courier/ Speed Post/ Registered Post to:</p> <p>Dr. Aradhna Malik Assistant Professor, Vinod Gupta School of Management Indian Institute of Technology Kharagpur West Bengal 721302 INDIA</p> <p>Please label the envelop, 'Short Term Course on Sustainable Development'. You may email a scanned copy of the Demand Draft and the signed Registration Form by the deadline to Dr. Aradhna Malik at amalik@iitkgp.ac.in.</p> <p>Alternatively, the registration fee may be submitted by bank transfer (NEFT), the details of which can be emailed to you upon receipt of the Registration Form. If you choose this option, please mention the words 'Sustainability Workshop May 2016' in the comments section while making the transfer, and email us a scanned copy of the receipt generated by your bank's website after the payment has been made.</p>								
<p>Reaching Kharagpur</p>	<p>Kharagpur is well connected by road and rail with a number of trains from major stations in India. The nearest airport is Kolkata. Kharagpur is about 150 kilometers by road from Kolkata. Prepaid taxis are available at Kolkata airport.</p>								
<p>Local Accommodation</p>	<p>Every effort will be made to provide the participants with accommodation on payment basis. The details regarding boarding and lodging are as follows:</p> <ul style="list-style-type: none"> • Rates for accommodation: <ul style="list-style-type: none"> ○ Technology Guest House (Single occupancy, double-bedded a/c room): Rs. 800/- per day ○ Technology Guest House (Twin sharing, double –bedded a/c room): Rs. 1200/- per day ○ Visveswaraya Guest House (Single occupancy, double bedded a/c room): Rs. 300/- per day ○ Visveswaraya Guest House (Twin sharing, double bedded a/c room): Rs. 600/- per day • Parking facility is available at both guest houses at no additional cost. • Room rent is subject to change without notice. • Breakfast, lunch and dinner: Additional charges as applicable. <p>On campus accommodation is subject to availability. Please let the coordinators know as far ahead of time as possible if you would like us to make arrangements for your stay during the workshop.</p>								
<p><i>We look forward to your participation in this workshop</i></p>									

Coordinators

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Brief Profiles of Resource Personnel

Archana Chatterjee

M.Sc. & M.Phil. Jawaharlal Nehru University, New Delhi

Archana Chatterjee is leading the Mangroves For the Future (MFF) Initiative in India as National Coordinator at IUCN India office. MFF is a partnership-based initiative promoting investment in coastal ecosystems for sustainable development. Prior to this, she worked as Project Manager for another IUCN initiative, 'Ecosystems for Life: A Bangladesh-India Initiative' on transboundary water governance through multi stakeholder/ civil society led engagement, leading the India component.

Archana has more than eighteen years of experience with non-governmental and UN organizations. She has also completed international training programmes on 'Decision Making in Natural Resource Management' from Wageningen University, The Netherlands and ' Transboundary Water Management' from Sweden. She has also completed a Gender and Project planning training under MFF in Thailand.

Archana's primary areas of expertise include wetland management, environmental flows and transboundary water management, gender and climate change, and facilitating multistakeholder dialogue processes.

Ashok K. Das

B.Tech., IIT Kanpur; Ph.D., University of Southern California, Los Angeles, USA

Ashok Das is the founder CEO of SunMoksha, a company focused on access to energy for socio-economic development of rural hinterland. Ashok has over 24 years of experience in semiconductor equipment and clean energy, smart micro grids, and decentralized rural electrification for access to energy. He has hands-on experience in development, implementation and operations of decentralized micro-grid projects for livelihood generation in villages. He has been working on the ground in Bihar, Jharkhand, Odisha, UP and Bengal to study the real issues of energy access. Based on his understanding of the issues and challenges of energy access, he has developed a novel and comprehensive technology-cum-business solution for energy access, with remote monitoring and demand-supply management as key differentiators. He has been recognized by Ministry of New and Renewable Energy, Government of India for the first implementation in Odisha state. He has worked with international development agencies such as the World Bank, UK-DFID, KfW, ADB, Ashden India, and USAID/CTI-PFAN.

Aradhna Malik

M.Sc., Panjab University; Ph.D., University of Denver, Denver, Colorado, USA

Aradhna earned her Masters in Child Development (now known as Human Development & Family Studies) from Panjab University Chandigarh and a PhD in Human Communication Studies (with a focus on Human Technology Interaction & Intercultural Communication) from the University of Denver, USA. Over the years, Aradhna has been involved in various social welfare initiatives including assistance with the Reproductive and Child Health project in Gujarat, evaluation of implementation of the Convention on the Rights of the Child in Gujarat for the UNICEF with Prof. Vijaya Sherry Chand of IIM Ahmedabad, and participation as a volunteer in the Orphanage Initiative Project in Romania through the International Federation of Medical Students Associations, based in Trondheim, Norway. Aradhna is currently evaluating the status of welfare programs and services for the elderly in India through a project funded by IIT Kharagpur.

Farrokh Mistree

B.Tech (Hons.), IIT Kharagpur; M.S., Ph.D., University of California, Berkeley

Farrokh holds the L. A. Comp Chair in the School of Aerospace and Mechanical Engineering at the University of Oklahoma in Norman, Oklahoma.

