



MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

UGC Autonomous Institution, Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad.

Accredited 2nd time by NAAC with 'A' Grade,

Maisammaguda (H), Medchal-Malkajgiri District, Secunderabad,

Telangana State – 500100, www.mrec.ac.in

Department of Civil Engineering


Ref /MREC/CE/VCA/2018/03

Date: 6.12.2018

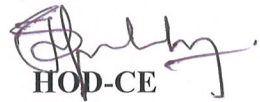
Circular

The department of Civil Engineering is organizing Value added course on “Traning program on ETABS” from 12th to 15th December 2018. The resource person for the program is Dr P.Jayabalan and Dr.Srinivas Reddy.

All the students must register for the training by consulting the coordinator Mr.B.Vamshi Krishna, Assistant Professor, Civil Department. The detailed schedule will be displayed on the department notice board.


PRINCIPAL
Malla Reddy Engineering College
(Autonomous)
Maisammaguda, Dhulapally,
(Post Via Kompally), Sec'bad-500 100




HOD-CE

Advisory Committee:

Chief Patrons: Sri. Ch. Malla Reddy,

Founder Chairman

Malla Reddy Group of Institutions

Patrons: Sri.Ch. Mahender Reddy

Secretary, MRGI

Dr.Ch.Bhadra Reddy

President, MRGI

Co-Patrons: Dr. Sudhakar Reddy

Principal, MREC (A)

Convener: Dr.J. Selwyn Babu

HOD CIVIL

Coordinator Mr.B.Vamshi Krishna

Assistant Professor, CIVIL



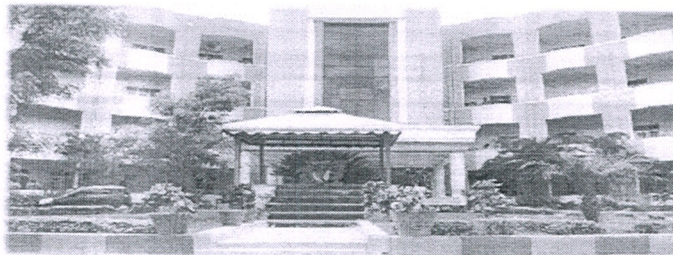
*A Six Day Skill development Course
(Value added Course)*

On

“Training Program on ETABS”

(12th to 15th December, 2018)

In Association with



Organized by

**Department of Civil Engineering
MALLA REDDY ENGINEERING COLLEGE**
(AUTONOMOUS) MAIN CAMPUS

**An UGC Autonomous Institution, Approved by
AICTE & Affiliated to JNTUH-Hyderabad
Reaccredited by NAAC with ‘A’ Grade (II Cycle)**

**Maisammaguda(H), Gundlapochampally (V),
Medchal (M), Medchal - Malkajgiri District
Telangana - 500100, India.**



Registration Form:

*A Six Day Skill development Course
(Value added Course)*

On

“Training Program on ETABS”

(12th to 15th December, 2018)

1.Name.....

2.Roll No.....

3.Department.....

4.Mailing address.....

5.Mobile.....

6.Email.....

Signature of the Applicant

Date:

Place:

Reddy Engineering College

(Autonomous) This is to certify that

Mr/Ms.....of.....

**Is sponsored to attend the Value Added
Course**

Signature of the Institution with Seal

Date:

Place:

About the Institution

Malla Reddy Engineering College (Autonomous) is one of the reputed engineering colleges in Hyderabad, Telangana. **MREC (A)** is part of Malla Reddy Group of Institutions (MRGI), founded by Sri. Ch.Malla Reddy. The college is situated in a serene lush green environment in Maisammaguda, Gundlapochampally, Medchal(M), Mechal-Malkajgiri District, Telangana-500100.

