DEPARTMENT OF CIVIL ENGINEERING

Ref No: GRIET/CE/1C/G/23-24

28 November 2023

To

The Principal,

GRIET,

Hyderabad.

Subject: Value Added Course on **"Structural Health Monitoring (SHM) – Applications and Case Studies"**, Regd.

Sir,

With reference to above subject, we the Department of Civil Engineering introducing Value Added Course on "Structural Health Monitoring (SHM) – Applications and Case Studies" by Department of Civil Engineering for III-year B. Tech Civil Engineering Students. Certificates will be awarded to all students who clear both Internal and External examination. The examination pattern is 30 marks for Internal Examination and 70 marks for External Examination. Kindly provide the subject code for the proposed Value-Added Course. Timetable and syllabus are enclosed below.

Thanks & Regards

28.11.23

Dr. G V V Satyanarayana
Professor & HOD
Civil Engineering Dept.

PROFESSOR AND HEAD
Department of Civil Engineering
Gokaraju Rangaraju Institute of
Engineering and Technology
Bachupally, Kukatpally,
Hyderabad-500 090

Regulation : GR20
Course code : GR23V8004

Principal

Gokaraju Rangaraju Institute of Engineering and Technology

Department of Civil Engineering

Timetable for Value Added Course AY: 2023-24

w.e.f : 04th December to 21th December 2023				
Day	**09:00am – 11:45am**	**11:45am -12:25pm**	**12:25pm – 02:55pm**	**3:00pm-05:00pm**
Monday	Regular Classwork	LUNCH BREAK	Regular Classwork	**VAC-SHM**
Tuesday	Regular Classwork		Regular Classwork	**VAC-SHM**
Wednesday	Regular Classwork		Regular Classwork	**VAC-SHM**
Thursday	Regular Classwork		Regular Classwork	**VAC-SHM**
Friday	Regular Classwork		Regular Classwork	**VAC-SHM**
Saturday	Regular Classwork		Regular Classwork	**VAC-SHM**

Sub. Code	Sub. Short form	Subject	Speaker Name
	VAC-SHM	Structural Health Monitoring (SHM) – Applications and Case Studies	**Mr. Akula Prakash,** Assistant Professor, CE, GRIET. **Mrs. K. Hemalatha,** Assistant Professor, CE, GRIET.

HOD-CE 28/11/23

PROFESSOR AND HEAD
Department of Civil Engineering
Gokaraju Rangaraju Institute of
Engineering and Technology
Bachupally, Kukatpally,
Hyderabad-500 090

One Credit Course

Course Title : Structural Health Monitoring (SHM) – Applications and Case Studies

Total Number of Lecture Hours : 30

Course Content:

Introduction: Definition of SHM – Classification, Types and Components of SHM – Advantages and Benefits of SHM.

Sensing Technologies: Strain Measurement – Temperature Sensors – Fiber Optic Sensing Technology

Methodology: Sensors – Selection of Sensors – Installation and placement – Data acquisition – Communication – Processing and Analysis – Storage – Diagnostics and Prognostics – Retrieval of data.

Testing: Static Field Testing – Dynamic field testing (Introduction)

Remote Structural health monitoring: Remote Structural Health Monitoring - Importance and Advantages – Methodology – IoT applications in SHM – Application Machine leaning Techniques in SHM.

Targeted Audience :

1. B. Tech (Civil) III Year Students

Resource Persons

1. Mr. Akula Prakash, Assistant Professor, CE,GRIET.
2. Mrs. K. Hemalatha, Assistant Professor, CE,GRIET.

Gokaraju Rangaraju

Institute of Engineering and Technology

Gokaraju Rangaraju Institute of Engineering and Technology (GRIET) is established in 1997 by Dr. G Gangaraju as a self-financed institute under the aegis of Gokaraju Rangaraju Educational Society. GRIET is approved by AICTE, New Delhi, permanently affiliated to and autonomous under JNTUH, Hyderabad. GRIET is committed to quality education and is known for its innovative teaching practices.

The mission of GRIET is to achieve and impart quality education with an emphasis on practical skills and social relevance. Presently GRIET has 9 UG and 6 PG programs. The college is NBA accredited in CE, CSE, ECE, EEE, IT, and ME. CSBS, AI&ML, DS are new programs. The institute is accredited by NAAC with 'A++' grade.

Department of Civil Engineering

The Department of Civil Engineering is established in the year 2008, with an intake of 60 students. It is a fast-growing discipline in tune with the infrastructure growth.,

The department has master's program in Structural Engineering, established in the year 2014 with an intake of 18 students which is further increased to 30 students from the academic year 2017. The department has well equipped laboratories with an emphasis on practical skills and fundamentals. The Department has well experienced and talented faculty which includes nine doctorates.

Patrons

Dr. Jandhyala N. Murthy,
Director, GRIET

Dr. J. Praveen,
Principal, GRIET

Dr. K. V. S. Raju,
Senior Administrative officer, GRIET

Convenor

Dr. G V V Satyanarayana,
Professor & HOD, CE, GRIET

Coordinators

1. **Mr. Akula Prakash**
   Assistant Professor, CE, GRIET
2. **Ms. K. Hemalatha**
   Assistant Professor, CE, GRIET

Resource Persons

1. **Mr. Akula Prakash,**
   Assistant Professor, CE, GRIET
2. **Mr. A Vittalaiah,**
   Assistant Professor, CE, GRIET
3. **Ms. K. Hemalatha**
   Assistant Professor, CE, GRIET

Value Added Course

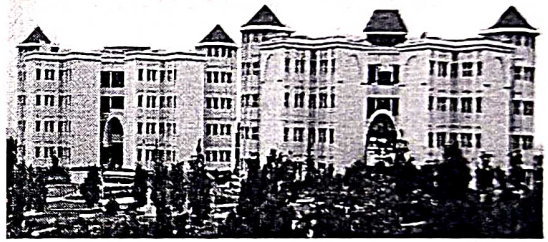
on

Structural Health Monitoring (SHM) – Applications and Case Studies

(4th December to 21st December 2023)

Organized by

Department of Civil Engineering



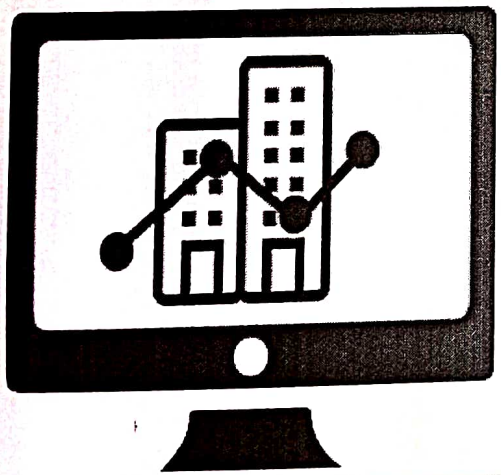
Gokaraju Rangaraju

Institute of Engineering and Technology
(Autonomous)
Bachupally, Hyderabad,
Telangana. India-500090
Office: 7207344440, 7207714441
www.griet.ac.in

About Value Added Course

Structural Health Monitoring (SHM) is a field that involves the use of various sensing technologies and data analysis techniques to assess and monitor the condition of structures over time. The primary goal of SHM is to detect and diagnose structural damage or deterioration in real-time, allowing for timely maintenance or intervention to ensure the safety, reliability, and longevity of structures.

Structural Health Monitoring is a multidisciplinary field that plays a crucial role in ensuring the safety and reliability of various structures through continuous monitoring, data analysis, and timely intervention.



Course Contents

Introduction:

Definition of SHM – Classification, Types and Components of SHM – Advantages and Benefits of SHM.

Sensing Technologies:

Strain Measurement – Temperature Sensors – Fiber Optic Sensing Technology

Methodology: Sensors – Selection of Sensors – Installation and placement – Data acquisition – Communication – Processing and Analysis – Storage – Diagnostics and Prognostics – Retrieval of data.

Testing:

Static Field Testing – Dynamic field testing (Introduction)

Remote Structural health monitoring:

Remote Structural Health Monitoring – Importance and Advantages – Methodology – IoT applications in SHM – Application Machine learning Techniques in SHM.

Registration

There is **NO** Registration Fee for the Value-Added Course on "Structural Health Monitoring (SHM) – Applications and Case Studies"

Expected Outcome:

This course will help students to learn the basic concepts of Structural Health Monitoring and extended the learning to projects in the practical implications in civil engineering domine.

Important Dates

Receipt of Registrations : **02-12-2023**

VAC Duration :

4th February to 21st December 2023

(Daily 3pm to 5pm)

Gokaraju Rangaraju Institute of Engineering & Technology

(Autonomous)

Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009

Value-Added Course on Structural Health Monitoring (SHM) – Applications and Case Studies

LIST OF REGISTERED PARTICIPANTS

S.No	Reg No	Student Name
1	21241A0101	ADAKULAPALLY ANIL
2	21241A0102	AGAM MALLIKARJUN
3	21241A0104	AMIRNENI YASASVI
4	21241A0105	ASALLA SAI KUMAR
5	21241A0106	VISHNU PULI
6	21241A0107	B SWATHI
7	21241A0111	BANOTH VAMSHI NAIK
8	21241A0112	BHIMAVARAPU HEMA SAI BHARADWAJA
9	21241A0114	CHENNAM LOHITHA RAMA NAGA
10	21241A0115	Ch. VENKATA SAI KARAN SRINIVASA RAO
11	21241A0116	CHITAKOILA SHRUTHI
12	21241A0117	DEEPATI VINAY KUMAR
13	21241A0119	DURGAM SURAJ
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15	21241A0121	GUDALA NITISH KUMAR
16	21241A0122	JADHAV SIKINDAR
17	21241A0124	JAVVADI SRIYANKA
18	21241A0125	JELLI JESSICA
19	21241A0126	K ANUSHA
20	21241A0127	K SREENU
21	21241A0128	KAMBLE SWAPNIL
22	21241A0129	KANDULA SHASHANK
23	21241A0130	KHAJA KAMALUDDIN
24	21241A0131	KODAKANDLA LOKESH
25	21241A0132	KUPPALA NAGA NARENDRA
26	21241A0133	KUTCHARLAPATI CHAITANYA
27	21241A0135	MANDA RAGHUVARDHAN
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54	22245A0115	RAJU MADHUKAR
55	22245A0116	SAMALA SRIJA SRI

Coordinators :- 1) 2) 21/12/2023

HOD :-

PROFESSOR AND HEAD
Department of Civil Engineering
Gokaraju Rangaraju Institute of
Engineering and Technology
Bachupally, Kukatpally,
Hyderabad-500 090

GRIET/6C/G/23-24

EVENT SUMMARY REPORT

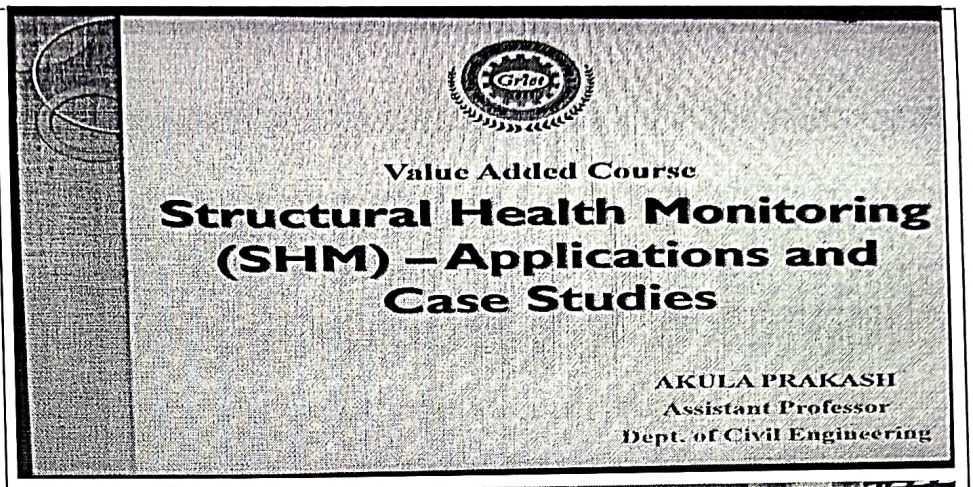
Griet /Other institutes/Organization Address:	**GRIET**		
Department	**Civil Engineering**	**Professional Body**	**Institutional Body**
Nature of the Event (Co & Extra Curricular Activities -Workshop / Seminar / Guest Lecture / Tech Talk/FDP/GD/ Training Program / Quiz / Any Prof. Body events/Presentation/ Conference/ Industry Visit)	**Value Added Course**		
Title / Theme of the Event	**Structural Health Monitoring (SHM) – Applications and Case Studies**		
Details of the Coordinator& Designation	**Convenor** Dr. G V V Satyanarayana, Professor & HOD, CE, GRIET **Coordinators** 1. Mr. Akula Prakash Assistant Professor, CE, GRIET 2. Ms. K. Hemalatha Assistant Professor, CE, GRIET		

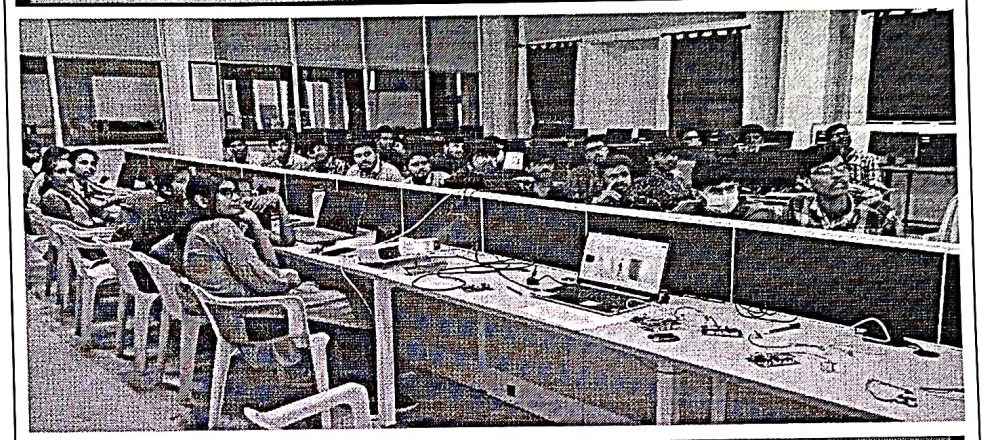
Event Dates/Days	From	To	No. of Days
	04/12/2023	21/12/2023	15

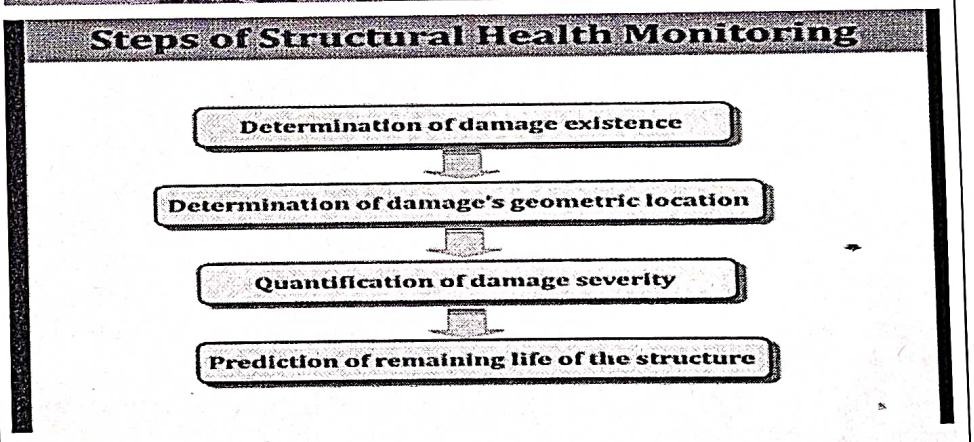
Details of the Speaker / Guest Organization Address:	1. Mr. Akula Prakash Assistant Professor, CE, GRIET 2. Ms. K. Hemalatha Assistant Professor, CE, GRIET				
Participants (Teaching Faculty / Non-Teaching Faculty / Students)	No. of Faculty	No. of UG students	No. of PG Students	No. of outside participants	Total Participants
	-	55	-	-	55
Faculty Names & Designation	-				

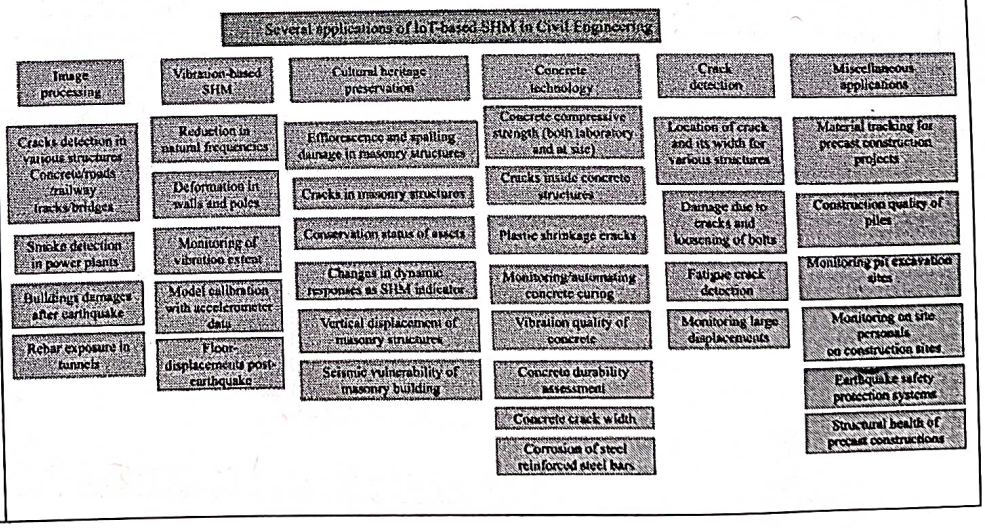
Summary of the Event	The Structural Health Monitoring (SHM) – Applications and Case Studies aimed to provide a comprehensive overview of the latest developments and applications in the field of structural health monitoring. It showcased various case studies, cutting-edge technologies, and practical applications to enhance the understanding and implementation of SHM across diverse industries. The course began with an introduction to the importance of Structural Health Monitoring in ensuring the safety, reliability, and longevity of structures. The need for real-time monitoring to detect and mitigate potential structural issues was emphasized, setting the stage for the in-depth discussions. It served as a valuable platform for knowledge exchange, fostering collaboration, and exploring the future of SHM. The insights gained from the course are expected to contribute significantly to the advancement of structural health monitoring practices across various industries.
IRG (in rupees) **Deposited A/C no A/C name and date and other details** **(enclose proof-A/C statement)**	NIL
Expenditure (in rupees) **(Enclose proof-bills)**	NIL
POs attained with this Event (number and description)	b. Analyse problem and interpret the data. c. Design a system component, or process to meet desired needs in Civil Engineering within realistic constraints. d. Identify, formulate, analyse, and interpret data to solve Civil Engineering problems. j. Work effectively as an individual or in a team and to function on multi-disciplinary context.

