TEQIP – III Sponsored
One Week
FDP on

"Water Resources System Planning, Management and Development for The Water Scares Areas"

June 26th– June 30th 2021

Patron

Prof. D. K. Singh
Director, BIT Sindri, Dhanbad, Jharkhand.

(Department of Civil Engineering)

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Organized By

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About BIT Sindri

BIT Sindri is one of the oldest engineering college of India established as college of Mechanical & Electrical Engineering in 1949. The institute is the only Engineering college of Govt. of Jharkhand. All the 10 B. Tech. and 10 M. Tech. courses are approved by All India Council of Technical Education.

About Department

The Department of Civil Engineering was started in the year 1957. The department offers UG & PG courses with Soil mechanics, Foundation Engineering and Structural engineering as specialization. The department also offers adequate facilities for R&D work and thus provides a vital impetus in growth of the state. Both undergraduate and postgraduate are trained in computer applications of Civil Engineering and the latest software. The students of the department actively pursue R&D under the guidance of faculty members funded by state government.

Vision of the Department

To facilitate the continuous enhancement of technical expertise to meet innovative challenge in research and infrastructure development.

Mission of the Department

To produce competent Civil Engineers by

- By inculcating the advance knowledge and modern technology.
- By promoting quality educations, research, and consultancy for industrial and societal needs.
- By developing leadership qualities by providing human values, ethical and moral responsibility.
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About the Course

Today, so many countries across globe are facing unparalleled burden on water resources. The total population of earth is growing exponentially, and, an estimate shows that with current practices, the world will face a 40% shortfall between forecast demand and available supply of water by 2030 (World Bank Report). Moreover, water crisis, shifting hydrological events, often floods and droughts, and climate changes are some big threats to over-all wellbeing and stability on this planet. The water, although plentiful, is not distributed as we might wish. There is either too much or too little, or whatever exists on this earth is too polluted or too expensive. To enhance water security against increasing demand, water scarcity, rising rate of uncertainty, often extremes, and crumbling challenges, sincere efforts are

required in institutional strengthening, infrastructure development and automation in monitoring. Institutional tools like legal framework and regulatory structures, water metering and pricing are needed for the optimal allocation, regulation, and conservation of water resources. IoT based advance techniques can be used for supply, regulation, monitoring, hydro-meteorological forecast and warning of the water resource. More investments in such smart technologies are need of the hour for the better conservation and protection of resources. Emphasis on recycle, reuse of wastewater and non-conventional water sources should be reviewed in addition to enhancing storage of fresh water, in the aquifers and soil strata.

The aim of this five days' FDP is to enlighten the participants in regards to the Advancement in Water resources system planning, which will be helpful for them in their future endeavour in industries and research activities. This course includes innovative lectures, discussion on case studies and visualisation in emerging trends and technology in the domain of water resources engineering.

Objective of the Program

- Address the need of optimal management of water resources & quality in water scarce areas
- To provide insight of practical challenges and their solutions through various case studies
- Exposer of the Remote Sensing (RS) & GIS applications for the water resources planning, management and development to deal with scarcity
- Development of smart technologies for the water resources management
- An integrated approach for the water resources development and monitoring the quality of the area in watershed
- To explore importance of involvement of community in conservation of water resources.

Themes of the Program

- Holistic approach on water resources system planning, management and development in water scare areas
- Effective ways of ensuring water quality and controlling water pollution
- System approach in water resources planning
- An overview of surface & subsurface hydrology and its application in the water resources management
- Remote sensing and GIS application in water resources management
- Mathematical & Heuristic technique for the optimal system planning
- Integrated approach for the watershed management in water scares areas
- Forecasting of data for the long term planning and management
- Smart technologies for the water resources managements and supply systems
- Role of community and involvement of common people for the better preservation of water resources.

Advisory Committee

- **Prof. K. V. Jayakumar-** Emeritus Professor, Department of Civil Engineering, NIT Warnagal, A.P.
- **Prof. Vivekanand Singh-** Professor, Department of Civil Engineering, NIT Patna, Bihar
- **Prof. Kumar Surendra-** Dean AKU Bihar Patna, Bihar
- **Prof. P. D. Vyas-** Professor (Retd.), Department of Civil Engineering, The M.S. University of Baroda, Gujarat
- **Dr. Ickkshaanshu Sonkar-** Assistant Professor, Department of Civil Engineering, IIT Ropar, Punjab

Organizing Committee

- All faculty members of the Civil Engineering Department & HOD, Department of Geology, BIT Sindri, Dhanbad

Who can attend

- Faculties, Research scholars those who are looking to expand their knowledge about Advancements in Water Resources Engineering.
- This can also be fruitful for persons working in different Government & Research organizations, MNC and infrastructure development industries.

Registration Fee

There is NO registration fees.

Registration Link will close on 25/06/2021 17:00 PM.

Registration Link

https://forms.gle/NUT9sm786yc6qiKB6

Contact Details

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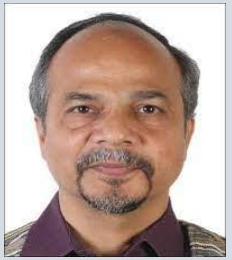
Phone No: +91 6201877718

Eminent Speakers

Name and Affiliation		Specialization	Name and Affiliation		Specialization	Name and Affiliation		Specialization
Prof. Vijay P. Singh Distinguished Professor, Texas A&M University, USA		Surface Water, Ground Water Hydrology, Hydraulics & Irrigation Engineering	**Prof. Nicola Fohrer** V.P. of German Hydrological Society & Director, Institute of Natural Resource Conservation University of Kiel, Germany		GIS based modelling of water, Water ecological investigation methods, Erosion measurement and modeling	**Prof. Arup Kumar Sharma** Professor, Department of Civil Engineering IIT Guwahati, Assam India		Modeling and Simulation in Free Surface Flow Heuristic Methods in Reservoir Optimization GIS Based Watershed Modeling
Prof. K.V. Jayakumar Emeritus Professor of Civil Engineering, National Institute of Technology, Warangal, A.P. India		Land and water management, Hydrology and Water resource Engineering	**Dr. Rajashree V. Bothale** Scientist 'G' & Group Director Training, Education & Outreach Group Management Systems Area (MSA) NRSC, Hyderabad, A.P. India		Recent trends in Civil Engineering & Remote Sensing Technology	**Dr. Vivek Kapadia** Director, Sardar Sarovar Narmada Nigam Ltd, Gov. of Gujarat, Ahmedabad, Gujarat, India		Water Resource engineering and Management, Pioneer of the participatory water conservation movement in the state of Gujarat
Prof. Anupam K. Singh Director- Indus Institute of Technology and Engineering, Indus University, Ahmedabad, Gujarat India		Development of Smart Technologies in the Water Monitoring and supply systems	**Dr. Umesh Desai** Director WRD & CTO, Aga Khan Rural Support Programme, Ahmedabad, Gujarat India		Program Management: Planning, Monitoring and Evaluation, Leadership and Team Management	**Dr. Hazem Gouda** Associate Professor, University of Wollongong, Dubai, UAE		Sustainable drainage system, Water & Waste water management, Decision support system for sustainable water infrastructure