thousand industry professionals and teachers. He has been recognized by prestigious awards such as by Kucklemann award, Prof. Gopal Ranjan research award, Sir C V Raman Young Scientist Award and recipient of many other awards. He is the chief editor of two international journals in his areas of research.

Prof. Muttucumaru Sivakumar is currently working as Associate Professor in Civil, Mining and Environmental Engineering, Academic Program Director of Environmental Engineering, Co-Director and Coastal Reservoir Research Centre at University of Wollongong, Australia. He had Bachelor degree in Civil Engineering from University of Peradeniya, Sri Lanka, 1975, M.Eng. Environmental Engineering, Asian Institute of Technology, Thailand, 1976 and Ph.D. in Civil Engineering, University of Newcastle, NSW, Australia, 1981. He had more than 50 publications and received many awards for his outstanding research in the field of water and water quality domain.

Prof.Yang Shu-Qing is an Assoc. Professor of Civil, Mining and Environmental Engineering of Univ. of Wollongong specializing in water resources engineering, hydraulics, hydrology, sediment transport and turbulence, effects of climate change etc. He has over 150 publications including books, book chapters, patents, refereed journal papers and conference papers and many awards. In 2017, with his peers, he founded the international association for coastal reservoir research (IACRR). He was a president of international association of hydraulic research (IAHR), hydrology science (IAHS) and water resources (IWRA). He was a professor in Korea Maritime University, South Korea; Tianjin University and South China University of Technology, China, a visiting professor to Hong Kong University of Science and Technology, Sichuan Univ., and Windsor University, Canada.

The other experts from Central Groundwater Board, IIT Roorkee, NCESS & Researchers will deliver a talk on related fields of coastal reservoir.

Accommodation

Limited number of rooms in NITK Guesthouses available on First Come First Served basis. Cost of boarding and lodging shall be borne by the applicant. Please note that no TA/DA shall be paid for this event by NITK.

Registration form

Three Day SPARC Sponsored Workshop on "Coastal Reservoirs as a sustainable strategy for water security"

22-24, July 2019

Name of Participant :----------

Dept :----------

Gender :----------

Designation :----------

Qualification :----------

Organization :----------

Mobile No. :----------

Email :----------

I agree to abide by the rules and the regulations governing the Workshop.

Place:

Date: Signature of the Participant

Mr./Ms./Dr./_____ is a student/employee of our Institution and is permitted to attend this programme.

Place: Signature of the Head

Date: Institution with seal

सत्यमेव जयते

National Coordinator

SPARC
Scheme for Promotion of Academic and Research Collaboration

Scheme for Promotion of Academic and Research Collaboration (SPARC) Sponsored Three day Workshop on Coastal Reservoirs as a sustainable strategy for water security

22-24, July 2019

Organised by
Department of Applied Mechanics and Hydraulics
National Institute of Technology Karnataka, Surathkal,
Mangaluru-575025, INDIA

Coordinators

Dr. Ramesh H.
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National Institute of Technology Karnataka, Surathkal, Mangaluru

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Dept. of Civil Engineering,
Indian Institute of Science, Bangaluru

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Vellore Institute of Technology, Vellore

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Course Contents

- Overview of water resources and Importance of Coastal reservoir.
- Demand and Supply Analysis of water resources
- First and second Generation Coastal reservoir
- Water quality and Coastal reservoirs
- Importance of Dams and water storage structures
- Introduction to wave hydrodynamics and interaction with structures
- Design and construction of coastal reservoir
- Geotechnical considerations for Coastal reservoirs
- Soil Liquifaction
- Coastal aquifer characterization
- Submarine groundwater discharge

About NITK Surathkal

NITK Surathkal is a premier institution engaged in imparting quality technological education and a broad range of research, development and consultancy activities. NITK has carved a niche for itself among the best technical institutes in India and is consistently ranked among the top 20 technological institutes.