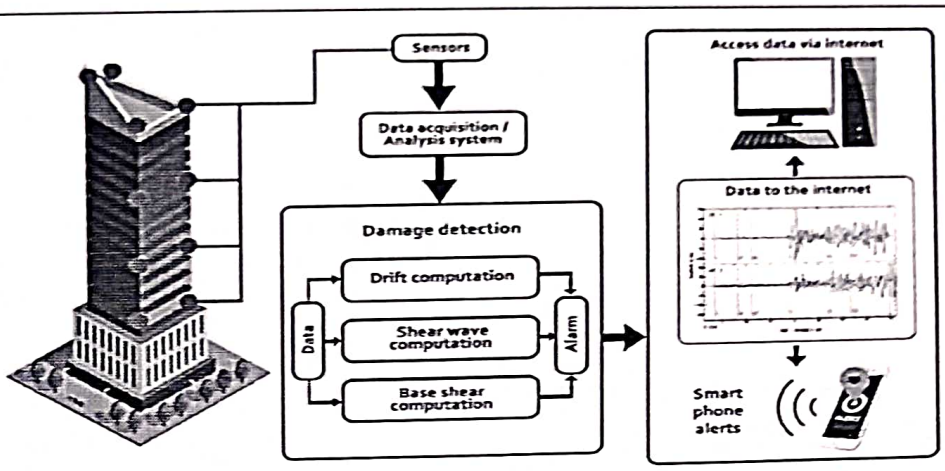
Photographs of the event
(Hard copy and Soft copy)

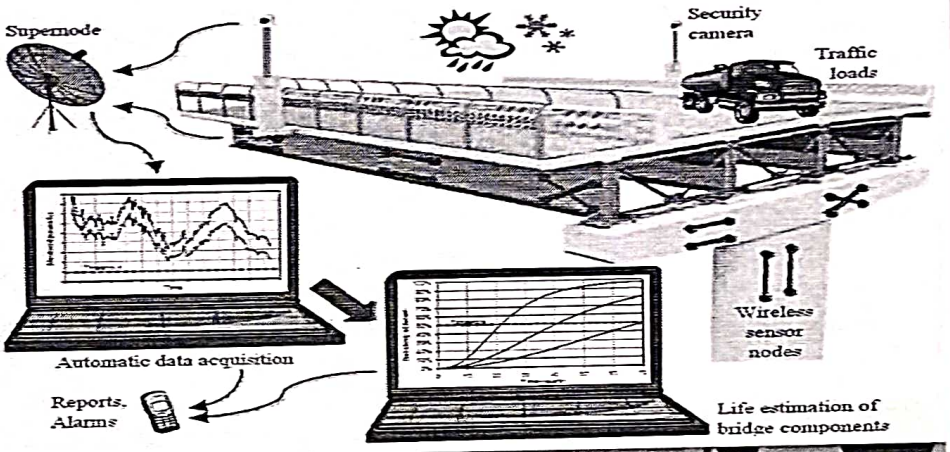


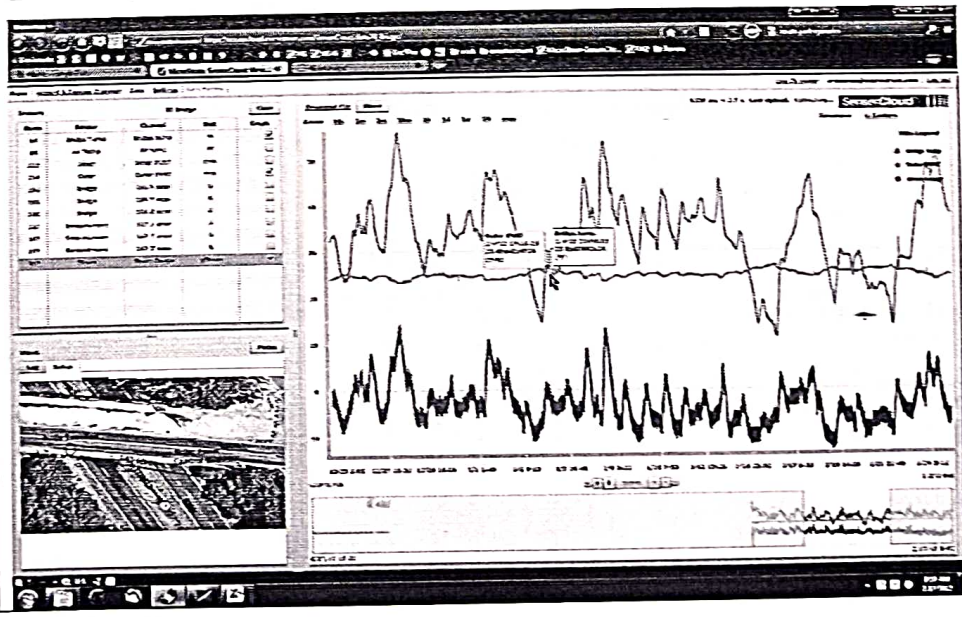


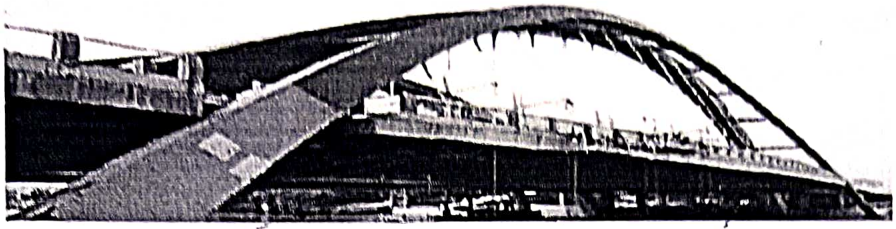




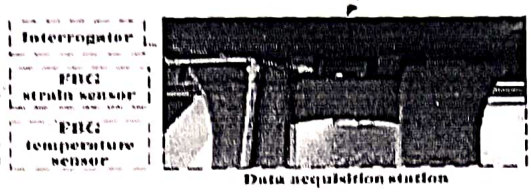

Sensors
Data acquisition / Analysis system
Damage detection
Drift computation
Shear wave computation
Base shear computation
Data
Alarm
Access data via internet
Data to the internet
Smart phone alerts


Supernode
Security camera
Traffic loads
Wireless sensor nodes
Automatic data acquisition
Reports, Alarms
Life estimation of bridge components

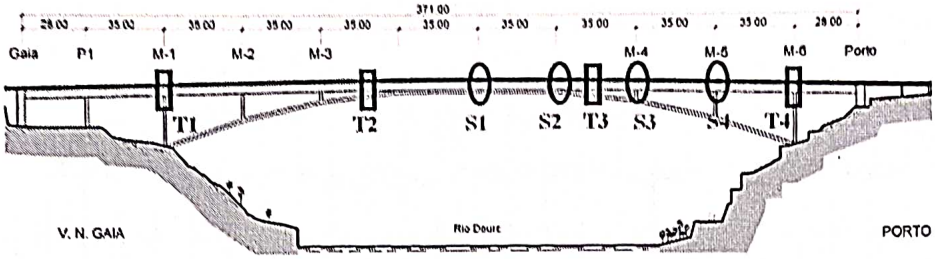


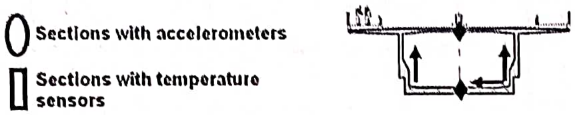


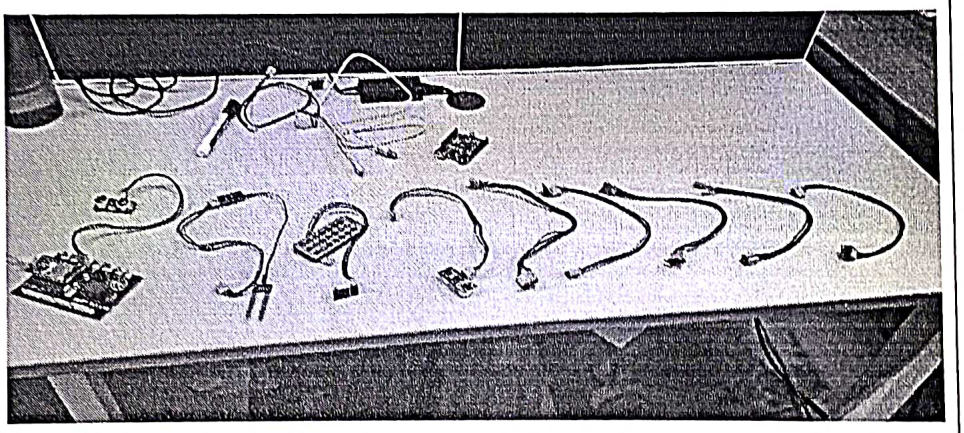
FBG sensor



Data acquisition station







Proofs: **1.Certificates copies** **2.Profile of Speaker** **3.PPT/Material as applicable. etc.,**	

Signature of Coordinators

1. Mr. Akula Prakash
   Assistant Professor, CE, GRIET.
2. Ms. K. Hemalatha
   Assistant Professor, CE, GRIET

Signature of Convenor
Dr. G V V Satyanarayana,
Professor & HOD, CE, GRIET

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(Autonomous)

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Value-Added Course on Structural Health Monitoring (SHM) – Applications and Case Studies

ATTENDANCE SHEETS

S. No	Roll No.	Name of the Student	04-12-2023 Monday Sign.	05-12-2023 Tuesday Sign.	06-12-2023 Wednesday Sign.	07-12-2023 Thursday Sign.	08-12-2023 Friday Sign.	11-12-2023 Monday Sign.	12-12-2023 Tuesday Sign.	13-12-2023 Wednesday Sign.
1	21241A0101	ADAKULAPALLY ANIL	P	P	A	P	P	A	P	P
2	21241A0102	AGAM MALLIKARJUN	A	P	A	P	P	A	P	P
3	21241A0104	AMIRNENI YASASVI	P	A	P	P	P	P	A	P
4	21241A0105	ASALLA SAI KUMAR	A	P	P	A	P	P	P	A
5	21241A0106	VISHNU PULI	P	A	A	P	P	P	P	P
6	21241A0107	B SWATHI	P	P	P	A	P	P	P	P
7	21241A0111	BANOTH VAMSHI NAIK	A	P	P	P	A	P	P	P
8	21241A0112	BHIMAVARAPU HEMA SAI BHARADWAJA	P	P	A	P	P	P	P	P
9	21241A0114	CHENNAM LOHITHA RAMA NAGA	P	A	P	P	P	A	P	P
10	21241A0115	Ch. VENKATA SAI KARAN SRINIVASA RAO	P	P	A	P	P	P	P	A
11	21241A0116	CHITAKOILA SHRUTHI	P	P	P	P	A	P	A	P
12	21241A0117	DEEPATI VINAY KUMAR	P	A	P	P	P	A	P	P
13	21241A0119	DURGAM SURAJ	A	P	P	A	P	P	P	P
14	21241A0120	GEEDIGINJALA DHANRAJ	P	P	A	P	P	P	A	P
15	21241A0121	GUDALA NITISH KUMAR	A	P	P	A	P	P	P	A
16	21241A0122	JADHAV SIKINDAR	P	A	P	P	A	P	P	R
17	21241A0124	JAVVADI SRIYANKA	P	P	A	P	P	A	P	P
18	21241A0125	JELLI JESSICA	A	P	P	P	A	P	P	P
19	21241A0126	K ANUSHA	P	A	P	A	P	P	P	P
20	21241A0127	K SREENU	P	P	A	P	P	P	A	P
21	21241A0128	KAMBLE SWAPNIL	A	P	P	P	A	P	P	P
22	21241A0129	KANDULA SHASHANK	P	A	P	P	P	A	P	P
23	21241A0130	KHAJA KAMALUDDIN	P	P	A	P	A	P	P	P
24	21241A0131	KODAKANDLA LOKESH	P	A	A	P	P	P	A	P
25	21241A0132	KUPPALA NAGA NARENDRA	A	P	P	A	A	P	P	P
26	21241A0133	KUTCHARLAPATI CHAITANYA	P	P	A	P	P	A	P	P
27	21241A0135	MANDA RAGHUVARDHAN	P	PA	P	P	P	P	A	P
28	21241A0136	MEGHARAJ YASHESHWAR	P	P	P	A	P	P	P	A

			04-12-2023	05-12-2023	06-12-2023	07-12-2023	08-12-2023	11-12-2023	12-12-2023	13-12-2023
			Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday
S. No	Roll No.	Name of the Student	Sign.	Sign.	Sign.	Sign.	Sign.	Sign.	Sign.	Sign.
29	21241A0137	NALUVALA GOUTHAM								
30	21241A0138	OLETI DHANA LAXMI VARMA								
31	21241A0139	ORSU KARTHIK								
32	21241A0142	PENTAM ROHITH								
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47	22245A0108	JANGAM RAJESHWARI								
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49	22245A0110	MARAPELLY ASHRITHA								
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51	22245A0112	NANDI SRINIVASA SAI MURARI								
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53	22245A0114	ORSU AJAYKUMAR								
54	22245A0115	RAJU MADHUKAR								
55	22245A0116	SAMALA SRIJA SRI								

Coordinators 1) 13/12/2023 2) 13/12/2023

Gokaraju Rangaraju Institute of Engineering & Technology

(Autonomous)

Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009

Value-Added Course on Structural Health Monitoring (SHM) – Applications and Case Studies

ATTENDANCE SHEETS

S. No	Roll No.	Name of the Student	14-12-2023 Thursday Sign.	15-12-2023 Friday Sign.	16-12-2023 Saturday Sign.	18-12-2023 Monday Sign.	19-12-2023 Tuesday Sign.	20-12-2023 Wednesday Sign.	21-12-2023 Thursday Sign.
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14	21241A0120	GEEDIGINJALA DHANRAJ							
15	21241A0121	GUDALA NITISH KUMAR							
16	21241A0122	JADHAV SIKINDAR							
17	21241A0124	JAVVADI SRIYANKA							
18	21241A0125	JELLI JESSICA							
19	21241A0126	K ANUSHA							
20	21241A0127	K SREENU							
21	21241A0128	KAMBLE SWAPNIL							
22	21241A0129	KANDULA SHASHANK							
23	21241A0130	KHAJA KAMALUDDIN							
24	21241A0131	KODAKANDLA LOKESH							
25	21241A0132	KUPPALA NAGA NARENDRA							
26	21241A0133	KUTCHARLAPATI CHAITANYA							
27	21241A0135	MANDA RAGHUVARDHAN							
28	21241A0136	MEGHARAJ YASHESHWAR							

			14-12-2023	15-12-2023	16-12-2023	18-12-2023	19-12-2023	20-12-2023	21-12-2023
			Thursday	Friday	Saturday	Monday	Tuesday	Wednesday	Thursday
S. No	Roll No.	Name of the Student	Sign.	Sign.	Sign.	Sign.	Sign.	Sign.	Sign.
29	21241A0137	NALUVALA GOUTHAM							
30	21241A0138	OLETI DHANA LAXMI VARMA							
31	21241A0139	ORSU KARTHIK							
32	21241A0142	PENTAM ROHITH							
33	21241A0143	RAMAVATH NAGESH							
34	21241A0144	RATHOD SANJEEV							
35	21241A0145	RAVURI AKASH							
36	21241A0147	SAMA SHASHIDAR REDDY							
37	21241A0149	SREE CHARAN KANNAM							
38	21241A0151	TALARI SRIKEERTHAN							
39	21241A0153	VANKUDOTH USHA							
40	22245A0101	AKULA RAKSHITH							
41	22245A0102	ANAGANI SUSHMA							
42	22245A0103	AFSANA							
43	22245A0104	DEEKONDA AKSHITHA							
44	22245A0105	GANAPURAM SAI BHANVITHA							
45	22245A0106	GURRAM ABHISHEK							
46	22245A0107	J RUSHIKESH							
47	22245A0108	JANGAM RAJESHWARI							
48	22245A0109	JANGAPELLI VASU							
49	22245A0110	MARAPELLY ASHRITHA							
50	22245A0111	NEELI BHAVESH							
51	22245A0112	NANDI SRINIVASA SAI MURARI							
52	22245A0113	VIGNAN NANDIGAM							
53	22245A0114	ORSU AJAYKUMAR							
54	22245A0115	RAJU MADHUKAR							
55	22245A0116	SAMALA SRIJA SRI							

Coordinators : 1) 21/12/2023 2) 21/12/2023

Gokaraju Rangaraju Institute of Engineering & Technology
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Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009

Value-Added Course on Structural Health Monitoring (SHM) – Applications and Case Studies

INTERNAL ASSESSMENT QUESTION PAPER

1. Which of the following is not a goal of structural health monitoring?
   A) Determining Whether Damage Exists in A Structure
   B) **Repairing The Damage**
   C) Quantifying How Severe the Damage Is
   D) Detecting Where the Damage Is Located

2. Which of the following is not a type of structural health monitoring system?
   A) **Non-Destructive Evaluation (NDE)**
   B) Active SHM
   C) Hybrid SHM
   D) Passive SHM

3. Which of the following is not a type of sensor used in structural health monitoring?
   A) Accelerometer
   B) Strain Gauge
   C) **Magnetostrictive Sensor**
   D) Piezoelectric Sensor

4. Which of the following is not a factor that can affect the structural health of a structure?
   A) Material Production Stage
   B) Transportation
   C) Placement
   D) **Weather**

5. What is the primary goal of structural health monitoring (SHM)?
   A) **To assess the structural integrity of a system**
   B) To increase the aesthetic appeal of a structure
   C) To reduce the cost of construction
   D) To improve the comfort of occupants

6. Which of the following is NOT a commonly used technique in SHM?
   A) Acoustic emission
   B) Ultrasonic testing
   C) Visual inspection
   D) **X-ray diffraction**

7. What is the purpose of using sensors in SHM?
   A) To increase the weight of the structure
   B) To decrease the complexity of the monitoring system
   C) **To measure and collect data related to the structure's health**
   D) To improve the durability of the structure

8. Which of the following is an advantage of SHM?
A) It requires frequent manual inspection
B) **It can detect hidden damage early**
C) It increases the cost of maintenance
D) It is only applicable to new structures

9. What is the role of data analysis in SHM?
A) To make the structure more aesthetically pleasing
B) **To interpret sensor data and assess the health of the structure**
C) To reduce the need for sensor installation
D) To increase the complexity of the monitoring system

10. Which of the following is a challenge in SHM?
A) Lack of sensor technology
B) Limited data storage capacity
C) **Difficulty in interpreting sensor data**
D) High cost of maintenance

11. Which of the following is NOT a benefit of SHM?
A) Increased safety
B) Reduced maintenance costs
C) Improved structural performance
D) **Decreased initial construction costs**

12. What is the role of machine learning in SHM?
A) To increase the number of sensors used
B) To decrease the complexity of the monitoring system
C) **To analyze sensor data and predict structural behavior**
D) To eliminate the need for sensor calibration

13. Which sensing technique is often used to detect crack propagation in structures?
A) Thermography
B) **Piezoelectric Sensors**
C) Fiber Optic Sensors
D) Strain Gauges

14. What type of data is typically collected by sensors in structural health monitoring systems?
A) Only visual data
B) Only numerical data
C) **Both visual and numerical data**
D) Only textual data

15. Which of the following is a non-destructive testing method commonly used in structural health monitoring?
A) Load Testing
B) **Radiography**
C) Destructive Testing
D) Visual Inspection

16. Which component of a structure is primarily monitored using accelerometers?
A) Temperature
B) **Vibration**
C) Strain
D) Displacement

