



**PMMMNTT
Scheme**



**A Six- Day Faculty Development Programme
on
*Computational Methods
in Hydraulics and Water Resources Engineering***

19-03-2018 to 24-03-2018

Call for Registration and Participation

Coordinators

**Dr. E.Venkata Rathnam
Prof. P.Anand Raj
Shri. V.N. Kameswara Rao
Prof. K.V.Jayakumar
Prof. N.V.Umamahesh**

Organized by

**Department of Civil Engineering
in association with
Teaching-Learning Centre
National Institute of Technology
Warangal – 506 004
Telangana state, India**



Overview of the Programme

Background

Government of India is contemplating many water resources projects in the country for effective planning and management of water resources to meet the increased demands in domestic, irrigation and industrial sector. To cite a few, the proposals of inter linking of rivers, lift irrigation projects, water grid projects (Mission Bhagiratha and, Mission Kakatiya), dam safety and rehabilitation etc can be mentioned. There is hence, need for training the faculty, in the country to solve various issues and problems related to water resources engineering and management. The major issues in the water resources engineering can easily be dealt by understanding the concepts in the courses like fluid mechanics, hydraulics, hydrology, computational methods and application of various mathematical models and software. The faculty members of Water & Environment Division of the Department of Civil Engineering of NIT Warangal have the experience and expertise in enhancing the effectiveness of teaching and learning of subjects like Fluid Mechanics, Hydrology, Hydraulic and Water Resources Engineering. In this background, a six-day Faculty Department Programme (FDP) is planned with the following objectives.

Objectives

- To enable the participants to gain the basic concepts of Fluid Mechanics, governing equations and solution techniques for fluid flow problems, for effective teaching of water resources engineering courses.
- To provide hands on training on various Free and Open Source Software (FOSS) for effective learning of Hydraulics and Water Resources Engineering courses through computational methods.
- To enable the participants to equip with the modern teaching/ learning strategies in Hydraulics and Water Resources Engineering.

Topics to be covered

This FDP will focus on the concepts of computational methods for effective teaching and learning of the fundamentals of Hydraulics and Water Resources Engineering and application of various software (FOSS). The topics proposed to be covered are:

- Reynolds Transport Theorem
- Navier-Stokes Equations
- Saint Venant Equations
- Dimensional Analysis
- Numerical Methods
- Finite Difference methods
- Regression Analysis
- Probabilistic and Statistical Methods
- Artificial Neural Networks and Fuzzy Logic
- Hydarulic Transients
- Flood Routing Techniques
- Sediment Transport
- Computational Fluid Dynamics
- Hands on practice on software like EPANET, HECRAS, FLUENT, SAP2, MODFLOW.

Selection of the Participants and Intimation

As the programme is conducted in a workshop mode with hands-on sessions, the number of participants in the workshop is limited to **40**. **The selection will be first-cum-first served among eligible applicants. The selected applicant will be informed about his / her selection through Email on or before 6th March 2018.**

Payment of Registration Fee

After receiving the intimation about the selection, the applicant has to send the required registration fee as per the details shown in the Table on or before 13th March 2018. The mode of payment of registration fee is given under the heading “Bank Details”.

Confirmation of Participation

On receipt of the proof of payment of registration fee **in the form of scanned copy of the DD / Proof of remittance** (with transaction number if it is paid through online transaction), the applicants will be sent confirmation of their participation through Email immediately.

Accommodation

Accommodation for outstation participants will be provided on request in the Institute Visitors’ Block or International Students’ Hostel.

Registration fee

Category of Participants	Local participants (with working lunch)	Residential participants (accommodation, breakfast, lunch & dinner)
Faculty	Rs. 750/-	Rs. 1,500/-
Research scholars	Rs.350/-	Rs. 750/-

Note: Registration fee for Faculty & scholars of SC/ST category is half of the amounts mentioned above as applicable.

Bank Details

Registration fee may be sent in the form of a DD or remitted through On-line / NEFT to the Bank Account given below. Local participants may also pay the registration fee in cash to the Coordinator in the Department of Civil Engineering

Account Name	Director, NIT WARANGAL
Account Number	52109375198
Bank & Branch	State Bank of India, REC Warangal (NIT campus)
IFSC code	SBIN0020149

About NIT Warangal

National Institute of Technology Warangal, formerly known as Regional Engineering College was established in the year 1959. Over the years it has developed into a premier institute of higher learning and is ranked among the top technical education institutions in India. There are 14 Departments offering eight undergraduate and 32 post-graduate programmes besides doctoral programmes. About 5000 students across the country and about 500 international students study on the campus. It is a fully residential campus sprawling over 250 acres with excellent infrastructure in the form of state of the art laboratories, library, seminar halls, and guest houses and laboratories.

Brief Profile of Civil Engineering Department

The Department of Civil Engineering offers B.Tech program in Civil Engineering and seven postgraduate programs. The Department has experienced faculty, well-established laboratories and other infrastructure. The Water and Environment Division of Civil Engineering Department offers M.Tech program in Water Resources Engineering since the year 1964.

Resource Persons

The Faculty of Civil Engineering and Teaching Learning Centre (TLC) of NIT Warangal are the Resource Persons. The following outstation experts are also be delivering the Lectures during the FDP.

