

## KKR & KSR INSTITUTE OF TECHNOLOGY & SCIENCES (Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada) Accredited By NAAC With 'A' Grade Department Of CIVIL Engineering

### NAME OF THE WORKSHOP:

# A TWO WEEK WORKSHOP ON ETABS (EXTENDED THREE DIMENSIONAL ANALYSIS OF BUILDING STRUCTURES)

DATE: 27<sup>th</sup> JAN-8<sup>th</sup> FEB

PLACE: KKR & KSR INSTITUTE OF TECHNOLOGY AND SCIENCES

**ORGANIZED BY :** DEPARTMENT OF CIVIL ENGINEERING IN ASSOCIATION WITHAPSSDC

PARTICIPANTS: III YEAR CIVIL ENGINEERING STUDENTS

TRAINERS: Ms.A.RAMYA

Ms.G.RAJA RAJESWARI

Ms.P.PRIYANKA

#### **DESCRIPTION:**

ETABS is an analysis software used for designing of buildings. The use of the software is similar to other commonly used software such as STAAD PRO, but it is mainly used for the design of high rise buildings due to its accuracy in calculations. The software was introduced by Ashraf Habibullah.

#### **ADVANTAGES OF ETABS:**

- \* 3D model generation using plans and elevations
- \* Automated templates for typical structures
- \* Easy editing like move , merge , mirror and replicate
- \* Projects with multiple towers
- \* Increases productivity
- \* Modeling can be done with various standard codes

**Day 1:** On the first day of the workshop the trainers introduced about the software and its advantages and disadvantages. And demonstrated the applications where the software is used mostly. A power point presentation was given by the trainers. In that power point presentation the trainers explained about how analysis of building was done for different loads



## KKR & KSR INSTITUTE OF TECHNOLOGY & SCIENCES (Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada) Accredited By NAAC With 'A' Grade Department Of CIVIL Engineering

**Day 2:** On second day the trainers started the class with basic commands like formation of grids for a given building. Placing of beams and columns for a building using commands like define , draw Etc.Material properties and sectional properties of components of building were defined

**Day3**: On third day the trainers illustrated designing of slabs using draw command after defining properties. The different types of loads like dead load and live load were defined and they were assigned to slabs using assign command. Theperiphery wall loads were assigned to the building by selecting the outer beams

**Day 4**: On fourth day the trainers demonstrated how to assign loads. How analysis of total building was done. By this analysis students learned the limitations of the building. Based on the type of load given to the building shear force and bending moment values were displayed on the elevation taken

**Day 5 :** On fifth day the trainers explained about how to assign different types of loads like Wind load, Seismic Load to the building.Explained how to assign the diaphragm to the slab using the view and assign commands. And explainedhow to define mass source to the building. Now the whole building is checked whether all the structural members and materials are assigned. The trainers explained how to assign shear wall so that to avoid lateral deflection. And explained how to assign piers to the shear walls

**Day 6** : On sixth day the trainers had given problems on different load actions .And the building is analyzed for various load conditions