17. Which of the following is NOT a benefit of structural health monitoring?
A) Early detection of structural damage
B) Reduction in maintenance costs
C) **Increased risk of structural failure**
D) Improved safety of occupants

18. Which technique relies on the measurement of electrical resistance to monitor structural health?
A) Fiber Optic Sensors
B) Acoustic Emission
C) Strain Gauges
D) **Electrical Resistance Strain Gauges**

19. Which of the following is a type of sensor used in structural health monitoring?
A) Accelerometer
B) Strain gauge
C) Fiber optic sensor
D) All of the above

20. What is the goal of structural health monitoring?
A) To prevent all structural failures
B) **To prolong the life of a structure**
C) To minimize downtime for maintenance
D) To ensure the safety of occupants

21. Which of the following is a type of damage that can be detected using structural health monitoring?
A) Cracks
B) Corrosion
C) Fatigue
D) **All of the above**

22. Which of the following is NOT a challenge in structural health monitoring?
A) Sensor placement
B) Data interpretation
C) Cost-effectiveness
D) **Limited sensor types**

23. Which of the following is NOT a common method used in structural health monitoring?
A) Strain gauges
B) Acoustic emission
C) Ultrasonic testing
D) Thermography
E) **None of the above (all are common methods)**

24. Which of the following is a non-destructive testing method used in SHM?
A) X-ray testing
B) **Acoustic emission**
C) Load testing
D) Dye penetrant testing

25. What is Structural Health Monitoring (SHM)?
A) Monitoring the health of structural engineers
B) **Monitoring the health of structures**
C) Monitoring the health of construction materials
D) Monitoring the health of civil engineers

26. Which of the following is NOT a benefit of Structural Health Monitoring?
A) Early detection of damage
B) Reduced maintenance costs
C) Increased safety
D) **Decreased monitoring costs**

27. Which of the following is a technique used in Structural Health Monitoring?
A) **Finite Element Analysis (FEA)**
B) Field Emission Microscopy (FEM)
C) Fluid Dynamics Analysis (FDA)
D) None of the above

28. Which of the following is NOT a method of Structural Health Monitoring?
A) Vibration monitoring
B) Acoustic emission monitoring
C) Visual inspection
D) **Magnetic resonance imaging**

29. What is the role of data analytics in Structural Health Monitoring?
A) To collect data from sensors
B) **To process and analyze data to detect damage**
C) To install sensors on structures
D) To design structures

30. Which of the following is NOT a commonly used sensing technology in SHM?
A) Fiber optics
B) Acoustic emission
C) **GPS**
D) Radar

Coordinators: 1) 2)

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Value-Added Course on Structural Health Monitoring (SHM) – Applications and Case Studies

Internal Assessment Score

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4	21241A0105	ASALLA SAI KUMAR	saikumarasalla123@gmail.com	+91 93817 75938	18 / 30
5	21241A0106	VISHNU PULI	pulivishnuyadav@gmail.com	+91 63097 76356	15 / 30
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46	22245A0107	J RUSHIKESH	jadalarushikesh5@gmail.com	+91 86884 69603	20 / 30
47	22245A0108	JANGAM RAJESHWARI	jangamrajeshwari881@gmail.com	+91 70326 93025	26 / 30
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52	22245A0113	VIGNAN NANDIGAM	rickynandigam@gmail.com	+91 90144 55496	30 / 30
53	22245A0114	ORSU AJAYKUMAR	orsuajaykumar29@gmail.com	+91 85006 00183	22 / 30
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Gokaraju Rangaraju Institute of Engineering & Technology

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Value-Added Course on Structural Health Monitoring (SHM) – Applications and Case Studies

FEEDBACK RESPONSES

S. No	Roll No.	Name of the Student	YOUR OVERALL SATISFACTION LEVEL ABOUT THE VAC	THE SESSIONS WAS IN CLEAR AND ORGANIZED MANNER	THE RESOURCE PERSONS RESPONDED TO QUESTIONS IN AN INFORMATIVE AND APPROPRIATE	DO YOU NEED MORE PROGRAMS LIKE THIS ??	KEY TAKEAWAYS FROM THE VAC	YOUR SUGGESTIONS AND COMMENTS
1	21241A0101	ADAKULAPALLY ANIL	5	5	5	5	Nil	Nil
2	21241A0102	AGAM MALLIKARJUN	5	5	5	5	Nothing	Nothing
3	21241A0104	AMIRNENI YASASVI	4	4	4	4	Upto the Mark	Need More Sessions
4	21241A0105	ASALLA SAI KUMAR	5	5	5	5	We could know about uses of SHM in daily life	Very good
5	21241A0106	VISHNU PULI	5	5	5	5	Applications	Good
6	21241A0107	B SWATHI	4	4	4	4	Great topic	It's already best
7	21241A0111	BANOTH VAMSHI NAIK	5	5	5	5	SHM	Good
8	21241A0112	BHIMAVARAPU HEMA SAI BHARADWAJA	4	4	4	4	Satisfactory	Encouragement should be done
9	21241A0114	CHENNAM LOHITHA RAMA NAGA	4	5	5	5	Nil	Nil
10	21241A0115	Ch. VENKATA SAI KARAN SRINIVASA RAO	3	4	4	4	Nil	Good
11	21241A0116	CHITAKOILA SHRUTHI	4	4	4	4	SHM	Good
12	21241A0117	DEEPATI VINAY KUMAR	3	3	3	3	Different applications of SHM	Good
13	21241A0119	DURGAM SURAJ	4	4	4	4	SHM	Nothing

14	21241A0120	GEEDIGINJALA DHANRAJ	5	5	5	5	Nil	Nil
15	21241A0121	GUDALA NITISH KUMAR	2	2	2	2	SHM	Good
16	21241A0122	JADHAV SIKINDAR	3	3	3	3	Full	Nil
17	21241A0124	JAVVADI SRIYANKA	5	4	4	5	Nil	Nil
18	21241A0125	JELLI JESSICA	5	4	4	4	Good	Good
19	21241A0126	K ANUSHA	5	5	5	5	Better Knowledge on working of SHM devices	Good
20	21241A0127	K SREENU	4	4	4	4	Good	Use updated codes
21	21241A0128	KAMBLE SWAPNIL	4	4	4	5	Nil	Nil
22	21241A0129	KANDULA SHASHANK	5	5	5	4	Very good	Good program
23	21241A0130	KHAJA KAMALUDDIN	5	5	5	5	SHM	Good
24	21241A0131	KODAKANDLA LOKESH	2	2	2	2	Knowledge	No comments
25	21241A0132	KUPPALA NAGA NARENDRA	5	5	5	4	Nil	Nil
26	21241A0133	KUTCHARLAPATI CHAITANYA	5	5	5	5	Yes	No
27	21241A0135	MANDA RAGHUVARDHAN	4	4	4	4	Good and encouraging to students	Excellent
28	21241A0136	MEGHARAJ YASHESHWAR	5	5	5	5	Nothing	Nothing
29	21241A0137	NALUVALA GOUTHAM	5	5	5	5	Nothing	Nothing
30	21241A0138	OLETI DHANA LAXMI VARMA	5	5	5	5	Nothing	Good
31	21241A0139	ORSU KARTHIK	5	5	5	5	Nothing	Good
32	21241A0142	PENTAM ROHITH	5	5	1	3	I got an idea in SHM	Conducted this exam is good
33	21241A0143	RAMAVATH NAGESH	4	4	4	4	Good	Good
34	21241A0144	RATHOD SANJEEV	3	4	3	3	Knowledge about SHM	No comments
35	21241A0145	RAVURI AKASH	5	5	5	5	Very good	Very good
36	21241A0147	SAMA SHASHIDAR REDDY	5	5	5	5	No comments	No comments
37	21241A0149	SREE CHARAN KANNAM	5	5	5	5	An intro to SHM	More workshops is Required

38	21241A0151	TALARI SRIKEERTHAN	3	5	4	4	Nothing	good
39	21241A0153	VANKUDOTH USHA	4	4	4	5	Nothing	More training is Required
40	22245A0101	AKULA RAKSHITH	3	4	4	4	No	Good
41	22245A0102	ANAGANI SUSHMA	5	5	1	3	Nil	Nil
42	22245A0103	AFSANA	4	4	4	4	Nil	Good
43	22245A0104	DEEKONDA AKSHITHA	3	4	3	3	SHM	Good
44	22245A0105	GANAPURAM SAI BHANVITHA	5	5	5	5	Different applications of SHM	Good
45	22245A0106	GURRAM ABHISHEK	5	5	5	5	SHM	Nothing
46	22245A0107	J RUSHIKESH	4	4	4	4	Nil	Nil
47	22245A0108	JANGAM RAJESHWARI	5	5	5	5	SHM	Good
48	22245A0109	JANGAPELLI VASU	2	2	2	2	Full	Nil
49	22245A0110	MARAPELLY ASHRITHA	3	3	3	3	Nil	Nil
50	22245A0111	NEELI BHAVESH	5	4	4	5	Good	Good
51	22245A0112	NANDI SRINIVASA SAI MURARI	5	4	4	4	I got an idea in SHM	Conducted this exam is good
52	22245A0113	VIGNAN NANDIGAM	3	5	4	4	Good	Good
53	22245A0114	ORSU AJAYKUMAR	4	4	4	5	Knowledge about SHM	No comments
54	22245A0115	RAJU MADHUKAR	3	4	4	4	Very good	Very good
55	22245A0116	SAMALA SRIJA SRI	5	5	1	3	No comments	No comments

Coordinator

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GOKARAJU RANGARAJU
Institute of Engineering and Technology

VALUE ADDED COURSE

on

Structural Health Monitoring (SHM) – Applications and Case Studies

4th December to 21st December 2023

Organized by

Department of Civil Engineering

Certificate of Participation

This is to certify that *ADAKULAPALLY ANIL*, *Bearing Roll Number 21241A0101 Pursuing* ***III B. Tech I Semester*** *in Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology* has attended **Value Added Course** on **Structural Health Monitoring (SHM) – Applications and Case Studies** organized by Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology during 4th December to 21st December 2023.

Mr. Akula Prakash	Dr. G V V Satyanarayana	Dr. J. Praveen
Course Coordinator, CE	Convenor & HoD, CE	Principal, GRIET

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Institute of Engineering and Technology

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Structural Health Monitoring (SHM) – Applications and Case Studies

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This is to certify that *AMIRNENI YASASVI, Bearing Roll Number 21241A0104 Pursuing* ***III B. Tech I Semester*** *in Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology* has attended **Value Added Course** on **Structural Health Monitoring (SHM) – Applications and Case Studies** organized by Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology during 4th December to 21st December 2023.

Mr. Akula Prakash	**Dr. G V V Satyanarayana**	**Dr. J. Praveen**
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This is to certify that ***ASALLA SAI KUMAR***, *Bearing Roll Number* ***21241A0105*** *Pursuing* ***III B. Tech I Semester*** *in Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology* has attended **Value Added Course** on **Structural Health Monitoring (SHM) – Applications and Case Studies** organized by Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology during 4th December to 21st December 2023.

Mr. Akula Prakash	**Dr. G V V Satyanarayana**	**Dr. J. Praveen**
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VALUE ADDED COURSE

on

Structural Health Monitoring (SHM) – Applications and Case Studies

4th December to 21st December 2023

Organized by

Department of Civil Engineering

Certificate of Participation

This is to certify that ***VISHNU PULI***, *Bearing Roll Number* ***21241A0106*** *Pursuing* ***III B. Tech I Semester*** *in Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology* has attended **Value Added Course** on **Structural Health Monitoring (SHM) – Applications and Case Studies** organized by Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology during 4th December to 21st December 2023.

Mr. Akula Prakash
Course Coordinator, CE

Dr. G V V Satyanarayana
Convenor & HoD, CE

Dr. J. Praveen
Principal, GRIET

DEPARTMENT OF CIVIL ENGINEERING

Ref No: GRIET/CE/1C/G/23-24 04th June 2024

To

The Principal,

GRIET,

Hyderabad.

Subject: Value Added Course on **"Safety Aspects in Construction"**, Regd.

Respected Sir,

With reference to the above subject, we the Department of Civil Engineering introducing Value Added Course on "Safety Aspects in Construction" for II B. Tech Civil Engineering Students. Certificates will be awarded to all students who clear both Internal and External examination. The examination pattern is 30 marks for Internal Examination and 70 marks for External Examination. Kindly provide the subject code for the proposed Value-Added Course. Timetable and syllabus are enclosed below.

Thanks & Regards

4/6/24

Dr. G V V Satyanarayana
Professor & HOD
Civil Engineering Dept.

PROFESSOR AND HEAD
Department of Civil Engineering
Gokaraju Rangaraju Institute of
Engineering and Technology
Bachupally, Kukatpally,
Hyderabad-500 090

J. Praveen

Principal

Regulation: GR22
Course code: GR23V8023

Gokaraju Rangaraju Institute of Engineering and Technology

Department of Civil Engineering

Timetable for Value Added Course AY: 2023-24

w.e.f : 10th June to 27th June 2024

Day	08:50am – 11:20am	11:20am -12:00pm	12:0pm – 02:45pm	3:00pm-05:00pm
Monday	Regular Classwork	LUNCH BREAK	Regular Classwork	VAC-SAC
Tuesday	Regular Classwork		Regular Classwork	VAC-SAC
Wednesday	Regular Classwork		Regular Classwork	VAC-SAC
Thursday	Regular Classwork		Regular Classwork	VAC-SAC
Friday	Regular Classwork		Regular Classwork	VAC-SAC
Saturday	Regular Classwork		Regular Classwork	VAC-SAC

Sub. Code	Sub. Short form	Subject	Speaker Name
GR23V 8023	VAC-SAC	Safety Aspects in Construction	1. **Mr. T. Srikanth** Associate Professor, CE, GRIET. 2. **Mrs. K. Hemalatha** Assistant Professor, CE, GRIET. 3. **Mr. Akula Prakash,** Assistant Professor, CE, GRIET. 4. **Mr. A Vittalaiah,** Assistant Professor, CE, GRIET.

4/6/24

HOD-CE

PROFESSOR AND HEAD
Department of Civil Engineering
Gokaraju Rangaraju Institute of
Engineering and Technology
Bachupally, Kukatpally,
Hyderabad-500 090

One Credit Course

Course Title : Safety Aspects in Construction

Total Number of Lecture Hours : 30

Course Content:

Introduction - Basic terminology in safety, types of injuries, safety pyramid, Accident patterns, theories of accident-causation.

Safety Budget - Planning for safety budget, safety culture, Introduction to OSHA regulations; Role of stakeholders in safety.

Safety Programs - Site safety programs - Job hazard analysis, accident investigation & accident indices-violation, penalty.

On Site Safety - Safety during construction, alteration, demolition works - Earthwork, steel construction, temporary structures, masonry & concrete construction, cutting & welding

Safe Operating Procedures – SoP's, Construction equipment, materials handling-disposal & hand tools, other hazards – fire, confined spaces, electrical safety; BIM & safety

Targeted Audience :

1. B. Tech (Civil) II Year Students

Resource Persons

1. **Mr. T. Srikanth**
   Associate Professor, CE, GRIET.
2. **Mrs. K. Hemalatha**
   Assistant Professor, CE, GRIET.
3. **Mr. Akula Prakash,**
   Assistant Professor, CE, GRIET.
4. **Mr. A Vittalaiah,**
   Assistant Professor, CE, GRIET.

Gokaraju Rangaraju

Institute of Engineering and Technology

Gokaraju Rangaraju Institute of Engineering and Technology (GRIET) is established in 1997 by Dr. G Gangaraju as a self-financed institute under the aegis of Gokaraju Rangaraju Educational Society. GRIET is approved by AICTE, New Delhi, permanently affiliated to and autonomous under JNTUH, Hyderabad. GRIET is committed to quality education and is known for its innovative teaching practices.

The mission of GRIET is to achieve and impart quality education with an emphasis on practical skills and social relevance. Presently GRIET has 9 UG and 6 PG programs. The college is NBA accredited in CE, CSE, ECE, EEE, IT, and ME. CSBS, AI&ML, DS are new programs. The institute is accredited by NAAC with 'A++' grade.

Department of Civil Engineering

The Department of Civil Engineering is established in the year 2008, with an intake of 60 students. It is a fast-growing discipline in tune with the infrastructure growth.

The department has master's program in Structural Engineering, established in the year 2014 with an intake of 18 students which is further increased to 30 students from the academic year 2017. The department has well equipped laboratories with an emphasis on practical skills and fundamentals. The Department has well experienced and talented faculty which includes nine doctorates.

Patrons

Dr. Jandhyala N. Murthy,
Director, GRIET

Dr. J. Praveen,
Principal, GRIET

Dr. K. V. S. Raju,
Senior Administrative officer, GRIET

Convenor

Dr. G V V Satyanarayana,
Professor & HOD, CE, GRIET

Coordinators

1. **Mr. Akula Prakash**
   Assistant Professor, CE, GRIET
2. **Mr. A Vittalaiah,**
   Assistant Professor, CE, GRIET

Resource Persons

1. **Mr. T. Srikanth**
   Associate Professor, CE, GRIET.
2. **Mrs. K. Hemalatha**
   Assistant Professor, CE, GRIET.
3. **Mr. Akula Prakash,**
   Assistant Professor, CE, GRIET.
4. **Mr. A Vittalaiah,**
   Assistant Professor, CE, GRIET.

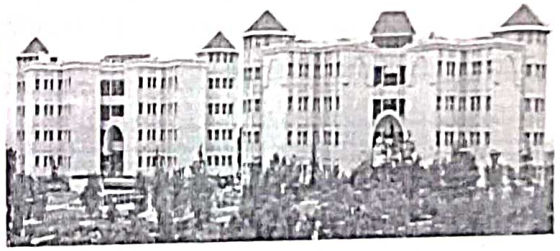
Value Added Course
on

Safety Aspects in Construction

(10th June to 27th June 2024)

Organized by

Department of Civil Engineering



Gokaraju Rangaraju Institute of Engineering & Technology Griet 1997

Gokaraju Rangaraju

Institute of Engineering and Technology
(Autonomous)
Bachupally, Hyderabad,
Telangana. India-500090
Office: 7207344440, 7207714441
www.griet.ac.in

About Value Added Course

The "Safety Aspects in Construction" course provides an in-depth understanding of the principles, regulations, and best practices essential for ensuring safety and health on construction sites. It covers the importance of safety, common hazards, and risk assessment methods, emphasizing the implementation of control measures to mitigate risks. The course details the regulatory framework, including OSHA regulations and local standards, and provides comprehensive training on the proper use of personal protective equipment (PPE). It also addresses specific safety concerns such as fall protection, scaffold safety, electrical safety, fire safety, and the safe operation of heavy equipment and machinery. Additionally, the course covers excavation and trenching safety, health hazards, emergency preparedness, incident investigation, and the promotion of a positive safety culture through effective communication and training. Real-world case studies and best practices are analysed to reinforce learning and practical application, ultimately aiming to reduce accidents, ensure regulatory compliance, and enhance overall site safety

Course Contents

Introduction - Basic terminology in safety, types of injuries, safety pyramid, Accident patterns, theories of accident-causation.

Safety Budget - Planning for safety budget, safety culture, Introduction to OSHA regulations; Role of stakeholders in safety.

Safety Programs - Site safety programs - Job hazard analysis, accident investigation & accident indices-violation, penalty.