The college was established in 2002 and is an autonomous institution approved by UGC and affiliated to JNTUH. The college is re-accredited by NAAC with 'A' Grade (II Cycle) and was conferred autonomous status by JNTUH in 2011 and by UGC in 2014 for a period of 6 years. Our eligible UG and PG programs received NBA accreditation and some of them received reaccreditation too. Along with programs in various streams of Engineering & Technology and Management. It boasts of world-class infrastructure and well-equipped laboratories in all departments and is skillfully and smartly guided by Dr. Sudhakar Reddy, Principal, MREC (A) who have a rich teaching and industrial experience.

About the Department:

The Department of Civil Engineering at MREC has been producing high quality technical manpower needed by industry, R&D organizations, and academic institutions since 2004 with an Intake of 60. The intake has been increased to 120 in the year 2009 and 180 in the year 2014. The Department started offering M.Tech with Structural Engineering specialization in 2010 with an intake of 18,

two more courses at P.G level- geotechnical engineering and transportation engineering are being offered from the academic year 2013-2014 with an intake of 24 each. The department was accredited by NBA in the year 2014.

Overview of the Programme:

The primary responsibility of student is not only to study towards a higher vision but also create a strong sense of bonding between the institution and the students to nurture a stress-free holistic environment. To enhance the quality of life for the students enabling them to introspect and learn techniques that imbibe ethics & morals in their teaching and help pre-prepare students for active and successful participation in a modern society, producing individuals of high character, probity and honor.

Proposed VAC is helping to imbibe the skills and competencies required to achieve goals directed by values, to maintain and enhance faculty effectiveness by inculcating dynamism and leadership qualities and to develop commitment and ethical approach towards work, and instill a sense of responsibility towards the institution. Also to enhance communication and soft skills, by introducing innovative teaching methodologies and developing an inter-personal connection with students. To achieve this goal Art of Living foundation is conducting this workshop through ATAL.

Objectives of the Programme:

- To imbibe the skills and competencies required to achieve goals directed by values.
- To maintain and enhance student effectiveness by inculcating dynamism and leadership qualities.
- To develop commitment and ethical approach towards work, and instill a sense of responsibility towards the companies.
- To enhance communication and soft skills of the students by introducing innovative methodologies and developing an interpersonal connection.

Topics to be covered:

- ❖ Modeling on structural systems.
- ❖ Loading, analysis and design

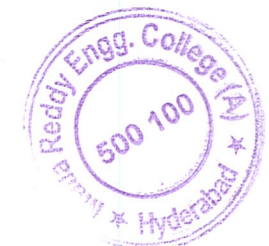
Test and Certificate:

A test will be conducted at the end of the program and the certificates shall be issued to those participants

Outcome of the Program:

After completing the Course, the student will itself feel the difference in terms of:

- Enhanced Potential, Fair-mindedness
- Empathetic behavior & Optimistic attitude
- Dynamism, Commitment and Confidence
- Ethical Leadership & Risk taking ability





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SYLLABUS

“TRAINING PROGRAM ON E-TABS SOFTWARE”

Session - I Brief Introduction and concepts of analysis and design E T A B S: - Extended three dimensional analysis of Building System. Founded by a company called CSI CSI: Computers and Structures INC Initially the ETABS software was just a program and was developed by a group of people (Masters Students) in the year of 1975. Later an official copy of integrated analysis and design software was released in the year of 1985.

Case Study: - 1st Project worked out using ETABS was Burj Khalifa, ETABS was used to make the mathematical model of Burj Khalifa. (Total height 828m) The following are the products of CSI SAP 2000.

