

# Wetlands Conservation: Practices and Challenges

## Overview

Using case studies drawn primarily from Asia, this course explores the value of wetlands, current practices in wetlands management, and the benefit of wetlands conservation. Hands-on field experience will provide the participants with authentic learning opportunities to understand the importance of taking a holistic, multidisciplinary approach to wetlands conservation. Upon completion of the course, students will understand the ecosystem functions of a wetland, understand the value of wetlands, gain hands-on experience in assessing the dynamics of wetlands ecosystems, understand the development challenges that threaten wetlands and identify management solutions to address these challenges, and appreciate the need for a multidisciplinary, transdisciplinary approach to conserve wetlands.

<b>Modules</b>	<ul style="list-style-type: none"> <li>• Introduction to the course and course organization, definitions and characterization of different types of wetlands, special case of constructed wetlands.</li> <li>• Wetland functions and system dynamics, ecosystem services and identifying benefits of wetlands.</li> <li>• Global trends in wetland conservation, Case studies of wetlands from around the world.</li> <li>• Methods to investigate wetlands - Qualitative methods, including photo-documentation and socio-economic surveys.</li> <li>• Quantitative methods, including water quality analysis (nutrients, E. coli, dissolved oxygen, pH, turbidity) and water quantity analysis (to support modelling approaches).</li> <li>• Orientation and background of East Kolkata Wetland, developing a research question to pursue in the East Kolkata Wetland.</li> <li>• Full day field experience in East Kolkata Wetland and conduct water quality sampling and qualitative analysis in the East Kolkata Wetland pursuant to the individual research questions.</li> </ul>
<b>You Should Attend If...</b>	<ul style="list-style-type: none"> <li>❖ You are Graduate and Post-graduate students/scholars</li> <li>❖ You are Faculty from Academic and Research institutions</li> <li>❖ You are Practicing Engineers, Scientists</li> <li>❖ You are interested about conservation of wetlands</li> </ul> <p><b>Number of participants for the course will be limited to FORTY.</b></p>
<b>Fees</b>	<p>The participation fees for taking the course is as follows:  <b>Participants from abroad : US \$200</b>  <b>Faculty from Academic and Research Institutions: Rs. 2000</b>  <b>Students, Scholars and Civil Society: Rs. 500</b></p> <p>The above fees include all instructional materials, tutorials and assignments, field visit charges. Limited accommodation may be arranged on payment basis.</p>
<b>Registration</b>	<p>If you wish to register for the course :</p> <ol style="list-style-type: none"> <li>1. please visit the website of GIAN <a href="http://www.gian.iitkgp.ac.in">http://www.gian.iitkgp.ac.in</a></li> <li>2. Click on Course Registration. <b>2) Register</b> and then <b>3) Log-in</b> <b>4) Fill up</b> your details</li> <li>3. Upload your photo and signature</li> <li>4. Make online payment of Rs. 500</li> <li>5. Then click on Course Registration. List of available course will be shown</li> <li>6. Check the course <b>Wetlands Conservation: Practices and Challenges</b></li> <li>7. Click on Save</li> <li>8. Click on Confirm Courses</li> </ol> <p>Then you are done. Wait for our Communication.          If selected then you have to pay the fees of the course and after paying the fees, your participation will be confirmed.</p>

# The Faculty

**Dr. Kim N. Irvine** is an Associate Professor at the National Institute of Education, Nanyang Technological University (NIE/NTU), Singapore and a Cluster Leader with the Process Modelling Centre, Nanyang Environment and Water Research Institute, NTU. Previously, he had been a Professor in the Department of Geography and Planning, Buffalo State, State University of New York and Director of the Center for Southeast Asia Environment and Sustainable Development. He was Chair of the Buffalo State Geography and Planning Department 2000-2009. Dr. Irvine's research focuses on identifying and quantifying pollutant sources and pathways at the watershed scale, urban hydrology, site characterization (physical, chemical, biological) for habitat remediation, spatial analysis of environmental indicators, water resources management and waterscapes of Asia.



**Dr. Diganta Das** is an assistant professor at Humanities and Social Studies Education Academic Group, National Institute of Education, Nanyang Technological University. His research interests focus on relations between high-tech space making and issues of human agency in urban India; changing dynamics of (urban) waterscape; issues of liveability and sustainable urban development.



**Dr. Dhrubajyoti Ghosh** is a Visiting Faculty, Civil Engineering Department, Indian Institute of Engineering Science and Technology, Shibpur. As one of the earliest engineers to have done doctoral research in Ecology, he used his subjective tool to re-understand and spread awareness about an unknown wetland ecosystem remarkable for its diverse ecosystem services. He became a UN Global 500 Laureate for this work in 1990, and recently received the Luc Hoffman award for his conservation work in the East Kolkata Wetlands. Dr Ghosh is one of the very few government servants to have been recognised as an Ashoka Fellow and has also served on the Board of Trustees of the World Wide Fund for Nature – India for eight years. He was erstwhile Regional Chair (South Asia), Commission on Ecosystem Management, International Union for the Conservation of Nature (IUCN).



**Dr. Anirban Gupta**, Professor of Civil Engineering, Indian Institute of Engineering Science and Technology, Shibpur



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## Course Coordinator

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