On Site Safety - Safety during construction, alteration, demolition works - Earthwork, steel construction, temporary structures, masonry & concrete construction, cutting & welding

Safe Operating Procedures – SoP's, Construction equipment, materials handling-disposal & hand tools, other hazards – fire, confined spaces, electrical safety; BIM & safety.

Registration Fee

There is NO Registration Fee for the Value-Added Course on "Safety Aspects in Construction"

Expected Outcome:

Upon completing the "Safety Aspects in Construction" course, participants will have a thorough understanding of the principles and practices essential for ensuring safety on construction sites and will be equipped to identify and assess potential hazards, implement effective risk mitigation strategies, and comply with relevant safety regulations and standards.

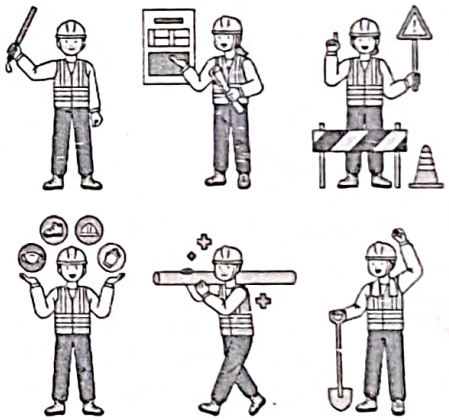
Important Dates

Receipt of Registrations : **07-16-2024**

VAC Duration :

10th June to 27th June 2024

(Daily 3pm to 5pm)



Gokaraju Rangaraju Institute of Engineering & Technology

(Autonomous)

Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009

Value-Added Course on Safety Aspects in Construction

LIST OF REGISTERED PARTICIPANTS

S.No	Reg No	Student Name
1	22241A0101	Andela Nandu Yadav
2	22241A0102	Banoth Manasa
3	22241A0103	Bhukya Naveen
4	22241A0104	Boddu Manoj
5	22241A0105	Boina Rama Krishna
6	22241A0107	Chintamalla Varun Kumar
7	22241A0109	Gajjelli Vinay Kumar
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26	22241A0140	Vadde Anil Kumar
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28	23245A0102	Bonagiri Shiva Prasad
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50	23245A0125	Vollem Manjusha

Coordinators

1)

2)

HOD

PROFESSOR AND HEAD
Department of Civil Engineering
Gokaraju Rangaraju Institute of
Engineering and Technology
Bachupally, Kukatpally,
Hyderabad-500 090

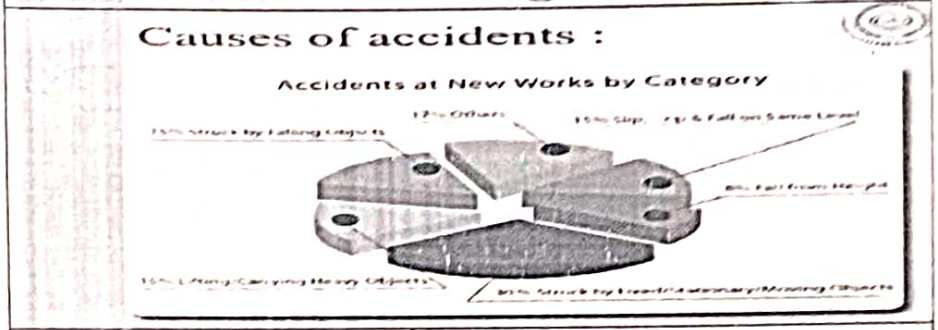
GRIET/6C/G/23-24

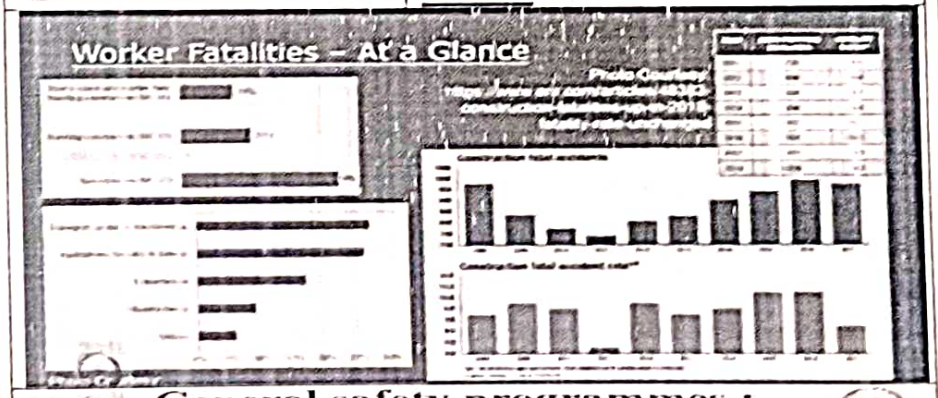
EVENT SUMMARY REPORT

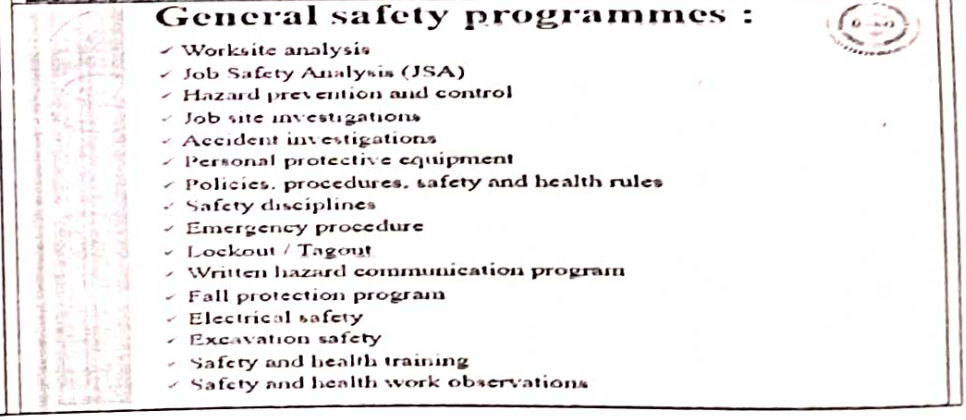
Griet /Other institutes/Organization Address:	**GRIET**				
Department	**Civil Engineering**		**Professional Body**	**Institutional Body**	
Nature of the Event (Co & Extra Curricular Activities -Workshop / Seminar / Guest Lecture / Tech Talk/FDP/GD/ Training Program / Quiz / Any Prof. Body events/Presentation/ Conference/ Industry Visit)	**Value Added Course**				
Title / Theme of the Event	**Safety Aspects in Construction**				
Details of the Coordinator& Designation	**Convenor** Dr. G V V Satyanarayana, Professor & HOD, CE, GRIET **Coordinators** 1. Mr. Akula Prakash Assistant Professor, CE, GRIET 2. Mr. A Vittalaiah Assistant Professor, CE, GRIET				
Event Dates/Days	From	To	No. of Days		
	10-06-2024	27-06-2024	15		
Details of the Speaker / Guest Organization Address:	1. Mr. T. Srikanth Associate Professor, CE, GRIET. 2. Mrs. K. Hemalatha Assistant Professor, CE, GRIET. 3. Mr. Akula Prakash, Assistant Professor, CE, GRIET. 4. Mr. A Vittalaiah, Assistant Professor, CE, GRIET.				
Participants (Teaching Faculty / Non-Teaching Faculty / Students)	No. of Faculty	No. of UG students	No. of PG Students	No. of outside participants	Total Participants
	-	50	-	-	50

Faculty Names & Designation	-
Summary of the Event	The session on Safety Aspects in Construction addressed the crucial relevance of worker safety in the construction sector, as well as legal and ethical duties. Key risks highlighted included falling from heights, electricity, being struck by or caught in/between occurrences, hazardous chemicals, and noise. The course addressed complete risk assessment and management methodologies, including hazard identification, risk evaluation, and control measure implementation. The correct use, maintenance, and training of personal protective equipment (PPE) was emphasized. Continuous safety training and education were prioritized to promote a safe culture. Essential practices included the formulation and clear communication of safety rules and procedures, as well as frequent safety audits and accident investigations. The training also stressed the significance of visible safety signs and good communication tactics. Another important concern was emergency readiness, which included reaction plans and easy access to first aid. Worker health and well-being were prioritized, with an emphasis on ergonomics, stress management, and support systems. Finally, the workshop looked at how technological advances like drones, wearable technology, automation, and safety management software may help improve construction site safety procedures.
IRG (in rupees) **Deposited A/C no A/C name and date and other details** **(enclose proof-A/C statement)**	NIL
Expenditure (in rupees) **(Enclose proof-bills)**	NIL
POs attained with this Event (number and description)	b. Analyse problem and interpret the data. c. Design a system component, or process to meet desired needs in Civil Engineering within realistic constraints. d. Identify, formulate, analyse, and interpret data to solve Civil Engineering problems. j. Work effectively as an individual or in a team and to function on multi-disciplinary context.

Photographs of the event
(Hard copy and Soft copy)

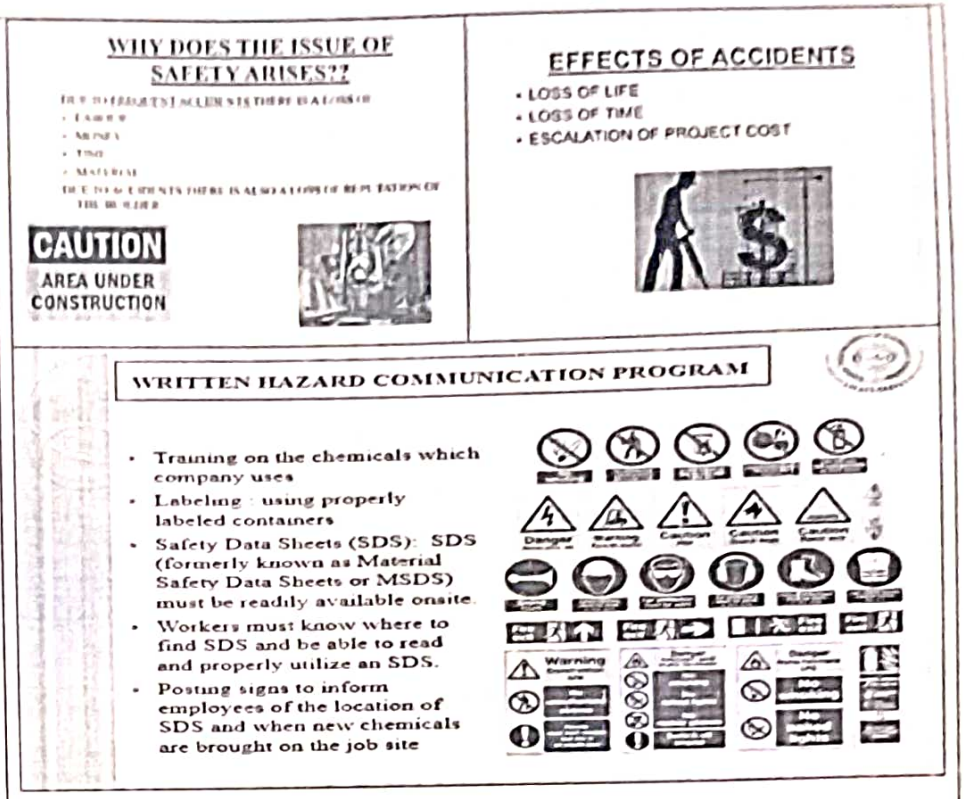






WRITTEN HAZARD COMMUNICATION PROGRAM

- Training on the chemicals which company uses
- Labeling : using properly labeled containers
- Safety Data Sheets (SDS): SDS (formerly known as Material Safety Data Sheets or MSDS) must be readily available onsite.
- Workers must know where to find SDS and be able to read and properly utilize an SDS
- Posting signs to inform employees of the location of SDS and when new chemicals are brought on the job site

	
Proofs: **1.Certificates copies** **2.Profile of Speaker** **3.PPT/Material as applicable. etc.,**	Yes

01/07/2024

Signature of Coordinators

1. Mr. Akula Prakash
   Assistant Professor, CE, GRIET.
2. Mr. A. Vittalaiah
   Assistant Professor, CE, GRIET

Signature of Convenor
Dr. G V V Satyanarayana,
Professor & HOD, CE, GRIET.

Gokaraju Rangaraju Institute of Engineering & Technology

(Autonomous)

Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009

Value-Added Course on Safety Aspects in Construction

ATTENDANCE SHEETS

S. No	Roll No.	Name of the Student	10-06-2024 Monday Sign.	11-06-2024 Tuesday Sign.	12-06-2024 Wednesday Sign.	13-06-2024 Thursday Sign.	14-06-2024 Friday Sign.	15-06-2024 Saturday Sign.	18-06-2024 Tuesday Sign.	19-06-2024 Wednesday Sign.
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			Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Tuesday	Wednesday
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50	23245A0125	Vollem Manjusha								

coordinator

1)

2)

PROFESSOR & HEAD
Department of CSE
Gokaraju Rangaraju Institute of
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Bachupally, Kukatpally,
Hyderabad-500 090

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(Autonomous)

Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009

Value-Added Course on Safety Aspects in Construction

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Coordinators

1)

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HOD

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Bachupally, Kukatpally,
Hyderabad-500 090

GR23V8023

GR 22

Gokaraju Rangaraju Institute of Engineering & Technology

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Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009

Value-Added Course on Safety Aspects in Construction

INTERNAL ASSESSMENT QUESTION PAPER

PART -A

Time: 40 Minutes **Max Marks: 20**

Answer any FOUR questions.

Q.No	Questions	Marks
1	(a) Define the term Fatal Accident	2.5
	(b) Why accident is more frequent in construction in construction industry?	2.5
2	(a) Estimate the need of Education and Training in accident management.	2.5
	(b) Illustrate the contents to available in accident report.	2.5
3	(a) How will you measure the record accidents?	2.5
	(b) List the types of accident in construction sector.	2.5
4	(a) Explain the problems impeding safety in construction industry.	2.5
	(b) Write a short note on Quality assurance in construction.	2.5
5	(a) What is safety net?	2.5
	(b) Briefly explain the measures to assess fire safety.	2.5

GR23V8023

GR 22

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Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009

Value-Added Course on Safety Aspects in Construction

INTERNAL ASSESSMENT QUESTION PAPER

PART -B

Time: 20 Minutes **Max Marks: 20*0.5 = 10M**

Answer all Objective Questions. All questions carry equal marks

Q.No	Questions	Option
1	Why should you follow health and safety rules on a construction site? a) **To prevent occurrence of accidents** c) It is enforced by the employer b) Everyone is following at the site d) To experiment safety rules	[ ]
2	A warning sign is depicted by? a) Black pictogram – White Background – Circular shape b) White pictogram – Blue Background – Circular shape c) **Black pictogram – Yellow Background – Triangular shape** d) White pictogram – Red Background – Rectangular shape	[ ]
3	An injury due to which a person is permanently incapacitated and there is no chance of his returning back to work can be grouped under? a) First aid case b) **Major Injury** c) Fatality d) Minor Injury	[ ]
4	Personal Protective Equipment is required when/to ___. a) Employers force the worker to use b) An employee asks for it **b) Reduce the impact of any accident that occurs in the site** c) Control the Engineering, and administrative work practices	[ ]
5	Please tick the odd one out in case of safety while working at heights? a) **Fall hazard elimination** c) Fall Arrest system b) Passive fall protection system d) Fall Restraint system	[ ]
6	According to OSHA, the hole covers in roadways must support ____. a) Anything that a person/vehicle could pass over b) **2 * maximum axle load of largest vehicle that pass over cover** c) 3 * maximum axle load of largest vehicle that pass over cover d) maximum axle load of largest vehicle that pass over the cover	[ ]
7	What should be the minimum scaffold platform width according to OSHA If the scaffold platform is placed at a height of more than 2m high? a) 300 mm b) 500 mm c) 800 mm d) **900 mm**	[ ]
8	The proper angle for setting up a portable extension ladder as per the IS 3696 is _____ where H is Horizontal and V is Vertical: **a)** 1H : 2V b) 1H : 3V c) **1H : 4V** d) 1H : 6V	[ ]
9	When the load or hook is getting close to or over a worker: a) The qualified person must leap into action b) The crane operator must apply brakes with a jerk **c) A warning signal must be sounded** d) None of the above	[ ]
10	Before a rigger can select the length and capacity of slings needed to lift a load, what two things he must know about the load?	[ ]

	a) The person responsible for lifting the load, crane specifications b) Colour, designated pick points c) Weight, manufacturer **d) Weight, centre of gravity**	
11	Tick the correct option in case of multiple lift rigging. a) The members need not be similar **b) maximum of five objects can be rigged at any instance of time** c) Rigging need not be always at center of gravity d) spacing between the rigged objects must be minimum four feet	[ ]
12	Which of the following is not a safety hazard to the adjacent structures during piling operation? a) Dust pollution c) Noise of piling operation b) Vibrations on structures d) **Sheet piling of structures**	[ ]
13	Which of the following is the only protective device whose sole purpose is to protect people from electric shocks? a) Transformer c) Electric fuse b) **Ground-fault circuit interrupter** d) Circuit breaker	[ ]
14	The elements necessary for a fire or explosion hazard to exist are ____. a) **Fuel, Ignition, Oxygen** c) Correct ratio of oxygen and catalyst Vapours, Ignition, nitrogen d) Earth, Wind and Fire	[ ]
15	What does acronym P.A.S.S. stand for? a) Please allow slow storms c) **Press, aim, squeeze, sweep** b) Press, armor, sit, stand d) Personal alarm safety system	[ ]
16	Where should acetylene fuel cylinders be stored and in what position? a) Close to the welding area, horizontal **b) In a secure compound, vertical** c) Alongside other gas cylinders, vertical In the basement, horizontal	[ ]
17	What are the benefits of ergonomics at site? a) Ergonomics increases costs **b) Ergonomics improves product quality** c) Ergonomics provides leisure time d) Ergonomics decreases employee engagement	[ ]
18	Repetitive motion injuries are caused by _____ exposure to a combination of factors. a) Short term b) Intermittent c) **Prolonged** d) Immediate	[ ]
19	Which of these workers are most likely to experience silica exposure? a) Painter b) Electrician c) Carpenter d) **Concrete worker**	[ ]
20	What is the main objective of hazard assessment? **a) To minimize the hazards and input control measures** b) Enable to create a learning environment c) Hazard management d) Allow to create safety rules and routines	[ ]

CODE: GR23V8023 | GR 22 | SET - 1

Gokaraju Rangaraju Institute of Engineering & Technology
(Autonomous)
Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009

Value-Added Course on Safety Aspects in Construction

EXTERNAL ASSESSMENT QUESTION PAPER

PART -A

Time: 40 Minutes **Max Marks: 40**

Answer any FOUR questions.