About the Department

The Department of Applied Mechanics and Hydraulics established in 1960, reputed as a centre for academic, research and industrial consulting activities. Academic programme leading to M.Tech Degree in (i) Marine Structures (MS) (ii) Water Resources Engineering and Management (WREM) and (iii) Remote Sensing & Geographical Information System (RS & GIS) and Ph.D. degree in all three areas and offers elective courses to all under-graduate programs. Laboratories with state-of-art equipment, highly qualified faculty and dedicated staff provide an ideal environment for academic and research pursuits.

How to Reach NITK Surathkal

NITK is located in Surathkal on the scenic shores of the Arabian Sea, about 20KM north of the city of Mangalore and is well connected by Air, Rail and Road. The nearest domestic/international airport is situated at Bajpe (about 10 km from Mangalore) and the nearest railway station is Surathkal (3 km). The NITK Campus is situated right on National Highway NH66 with bus connectivity from Mangalore, Udupi etc.

About the Program

This workshop is being jointly organized by NITK, IISc., VIT and University of Wollongong, Australia as part of SPARC project and scheduled at Dept. of Applied Mechanics & Hydraulics, NITK, Surathkal, Mangaluru. Coastal Reservoir (CR) has become important as many countries face acute scarcity of water during non-monsoon period. The current interest in coastal reservoirs is concentrated on fresh water reservoirs that could serve the water supply needs of coastal cities. The idea of using coastal reservoirs to capture fresh water in estuaries started getting traction in the second half of the twentieth century in coastal areas faced with increasing water demand that could not be satisfied by other water resources. This approach was pioneered in China, with the construction of one such reservoir in Hong Kong in the 1960's followed by several other similar projects along the East China Sea coast, France, The Netherlands, England, Singapore, Malyasia, USA etc. An example of an early coastal reservoir in India is the Thaneermukkom salt water barrier across the Vembanad Lake, which drains in the nearby Arabian Sea. The construction and operation of coastal reservoirs in estuaries presents several challenges. One of them is the potential accumulation of pollutants such as excess fertilizers, herbicides and insecticides carried by runoff from surrounding agricultural lands, or discharges from industrial facilities within the drainage basin of the reservoir which was created by constructing a seawall across a bay in order to reclaim land for urban development and provide freshwater for domestic, irrigation and industries.

Objective of the Program

1. To understand the principle, and importance of coastal reservoir as an alternate fresh water storage structure in the coastal regions.
2. To understand the water quality issues dynamics of coastal reservoirs.
3. To understand the suitability of coastal acquirers for construction of coastal reservoirs.
4. To understand the effect of coastal reservoir on shoreline changes/coastal processes.

Course Deliverables: Upon completion, the successful participants will be able to take up small design project to harvest the excess runoff in the coastal region through construction of coastal reservoirs for sustainable water resources management.

Eligibility

The programme is open to Faculty and Students (B.Tech, M.Tech and Ph.D) of AICTE/UGC approved Engineering and Technology Colleges and working professionals in government agencies. Number of participants will be limited to 40. Completed applications should reach the Coordinators on or before 21st July 2019, priority will be given on first come and first serve basis.

Important Dates

Last date for receipt of applications: 21st July 2019

Selected candidates will be communicated through email

Resource Persons

Prof. Dr. T. G. Sitharam is presently heading as the Director of IIT Guwahati. He was a KSIIDC Chair Professor in the area of Energy and Mechanical Sciences and Senior Professor at the Department of Civil Engineering, Indian Institute of Science, Bengaluru, former founder Chairman of a Center for Infrastructure, Sustainable Transport and Urban Planning (CiSTUP). He is presently the Chairman, AICTE South western zonal committee, Regional office at Bengaluru Vice president, Indian Society for Earthquake Technology (ISET). He is also the President of International Association for Coastal Reservoir (IACRR) HQ at Wollongong, Australia, He was also a Visiting Professor at Yamaguchi University, Japan, and ISM Dhanbad, Jharkhand. He has more than 500 technical papers, seven books, three patents, 100 consulting projects and two startup companies. He guided 27 Ph.D. and 25 Masters students and trained several postdoctoral and several