

Name & Designation : **Dr. N V Umamahesh, Professor**
Institute : National Institute of Technology, Warangal

Educational Qualifications:

- **Ph.D.** in Civil Engineering on *Optimal Planning and Operation of Irrigation Reservoirs under Multi Crop Environment* from Regional Engineering College (now National Institute of Technology), Warangal in 1995.
- **M.Tech.** in Water Resources Engineering from Indian Institute of Technology, Kharagpur, (1984-1986).
- **B.E.** in Civil Engineering from College of Engineering, Osmania University, Hyderabad 1980-1984. First Class with Distinction

Professional Experience:

Lecturer in Civil Engineering, Regional Engineering College, Warangal 1987 – 1995
Assistant Professor in Civil Engineering, Regional Engineering College (National Institute of Technology since 2003) 1995 – 2004
Professor in Civil Engineering, National Institute of Technology, Warangal 2004 – to date
Visiting Faculty at Asian Institute of Technology, Bangkok, August 2007 to December 2007

Specialisation and Experience:

Reservoir Operation and Management, Hydrological Analysis and Modelling, Irrigation Management, Watershed Management, Water Resources Systems, Water Quality Modelling and Management, Remote Sensing and GIS Applications, Neuro-Fuzzy Applications in Water Resources

Awards and Distinctions:

- Merit Certificate for the paper presented at the 2nd International R&D Session of CBIP held at New Delhi during October 1996
- State Level “Jalamitra” Award constituted by the Government of Andhra Pradesh for successful implementation of watershed project in March, 2003
- G.M. Nawathe award for best paper presented at National Conference on Hydraulics and Water Resources, HYDRO-2004, held at Nagpur, India in December, 2004
- Best Paper award for the paper presented in International Conference on Modelling Tools for Sustainable Water Resources Management held at IIT, Hyderabad in December 2014

Publications in Journals in the last 10 years:

1. Naga Malleswara Rao, B. and **N.V. Umamahesh** (2005), GIS Based Soil Erosion Modeling for Conservation Planning of Watersheds” ISH Journal of Hydraulic Engineering (Special Issue), Vol. 11, No. 3, October 2005
2. Srinivasa Prasad, A., **N.V. Umamahesh** and G.K. Viswanath (2006), *Optimal Irrigation Planning under Water Scarcity*, Journal of Irrigation and Drainage, ASCE, Vol. 132, No. 3, pp 228-237
3. Swain P.C. and **Umamahesh V Nanduri** (2009), “*Neuro-Fuzzy Inference System for Operation of a Multi-Purpose Reservoir*”, Hydroinformatics in Hydrology, Hydrogeology and Water Resources, IAHS Publication No. 331, pp 91-97

4. Chandramouli, S and **Umamahesh V Nanduri** (2011), “*Comparison of Stochastic and Fuzzy Dynamic Programming Models for the Operation of a Multipurpose Reservoir*”, *Water and Environment Journal*, 25, pp 547-554
5. Babel, M.S., N.D. Chien, M. R. Akter Mullick, and **Umamahesh V Nanduri** (2012), “*Operation of a Hydropower System considering Environmental Flow Requirements – A Case Study in La Nga River Basin, Vietnam*”, *Journal of Hydro-environment Research* 6(1), pp 63-73
6. Srinivasa Prasad, A., **N.V. Umamahesh** and G.K. Viswanath (2011), “*Optimal Irrigation Planning Model for an Existing Storage Based Irrigation System in India*”, *Irrigation Drainage System* 25(1), pp 19-38
7. Srinivasa Prasad, A., **N V Umamahesh** and G K Viswanath (2013), “*Short-Term Real-Time Reservoir Operation for Irrigation*”, *Journal of Water Resources Planning and Management, ASCE*, 139(2), pp 149-158
8. Prasad V K S V Gottipati and **Umamahesh V Nanduri** (2014) ‘*Equity in water supply in intermittent water distribution networks*’, *Water and Environmental Journal*, 28, pp 509-515
9. Chandra Sekhar Matli and **N V Umamahesh**, “*Modelling Pollutants in Krishna River using Adaptive Neuro-Fuzzy Inference Systems*”, *Journal of Institute of Engineers (India) Series A*, Accepted for publication, Published online on 19.05.2014 (DOI: 10.1007/s40030-14-0064-0), Springer
10. Agilan V, **N V Umamahesh** (2015), 'Detection and attribution of non-stationarity in intensity and frequency of daily and 4-h extreme rainfall of Hyderabad, India', *Journal of Hydrology*, 530, pp 677-697
11. Agilan V, **N V Umamahesh** (2016), 'Modelling nonlinear trend for developing non-stationary rainfall intensity–duration–frequency curve', *International Journal of Climatology*, doi 10.1002-joc.4774
12. Agilan, V., *Umamahesh, N.V. Is the covariate based non-stationary rainfall IDF curve capable of encompassing future rainfall changes?. J. Hydrol. (2016), <http://dx.doi.org/10.1016/j.jhydrol.2016.08.052>*

Summary of Research Output:

- Publications: 25 papers in journals and 50 papers in conferences
- PhD Guidance: Completed – 6; Ongoing – 7
- M.Tech Guidance: 70
- Organised 5 short term courses/ workshops & 1 International Conference

Major Projects Undertaken/ Ongoing:

1. Integrated Urban Flood Management in India: Technology Driven Solutions (Ongoing), sponsored by Information Technology Research Academy (ITRA), The Department of Electronics & Information Technology, Ministry of Communication and Information Technology, Government of India, sanctioned in November 2013. Duration of the project – 3 years. Sanctioned amount – Rs. 67 lakhs
2. Developing Suitable Pedagogical Methods for various classes, Intellectual Calibres and Research in E-learning for Engineering Hydrology, sponsored by MHRD-NMEICT (Co-developer: Mr. V N Kameswara Rao) – Pilot Phase completed in March, 2011. Main phase in ongoing and likely to be completed by March, 2016.
3. Warangal Watershed Development Project (2000-2004) sponsored by Ministry of Rural Development, Government of India through District Water Management Agency, Warangal District – Implemented watershed development activities in six villages of Warangal District. As part of the project, several soil and water conservation works worth about Rs. 30 millions were implemented in the villages through public participation.

Awards

- Jalamitra - Awarded by the Govt. of AP in 2003 for successful implementation of Watershed Development Project in Warangal District
- Best Paper - Awarded for the paper presented at 2nd International R&D Session of CBIP (1995)

- G M Nawathe Award - Awarded for the paper presented at Hydro 2004, conference organised by Indian Society for Hydraulics