Q.No	Questions	Marks
1	(a) Estimate the types and causes of accidents in construction	5
	(b) Write a short note on Benefits of accident investigation	5
2	(a) Examine the accident-causing factors.	5
	(b) Explain about fall protection system as per OSHA standard.	5
3	(a) Why do we investigate accidents and explain the safety measures to be carried out?	5
	(b) What are the aspects with respect to safety in organizational set up of construction industry?	5
4	(a) Outline the different Acts and Regulation in safety of working.	5
	(b) What are the safety precautions to be considered while making scaffolding?	5
5	(a) What are the safety precautions in work in confined spaces?	5
	(b) Identify the hazards associated with confined spaces.	5

CODE: GR23V8023	GR 22	SET - 1

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EXTERNAL ASSESSMENT QUESTION PAPER

PART – B

Time: 60min **Max Marks: 60*0.5 = 30 M**

UNIT-1

1	Why should you follow health and safety rules on a construction site? a) It is enforced by the employer b) To prevent occurrence of accidents at site c) Everyone is following at the site d) To experiment safety rules in the site	[b]
2	Who should report unsafe working practices at work? a) Your supervisor only b) Anyone who notices it c) Your health and safety rep only d) The workers only	[b]
3	A warning sign is depicted by? a) Black pictogram – Yellow Background – Triangular shape b) Black pictogram – White Background – Circular shape c) White pictogram – Blue Background – Circular shape d) White pictogram – Red Background – Rectangular shape	[a]
4	What do you understand from this sign? a) You can speak only through headphones b) Person with hearing disability only c) Ear protection must be worn d) Juke box area 	[c]
5	The function of Prevention through Design (PtD) is: a) Address hazards at all stages of lifecycle b) Address risks at all stages of lifecycle c) Address hazards, eliminate risks and mitigate them with preventions at design/redesign stage d) None of the above	[c]
6	Tick the accident compensation that cannot be claimed. Accident that occurs _____: a) In extreme weather conditions at a site b) When you returned to work soon after holidays c) When strenuous work is undertaken to complete the planned project's target d) During holidays	[d]
7	What is the best way of dealing with a hazard to ensure others are not put to risk? a) Eliminate the hazard immediately, if possible b) Leave it for others to sort out c) Try to ignore the hazard d) Cover the hazard so that others don't identify it	[a]
8	OSH Act has 3 agencies to perform different functions. Tick the one which is not performed by NIOSH? a) Recommend new Safety and Health standards to OSHA b) Promulgate new safety regulations	[b]

	c) Conduct Occupational Safety and Health training to the personnel d) Conduct hazard analysis when requested	
9	Consider the following statements: 1. Hazard means the inherent ability of something to cause harm. 2. When you remove a hazard, it costs you a higher amount of money than must pay for the harm it might cause. Choose the correct option. a) Statement-1 is correct and Statement-2 is wrong b) Statement-1 is wrong and Statement-2 is correct c) Both the statements are correct d) Both the statements are wrong	[a]
10	As per Heinrich theory, 88% of the accidents were attributable to: a) Unsafe physical condition b) Unsafe act c) Hazards d) Natural calamities	[b]
11	Which stakeholder can easily eliminate the hazards in a construction site? a) Owners/clients b) Architect/designer c) Contractor/sub-contractor d) Workers	[b]
12	The heavy fines in terms of penalty imposed by OSHA are primarily for those who? a) Has performed unsafely for the first time b) Has performed unsafely repeatedly c) Has performed unsafely knowingly d) Has failed to correct a cited violation	[d]
	UNIT-II	
1	Personal Protective Equipment is required when/to ___. a) Employers force the worker to use b) An employee asks for it c) Reduce the impact of any accident that occurs in the site d) Control the Engineering. and administrative work practices	[c]
2	What type of protection is needed when you are exposed to hazards from flying particles? a) Eye protection b) Face protection c) Head and face protection d) Head and eye protection	[d]
3	The following is a list of foot and leg protection types matched with hazards they protect against. Which pairing is incorrect? a) Leggings – heat hazards b) Metatarsal guards – impact and compression c) Foundry shoes – open circuits d) Electrically conductive shoes – static electricity build up	[c]
4	What type of face or eye protection is required for workers while handling cement? a) Dust-proof goggles b) Cup-type goggles c) Face shields d) Safety hood	[a]

2	How often the operators must inspect the crane they intend to operate? a) Daily before each shift b) Weekly only c) Monthly if the machine needs it d) None of the above	[a]
3	When is a lock-out tag-out is required in crane? a) During routine machine maintenance and inspection b) During non-routine machine maintenance and inspection c) Lock-out tag-outs are not required in crane d) Both 1 and 2	[d]
4	When must these types of signs be placed in areas of operation by cranes? a) When the suspended load in the crane starts swinging b) During all crane operations c) When it is not feasible to erect barriers near the swing radius d) Heavy wind 	[d]
5	Before a rigger can select the length and capacity of slings needed to lift a load, what two things he must know about the load? a) The person responsible for lifting the load, crane specifications b) Colour, designated pick points c) Weight, manufacturer d) Weight, centre of gravity	[d]
6	As per OSHA guidelines, a crane must be inspected at least every _____ months from the date of previous inspection. a) 6 b) 8 c) 10 d) 12	[d]
7	Who among the following are not an important part during Crane operation? a) Crane Erector b) Lift Director c) Rigger d) Signaller	[a]
8	Tick the correct option in case of multiple lift rigging. a) The members need not be similar b) A maximum of five objects can be rigged at any instance of time c) Rigging need not be always at center of gravity d) The spacing between the rigged objects must be minimum four feet	[b]
9	Which of the following actions is not allowed if the operator leaves the crane controls while a load is suspended? a) load is required to be suspended for a longer time than normal lifting b) The operator assists in maneuvering another suspended load c) The competent person ensures it is safe to keep the load suspended d) Barricades or caution lines and warning notices are erected	[b]
10	Consider the below statements. A. Crane can be loaded beyond the safe working load in case of emergency. B. Before commencing lifting operations, the hook shall be lowered to the required lowest point. Choose the correct option. a) Only Statement A is correct b) Only Statement B is correct c) Both the statements are correct	[b]

5	According to OSHA, hearing protection is required when you are exposed to a noise level of _____ or higher for an 8 – hour period. a) 65 dB b) 75 dB c) 85 dB d) 95 dB	[c]
6	Consider the effects of accident in the site. Which of the above is not quantifiable? a) Cost of recruiting new workers b) Cost of accident investigation time c) Poor reputation of the firm d) Cost of training and orientation	[c]
7	Which of the following is a major headache for the workers while using PPEs? a) Requires proper supervision b) Protection dependent upon users c) Continuous expense d) May interfere with productivity	[d]
8	What kind of hand and arm protection is needed for workers when working with electricity? a) Metallic hard hat and insulated gloves b) Non-metallic hard hat and insulated gloves c) Non-metallic hard hat and non-insulated gloves d) Metallic hard hat and non-insulated gloves	[b]
9	Which of the following is a possible 'luck'/'fortune' scenario? a) Low cost of safety, Low injury cost b) High Cost of safety, Low injury cost c) High cost of safety, High injury cost d) Low cost of safety, High injury cost	[a]
10	Please tick the odd one out in case of safety precautions while working at heights? a) Passive fall protection system b) Fall Arrest system c) Fall hazard elimination d) Fall Restraint system	[c]
11	According to OSHA, the hole covers in roadways must support ____. a) The maximum axle load of largest vehicle that pass over the cover b) Anything that a person/vehicle could pass over c) 3 times the maximum axle load of largest vehicle that pass over the cover d) 2 times the maximum axle load of largest vehicle that pass over the cover	[d]
12	_____ is a technique used to prevent cave-ins by employing a specific angle on the sides of the excavation. a) Trench boxing b) Sloping c) Shoring d) Underpinning	[c]
	UNIT-III	
1	When the load or hook is getting close to or over a worker: a) The qualified person must leap into action b) The crane operator must apply brakes with a jerk c) A warning signal must be sounded d) None of the above	[c]

8	According to OSHA, which of the following is considered appropriate with respect to transporting and storage of cylinders? a) Cylinders should be lifted using valve protection caps b) Cylinders should be secured in a cradle, not using chokers c) Cylinders should be kept horizontal at all times unless being hoisted d) All the above	[b]
9	Welding process cannot produce which of the following hazards? a) Flying Sparks b) Toxic Fumes c) Electric Shock d) Wet floor	[d]
10	What is the most reliable safety measure against impalement among the following? a) Bent reinforcement b) Erection of Stout shields c) Anti-impalement caps d) Flagging with bright paint	[a]
11	What can you do to be safe from harmful fumes released during welding? a) Do not use exhaust fans b) Perform welding in a confined space c) Use respirators when ventilation is not enough d) None of the above	[c]
12	Which of the following is an example of RPE? a) Welding goggles or visors b) A disposable dust-mask c) Protective gloves d) Overalls	[b]
	UNIT-V	
1	What are the benefits of ergonomics at site? a) Ergonomics increases costs b) Ergonomics improves product quality c) Ergonomics provides leisure time d) Ergonomics decreases employee engagement	[b]
2	Which of these classes of workers are most likely to be exposed to the asbestos dust? a) Brick masons b) Painters c) Electricians d) Carpenters	[c]
3	From an ergonomic point of view, the choice of tool should depend? a) On the task b) On the worker characteristics c) On the price d) Both 1 and 2	[d]
4	Repetitive motion injuries are caused by _____ exposure to a combination of factors. a) Short term b) Intermittent c) Prolonged d) Immediate	[c]

	d) None of the statements are correct	
11	If the sling is worn out at various location, should it be used for lifting loads? a) Yes, it's fine b) Maybe, if the load isn't too heavy c) No, use a different one d) Use it once and then discard it	[c]
12	For high voltage power lines exceeding 750 kV, the minimum clearance distance of mobile cranes must be___. a) 20 feet b) 25 feet c) 30 feet d) 45 feet	[d]
	UNIT-IV	
1	Which of the following is the only protective device whose sole purpose is to protect people from electric shocks? a) Transformer b) Electric fuse c) Ground-fault circuit interrupter d) Circuit breaker	[c]
2	The severity of injury due to electric shock depends on? a) The resistance of skin surface b) The magnitude of voltage c) Independent of current magnitude d) The duration of the current flow	[d]
3	The elements necessary for a fire or explosion hazard to exist are ____. a) Earth, Wind and Fire b) Fuel, Source of ignition, Oxygen c) Correct ratio of oxygen and catalyst d) Vapors, Source of ignition, nitrogen	[b]
4	A water fire extinguisher should only be used on? a) Liquid fuel fires b) Solid fuel fires c) Fires involving gas d) Fires involving electricity	[b]
5	What does acronym P.A.S.S. stand for? a) Please allow slow storms b) Press, armor, sit, stand c) Press, aim, squeeze, sweep d) Personal alarm safety system	[c]
6	If you found your welding tool to be faulty or dangerous, what should you do? a) Put it back in the store b) Only use it one more time, then get it fixed c) Take it out of service, report it and if required, tag it d) Do nothing	[c]
7	Where should acetylene fuel cylinders be stored and in what position? a) Close to the welding area, horizontal b) In a secure compound, vertical c) Alongside other gas cylinders, vertical d) In the basement, horizontal	[b]

5	The methods by which chemicals can enter into a human being are: a) Ingestion, injection, adsorption, sneezing b) Absorption, induction, injection, convection c) Inhalation, convection, sneezing, scratching d) Ingestion, Inhalation, Absorption, Injection	[d]
6	The term 'frequent lifting' means lifting load more than _____ times per minute. a) One b) Two c) Four d) Five	[b]
7	What are employees required to do regarding health issues? a) Report any symptoms early b) Wait until you have to see a doctor to report it c) Ignore it d) None of the above	[a]
8	According to OSHA, if you wanted to convey the most severe type of hazard, which word would you use? a) Warning b) Notice c) Danger d) Caution	[b]
9	What is a hazard? a) A purposeful assessment of the environment b) Something that can cause harm or injury to a person c) Something that requires control measures d) None of the above	[b]
10	With respect to the hazard analysis, consider the following statements. A. Project hazard analysis should be performed after the start of the work. B. Phase hazard analysis determines whether the project hazard analysis should be undertaken or not. Choose the correct option. a) Both the statements are correct b) Statement A is correct and Statement B is wrong c) Statement A is wrong and Statement B is correct d) Both the statements are wrong	[d]
11	Which of the following is a potential hazard when working with lifting equipment? a) The load falling off the hook b) Physical overloading of the employee c) The employee suffering hearing loss d) Workers falling in a trench	[a]
12	Suppose a project has many hazards that could easily injure one or more persons and there is no method of avoiding the potential for damages. The project manager should consider _____ as a means of deflecting the risk. a) Establishing a contingency fund b) Buying insurance for personal bodily injury c) Establishing a management reserve d) Not acknowledging the potential for injury	[b]

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Gokaraju Rangaraju Institute of Engineering & Technology

(Autonomous)

Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009

Value-Added Course on Safety Aspects in Construction

Overall Assessment Score

S. No	Roll No.	Name of the Student	INTERNAL (30M)	EXTERNAL (70M)	Total (100M)
1	22241A0101	Andela Nandu Yadav	21	55	76
2	22241A0102	Banoth Manasa	17	65	82
3	22241A0103	Bhukya Naveen	16	53	69
4	22241A0104	Boddu Manoj	19	62	81
5	22241A0105	Boina Rama Krishna	23	60	83
6	22241A0107	Chintamalla Varun Kumar	29	64	93
7	22241A0109	Gajjelli Vinay Kumar	19	50	69
8	22241A0110	Gangapuram Yuvraj	17	46	63
9	22241A0111	Ganjayee Madhavi	25	60	85
10	22241A0113	Harijana Murali	23	55	78
11	22241A0114	Jadi Akshara	15	53	68
12	22241A0116	Kanagala Sandeep	16	50	66
13	22241A0119	Kottam Shiva Priya	26	65	91
14	22241A0120	Kunchala Adhiseshu	19	52	71
15	22241A0121	Kunchala Venkata Sai	25	60	85
16	22241A0122	Mandha Madhavi	21	56	77
17	22241A0124	Mekala Keerthana	17	65	82
18	22241A0126	Nallametla Yashwanth	16	53	69
19	22241A0127	Narisetty Nithin Jyothir Kumar	19	62	81
20	22241A0128	Nenavath Shiva	23	60	83
21	22241A0129	Polagani Mohit	29	64	93
22	22241A0131	Redapangu Swapna	29	64	93
23	22241A0132	Sankoju Akshay Kumar	28	65	93
24	22241A0133	Shanigarapu Aravind	28	65	93
25	22241A0134	Siddapuram Kalguti Sai Teja	19	52	71
26	22241A0140	Vadde Anil Kumar	22	59	81
27	23245A0101	Beechireddy G Pavan Kumar Reddy	21	61	82
28	23245A0102	Bonagiri Shiva Prasad	21	60	81
29	23245A0103	Chetlapally Supraja	29	64	93
30	23245A0104	Dandu Sheryel Anshika	17	54	71
31	23245A0105	Erigela Niharsha	29	65	94
32	23245A0107	Gajula Kiran	21	55	76
33	23245A0108	Gurram Eshwar	16	48	64

34	23245A0109	Jangili Ravi Kumar	26	65	91
35	23245A0110	Jukuru Prasanna	29	64	93
36	23245A0111	Jupaka Aranya	26	65	91
37	23245A0112	Koradala Venkat	26	65	91
38	23245A0113	Mohammed Ashreen Saniya	25	60	85
39	23245A0114	N Apurva	25	53	78
40	23245A0115	Pinapaka Vyshnavi	27	64	91
41	23245A0116	Pittala Pranay Kumar	21	60	81
42	23245A0117	Rangineni Meghana	30	65	95
43	23245A0118	Sai Ganesh	27	64	91
44	23245A0119	Sangi Sankay Kumar	15	47	62
45	23245A0120	Sri Vardhan Pasunuri	28	65	93
46	23245A0121	Sriramoju Anudeep	25	52	77
47	23245A0122	Tampa Chandana	15	56	71
48	23245A0123	Uddandam Anu Sree	16	55	71
49	23245A0124	Varala Santhosh Kumar	29	63	92
50	23245A0125	Vollem Manjusha	29	65	94

Coordinators

1) 2)

PROFESSOR & HEAD
Department of Civil Engineering
Gokaraju Rangaraju Institute of
Engineering and Technology
Bachupally, Kukatpally,
Hyderabad-500 090

GOKARAJU RANGARAJU
Institute of Engineering and Technology

VALUE ADDED COURSE

on

Safety Aspects in Construction

10th June to 27th June 2024

Organized by

Department of Civil Engineering

Certificate of Participation

This is to certify that ***Andela Nandu Yadav***, *Bearing Roll Number* ***22241A0101*** *Pursuing* ***II B. Tech II Semester*** *in Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology* has attended **Value Added Course** on **Safety Aspects in Construction** organized by Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology during 10th June to 27th June 2024.

Mr. Akula Prakash	Dr. G V V Satyanarayana	Dr. J. Praveen
Course Coordinator, CE	Convenor & HoD, CE	Principal, GRIET

GOKARAJU RANGARAJU
Institute of Engineering and Technology

VALUE ADDED COURSE

on

Safety Aspects in Construction

10th June to 27th June 2024

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Department of Civil Engineering

Certificate of Participation

This is to certify that ***Banoth Manasa***, *Bearing Roll Number* ***22241A0102*** *Pursuing* ***II B. Tech II Semester*** *in Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology* has attended **Value Added Course on Safety Aspects in Construction** organized by Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology during 10th June to 27th June 2024.

Mr. Akula Prakash
Course Coordinator, CE

Dr. G V V Satyanarayana
Convenor & HoD, CE

Dr. J. Praveen
Principal, GRIET

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Safety Aspects in Construction

10th June to 27th June 2024

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Department of Civil Engineering

Certificate of Participation

This is to certify that ***Bhukya Naveen***, *Bearing Roll Number* ***22241A0103*** *Pursuing* ***II B. Tech II Semester*** *in Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology* has attended **Value Added Course** on **Safety Aspects in Construction** organized by Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology during 10th June to 27th June 2024.

Mr. Akula Prakash
Course Coordinator, CE

Dr. G V V Satyanarayana
Convenor & HoD, CE

Dr. J. Praveen
Principal, GRIET

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Institute of Engineering and Technology

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Certificate of Participation

This is to certify that ***Boddu Manoj***, *Bearing Roll Number* ***22241A0104*** *Pursuing* ***II B. Tech II Semester*** *in Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology* has attended **Value Added Course** on **Safety Aspects in Construction** organized by Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology during 10th June to 27th June 2024.

Mr. Akula Prakash	Dr. G V V Satyanarayana	Dr. J. Praveen
Course Coordinator, CE	Convenor & HoD, CE	Principal, GRIET

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10th June to 27th June 2024

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Certificate of Participation

This is to certify that ***Boina Rama Krishna***, *Bearing Roll Number* ***22241A0105*** *Pursuing* ***II B. Tech II Semester*** *in Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology* has attended **Value Added Course** on **Safety Aspects in Construction** organized by Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology during 10th June to 27th June 2024.

Mr. Akula Prakash	Dr. G V V Satyanarayana	Dr. J. Praveen
Course Coordinator, CE	Convenor & HoD, CE	Principal, GRIET

DEPARTMENT OF CIVIL ENGINEERING

Ref No: GRIET/CE/1C/G/23-24

26 December 2023

To

The Principal,

GRIET,

Hyderabad.

Subject: Value Added Course on **"Introduction to Finite Element Method (FEM) – Applications"**, Regd.

Sir,

With reference to above subject, we the Department of Civil Engineering introducing Value Added Course on "**Introduction to Finite Element Method (FEM) – Applications**" by Department of Civil Engineering for IV-year B. Tech Civil Engineering Students. Certificates will be awarded to all students who clear both Internal and External examination. The examination pattern is 30 marks for Internal Examination and 70 marks for External Examination. Kindly provide the subject code for the proposed Value-Added Course. Timetable and syllabus are enclosed below.

