



## ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)

on

### Modern Techniques and Tools in Water Resource Management

(1<sup>st</sup> - 12<sup>th</sup> August, 2022)

Organized by

E & ICT Academy, NIT Warangal in association with National Institute of Technology Andhra Pradesh

(Sponsored by Ministry of Electronics and Information Technology (MeitY), GOI)



#### Preamble:

Electronics & ICT Academy was set up at NIT Warangal with financial assistance from MeitY, GoI. The jurisdiction of this academy is Telangana, Andhra Pradesh, Karnataka, Goa, Puducherry and Andaman & Nicobar Islands. This academy role is to offer Faculty Development Programmes (FDPs) in standardized courses and emerging areas of Electronics, Information Communication Technologies, training and consultancy services for Industry, Curriculum development for Industry, CEP for working professionals, Advice and support for technical incubation and entrepreneurial activities.

Water has also become a major constraining factor for the growth of the agricultural and industrial sectors. Population growth and economic development are driving significant increases in agricultural and industrial demand for water. India's water resources are under increasing pressure from population growth, economic development, industrialization, urbanization, and inefficient water use. One of the main issues facing in water resources management is the uneven distribution of water supply throughout the country. This is due to the wide variation of precipitation both temporally and spatially. It is pointed out that this uneven distribution of freshwater resources may become more and more pronounced, not only by unevenly distributed population growth but also due to global environmental changes, such as global warming and the degradation of land and vegetation. Given this variability in the precipitation, the sustainable management of national river basins is a major challenge in today's world and requires new, innovative ways of thinking. With this background, a course on the application of modern techniques and tools such as machine learning, system analysis techniques, and statistical analysis, among others for the management of water resources is proposed. The course is therefore of special interest for the professionals, researchers, and students interested in learning the utility of these modern technologies in the context of Water Resources Management.

#### Course contents:

- Modelling impact of climate change
- Analysis of hydrological extreme events
- Application of geospatial techniques
- Multi-criteria decision-making tools for water management
- Applications of Machine learning techniques in Water Resources and Management.

#### Resource Persons:

Finest researchers & Professors from IISc/IITs/NITs are invited to deliver lectures in the programme. Speakers from industries are also expected to deliver as part of the course.

#### Eligibility:

The program is open to the Faculty of Engineering Colleges and other allied disciplines in India. Industry personnel working in the concerned/allied discipline and Research Scholars can also attend.

#### How to apply:

Participants are required to fill the online registration form:

[Click Here](#)

#### Registration Fee Particulars:

**Faculty and Research scholars: Rs 500/-**

**Industry Participants: Rs 1500/-**

Participants need to pay the Registration Fee Online using the following online transfer details:

#### Online transfer details

**Account Name: Electronics & ICT Academy NITW**

**Account No: 62423775910**

**IFSC Code: SBIN0020149**

**Bank and Branch: State Bank of India, NIT(REC) Warangal**

#### Important dates:

**Last date for Application with fee: 28<sup>th</sup> July, 2022**

**Selection List by Email: 29<sup>th</sup> July, 2022**

#### Selection Criteria:

Selection will be done based on first-come-first-serve basis to a maximum number of 100 (hundred). The list of selected participants will be intimated through e-mail. In case a candidate is not selected, the online payment will be sent back. Candidates will be issued satisfactory certificates on successful completion of the course.

#### About National Institute of Technology, Warangal:

National Institute of Technology, Warangal is the first among 17 RECs setup as joint venture of the Government of India and the state government. Over the years the college has established itself as a premier Institute imparting technical education of a very high standard leading to the B. Tech degrees in various branches of engineering, M. Tech and Ph.D. programs in various specializations. All B. Tech and M. Tech programmes of NIT Warangal are NBA accredited.

#### About National Institute of Technology, Andhra Pradesh:

National Institute of Technology Andhra Pradesh is the youngest (31<sup>st</sup>) institution among the chain of NITs started by the Government of India. It was established in 2015 at Tadepalligudem in the state of Andhra Pradesh. With the support of MHRD the institute started functioning in its 174 acres permanent campus. All the students now reside in the newly constructed hostel buildings inside the permanent campus. Presently, the institute offers B. Tech, M.Tech, M.S (by research) and Ph.D. programs. Institute has been awarded **Platinum rating** by the Indian Green Building Council (IGBC) in 2020 and also awarded as the **'Best Institute in South India 2021**.

#### Coordinators

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