- CSI BRIDGE
- ETABS
- SAFE
- PERFORM - 3D
- CSICOL

• Structural analysis and design concepts More than to say structural analysis and design it could be called as an art, An art that has got a history as good as the origin of human beings on this earth. In due course of civilization for the progressive well being of mankind. One of the best examples for this art is the construction of pyramids of Egypt in the late 2000 years B.C. which is still a testimony for the modern day architects and designers. Structural analysis and design in today's world 1. Load acting on the structures is ultimately transferred to ground. 2. In the process of load transferring, various components of the structures are subjected to internal stress and strain. $\text{Stress} = \frac{\text{LOAD (P)}}{\text{AREA (A)}}$ & $\text{strain} = \frac{\text{CHANGE IN LENGTH } (\Delta L)}{\text{ORIGINAL LENGTH (L)}}$ 3. For example load acting on a building will be transferred to ground in the following path-way. Slabs > Beams > Column > Footing > Ground Definitions Structural Analysis: - Applying the loads on a structure and assessing the internal stress in the components of a structure is known as structural analysis e.g:- SFD & BMD Structural Design: - Based on the analysis results finding the suitable size or cross section of a particular type of structural component is known as design of structures . e.g:- Depth and amount of steel Type of Structures



1. Masonry 2. R.C.C 3. Steel Or combination of all the above and is often called as Composite Structures. Types of structural analysis wise 1. Deterministic Structures: - Structures that could be analysed by using static equilibrium equations are known as deterministic structures. The following are the static equilibrium equation:- $\sum m = 0$ • $\sum H = 0$ • $\sum V = 0$ • e.g:- Consider Simply supported beam with UDL No., of unknowns is two V_A and V_B No., of SEE is 3 Therefore we can solve it manually and Hence it is a deterministic structure. 2 2. Indeterminate Structures:- Structures that cannot be analysed with the help of Static equilibrium equation alone is known as indeterminate structure s. (This type of indeterminate structures are often analysed by matrix method or FEM modulation) e.g:- No., of unknowns is 4 (V_A , V_B , V_C & V_D) No., of SEE is 3 ($\sum m = 0$, $\sum H = 0$, $\sum V = 0$) So it cannot be solved with the simple manual calculation, it needs complex method of analysis like Matrix method of structural analysis or we can also solve this in Staad-Pro or ETABS, and hence structure like this are called as Indeterminate structures. Types of Supports:- 1. Simple Support 2. Roller Support 3. Hinged or pinned Support 4. Fixed Support Types of Beams:- 1. Cantilever beam 2. Simply supported beam 3 3. Overhang beam 4. Propped cantilever 5. Continuous B

Basic Analysis Terms & Examples Shear Force: The summation of all the vertical forces either to the right or left side of a beam is called shear force. And the representation of this shear force is known as a shear force diagram (SFD). Bending moment: The summation of all the moments either to the left or right side of the beam is known as a bending moments. And the diagram which represents these moments is known as bending moment diagram (BMD)

Types of Co-ordinate systems:- 1. Global Co-ordinate system: - The Co-ordinate system for entire structure is known as Global co-ordinate system.

How to start a software ETA BS 2015 1. Double click on the software icon on the desktop 2. Waite 3. File > New Model or Short cut is (Ctrl + N). 4. Use built-in settings .

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Telangana State – 500100, www.mrec.ac.in

VAC ENROLLED LIST
TRAINING PROGRAM ON ETABS (12th to 15th December, 2018)

Sl.No	Roll No	Name
1	17J41D2001	A M SATYA SRAVYA
2	17J41D2002	BACHUWAR PRANEETH
3	17J41D2003	BALAM SHRAVANI
4	17J41D2004	BINIMOL BABU
5	17J41D2005	C E JESSIE MONICA
6	17J41D2006	DUTA RAJASHEKAR
7	17J41D2007	GARIDE RAKESH RAO
8	17J41D2008	GOPALDAS PRASHANTH
9	17J41D2009	GOPIDI ANUSHA
10	17J41D2010	KASA NAVIN KUMAR
11	17J41D2011	KATHAVATH RAJITHA
12	17J41D2012	KOTHAKONDA RAMESH
13	17J41D2013	KUCHANA SHIVA PRASAD
14	17J41D2014	M AFRIN
15	17J41D2015	MD TAQUIUDDIN
16	17J41D2016	MOHAMMAD ABDUL KAMRAN
17	17J41D2017	MOHD ABDUL GHANI
18	17J41D2018	MULKUTLA HARSHITHA
19	17J41D2019	PADAKANTI RAKESH
20	17J41D2020	PATHA USHASRI
21	17J41D2021	S N JAYA KUMAR
22	17J41D2022	SOMA KARTHIK
23	17J41D2023	VASARI NARESH
24	17J41D2024	YARRAMADA DIVYA