Thanks & Regards

Dr. G V V Satyanarayana
Professor & HOD
Civil Engineering Dept

Principal

Course code : GR23V8015
Regulation : GR20

Gokaraju Rangaraju Institute of Engineering and Technology

Department of Civil Engineering

Timetable for Value Added Course AY: 2023-24

Day	01:40 p.m. – 4:10 p.m.	
Tuesday	Regular Classwork	**VAC-FEM**

Sub. Code	Sub. Short form	Subject	Speaker Name
	VAC-FEM	Introduction to Finite Element Method (FEM) – Applications	Dr. G V V Satyanarayana, Professor & HOD, CE, GRIET

HOD-CE

One Credit Course

Course Title : Introduction to Finite Element Method (FEM) – Applications

Total Number of Lecture Hours : 30

Course Content:

Introduction: History and Applications. Spring and Bar Elements, Minimum Potential Energy Principle, Direct Stiffness Method, Nodal Equilibrium equations, Assembly of Global Stiffness Matrix, Element Strain and Stress.

1 D Element:

Beam and Truss Elements: Flexure Element, Element Stiffness Matrix, Element Load Vector.

2 D Elements with 3 Noded:

CST Triangular Elements, Element Stiffness Matrix, Element Load Vector, Axi-Symmetric Elements

2 D Elements with 4 Noded:

Iso-parametric Formulation Rectangular Elements Element Stiffness Matrix, Element Load Vector

Numerical Integration:

Gaussian-Quadrature method with Gaussian one, two and Three points

Targeted Audience:

1. B. Tech (Civil) IV Year Students

Resource Person:

Dr. G.V.V Satyanarayana,
Professor & HOD, CE, GRIET

Gokaraju Rangaraju

Institute of Engineering and Technology

Gokaraju Rangaraju Institute of Engineering and Technology (GRIET) is established in 1997 by Dr. G Gangaraju as a self-financed institute under the aegis of Gokaraju Rangaraju Educational Society. GRIET is approved by AICTE, New Delhi, permanently affiliated to and autonomous under JNTUH, Hyderabad. GRIET is committed to quality education and is known for its innovative teaching practices.

The mission of GRIET is to achieve and impart quality education with an emphasis on practical skills and social relevance. Presently GRIET has 9 UG and 6 PG programs. The college is NBA accredited in CE, CSE, ECE, EEE, IT, and ME. CSBS, AI&ML, DS are new programs. The institute is accredited by NAAC with 'A++' grade.

Department of Civil Engineering

The Department of Civil Engineering is established in the year 2008, with an intake of 60 students. It is a fast-growing discipline in tune with the infrastructure growth.

The department has master's program in Structural Engineering, established in the year 2014 with an intake of 18 students which is further increased to 30 students from the academic year 2017. The department has well equipped laboratories with an emphasis on practical skills and fundamentals. The Department has well experienced and talented faculty which includes nine doctorates.

Patrons

Dr. Jandhyala N. Murthy,
Director, GRIET

Dr. J. Praveen,
Principal, GRIET

Dr. K. V. S. Raju,
Senior Administrative officer, GRIET

Convenor

Dr. G V V Satyanarayana,
Professor & HOD, CE, GRIET

Coordinators

Dr. G V V Satyanarayana,
Professor & HOD, CE, GRIET

Resource Persons

1. **Dr. G V V Satyanarayana,**
   Professor & HOD, CE, GRIET
2. **Mr. Akula Prakash,**
   Assistant Professor, CE, GRIET
3. **Ms. K. Hemalatha**
   Assistant Professor, CE, GRIET

Value Added Course

on

Introduction to Finite Element Method (FEM) – Applications

(2nd January to 23rd April 2024)

Organized by

Department of Civil Engineering

Gokaraju Rangaraju

Institute of Engineering and Technology

(Autonomous)

Bachupally, Hyderabad,

Telangana, India-500090

Office: 7207344440, 7207714441

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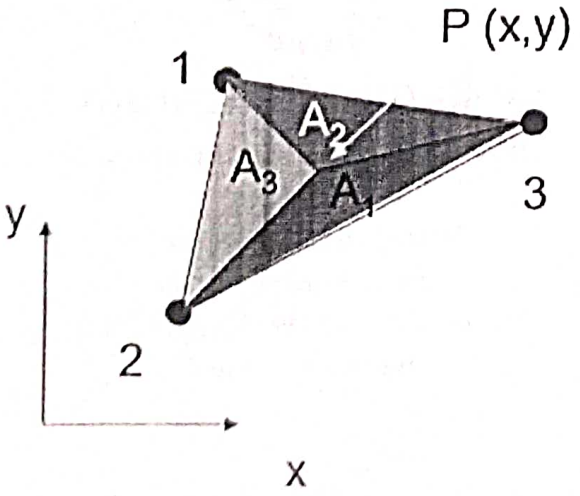
...ded Course

...element method (FEM) is a numerical ...nique for solving problems which are described by partial differential equations or can be formulated as functional minimization. This method is most suitable for complex problems where is no direct solutions are not available. But this method is provides approximate solutions but acceptable.



C...e Contents

Introduction:

History and Applications. Spring and Bar Elements, Minimum Potential Energy Principle, Direct Stiffness Method, Nodal Equilibrium equations, Assembly of Global Stiffness Matrix, Element Strain and Stress.

1 D Element:

Beam and Truss Elements: Flexure Element, Element Stiffness Matrix, Element Load Vector.

2 D Elements with 3 Noded:

CST Triangular Elements, Element Stiffness Matrix, Element Load Vector, Axi-Symmetric Elements

2 D Elements with 4 Noded:

Iso-parametric Formulation Rectangular Elements Element Stiffness Matrix, Element Load Vector

Numerical Integration:

Gaussian-Quadrature method with Gaussian one, two and Three points

Registration

There is **NO** Registration Fee for the Value-Added Course on "Structural Health Monitoring (SHM) – Applications and Case Studies"

Expected Outcome:

This course will help students to learn the basic concepts of Structural Health Monitoring and extended the learning to projects in the practical implications in civil engineering domine.

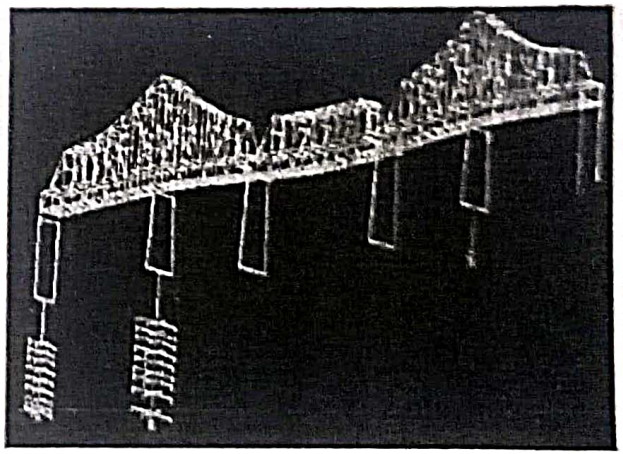
Important Dates

Receipt of Registrations : **31-12-2023**

VAC Duration :

2nd January to 23rd April 2024

(Every Tuesday 1.40 p.m.to 4.10 p.m.)



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Bachupally, Nizampet Road, Kukatpally, Hyderabad-500090

Value-Added Course on Introduction to Finite Element Method (FEM) – Applications

LIST OF REGISTERED PARTICIPANTS

S.No	Reg No	Student Name
1	20241A0101	Aadhi Srikar Rao
2	20241A0103	Bacchugudam Rithvik Reddy
3	20241A0104	Bandla Naveen
4	20241A0105	B.Pranav Sai
5	20241A0106	Bhattu Supreeth Chakravarthy
6	20241A0107	Bhupathiraju Himanthavarma
7	20241A0108	Boini Hemanth
8	20241A0109	Challa Ajay Kumar
9	20241A0110	Donaboina Sri Hari
10	20241A0111	Eppa Arnav
11	20241A0112	G L N Raghuraman
12	20241A0113	Gandla Harshith Kumar
13	20241A0114	Guggilla Shashank
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16	20241A0117	Janjirala Sruthi
17	20241A0118	Jarapula Jayanth
18	20241A0119	K Nikhitha
19	20241A0121	K.Kondal
20	20241A0122	Kammampati Udaykiran
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43	20241A0149	Sriram Pandavula
44	20241A0150	T.Bhargavi
45	20241A0151	T.Bhuvaneshwari
46	20241A0152	S Teja Renesh Reddy
47	20241A0153	Tejavath Kalyani
48	20241A0154	Tellapuram Prudhvi Raj
49	20241A0155	Thadem Rohith
50	20241A0156	Thummala Rajashekar
51	20241A0157	Uvsgr Kameswara Sai Karthik
52	20241A0158	Sreeram Vattem
53	20241A0159	V Vikesh
54	20241A0160	Vennam Srikar
55	21245A0101	Gumadavelli Arunkumar
56	21245A0102	Kadirabad Sriram
57	21245A0103	Manikonda Nikitha
58	21245A0104	Pandula Prathyusha
59	21245A0105	Pateru Mouna

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Value-Added Course on Introduction to Finite Element Method (FEM) – Applications

ATTENDANCE SHEETS

			1/2/2024	1/9/2024	1/23/2024	1/30/2024	2/6/2024	2/13/2024	2/20/2024	3/5/2024	3/12/2024	3/19/2024	3/26/2024	4/2/2024	4/9/2024	4/16/2024
			Tuesday	Tuesday	Tuesday	Tuesday	Tuesday	Tuesday	Tuesday	Tuesday	Tuesday	Tuesday	Tuesday	Tuesday	Tuesday	Tuesday
S. No	Roll No.	Name of the Student	Sign.	Sign.	Sign.	Sign.	Sign.	Sign.	Sign.	Sign.	Sign.	Sign.	Sign.	Sign.	Sign.	Sign.
1	20241A0101	Aathi Srikar Rao		Ab						Ab				Ab		
2	20241A0103	Bachugudam Rithvik Reddy		Ab												Ab
3	20241A0104	Bandla Naveen					Ab			Ab				Ab	Ab	
4	20241A0105	B Pranav Sai					Ab		Ab					Ab		
5	20241A0106	Bhattu Supreeth Chakravarthy	Ab			Ab				Ab						
6	20241A0107	Bhupathiraju Himanthavarma		Ab				Ab					—			
7	20241A0108	Bomi Hemanth		Ab						Ab						
8	20241A0109	Challa Ajay Kumar														
9	20241A0110	Donaboina Sri Hari	Ab								Ab				Ab	
10	20241A0111	Eppa Arnav			Ab					Ab				Ab		Ab
11	20241A0112	G L N Raghuraman		Ab			Ab			Ab				Ab	Ab	
12	20241A0113	Gandla Harshith Kumar	Ab			Ab					Ab				Ab	
13	20241A0114	Guggilla Shashank		Ab						Ab					Ab	
14	20241A0115	Gunda Srikanth		Ab						Ab					Ab	
15	20241A0116	Jangili Sravan Kumar			Ab			Ab					Ab			Ab
16	20241A0117	Janjirala Sruthi		Ab						Ab						Ab
17	20241A0118	Jarapula Jayanth		Ab						Ab					Ab	

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41	20241A0147	Sathvika Narla	Ab				Ab					Ab	Ab			
42	20241A0148	Sokkula Koushikreddy		Ab					Ab	Ab						
43	20241A0149	Sriram Pandavula	Ab								Ab	Ab		Ab	Ab	
44	20241A0150	T.Bhargavi		Ab										Ab	Ab	
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48	20241A0154	Tellapuram Prudhvi Raj			Ab	Ab										
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53	20241A0159	V Vikesh			Ab								Ab	Ab		
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59	21245A0105	Pateru Mouna			Ab				Ab		Ab					

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Value-Added Course on Introduction to Finite Element Method (FEM) – Applications

INTERNAL ASSESSMENT QUESTION PAPER

1. As per Rayleigh Ritz method, the total Potential energy (Π) is __ [ ]

A) Minimum
B) Maximum
C) Either A or B
D) None of the above

2. Total dof at any fixed end joint of a plane frame [ ]

A) 0
B) 1
C) 2
D) 3

3. The size of stiffness matrix depend on
A) Static indeterminacy of structure
B) Kinematic indeterminacy of structure
C) Applied Loads
D) Used Materials

4. Why truss element is consider as 1 D element even every node having 2 nodal displacements? [ ]

A) Forces are acting axially
B) Forces are acting transversely
C) Either A or B
D) None of the above

5. What is N_2 of a bar element, if N_1 is 0.3 [ ]

A) 0.7
B) 1.0
C) 0.5
D) 0.4

6. What is the use of Transformation matrix [ ]

A) Convert local co-ordinates in to Global co-ordinates
B) Convert global co-ordinates in to local co-ordinates
C) Either A or B
D) None of the above

7. What is the size of stiffness matrix in case of Propped cantilever beam [ ]

A) 1
B) 2
C) 3
D) 4

8. For a CST element 2A = [ ]

A) |D|
B) |B|
C) |k|
D) |C|

9. The size of stiffness matrix for a CST element is _____ [ ]

A) 3 X3
B) 6 X 6
C) 9 X 9
D) 12 X 12

10. The strain displacement is also known as [ ]

A) B Matrix
B) C Matrix
C) D Matrix
D) k matrix

11. The size of stiffness matrix for a LST element is _____ [ ]

A) 3 X3
B) 6 X 6
C) 9 X 9
D) 12 X 12

12. The value γ_3 equals to [ ]

A) x_{31}
B) x_{21}
C) x_{23}
D) y_{31}

13. The value β_1 equals to [ ]

A) x_{31}
B) y_{21}
C) y_{23}
D) y_{31}

13. In Axi-symmetric element the Circumferential strain also known as [ ]

A) Tangential strain
B) Radial strain
C) Axial Strain
D) Shear strain

...nmetric element the Axial stress also known as [ ]

A) Tangential stress
B) Radial stresss
C) Longitudinal stress
D) Shear stress

15. In master element the sides are [ ]

A) Curved and straight
B) Straight and Sharp
C) Curved only
D) Straight only

16. In Jacobian matrix J_{21} = [ ]

A) $\frac{\partial X}{\partial \xi}$
B) $\frac{\partial Y}{\partial \xi}$
C) $\frac{\partial X}{\partial \eta}$
D) $\frac{\partial Y}{\partial \eta}$

17. For Iso parametric element [ ]

A) $[N_i]_d = [Nj]g$
B) $[N_i]_d > [Nj]g$
C) $[N_i]_d < [Nj]g$
D) None of the above

18. The B-matrix in a four noded rectangular element is [ ]

A) G X H
B) D X H
C) K X H
D) C X H

19. In case two point problems the Gaussian weights are ___ , _____ [ ]

A) 1.0, 2.0
B) 1.0, 1.0
C) 2.0, 1.0
D) 1.0 or 2.0

20. In case two point problems the Gaussian points are ___ , _____ [ ]

A) 0, 1.0
B) 0.577, - 0.577
C) 0.7772, - 0.7772
D) 1.0, -1.0

21. Strain along x direction ($\in x$) of an element in one dimensional case ____ [ ]

A) $\frac{\partial^2 u}{\partial x^2}$
B) $\frac{\partial u}{\partial x}$
C) $\frac{\partial v}{\partial x}$
D) $\frac{\partial^2 v}{\partial x^2}$

22. Shear Strain along (γxy) of an element in one dimensional case ____ [ ]

A) $\frac{\partial^2 u}{\partial x^2}$

B) $\frac{\partial u}{\partial x} + \frac{\partial v}{\partial y}$

C) $\frac{\partial v}{\partial x} + \frac{\partial u}{\partial y}$

D) $\frac{\partial^2 v}{\partial x^2}$

23. Stiffness of a spring (k) _____ [ ]

A) $\frac{\delta}{P}$

B) $\frac{1}{2}\sigma\,\varepsilon$

C) $\frac{P}{\delta}$

D) Either A or C

24. Finite Element method is applicable [ ]

A) Irregular boundaries
B) All types of loads
C) Composite sections
D) D) All of the above

25. The properties of a stiffness matrix are [ ]

A) Square matrix
B) Symmetrical matrix
C) Determent is zero
D) All of the above

26. For Super-parametric element [ ]

A) $[N_i]_d = [Nj]g$
B) $[N_i]_d > [Nj]g$
C) $[N_i]_d < [Nj]g$
D) None of the above

27. The total degrees of freedom depends on

A) Number of Nodes
B) Number of loads
C) boundaries
D) None of the above

28. The axial stiffness (k) of bar element equals to _____

A) $\frac{A}{l}$

B) $\frac{l}{AE}$

C) $\frac{l}{A}$

D) $\frac{AE}{l}$

29. The direction cosine C = _____

A) Cosθ
B) Sinθ
C) Cosecθ
D) Tanθ

30. What is the dof for hinge support when only vertical transverse loads are acting_____

A) 0
B) 1
C) 2
D) 3

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Value-Added Course on Structural Health Monitoring (SHM) – Applications and Case Studies

Internal Assessment Score

S. No	Roll No.	Name of the Student	Email ID	Phone Number	Score out 100
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58	21245A0104	Paridula Prathyusha	prathyushaparidula@gmail.com	8522958632	52
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Gokaraju Rangaraju Institute of Engineering & Technology

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Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009

Value-Added Course on Introduction to Finite Element Method (FEM) – Applications

EXTERNAL ASSESSMENT QUESTION PAPER

Part-A 20 X 2 = 40 M

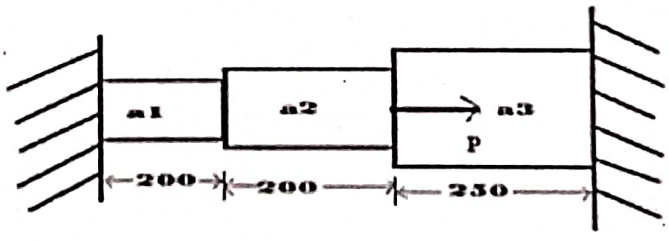
1. The art of subdividing the structure into a convenient number of smaller elements is known as [ ]
   A) Assemblage
   B) Continuum
   C) Discretization
   D) Traction

2. Total dof at any hinged end joint of a plane frame [ ]
   A) 0
   B) 1
   C) 2
   D) 3

3. The size of stiffness matrix depend on [ ]
   A) Static indeterminacy of structure
   B) Kinematic indeterminacy of structure
   C) Applied Loads
   D) Used Materials

4. The sum of shape functions for a bar element is ____ [ ]
   A) 0.7
   B) 1.0
   C) 0.5
   D) 0.4

5. Estimate the number of element for given structure.



   A) 3
   B) 4
   C) 5
   D) 2

6. What is the size of constitutive matrix [D] in case of axi-symmetric element?
   A) 3 X3
   B) 4 X 4
   C) 6 X 6
   D) 2 X 2

7. What is the size of global stiffness matrix in case of continuous beam as shown below: [ ]

A) 3 X3
B) 4 X 4
C) 6 X 6
D) 8 X8

8.. The strain displacement is also known as [ ]

A) B Matrix
B) C Matrix
C) D Matrix
D) k matrix

09. The size of stiffness matrix for a LST element is _____ [ ]

A) 3 X3
B) 6 X 6
C) 9 X 9
D) 12 X 12

10. The value γ_2 equals to [ ]

A) x_{31}
B) x_{21}
C) x_{13}
D) y_{13}

11. The value β_3 equals to [ ]

A) x_{31}
B) y_{12}
C) y_{23}
D) y_{31}

12. In Axi-symmetric element the Circumferential strain also known as [ ]

A) Tangential strain
B) Radial strain
C) Axial Strain
D) Shear strain

13. In master element the sides are [ ]

A) Curved and straight
B) Straight and Sharp
C) Curved only
D) Straight only

...ian matrix J_{22} =

[ ]

B) $\frac{\partial \xi}{\partial Y}$

C) $\frac{\partial X}{\partial \eta}$

D) $\frac{\partial Y}{\partial \eta}$

15. For Sub-parametric element

[ ]

A) $[N_i]_d = [Nj]g$
B) $[N_i]_d > [Nj]g$
C) $[N_i]_d < [Nj]g$
D) None of the above

16. The B-matrix in a four noded rectangular element is

[ ]

A) G X H
B) D X H
C) K X H
D) C X H

17. In case two point problems the Gaussian points are ___ , ____

[ ]

A) 0, 1.0
B) 0.577, - 0.577
C) 0.7772, - 0.7772
D) 1.0, -1.0

18. Strain along x direction ($\in y$) of an element in one dimensional case ____

[ ]

A) $\frac{\partial^2 u}{\partial x^2}$

B) $\frac{\partial u}{\partial x}$

C) $\frac{\partial v}{\partial y}$

D) $\frac{\partial^2 v}{\partial x^2}$

19. Shear Strain along (γxy) of an element in one dimensional case ____

[ ]

A) $\frac{\partial^2 u}{\partial x^2}$

B) $\frac{\partial u}{\partial x} + \frac{\partial v}{\partial y}$

C) $\frac{\partial v}{\partial x} + \frac{\partial u}{\partial y}$

D) $\frac{\partial^2 v}{\partial x^2}$

20. The direction cosine C = _____

A) Cosθ
B) Sinθ
C) Cosecθ
D) Tanθ

Part-B 20 X 3 = 60

21. As per Rayleigh Ritz method, the total Potential energy (Π) is __ [ ]

A) Minimum
B) Maximum
C) Either A or B
D) None of the above

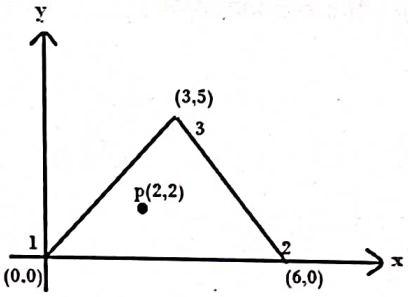
22. For truss analysis, which type of elements are used?

