WATER, SOCIETY AND SUSTAINABILITY

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TYPE OF COURSE: Rerun | Elective | PG
COURSE DURATION: 4 weeks (23 Aug'21 - 17 Sep'21)
EXAM DATE: 24 Oct 2021

INTENDED AUDIENCE: Located at the intersections across science, society, technology and sustainability, the course will be highly relevant for students from different disciplinary backgrounds including: agriculture, water resource engineering, environmental sciences, rural development, civil engineering, geology and humanities and social sciences.

INDUSTRIES APPLICABLE TO: Bengal National Chamber of Commerce and Industry. Other companies interest (some of which have approached the instructor) can be explored.

COURSE OUTLINE:
The global water scenario is beset by multiple challenges: water availability, severe inequity to water access and entitlements across social and spatial lines, frequent floods and droughts, disputes over corporate control of limited water resources, etc. The world appears to be on track to halve the number of people without access to safe clean water. However, in the urban Global South, this success masks regional and local inequalities and a process of urbanization without infrastructure, which is particularly acute in the growing peripheries of existing cities. Interestingly enough, lessons can be learnt from small-scale community water conservation practices and localized needs-driven initiatives.

ABOUT INSTRUCTOR:
Dr Jenia Mukherjee is Assistant Professor at the Department of Humanities and Social Sciences, Indian Institute of Technology Kharagpur. Her research interest spans across environmental humanities, transdisciplinary water research and urban studies. In 2013, she was awarded the World Social Science Fellowship by the International Social Science Council. In 2010 and 2015 she received the Department of Foreign Affairs and Trade (DFAT), Government of Australia sponsored Australian Leadership Awards Fellowship (ALAF) for her research on riverine island communities.

COURSE PLAN:
Week 1: 1.Setting the Context
2.Beyond Hydrology
3.Socio Hydrology
4.Political Ecology of Water
5.Hydrosocial

Week 2: 6.Critical Physical Geography
7.The South Asian Context
8.Water Harvesting and Water Use Techniques in Ancient India 1
9.Water Harvesting and Water Use Techniques in Ancient India 2
10.Water Harvesting and Water Use Techniques in Ancient India 3

Week 3: 11.Water Technology in Medieval India 1
12.Water Technology in Medieval India 2
13.‘Colonial Hydrology’
14.Dams and Development in Contemporary India
15.The Farakka Barrage Project: Historical and Technical Details

Week 4: 16.The Farakka Barrage Project: Socio-environmental Implications
17.Urban Waters: Historical and Political Ecological Perspectives
18.Transforming Trajectories of Blue Infrastructures of Kolkata
19.Peri-urban Water Justice in the Global South
20.Discussion and Conclusion