1. Dr. B.S.Murty, Professor, Department of Civil Engineering, IIT Madras, Chennai.
2. Dr. Pranab.K.Mahapatra, Professor, Department of Civil Engineering, IIT, Gandhinagar.
3. Dr. P.Raghuveer Rao, Principal Research Scientist and Faculty member, Department of Civil Engineering, IISC, Bangalore.
4. Dr.Ch. Madhusudana Rao, Assistant Professor, Civil Engg Dept., NIT Jamshedpur.

Teaching-Learning Centre of NIT Warangal

The Teaching-Learning Centre (TLC) is established at NIT Warangal with grants from the MHRD, GOI under the scheme, 'Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching' (PMMMNTT). Many senior and young faculty members across various departments of the Institute are associated with this center as members of the Core-Team.

One of the important objectives of the center is to conduct training programs for aspiring, newly inducted and in-service faculty in Higher Education. Other activities of the TLC include preparation of e-learning materials, offering courses on-line, curriculum development, carrying out research in pedagogy and integrating ICT into teaching-learning process.

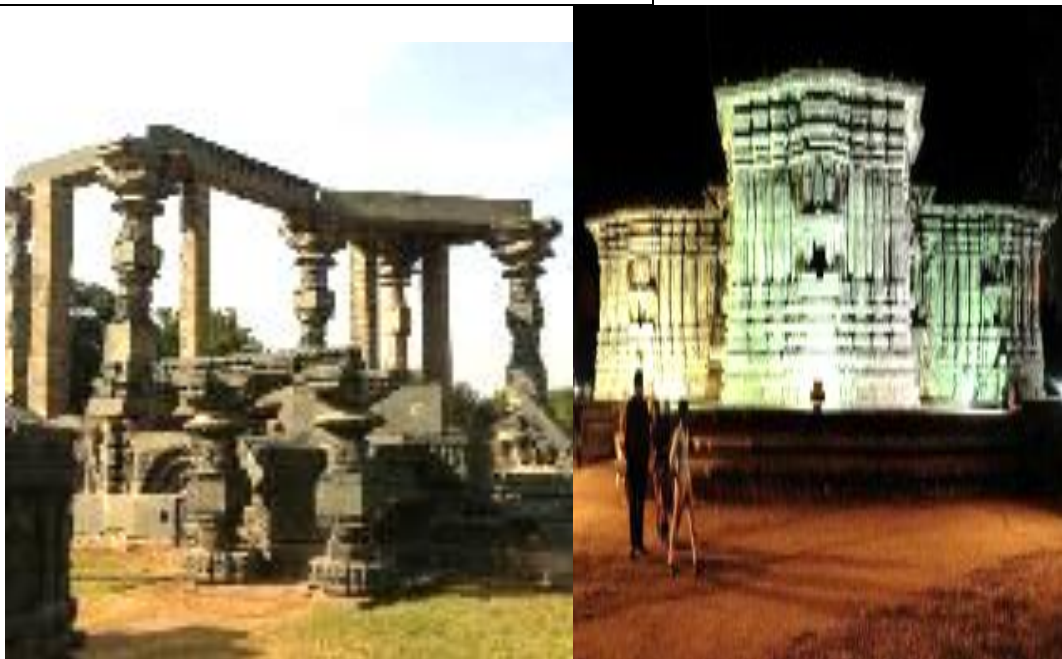
About Warangal

Warangal is the second largest city of the new state of Telangana. It is situated at a distance of 140 km from the state capital Hyderabad (Nearest Airport). It is well connected by Rail (Kazipet Junction is 2 km away and Warangal Station is 12 km away) and by Road (NH 202). Warangal is renowned for its rich historical and cultural heritage. It was the seat of erstwhile Kakatiya dynasty. It is a hub of tourist attractions with a number of historical monuments like Thousand Pillars Temple, Warangal Fort, Bhadrakali Temple, Ramappa Temple and Laknavaram Lake located in a radius of 30 kms.

For any query regarding this workshop, please contact the following persons.

Dr. E.Venkata Rathnam,
Associate Professor &
Coordinator of FDP
Department of Civil Engineering
NIT Warangal-506004 (T.S)
Phone: 0870-2462118 (O)
Mobile: 8332969246, 9490594635
Email: evr@nitw.ac.in ;
e.venkatarathnam@gmail.com

Prof. A. Ramachandraiah,
Coordinator, TLC
Phone: 0870-2462686 (O)
Mobile: 8338969504
Email: mtlc.nitw@nitw.ac.in



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Sponsored by MHRD, Govt. of India under PMMMNMTT Scheme

REGISTRATION FORM

Name : _____

Date of Birth : _____

Place of Birth: Village/Town/City: _____ Tick as applicable (Rural / Urban)

District _____ State: _____

Gender (Put a \sqrt Mark) : Male Female

Category (Tick as applicable) : **Open / OBC / SC / ST**

Qualification & specialization: _____

Designation : _____

Organization : _____

No. of Years of Teaching experience: _____

Address for Correspondence : _____

Mobile(s): _____ Email(s): _____

** Details of Remitting Registration Fee: (i) Amount in Rs. _____

(ii) Name of the Bank Through which Remitted/DD Taken: _____

(iii) On-line Transaction No./ DD No: _____ (iv) Date: _____

Accommodation (Put a \sqrt Mark) : Required Not Required

Declaration by the Applicant

If selected, I agree to abide by the rules and regulations of the workshop / training programme and shall attend all the sessions.

** Kindly go through the brochure before making payment

Date:

Signature of the Applicant

Recommended and Forwarded

Office Seal

Signature of the Head of the Department/ Institution