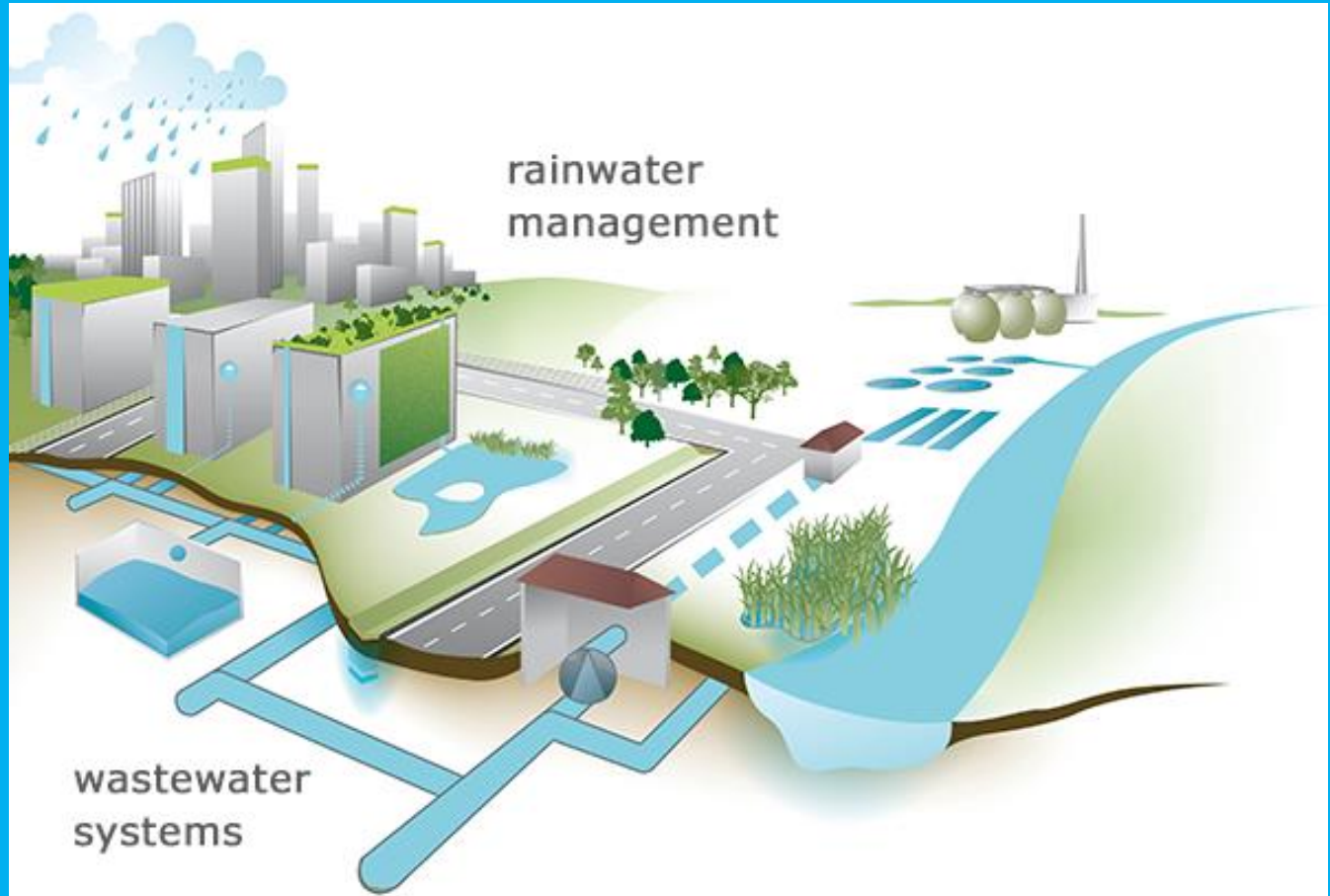


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Global Initiative of Academics Networks



भारतीय प्रौद्योगिकी संस्थान रुड़की
Indian Institute of Technology Roorkee



GREEN WATER INFRASTRUCTURE I – SUSTAINABLE URBAN STORMWATER MANAGEMENT

(July 18-27, 2018)

Under the Aegis of



MHRD

Government of India

Ministry of Human Resource Development

Foreign Expert:

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Indian Course-coordinator:

Prof. Himanshu Joshi

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GREEN WATER INFRASTRUCTURE I – SUSTAINABLE URBAN STORMWATER MANAGEMENT

Overview

Urbanisation in India has been progressing at a very fast rate. The nation has been a witness to various unfortunate incidents of severe urban flooding in various parts of the country. Incidents like water logging, degradation of urban streams and pollution of groundwater resources are quite regular and common in all urban areas, which besides causing a lot of inconvenience to urban population in general, also result in damage to public property and raise multiple health issues.

