

## ORGANISING COMMITTEE

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### QR Code for Registration



## Online Faculty Development Programme on SHALLOW AND DEEP FOUNDATIONS

(March 18- 31, 2021)

under AQIS

(Second Programme)

### Sponsored by



All India Council for Technical Education  
New Delhi

### Organized by



Andhra University

Department of Civil Engineering  
College of Engineering (Autonomous)  
Andhra University, Visakhapatnam – 530 003  
Andhra Pradesh., India

## **FACULTY DEVELOPMENT PROGRAMME (FDP)**

Two-week Faculty Development Programme (FDP) on “Shallow and Deep Foundations” under the AICTE Quality Improvement Scheme (AQIS) is sanctioned to the Department of Civil Engineering, Andhra University College of Engineering, Visakhapatnam. In view of the prevailing COVID-19 Pandemic Situation, AICTE has directed for organizing two FDPs on the sanctioned topic for facilitating and benefiting the participants across the country. The first FDP was successfully organized during January 25- February 6, 2021. The second FDP on the topic of “Shallow and Deep Foundations” is being organized during March 18-31, 2021.

## **COLLEGE OF ENGINEERING, ANDHRA UNIVERSITY**

Andhra University is a premier institution of higher learning and well known world over for its academic and research contributions. It has sprawling campus in 422 acres and is in the heart of Visakhapatnam city. Andhra University College of Engineering is established in the year 1955 with four departments and has grown into 15 departments. It offers 17 UG and 35 PG programmes in various disciplines of Engineering. The institute is widely recognised for its quality education, research and consultancy services. The institute is accredited by NAAC and NBA. It has been rated at first position among the state-owned technical institutions in the country (Star News). Andhra University College of engineering is 5th ranked in Top 70 Public State Universities in India 2020 as per Outlook magazine survey. In the NIRF Rankings of 2020, Andhra University is ranked 16 in the Universities category while Andhra University college of Engineering is ranked at 69.

## **DETAILS OF FDP**

The faculty development programme is intended to refresh the knowledge of academicians, research scholars and practicing engineers on shallow and deep foundations and to expose them to the recent developments in foundation engineering particularly suiting the weak foundation soils and deep foundations. The topics for the programme are chosen so as to provide complete coverage of the topics of shallow and deep foundations with emphasis on importance of subsoil explorations with proper field testing. The lectures of PDF also include case studies on foundations and foundation failures. The topics of the workshop are given below.

### **Topics:**

- ❖ Types of shallow and Deep foundations; Geotechnical Investigation for foundations
- ❖ Design Criteria of foundations, Concepts of safe and allowable bearing capacities; Loads for Foundation Design
- ❖ Bearing Capacity theories
- ❖ Bearing capacity of Footings in sloping ground and layered soils
- ❖ Allowable Bearing Capacity from Field Tests
- ❖ Settlement Analysis of footings in clay and sand, Permissible settlements

- ❖ Piled Raft Foundations
- ❖ Proportioning of Combined and Strap footings, Raft Foundations
- ❖ Load capacity of Piles, effect of negative skin friction
- ❖ Tests on Piles: Static and Dynamic Load tests, Pile Integrity Tests
- ❖ Pile Groups: Efficiency, Load capacity and settlement
- ❖ Laterally Loaded piles
- ❖ Under Reamed and Fin Piles
- ❖ Lateral load capacity of FRP cased Piles
- ❖ Well foundation: Design of components and lateral stability analysis
- ❖ Problems in sinking of well: Preventive and Remedial methods
- ❖ Foundations in Expansive soils – Challenges and Geotechnical Solutions
- ❖ Foundation Design in Rocks and rock material
- ❖ Case Studies on Shallow and Deep Foundations
- ❖ Ground Improvement in weak subsoil for foundations
- ❖ Geosynthetics and their application in Bearing capacity improvement of soils

**Resource Persons:** The Resource persons for the faculty development programme are drawn from premier institutions with rich experience in academics and professional practice. The topics of lectures of FDP will be covered by the following resource persons.

1. Prof. M.R. Madhav, Visiting Professor, IIT Hyderabad & JNTU, Hyderabad
2. Prof. G.V. Rao, Emeritus Professor, IIT Gandhinagar
3. Prof. K.S. Rao, IIT Delhi
4. Prof. G.L. Sivakumar Babu, IISc., Bangalore
5. Prof. B.V.S. Viswanadham, IIT Bombay, Mumbai
6. Prof. C.N.V. Satyanarayana Reddy, Andhra University, Visakhapatnam
7. Prof. K. S. Beena, CUSAT, Kochi
8. Prof. V Ramana Murthy, NIT Warangal
9. Prof. K. Muthukumar, NIT Trichy
10. Dr. Anil Joseph, Geotechnicals., Kochi
11. Sri. Ravikiran Vaidya, Geo Dynamics, Vadodara

## **DATES AND TIMINGS**

The FDP will be organized from March 18 -31, 2021 in online mode through Google Meet Platform. 2 lectures per day will be organized in the Programme with lecture timings as 9 a.m to 10.30 a.m and 4p.m to 5.30p.m. At the end of the training programme, a test will be conducted as stipulated by the AICTE to the participants and the successful participants will be given the certificates.

## **REGISTRATION**

There is no registration fee for attending the programme. However, pre-registration is mandatory for attending the FDP. **Registration for attending FDP shall be done on or before 16<sup>th</sup> March 2021** using the link given below or QR code provided in the Brochure.

**Link for Registration:** <https://forms.gle/egGnoBjY2Ln1UK8K7>