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Maisammaguda (H), Medchal-Malkajgiri District, Telangana State – 500100

DEPARTMENT OF CIVIL ENGINEERING
ACADEMIC YEAR: 2018-19
SUMMARY REPORT

Value Added course name: Training Program on ETABS

Value Added course Instructor: Dr. Srinivas Reddy

E-Tabs software automatically populates charts, graphs and reports in PowerPoint, Excel, Word and HTML. Their products and services are used in market research as research projects often involve reporting work. Automating charts, graphs and reports improves accuracy and prevents time and resources being wasted on data entry.



B.V.

Co-Ordinator

[Signature]
HOD

[Signature]
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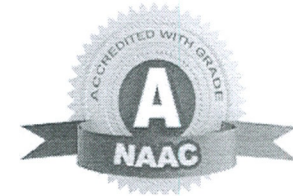


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CERTIFICATE OF COMPLETION

This is to certify that Mr./Ms. GARIDE RAKESH RAO bearing
Roll No. 17J41D2007 has successfully completed Certificate / Value Added
Course / Workshop in Training Program on ETABS conducted
by the Department of Civil Engineering from 12/12/2018 to 15/12/2018

13.2
COORDINATOR



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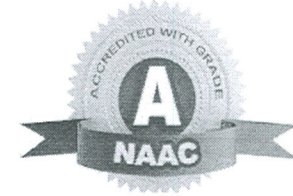


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CERTIFICATE OF COMPLETION

This is to certify that Mr./Ms. GOPALDAS PRASHANTH bearing
Roll No. 17J41D2008 has successfully completed Certificate / Value Added
Course / Workshop in Training Program on ETABS conducted
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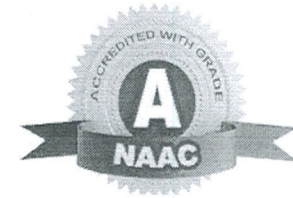


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CERTIFICATE OF COMPLETION

This is to certify that Mr./Ms. GOPIDI ANUSHA bearing
Roll No. 17J41D2009 has successfully completed Certificate / Value Added
Course / Workshop in Training Program on ETABS conducted
by the Department of Civil Engineering from 12/12/2018 to 15/12/2018

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Principal
Malla Reddy Engineering College
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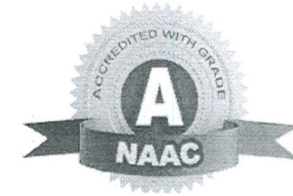


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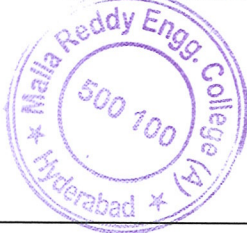
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CERTIFICATE OF COMPLETION

This is to certify that Mr./Ms. KASA NAVIN KUMAR bearing
Roll No. 17J41D2010 has successfully completed Certificate / Value Added
Course / Workshop in Training Program on ETABS conducted
by the Department of Civil Engineering from 12/12/2018 to 15/12/2018

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CERTIFICATE OF COMPLETION

This is to certify that Mr./Ms. KATHAVATH RAJITHA bearing
Roll No. 17J41D2011 has successfully completed Certificate / Value Added
Course / Workshop in Training Program on ETABS conducted
by the Department of Civil Engineering from 12/12/2018 to 15/12/2018

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