



**One day Virtual Hands-On Training
Programme on
Groundwater Flow Modelling Using Visual
MODFLOW**



04th December 2020

**Organized by
Department of Environmental and Water
Resources Engineering
School of Civil Engineering
VIT
Vellore – 632014,
Tamil Nadu, India**

ABOUT VIT

Vellore Institute of Technology (VIT) was founded in 1984 as Vellore Engineering College by the Chancellor Dr. G.Viswanathan. VIT attracts students from all the 29 states of India and more than 41 different countries because of its academic excellence. Govt. of India recognized VIT as Institute of Eminence (IoE). The credentials of VIT in academics and research, has placed VIT in the 13th position among the engineering institutions and VIT Business School has placed 17th position among the business schools in India by NIRF, Govt. of India Ranking. The world ranking body namely the QS has given 4 STAR rating to VIT, with that VIT becomes the first institution in India to have the 4 STAR rating. In addition to this, the consortium of industries, FICCI has adjudged VIT as the “Excellence in Faculty”. VIT has the record of publishing a maximum number of SCOPUS Indexed Research Journal papers in 2016, among Indian Universities, overtaking all the premier institutions. VIT has also completed 3 cycles of NAAC accreditation and has been rated as “A” grade institution. In addition, VIT also has obtained for the coveted ABET accreditation by the US agency. VIT has introduced many innovations in academic processes which adds value to every student - FFCS (Fully Flexible Credit System), PBL (Project Based Learning) for better learning, fully digitized academic portals that assist students in equipping themselves for 2020 market-place, Hack-a-thons/Make-a-thons as part of curriculum exercise which kindles the interest and the curiosity of students, which moulds them to be better problem solvers, the 8th module in every subject being handled by industry experts, making the students contextualize the concepts they study in the classroom, are few of the innovations that VIT has introduced.

ABOUT SCE

The School of Civil Engineering (SCE) is a part of VIT since its inception. The School has grown tremendously over years and is now recognized as one of the major engineering schools in VIT. The School has 46 faculty members from various reputed institutes such as IITs, IISc etc. Besides high-quality teaching and instruction at both UG and PG levels, the faculty members of the school are actively involved in executing a number of R&D and consultancy projects from government agencies including DST, ISRO, BRNS and also from many reputed industries.

ABOUT THE PROGRAMME

Groundwater withdrawal has been increased to a greater extent due to increase of population industrialization and agricultural practices. Moreover, disposal of various industrial effluents in water bodies, solid wastes in landfills has results in generation of leachate which percolates and reaches the groundwater table and get transported along with the direction of groundwater flow. Therefore, the use of groundwater flow models is prevalent in the field of environmental hydrogeology to investigate a wide variety of hydro-geologic conditions and groundwater models have been applied to predict the fate and transport of contaminants for risk evaluation purposes.

As many of the groundwater mathematical models are very complex to solve, we often resort to use of computer simulation models. Visual MODFLOW is one of the widely used groundwater modelling software for modelling groundwater flow and contaminant transport through aquifer system. This two days training program will demonstrate researchers/teachers the capabilities and applications of the software for solving simple and complex groundwater flow problems. The training program will meet the expectations of the intended users.

TOPICS TO BE COVERED

The course will cover the following:

- Principles of MODFLOW and latest developments, including new packages and MODFLOW-USG
- Principles of particle tracking for well head protection and capture zone analysis.
- Water balance concepts and applications using Zone Budget.
- Principles of contaminant transport and groundwater transport modelling for risk assessment and natural attenuation.
- Groundwater model calibration using manual and automated methods such as PEST.
- Visualization of model input parameters and simulation results in 3D.
- Practical hands-on computer applications of models including mine dewatering, wellhead protection, capture zone analysis for remediation systems, impervious barriers, funnel and gate systems, etc

TARGET GROUP INCLUDES

- Faculty members from academic institutions
- Ph. D / M.S. Research scholars / Students
- Scientists and Industrialist

REGISTRATION FEE Rs. 250 – Excluding GST -
(Students/Research Scholars/
Academicians/Scientist/Industrialist/Govt/non-Govt
Employees)

Registration charges include entry to online lectures, course material (soft copy) and certificate (soft copy). The number of participants is **limited to 50** based on first come first serve basis.

MODE : The programme will be conducted through Microsoft Teams and the link will be provided after the registration.

DATE & TIME

04th December 2020 9.00 AM - 5.00 PM

CONVENOR

Dr. S. Shanthakumar, Dean, SCE

RESOURCE PERSONS & COORDINATORS

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REGISTRATION FORM

Full Name: _____

Designation: _____

Department: _____

Organization: _____

Address: _____

Mobile number: _____

Email ID: _____

Registration category:

Students /Research Scholars

Academicians/Private/Govt.

Payment details:

Online Transaction No _____

Bank: _____

Amount: _____

Date: _____

Signature of the Participant:

To register for the programme please send the above details along with online transaction number through email to the coordinators on or before 30th November 2020. Payment should be made through online only using the link below.

<https://events.vit.ac.in/>