A) Triangular
B) Bar
C) Rectangular
D) Quadrilateral

23. Estimate the following values for the given displacement field in plane stress condition.
$\mathbf{u = (2x^2 - 3xy + y^2)\ 10^{-2}}$ **and** $\mathbf{v = (6x + 3y)\ 10^{-4}}$ ε_x, and γ_{xy} where, x=1 and y=2.

A) -6×10^{-2} & -2×10^{-2}
B) -2×10^{-2} & -5×10^{-2}
C) 0 & 0
D) - 0.5 & -0.5

24. Evaluate the shape functions N1 and N3 at the interior point P for the triangular element shown in the figure below.



A) $\frac{14}{30}$ & $\frac{4}{30}$
B) $\frac{4}{30}$ & $\frac{14}{30}$
C) $\frac{14}{30}$ & $\frac{12}{30}$
D) 1 & 0

25. Evaluate the B- Matrix for the triangular element shown in the figure below.

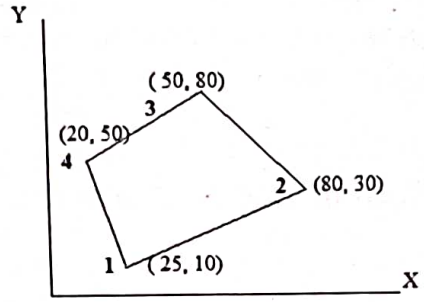
A) $\begin{matrix} 5 & 0 & -5 & 0 & 0 & 0 \\ 0 & 3 & 0 & -3 & 0 & 0 \\ 3 & 5 & -3 & -5 & 0 & 0 \end{matrix}$ B) $\begin{matrix} -5 & 0 & 5 & 0 & 0 & 0 \\ 0 & -3 & 0 & 3 & 0 & 0 \\ -3 & -5 & 3 & 5 & 0 & 0 \end{matrix}$ C) $\begin{matrix} -5 & 0 & 5 & 0 & 0 & 0 \\ 0 & -3 & 0 & -3 & 0 & 6 \\ -3 & -5 & -3 & 5 & 6 & 0 \end{matrix}$ D) $\begin{matrix} -5 & 0 & 5 & 0 & 0 & 0 \\ 0 & 3 & 0 & 3 & 0 & -6 \\ 3 & -5 & 3 & 5 & -6 & 0 \end{matrix}$

26. From the following, which type of element is not two dimensional?

A) Rectangle
B) Quadrilateral
C) Parallelogram
D) Tetrahedron

60

he four noded quadrilateral element shown in figure. Determine the shape functions N_2 d N_4 at the point (ξ =0.5 and η = 0.5)



A) 0.0625 & 0.1875
B) 0.1875 & 0.0625
C) 0.1875 & 0.1875
D) 0.1875 & 0.0625

28. From the following, which type of element is not three dimensional?

A) Hexahedron
B) Quadrilateral
C) Rectangular prism
D) Tetrahedron

29. For the four noded quadrilateral element shown in figure. The size of the Jacobian matrix and evaluate at the point ((ξ =0.5 and η = 0.5)

A) 1 X 1 B) 1 X 2 C) 2 X 1 D) 2 X 2

30. Number of displacement polynomials used for an element depends on _____ .

A) Nature of Element
B) Degrees of freedom (dof)
C) Type of an element
D) Nodes

31. To find the nodal displacements in all parts of the element, _____are used.

A) Shape functions
B) Node Functions
C) Element functions
D) Co-ordinate functions

31. The determinant of an element stiffness matrix is always equals to___

A) 0
B) 1
C) 2
D) 3

32. How many nodes are there in a 3-D brick element?

A) 3
B) 6

C) 8
D) 9

33. From below, choose the correct condition for the axisymmetric element.
A) Symmetric about axis
B) Boundary conditions are symmetric about an axis
C) Loading conditions are symmetric about an axis
D) All of the mentioned above

34. Which of the following is not a method for calculation of the stiffness matrix?
A) The minimum potential energy principle
B) Galerkin's principle
C) Weighted residual method
D) Inverse matrix method

35. When a thin plate is subjected to loading in its own plane only, the condition is called _____.
A) Plane stress
B) Plane strain
C) Zero stress
C) Zero strain

36. In penalty approach, rigid support is considered as a spring having _____ stiffness.
A) Zero
B) Very small
C) Very Large
D) Infinite

37. The strain energy per unit volume is equal to _____.
A) 0.25 * Force * Deflection
B) 0.5 * Force * Deflection
C) 0.25* Stress * Deflection
D) 0.5 * Stress * Deflection

38. If the size of the elements is small, the final solution is expected to be _____ accurate.
A) More
B) Less
C) Depends on other factors
D) Can't say

39. Which of the following is not an FEA package?
A) ANSYS
B) Abaqus
C) Nastran
D) AutoCAD

40. The truss element can deform only in the___
A) Axial direction
B) Horizontal direction
C) Vertical direction
D) Inclined direction

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Value-Added Course on Structural Health Monitoring (SHM) – Applications and Case Studies

External Assessment Score

S. No	Roll No.	Name of the Student	Email ID	Phone Number	Score out 100
1	20241A0101	Aadhi Srikar Rao	srikarraoaadhi456@gmail.com	7382335505	75
2	20241A0103	Bacchugudam Rithvik Reddy	reddyrithvik4599@gmil.com	7702884599	60
3	20241A0104	Bandla Naveen	nidunaveen456@gmail.com	6303471495	54
4	20241A0105	B.Pranav Sai	pranavsai.bangare111@gmail.com	7093178037	50
5	20241A0106	Bhattu Supreeth Chakravarthy	supreethchakravarthy08@gmail.com	7993939146	50
6	20241A0107	Bhupathiraju Himanthavarma	himanthvarma2@gmail.com	8688785483	54
7	20241A0108	Boini Hemanth	hemanth20241a0108@grietcollege.com	8074119737	58
8	20241A0109	Challa Ajay Kumar	challaajaykumar09@gmail.com	9618209704	52
9	20241A0110	Donaboina Sri Hari	srihari9732@gmail.com	9000034399	54
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11	20241A0112	G L N Raghuraman	glnraghu123@gmail.com	9959932020	58
12	20241A0113	Gandla Harshith Kumar	harshithkumar6112@gmail.com	9959987972	62
13	20241A0114	Guggilla Shashank	shashankbubby527@gmail.com	7288004002	64
14	20241A0115	Gunda Srikanth	gundasrikanth2002@gmail.com	9398206325	60
15	20241A0116	Jangili Sravan Kumar	sravanpatel58@gmail.com	8463970544	60
16	20241A0117	Janjirala Sruthi	sruthijanjirala07@gmail.com	6304220823	48
17	20241A0118	Jarapula Jayanth	jarapulajayanth999@gmail.com	9963615014	48
18	20241A0119	K Nikhitha	nikhithakakularam119@gmail.com	6302866223	48
19	20241A0121	K.Kondal	kkondalkambalapally@gmail.com	8897727949	52
20	20241A0122	Kammampati Udaykiran	udaykammampati@gmail.com	9948968656	60
21	20241A0123	Karne Srithan	srithankarne11@gmail.com	7729081312	48
22	20241A0124	Kunchala Varun Kumar	varunkumar75695@gmail.com	7569546572	58
23	20241A0125	Kunta Nithin Reddy	nithinreddy4304@gmail.com	6281158473	50
24	20241A0126	M Pavan Kalyan	Kalyanmakkala@gmail.com	6281690782	52
25	20241A0127	Mere Mahesh	maheshmereyohasha@gmail.com	6303521983	86
26	20241A0128	Mohammed Ahmed	mateen81202@gmail.com	7386719487	60
27	20241A0129	Mothukuri Laxman	ramlaxmanbharath8888@gmail.com	6309547042	62
28	20241A0130	Mottadi Aditya Teja	adityateja2911@gmail.com	8310896636	64
29	20241A0131	Mula Sushma Sri	sushmasrimula95@gmail.com	8179462003	58
30	20241A0132	Nayini Swetha	swethanayini02@gmail.com	6281572952	56
31	20241A0134	P.Sai Kiran Reddy	saikiransanddy22@gmail.com	9347912286	50
32	20241A0136	Pathlavath Shiva Nayak	pathlavathshivanayak68@gmail.com	9381802955	44
33	20241A0137	Peddiboina Anusha	pedhiboyinasrinu@gmail.com	9100979527	80
34	20241A0138	Poreddy Abhinav Reddy	abhinavReddy1898@gmail.com	9390257781	42
35	20241A0139	Pullagura Santhosh	santhoshpullagura1@gmail.com	7075781780	44
36	20241A0140	Rachala Bharath	bharathrachala2002@gmail.com	8897652002	52
37	20241A0142	Ramavath Roja	ramavathrojao42003@gmail.com	7036622719	80
38	20241A0143	Rathlavath Sairam Nayak	sairamstunner123@gmail.com	6281080681	56
39	20241A0144	Ravi Teja Pasunuthi	tejapasunuthi7675@gmail.com	7675811809	50
40	20241A0146	Saddi Shriank Reddy	shriank0904@gmail.com	9640242124	76
41	20241A0147	Sathvika Narla	sathunarla@gmail.com	9542874313	62
42	20241A0148	Sokkula Koushikreddy	koushikreddy5678@gmail.com	9949490683	64
43	20241A0149	Sriram Pandavula	sriram.pandavula@gmail.com	9840439836	60
44	20241A0150	T.Bhargavi	bhargavit263@gmail.com	6303032235	64
45	20241A0151	T.Bhuvaneshwari	thangavelpooja25@gmail.com	9959655383	74
46	20241A0152	S.Teja Retiesh Reddy	ritieshreddy@gmail.com	8074196459	60
47	20241A0153	Tejavath Kalyani	kalyanitejavath7@gmail.com	8688960330	74
48	20241A0154	Tellapuram Prudhvi Raj	tellapuramprudhvi@gmail.com	8185995072	80
49	20241A0155	Thadem Rohith	rohiththadem18@gmail.com	6303006214	54
50	20241A0156	Thummala Rajashekar	tummalavicky2@gmail.com	9494391440	82
51	20241A0157	Uvsgr Kameswara Sai Karthik	uppulurekarthik@gmail.com	8074982921	54
52	20241A0158	Sreeram Vattem	sreeramv2002@gmail.com	9515259150	84
53	20241A0159	V Vikesh	vikesh2803@gmail.com	9618700132	60
54	20241A0160	Vennam Srikar	srikarvennam007@gmail.com	7729889522	56
55	21245A0101	Gumadavelli Arunkumar	arunkumargummadavelli@gmail.com	9866272260	52
56	21245A0102	Kadirabad Sriram	kadirabadsriram@gmail.com	9014317210	60
57	21245A0103	Manikonda Nikitha	manikondanikitha666@gmail.com	7780283337	64
58	21245A0104	Paridula Prathyusha	prathyushaparidula@gmail.com	8522958632	52
59	21245A0105	Pateru Mouna	mounapateru357@gmail.com	9652541293	54

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Value-Added Course on Introduction to Finite Element Method (FEM) – Applications

FEEDBACK RESPONSES

S. No	Roll No.	Name of the Student	YOUR OVERALL SATISFACTION LEVEL ABOUT THE VAC	THE SESSIONS WAS IN CLEAR AND ORGANIZED MANNER	THE RESOURCE PERSONS RESPONDED TO QUESTIONS IN AN INFORMATIVE AND APPROPRIATE	DO YOU NEED MORE PROGRAMS LIKE THIS ??	KEY TAKEAWAYS FROM THE VAC	YOUR SUGGESTIONS AND COMMENTS
1	20241A0101	Aadlu Srikar Rao	5	5	5	5	Nil	Nil
2	20241A0103	Bacchugudam Rithvik Reddy	5	5	5	5	Nothing	Nothing
3	20241A0104	Bandla Naveen	4	4	4	4	Upto the Mark	More Practice required
4	20241A0105	B Pranav Sai	5	5	5	5	Learn the background of STADD Pro	Very good
5	20241A0106	Bhattu Supreeth Chakravarthy	5	5	5	5	Applications	Good
6	20241A0107	Bhupathiraju Himanthavarma	4	4	4	4	Great topic	It's already best
7	20241A0108	Boini Hemanth	5	5	5	5	FEM	Good
8	20241A0109	Challa Ajay Kumar	4	4	4	4	Satisfactory	Encouragement should be done
9	20241A0110	Donaboina Sri Hari	4	5	5	5	Nil	Nil
10	20241A0111	Eppa Arnav	3	4	4	4	Nil	Good
11	20241A0112	G L N Raghuraman	4	4	4	4	FEM	Good
12	20241A0113	Gandla Harshith Kumar	3	3	3	3	Different applications of FEM	Good
13	20241A0114	Guggilla Shashank	4	4	4	4	Different applications of FEM	OK
14	20241A0115	Gunda Srikanth	5	5	5	5	Nil	Nil
15	20241A0116	Jangili Sravan Kumar	2	2	2	2	FEM	Good
16	20241A0117	Janjirala Sruthi	3	3	3	3	Full	Nil
17	20241A0118	Jarapula Jayanth	5	4	4	5	Good	Nil
18	20241A0119	K Nikhitha	5	4	4	4	Good	Good
19	20241A0121	K.Kondal	5	5	5	5	Better Knowledge on working of FEM	Good
20	20241A0122	Kammampati Udaykiran	4	4	4	4	Good	Use updated codes
21	20241A0123	Karne Srithan	4	4	4	5	Better Knowledge on working of FEM	No comments
22	20241A0124	Kunchala Varun Kumar	5	5	5	4	Very good	Good program
23	20241A0125	Kunta Nithin Reddy	5	5	5	5	FEM	Good
24	20241A0126	M Pavan Kalyan	2	2	2	2	Knowledge	No comments
25	20241A0127	Mere Mahesh	5	5	5	4	Nil	Nil
26	20241A0128	Mohammed Ahmed	5	5	5	5	Yes	No
27	20241A0129	Mothukuri Laxman	4	4	4	4	Good and encouraging to students	Excellent
28	20241A0130	Mottadi Aditya Teja	5	5	5	5	Nothing	Nothing
29	20241A0131	Mula SuFEMa Sri	5	5	5	5	Nothing	Nothing
30	20241A0132	Nayini Swetha	5	5	5	5	Nothing	Good
31	20241A0134	P Sai Kiran Reddy	5	5	5	5	Nothing	Good
32	20241A0136	Pathlavath Shiva Nayak	5	5	1	3	I got an idea in FEM	Conducted this exam is good
33	20241A0137	Peddiboina Anusha	4	4	4	4	Good	Good
34	20241A0138	Poreddy Abhinav Reddy	3	4	3	3	Basic knowledge about FEM	No comments
35	20241A0139	Pullagura Santhosh	5	5	5	5	Very good	Very good
36	20241A0140	Rachala Bharath	5	5	5	5	No comments	No comments
37	20241A0142	Ramavath Roja	5	5	5	5	Basic knowledge about FEM	More workshops is Required
38	20241A0143	Rathlavath Sairam Nayak	3	5	4	4	Nothing	good
39	20241A0144	Ravi Teja Pasunuthi	4	4	4	5	Nothing	More training is Required
40	20241A0146	Saddi Shriank Reddy	3	4	4	4	No	Good
41	20241A0147	Sathvika Narla	5	5	1	3	Nil	Nil
42	20241A0148	Sokkula Koushikreddy	4	4	4	4	Nil	Good
43	20241A0149	Sriram Pandavula	3	4	3	3	FEM	Good
44	20241A0150	T.Bhargavi	5	5	5	5	Different applications of FEM	Good
45	20241A0151	T.Bhuvaneshwari	5	5	5	5	FEM	Nothing
46	20241A0152	S.Teja Retiesh Reddy	4	4	4	4	Nil	OK
47	20241A0153	Tejavath Kalyani	5	5	5	5	FEM	Good
48	20241A0154	Tellapuram Prudhvi Raj	2	2	2	2	Full	OK
49	20241A0155	Thadem Rohith	3	3	3	3	Nil	Nil
50	20241A0156	Thummala Rajashekar	5	4	4	5	Good	Good
51	20241A0157	Uvsgr Kameswara Sai Karthik	5	4	4	4	Basic knowledge about FEM	Conducted this exam is good
52	20241A0158	Sreeram Vattem	3	5	4	4	Good	Good
53	20241A0159	V Vikesh	4	4	4	5	Basic knowledge about FEM	No comments
54	20241A0160	Vennam Srikar	3	4	4	4	Very good	Very good
55	21245A0101	Gumadavelli Arunkumar	5	5	1	3	No comments	No comments
56	21245A0102	Kadirabad Sriram	4	4	4	5	I learn basics of FEM	Good
57	21245A0103	Manikonda Nikitha	4	4	4	5	No comments	No comments
58	21245A0104	Paridula Prathyusha	5	4	4	4	I learn basics of FEM	Very good
59	21245A0105	Pateru Mouna	5	4	4	4	I learn basics of FEM	Very good