There is a strong need to understand, develop and implement sustainable stormwater management practices, which can effectively reduce the instances of flooding, water pollution and also reduce pressure on the sewerage network besides improving groundwater recharge, local ambience and biodiversity. The central theme behind Sustainable Urban Drainage Systems (SUDS) or Water Sensitive Urban design (WSUD) is to try to understand natural processes and simulate or reproduce them well integrated with the existing urban systems. This is quite antithetical to the principle of current drainage systems, which considers stormwater as an unwanted entity, which the systems want to quickly get rid of, rather than considering it as a prime resource.

The field oriented practical methods of “Sustainable Stormwater Management” as used world over require a wider dissemination to the Indian audience, so as to generate awareness and facilitate their ground level implementation in the future so as to develop urban centres having sustainability as the core paradigm.

The proposed academic program intends to bring academics, researchers and practitioners together for brainstorming on the above stated topic and interaction with the internationally and nationally acclaimed experts through lectures, case studies and hands-on tutorial and practical sessions.

Objectives

The primary objectives of the course are as follows:

- i) Exposing participants to the current practices of stormwater management and the related issues.
- ii) Introducing the concept of “Sustainable Stormwater Management” and various tools/techniques for the design of drainage systems incorporating the discussed concepts.
- iii) Providing exposure to practical problems and their solutions, through national and international case studies,
- iv) Building confidence and capability amongst the participants for further research and field application of the concept of “Sustainable Stormwater Management”.

Experts in the field of Engineering Hydrology, Environmental Engineering and other affiliated fields will conduct the course which will be planned and offered as per the norms set by the GIAN programme. Course participants will be provided exposure to all the related topics through lectures and hands-on exercises. Case studies and group assignments will also be shared to stimulate research motivation of participants.

Modules	<p>A: Duration : July 18-27, 2018 (11 days)</p> <p>B: Venue : Department of Hydrology, Indian Institute of Technology Roorkee</p> <p style="text-align: center;">Number of participants for the course module will be limited.</p>
You Should Attend If...	Participants from Industry, Research, Government and Non- Government Organisations, Faculty and Students from Institutions all over the world who are interested in the course are welcome to register.
Fees	<p>The participation fees for attending the course are as follows:</p> <p>Participants from abroad: US \$ 500</p> <p>Industry: Rs. 15,000/-</p> <p>Officers of Govt. Organisations/NGOs: Rs. 10000</p> <p>Faculty or Scientists of Research / Academic Institutions: Rs. 10000</p> <p>Students of Academic Institutions:- Rs. 5000</p> <p>The above participation fee includes soft copy of all instructional materials, laboratory and computer use for tutorials and internet facility. The participants will be provided with single/double occupancy accommodation on payment basis at the IITR/NIH guest house. Hotel accommodation may also be arranged on payment basis at nearby places, if requested.</p> <p>For more details please visit www.iitr.ac.in</p>

Topics Covered:

- Urban hydrological cycle and processes,
- Urban growth and its impacts,
- Runoff estimation,
- Stormwater pollution,
- Stormwater monitoring and characterization,
- Framework(s) of Stormwater Management,
- Hydrologic and Hydraulic design of Stormwater system,
- Philosophy of Water Sensitive Urban Design (WSUD),
- Design of WSUD elements,
- Stormwater system modeling,
- Role of wetlands in stormwater management,
- Stormwater harvesting.

Activities:

- Classroom lectures, Tutorials, Lab demonstrations, Panel discussion, Field visit.

The Faculty



Ashantha Goonetilleke is a Professor in Water/Environmental Engineering at Queensland University of Technology (QUT). He has achieved significant success in producing research outcomes of relevance to industry and the community and the translation of research outcomes for practical application. Prof. Goonetilleke's achievements have been recognised by the University and the profession with numerous awards.