Farrokh has co-authored two textbooks, one monograph and more than 400 technical papers dealing with the integrated realization of materials, products and associated manufacturing processes, the design of mechanical, thermal and structural systems; ships and aircraft. His current teaching focus is on empowering highly talented and motivated students to learn how to address the realization of engineered complex systems that are environmentally friendly, socially appropriate, technically feasible and economically viable.

Farrokh is a Fellow of ASME, an Associate Fellow of AIAA, a Life Member of The Honor Society of Phi Kappa Phi and a Member of ASEE, RINA and SNAME. In September 2012 he was recognized as a Distinguished Alumnus of the Indian Institute of Technology, Kharagpur, India.

Atasi Mohanty

PhD (Educational Psychology), Centre of Advanced Study in Psychology, Utkal University, Bhubaneswar

Atasi Mohanty serves the Centre for Educational Technology in IIT Kharagpur as an Assistant Professor. She earned her Ph.D. in Educational Psychology from Centre of Advanced Study in Psychology, Utkal University, Bhubaneswar, India. She has also earned her M.Phil. degrees both in Education and Psychology. Prior to joining Centre for Educational Technology, IIT Kharagpur, she was teaching in Visva-Bharati university, Santiniketan, West Bengal.

Atasi's areas of teaching and research include educational psychology, teacher education, mental health & human resource development. She routinely organizes workshops, seminars and short term courses on professional development and educational leadership.

Sangram Mudali

B.Tech (Hons), IIT Kanpur; MS University of Houston, Houston, Texas, USA

Sangram Mudali, received his Bachelor of Technology from IIT, Kanpur and an M.S. degree from the University of Houston, USA. He has worked in the industry in the US and India for a few years. He was a founder promoter of National Institute of Science & Technology in 1996, and has been the Founder Director of the Institute since then. Under his visionary and dynamic leadership, within a short span of 20 years has risen to be a leading Institute of Eastern India. NIST was recently ranked as 69th among the top 100 engineering colleges of India. Sangram is a keen promoter of research groups in the Institute such as the Renewable Energy Group and Internet of Things. He is a patron of a number of NGOs working in the social sector using technology based solutions. He is an ex-member of the Board of Management of Odisha's Technical University, the Biju Patnaik University of Technology.

Ram Babu Roy

M.Sc (Physics) IIT Kanpur, M.Tech(VLSI Design) IIT Delhi, Fellow (PhD) IIM Calcutta, India

Ram Babu Roy is working as an Assistant Professor in Rajendra Mishra School of Engineering Entrepreneurship, IIT Kharagpur. He has obtained a Master of Science in Physics from Indian Institute of Technology Kanpur, India in the year 2001 and a Master of Technology in VLSI Design Tools and Technology from Indian Institute of Technology Delhi, India in the year 2003. He has served as a scientist in Aeronautical Development Establishment, (DRDO), Bangalore during the year 2002 to 2007. He did his Doctorate in Management at the Indian Institute of Management Calcutta in 2012. His major and minor areas of specialization are Management Information Systems and Operations Management respectively. He teaches business plan development and healthcare analytics. His research interests include business analytics, modelling and simulation of complex networked systems, and healthcare operations management. He is interested in developing tools and techniques for analyzing business models and improving healthcare delivery system.

Sandeep Saha

B.Tech & M.Tech, IIT Kharagpur, PhD., Imperial College London UK

Sandeep Saha did his B. Tech and M. Tech. from IIT Kharagpur. Subsequently he acquired his PhD from Imperial College London, UK under the Outstanding international students fellowship. Thereafter he worked for CNRS, France (largest research organization in Europe) as an Experienced Researcher under the prestigious Marie-Curie fellowship from European Union for a couple of years. Thereafter he worked in the Research and Development sector of the Energy (ALSTOM) and Oil (Schlumberger) industry in the UK. After a brief tenure as an Academic Staff member in a collaborative project with Siemens at the University of Duisburg-Essen, Germany. He joined IIT Kharagpur as an Assistant Professor in December 2014. His primary research interest is Fluid Mechanics and he has been actively working in a number of research problems in Fluid Mechanics. However, having worked in the industry, he also developed an inclination towards effective communication, team building and mentoring.



REGISTRATION FORM

1. Name (In BLOCK LETTERS):
2. Mailing Address:.....
.....
3. Sex: Male/ Female
4. Nationality:
5. Highest academic qualifications:.....
6. Experience: Years.....Months.....
7. Designation:.....
8. Name of your organization/ college/ University:.....
9. Address of your organization/ college/ University:.....
.....
10. Mobile No.:
11. Fax No.:
12. Email address:
13. Details of Bank Draft drawn in favor of 'CEP-STC, IIT Kharagpur' payable at Kharagpur:
 - a. Amount:.....
 - b. Draft No.:.....
 - c. Drawn on (Name of Bank):.....
14. Details of bank transfer:
 - a. Transaction No.:.....
 - b. Date of transfer:.....
 - c. Amount:
 - d. Name of person making the transfer:.....
 - e. Name of the bank from which the money has been transferred:.....
 - f. Account No. from which the money has been transferred:.....
15. Signature of participant:.....
16. Date:..... Place:.....