

**A 3-Day WORKSHOP ON**  
**Analysis and Design of**  
**Water Distribution Networks**

**16 – 18 March, 2017**



**Under**  
**TEQIP-Phase II**

**Coordinators**

**Dr. Ajey Kumar Patel**  
**Dr. E .Venkata Rathnam**

**WATER & ENVIRONMENT DIVISION**  
**DEPARTMENT OF CIVIL ENGINEERING**  
**NATIONAL INSTITUTE OF TECHNOLOGY**  
**WARANGAL – 506 004**

**About NIT Warangal**

National Institute of Technology Warangal was established during the year 1959 and over the last 5 decades, it has emerged as a premier technical institution of national importance. NITW has good infrastructure, highly qualified and motivated faculty and attracts high caliber students. 9 undergraduate programs and 25 postgraduate programs are successfully run by NITW, besides doctoral programs in all the departments.

**About Civil Engineering Department**

One of the oldest departments of the institute, with one undergraduate and 7 postgraduate programs, the department is privileged to be recognized as one of the best civil engineering departments in the country. All the programs run by the department are accredited by NBA. The department has excellent labs to cater to both UG, PG and research programs. The Water & Environment Division is one of the four divisions of the department.

**Coordinators**

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REGISTRATION FORM

**A 3-Day WORKSHOP ON**  
**Analysis and Design of Water**  
**Distribution Networks**

Name in full:

Designation:

Organisation/Dept:

Postal address with  
E-mail: and Mobile No. :

Education Qualification:  
Experience & field of specialization:

Whether accommodation is required: Yes/No

Registration Fee Amount (Rs.):  
Bank Demand Draft No:  
Bank details:

Signature with date:

Sponsoring authority Signature:  
(with office seal)

Note:

1. Photocopies of the Registration form can also be used.
2. Advance copy of the duly filled registration forms may be forwarded to mail ID: [ajeypatel@gmail.com](mailto:ajeypatel@gmail.com) or [evr@nitw.ac.in](mailto:evr@nitw.ac.in) or by post to the coordinators.

## **Background**

In recent years, the Government of India and many State governments have been taking initiatives to supply potable drinking water and taking up new water supply projects and /or expanding the water distribution network (WDN) to cater to the needs of growing population in the country. One initiative taken up by Government of Telangana is the Telangana Drinking Water Supply Project (TDWSP) named as “**Mission Bhagiratha**”. It is one of the flagship programmes of the government. The scheme involves lifting water from lower elevation and water hammer phenomena is a major problem encountered.

The various components of the drinking water supply project include reservoir/river intake, water treatment plant, pumping mains, elevated storage reservoirs, gravity mains etc. Public and municipal water distribution networks are to be designed to convey the desired volumes of water to the public with adequate pressure. Proper hydraulic analysis is to be carried out in case of expanding the WDNs and lift schemes.

There is a need to introspect the current design guidelines issued by CPHEEO, AWWA, IWWA and other agencies in planning, design and analysis of various elements of water supply projects.

The workshop, therefore, is aimed to give insight into various design and analysis aspects of all elements of drinking water supply projects.

## **Objective**

The main objective of the workshop is to expose the participants to the various issues of WDN pertaining to drinking water supply projects including quality aspects.

## **Course contents**

- Fundamentals of Flow Through Pipes
- Methods of Analysis of WDNs
- Design Criteria of WDNs
- Optimal Design of WDNs
- Performance Evaluation of WDNs
- Case Studies and Hands on Experience on software EPANET
- SCADA System
- Water Quality and Treatment Issues
- Numerical Examples on Surge Analysis, Pumping Stations and Water Treatment Plants

## **Participants**

The workshop is aimed at the upper and middle level engineers/officers involved in the planning, development, and implementation of facilities for water supply and sanitation projects, working in the Public Health Engineering Department, Municipal Corporations, Municipalities, Rural Water Supply Department, Industrial townships, Urban Development Authorities and Water related industries, academicians, and researchers.

## **Registration**

There is a registration fee of Rs. 1,500/ for participants from academic institutions and Rs.3000/- for participants from industrial establishments. Bank Demand Draft should be drawn in favour of **Director, NIT, Warangal** payable at **SBH, NIT Warangal (Branch Code: 20149)**. The brochure and details of the registration can be downloaded from the institute website <http://www.nitw.ac.in>. The registration fee covers registration kit, boarding and lodging for the duration of the workshop. The candidates have to meet their own travel expenses.

Candidates should send completed scanned copy of the registration form by E-Mail to the Coordinators on or before **9<sup>th</sup> March 2017**. Confirmation of eligible candidates will be intimated by E-Mail at the earliest date.

## **Resource persons**

Eminent personalities and experts from industry along with faculty of the Department of Civil Engineering at NIT Warangal are the resource persons.

## **Venue**

The workshop will be held in the Seminar Hall of the Department of Civil Engineering, NIT Warangal. The nearest railway station to NIT is the Kazipet Junction, which is about 3 kms from the NIT campus. Warangal Railway Station is about 15 km away from the campus. The nearest airport is at Hyderabad, which is about 175 km from the campus.