His areas of expertise include; urban water quality, stormwater pollution and mitigation, Water Sensitive Urban Design (WSUD), climate change adaptation, Integrated Water Resources Management (IWRM) and stormwater and wastewater recycling. Since 2005, he has published more than 90 journal papers and two books, received more than A\$10 million in research funding and supervised to completion or currently supervising 40 postgraduate students. For five years, he was the Director for Infrastructure Research, Faculty of Built Environment and Engineering, QUT, providing research leadership to over 40 academics. For ten years he served as the advisor on sustainability to Brisbane Airport Corporation and held the Professorial Chair in Airport Innovation. He is currently an Associate Editor, Science of Total Environment [SJR: 1.437(Q1); IF: 4.099]. Prof. Goonetilleke is a highly experienced educator and trainer. He has undertaken numerous capacity building programs internationally. He has also delivered undergraduate/postgraduate courses in the areas of Hydrology and hydraulic engineering, Water pollution and treatment, Water resources management, Public health Engineering and Engineering sustainability with stormwater management, Integrated Water Resources Management (IWRM) and Water Sensitive Urban Design (WSUD) forming key areas of focus.

a.goonetilleke@qut.edu.au



Dr Himanshu Joshi is a Professor in the Department of Hydrology, Indian Institute of Technology, Roorkee, Uttarakhand State. His areas of interest are Environmental Monitoring, Modeling and Management; Environmental Impact Assessment, Sustainable Urban Water and Wastewater Management, Urban Infrastructure Planning and Water Footprint assessment.

He is an Environmental engineer by training, having earned his academic degrees from IIT Roorkee and IIT Kanpur. He has diverse experience of more than 30 years of working on teaching, research and consultancy assignments, which include a 4 year stint in Consulting Engineering Services (India) Pvt. Ltd., a reputed consulting firm. Besides supervising over 30 M.Tech. and 10 Ph.D. research dissertations, he has handled sponsored National and International research projects worth about Rs. 16.0 Million, more than 20 consultancy projects worth about Rs. 8.5 Million, and Capacity building projects worth about Rs. 15.0 Million till date. Some of the major agencies, which have sponsored the assignments include World Bank (Hydrology project Phase 1 and 3), UNESCO, IWA (International Water Association), ICLEI, Central Pollution Control Board (MOEF), Department of Science & Technology, University Grants Commission, Ministry of Water Supply and Sanitation and All India Council of Technical Education. He has also served as a member of many important National and International technical committees, and as Editor of Hydrology Journal (India). He is a recipient of Group Study Exchange award of Rotary International in 1985; US Fulbright Indo-American Environmental Leadership Award in 2006; Endeavour Executive award of Govt. of Australia in 2008; Royal Society-DST Indo-UK networking fellowship award in 2008 and British Council's UKIERI Indo-UK Exchange award in 2012.

www.iitr.ac.in



Course Co-ordinator

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**REGISTRATION AND
ACCOMODATION REQUEST FORM**
(To reach electronically by 30th June, 2018)

GREEN WATER INFRASTRUCTURE I-SUSTAINABLE URBAN STORMWATER MANAGEMENT
July 18-27, 2018
Department of Hydrology, Indian Institute of Technology Roorkee
Roorkee, Uttarakhand

<p>After Completion, please mail to:</p> <p>Prof. Himanshu Joshi Department of Hydrology Indian Institute of Technology Roorkee,Uttarakhand-247667, India Phone: +91-1332286534, 285390 (O) +91-1332285403 (R), +91-9412394288 E-mail: joshihfy@iitr.ac.in Alternate mail id: himanshujoshi58@gmail.com</p>	<p>Affix passport size photograph</p>
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1. Name of applicant (in block letters): Ms./Mr. /Dr.
2. Status (Mark anyone): Student....., Not a student.....
 - (a) If a Student:
 - Academic program under which registered currently.....
 - Date since when registered.....
 - Name of Academic/ Research Institution.....
 - (b) If not a Student
 - Nature of employment (Teaching, Research, Govt. service, NGO, Industry).....
 - Organisation where employed.....
 - Employed since.....
 - Designation.....
 - Academic qualifications.....
3. Full Postal Address for Communication:
4. E-mail id:
5. Phone numbers: Mobile....., Landline.....

Date:

Signature of applicant

Note:

- (i) Application should reach DOH Office at the above address latest by 30th June, 2018. Scanned copy may be sent by e-mail.
- (ii) The seats are limited and will be filled generally on the first come first serve basis. Decision of the course coordinator will be final and binding to all in this regard.
- (iii) Please start your travel to Roorkee to attend the course only if you have received a formal confirmation.