EVENT SUMMARY REPORT

Griet /Other institutes/Organization Address:	GRIET		
Department	Civil Engineering	*Professional Body*	Institutional Body
Nature of the Event (Co & Extra Curricular Activities -Workshop / Seminar / Guest Lecture / Tech Talk/FDP/GD/ Training Program / Quiz / Any Prof. Body events Presentation/ Conference/ Industry Visit)	Value Added Course		
Title / Theme of the Event	Introduction to Finite Element Method (FEM) – Applications		
Details of the Coordinator& Designation	Convener and Coordinator Dr. G V V Satyanarayana. Professor & HOD. CE. GRIET		

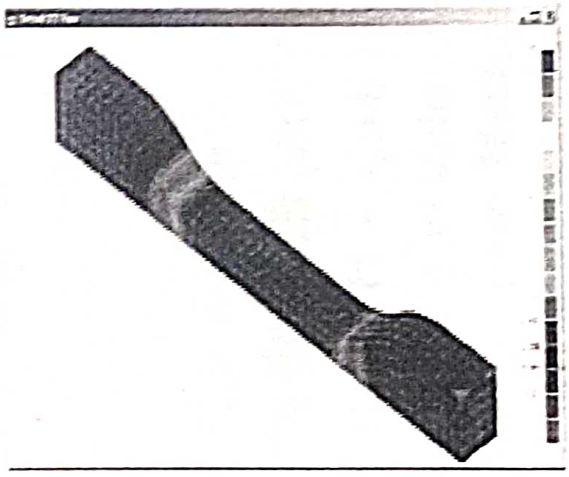
Event Dates/Days	From	To	No. of Days
	02/01/2024	23/04/2024	14

Details of the Speaker / Guest Organization Address:	Dr. G V V Satyanarayana. Professor & HOD. CE. GRIET

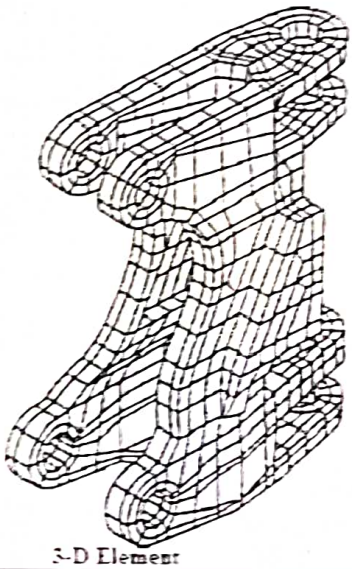
Participants (Teaching Faculty / Non-Teaching Faculty / Students)	No. of Faculty	No. of UG students	No. of PG Students	No. of outside participants	Total Participants
	-	59	-	-	59

Faculty Names & Designation	-
Summary of the Event	The finite element method (FEM) is a numerical technique for solving problems which are described by partial differential equations or can be formulated as functional minimization. This method is most suitable for complex problems where is no direct solutions are not available. But this method is provides approximate solutions but acceptable. A domain of interest is represented as an assembly of finite elements. Approximating functions in finite elements are determined in terms of nodal values of a physical field

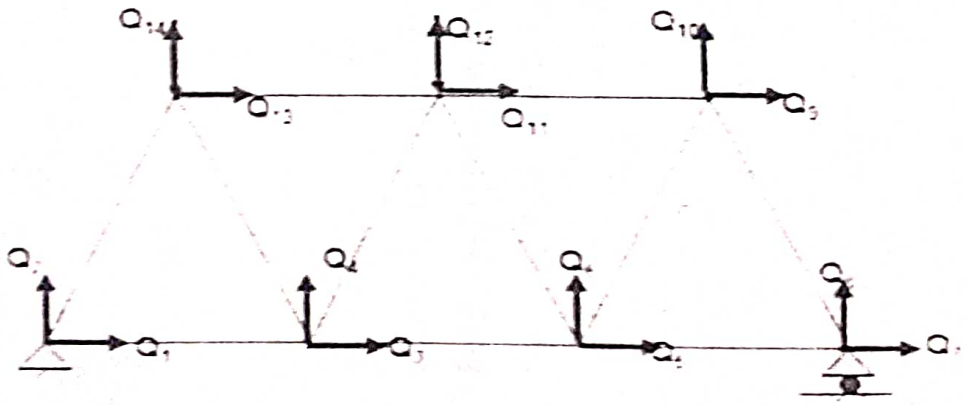
	which is sought. A continuous physical problem is transformed discretized finite element problem with unknown nodal values. For problem a system of linear algebraic equations should be solved. Values finite elements can be recovered using nodal values.
IRG (in rupees) **Deposited A/C no A/C name and date and other details** **(enclose proof-A/C statement)**	NIL
Expenditure (in rupees) **(Enclose proof-bills)**	NIL
POs attained with this Event (number and description)	**PO 1:** Apply knowledge of mathematics, science and fundamentals of Civi Engineering. **PO 2:** Analyse problem and interpret the data. **PO 3: Design a system component, or process to meet desired needs in Civi Engineering within realistic constraints** **PO 4: Identify, formulate, analyse and interpret data to solve Civi Engineering problems.** **PO 12: Recognize the need for and an ability to engage in life-long learning** **PSO 2: Create and develop innovative designs with new era material through research and development.**
Photographs of the event (Hard copy and Soft copy)	 INTRODUCTION TO FINITE ELEMENT METHOD (FEM)- Applications [illegible]



Stress Contour



3-D Element



Truss

Proofs:
1. Certificates copies
2. Profile of Speaker
3. PPT/Material as applicable. etc..

Signature of Coordinators
Dr. G V V Satyanarayana.
Professor & HOD. CE. GRIET.

Signature of Convenor
Dr. G V V Satyanarayana.
Professor & HOD. CE. GRIET

GOKARAJU RANGARAJU

INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Autonomous)

Gokaraju Rangaraju Institute of Engineering & Technology (Griet) 1997

ACCREDITED WITH GRADE A++ NAAC

Certificate of Participation

This is to certify that

Bandla Naveen (20241A0104)

from IV B.TECH – Civil Engineering

has succesfully participated in Value-Added Course (VAC) on

"Introduction to Finite Element Method (FEM) – Applications"

in Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad from 2nd January to 23rd April 2024.

Convenor & HOD
Dr.GVV Satyanarayana

J. Praveen

Principal
Dr. J. Praveen

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K Nikhitha (20241A0119)

from IV B.TECH – Civil Engineering

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GOKARAJU RANGARAJU

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This is to certify that

V Vikesh (20241A0159)

from IV B.TECH – Civil Engineering

has succesfully participated in Value-Added Course (VAC) on

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Convener & HOD
Dr. G.V.T. Satyanarayana

Principal
Dr. S. Parveen

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Convenor & HOD
Dr.GVV Satyanarayana

J. Praveen

Principal
Dr. J. Praveen

DEPARTMENT OF CIVIL ENGINEERING

Ref No: GRIET/CE/IC/G/23-24

01 March 2024

To

The Principal,

GRIET,

Hyderabad.

Subject: Value Added Course on "**Geographic Information System (GIS)**", Regd.

Sir,

With reference to the above subject, we the Department of Civil Engineering introduce Value Added Course on "**Geographic Information System (GIS)**" by Department of Civil Engineering for IV B. Tech - II Semester Students. Certificates will be awarded to all students who clear both Internal and External examination. The examination pattern is 30 marks for Internal Examination and 70 marks for External Examination.Kindly provide the subject code for the proposed Value-Added Course. Timetable and syllabus are enclosed below.

Thanks & Regards

01/3/24

Dr. G V V Satyanarayana
Professor & HOD
Civil Engineering Dept

J. Praveen

Principal

Regulation: GR20
Course code: GR23V8029

Gokaraju Rangaraju

Institute of Engineering and Technology

Gokaraju Rangaraju Institute of Engineering and Technology (GRIET) is established in 1997 by Dr. G Gangaraju as a self-financed institute under the aegis of Gokaraju Rangaraju Educational Society. GRIET is approved by AICTE, New Delhi, permanently affiliated to and autonomous under JNTUH, Hyderabad. GRIET is committed to quality education and is known for its innovative teaching practices.

The mission of GRIET is to achieve and impart quality education with an emphasis on practical skills and social relevance. Presently GRIET has 9 UG and 6 PG programs. The college is NBA accredited in CE, CSE, ECE, EEE, IT, and ME. CSBS, AI&ML, DS are new programs. The institute is accredited by NAAC with 'A++' grade.

Department of Civil Engineering

The Department of Civil Engineering is established in the year 2008, with an intake of 60 students. It is a fast-growing discipline in tune with the infrastructure growth.

The department has master's program in Structural Engineering, established in the year 2014 with an intake of 18 students which is further increased to 30 students from the academic year 2017. The department has well equipped laboratories with an emphasis on practical skills and fundamentals. The Department has well experienced and talented faculty which includes nine doctorates.

Patrons

Dr. Jandhyala N. Murthy,
Director, GRIET

Dr. J. Praveen,
Principal, GRIET

Dr. K. V. S. Raju,
Senior Administrative officer, GRIET

Convenor

Dr. G V V Satyanarayana,
Professor & HOD, CE, GRIET

Coordinators

1. **Mr. Rathod Ravinder,**
   Assistant Professor, CE, GRIET
2. **Mr. C,Vivek Kumar,**
   Assistant Professor, CE, GRIET

Resource Persons

1. **Mr. Rathod Ravinder,**
   Assistant Professor, CE, GRIET

Value Added Course

on

Geographic Information System (GIS)

(4th March to 21st March 2024)

Organized by

Department of Civil Engineering

Gokaraju Rangaraju

Institute of Engineering and Technology
(Autonomous)
Bachupally, Hyderabad,
Telangana, India-500090
Office: 7207344440, 7207714441
www.griet.ac.in

About Value added course

A Geographic Information System (GIS) is a framework for gathering, managing, and analyzing data rooted in the science of geography. GIS integrates many types of data and is used to analyze spatial locations and organize layers of information into visualizations using maps and 3D scenes. With this unique capability, GIS reveals deeper insights into data, such as patterns, relationships, and situations—helping users make smarter decisions. Some of the application seen for various departments such as **Urban Planning, Environmental Management**, **Transportation**, **Agriculture**, **Public Health**. GIS continues to evolve with advancements in technology, such as the integration of artificial intelligence (AI) and machine learning, cloud computing, and the Internet of Things (IoT), expanding its capabilities and applications across various fields.

Course Contents

Introduction:

Definition of GIS – Classification, Types and Components of GIS – Advantages and Benefits of GIS.

Technologies:

QGIS open source software, Laptop and internet

Methodology: Problem Definition- Data Acquisition- Data Input- Data Analysis- Interpretation- Decision Making.

GIS monitoring:

GIS monitoring involves using Geographic Information Systems (GIS) to continuously observe, track, and analyze various phenomena or processes over time. This can be applied in various fields such as environmental monitoring, urban planning, disaster management, and more. Here's an outline of the key components and steps involved in GIS monitoring.

Registration

There is **NO** Registration Fee for the Value-Added Course on "Geographic Information System (GIS)"

Expected Outcome:

This course will help students to learn the basic concepts of GIS and extended the learning to projects in the practical implications in various domain.

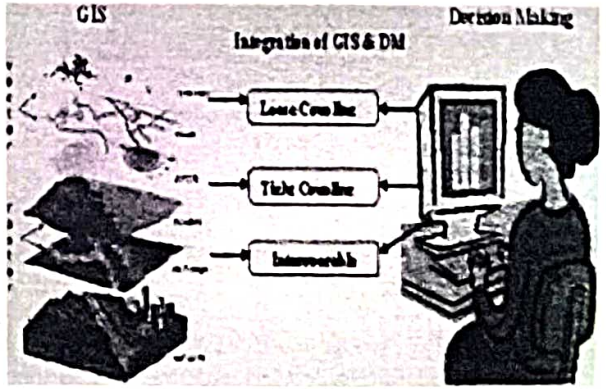
Important Dates

Receipt of Registrations : **01-03-2024**

VAC Duration :

4th March to 21st March 2024

(Daily 04pm to 6pm)



Gokaraju Rangaraju Institute of Engineering and Technology

Department of Civil Engineering

Timetable for Value Added Course AY: 2023-24

				w.e.f : 04th March to 21st March 2024
Day	**10:20am – 01:05pm**	**01:05pm -01:40pm**	**01:40pm – 03:00pm**	**03:00pm-05:00pm**
Monday	Regular Classwork	LUNCH BREAK	Regular Classwork	**VAC-GIS**
Tuesday	Regular Classwork		Regular Classwork	**VAC-GIS**
Wednesday	Regular Classwork		Regular Classwork	**VAC-GIS**
Thursday	Regular Classwork		Regular Classwork	**VAC-GIS**
Friday	Regular Classwork		Regular Classwork	**VAC-GIS**
Saturday	Regular Classwork		Regular Classwork	**VAC-GIS**

Sub. Code	Sub. Short form	Subject	Speaker Name
GR23V8029	VAC-GIS	Geographic Information System (GIS)	**Mr. Rathod Ravinder** Assistant Professor, CE,GRIET.

HOD-CE

Gokaraju Rangaraju Institute of Engineering and Technology

One Credit Course

Course Title : GEOGRAPHIC INFORMATION SYSTEM (GIS)

Total Number of Lecture Hours : 30

Course Content:

1: Introduction to GIS: Definition and history of GIS, Components of a GIS , Applications of GIS in various fields

2: GIS Data Models and Structures: Raster data model (grid cells), Comparison of vector and raster data

3: Data Sources and Acquisition: Remote sensing and aerial photography, GPS (Global Positioning System)

4: GIS Data Management: Database concepts and management systems, Data storage, retrieval, and indexing

5: Data Quality and Standards: Accuracy, precision, and error in spatial data, Metadata and data documentation

6: GIS Database Design: Conceptual, logical, and physical design, Normalization and spatial relationships

7: Introduction to Spatial Analysis: Spatial queries and operations, Proximity and buffer analysis

8: Network Analysis: Concepts of network analysis, Network applications (transportation, utilities)

9: Terrain Analysis: Digital Elevation Models (DEMs), Hydrological modeling (watershed and stream networks)

10: Spatial Statistics and Geostatistics, Descriptive spatial statistics, Spatial autocorrelation and clustering

11: Principles of Cartography: Map design and layout, Coordinate systems and map projections

12: Advanced Visualization Techniques: Interactive web mapping, Story maps and dashboards

13: Environmental Applications: Land use and land cover mapping, Environmental impact assessment

14: Urban and Regional Planning: Urban growth modelling, Infrastructure and utility management

15: Disaster Management and Emergency Response: Hazard mapping and risk assessment, GIS in response and recovery operations

Assessment and Evaluation

- **Assignments**: Regular practical assignments to reinforce concepts
- **Quizzes and Exams**: Periodic quizzes and midterm/final exams to assess understanding

Targeted Audience:

1. B. Tech (Civil) IV-II Year Students

Resource Persons

1. Mr. Rathod Ravinder, Assistant Professor, CE,GRIET.

Gokaraju Rangaraju Institute of Engineering & Technology

(Autonomous)

Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009

Value-Added Course on Geographic Information System (GIS)

LIST OF REGISTERED PARTICIPANTS

S.No	Reg No	Student Name
1	20241A0101	AADHI SRIKAR RAO
2	20241A0103	BACCHUGUDAM RITHVIK REDDY
3	20241A0104	BANDLA NAVEEN
4	20241A0105	B.PRANAV SAI
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36	20241A0140	RACHALA BHARATH
37	20241A0142	RAMAVATH ROJA

38	20241A0143	RATHLAVATH SAIRAM NAYAK
39	20241A0144	RAVI TEJA PASUNUTHI
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59	21245A0105	PATERU MOUNA

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Value-Added Course on Geographic Information System (GIS)

INTERNAL ASSESSMENT QUESTION PAPER

1. Among the available formats, which are most commonly used in case of GIS?
   a) GIF b) TIFF
   c) JPEG d) DXF
2. Which data structure required low storage
   a) Raster b) Vector
   c) TIN d) all the above
3. Study of geometric objects will come under the category of _____
   a) Surveying b) Cartography
   c) Surface geometry d) Topology
4. Which type of data set is/are in GIS related software's?
   a) Line b) Point
   c) Polygon d) All the above
5. By 'spatial data' we mean data that has
   a) Complex values b) Positional values
   c) Decimal values d) Graphic values
6. Which of the following data structure expensive in terms of technology
   a) Raster b) Vector
   c) Can't compare d) Both A and B
7. Field survey data can be fall into
   a) Spatial data b) Attribute data
   c) Both A and B d) None of the above
8. The point data feature can be used to represent _____
   a) Location b) Area
   c) 3D area d) Volume
9. What are the two general data formats usedin GIS?
   a) Vector and raster b) Points and lines
   c) Features and attributes d) Digital and paper maps
10. The polygonal data feature uses which of the following data format?
    a) Scientific character b) Math
    c) Character d) Integer
11. Expand the GIS
    a)Geographic information system b) Geodetic information source
    c) Geometry information system d) all of the above
12. GIS represents a location in _____ dimensional coordinates.
    a) 2 b) 3
    c) 4 d) 5
13. Which of the following are the applications of web mapping?
    a) Google maps b) Bing maps
    c) Open street Maps d) All the above
14. Which of the following doesn't determine the capability of GIS?
    a) Defining a map b) Representing cartographic feature
    c) Retrieving data d) Transferring data

15. Which of the following acts a benefit of GIS?
    a) Maintaining geo spatial data
    b) Data sharing
    c) Accurate data information
    d) Presence of data retrieval service
16. Mapmakers use GIS to
    a) Store geographic information
    b) Use geographic information
    c) View geographic information
    d) Store, use and view geographic information
17. The information in GIS is entered and stored
    a) Panels
    b) Layers
    b) Single panel
    d) Dual panel
18. The user can use GIS to make
    a) Complex analyses only
    b) Display maps only
    c) Complex analyses and display maps
    d) None of these
19. Raster graphic in GIS represents data in _____ grid of pixels.
    a) Circular
    b) Rectangular
    c) Square
    d) All the above
20. Do GIS represent a non-existing object?
    a)Yes
    b) No
    c) Maybe

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Value-Added Course on Geographic Information System (GIS)

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23	20241A0125	KUNTA NITHIN REDDY	A	P	P	A	P	A	P	P
24	20241A0126	M PAVAN KALYAN	A	A	A	P	P	A	P	A
25	20241A0127	MERE MAHESH	P	P	P	P	P	P	P	P
26	20241A0128	MOHAMMED AHMED	A	P	P	A	P	P	A	P
27	20241A0129	MOTHUKURI LAXMAN	P	P	A	P	A	P	P	P
28	20241A0130	MOTTADI ADITYA TEJA	P	A	P	P	P	P	A	P

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Value-Added Course on Geographic Information System-GIS

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S. No	Roll No.	Name of the Student	13-03-2024 Wednesday Sign.	14-03-2024 Thursday Sign.	15-03-2024 Friday Sign.	16-03-2024 Saturday Sign.	18-03-2024 Monday Sign.	19-03-2024 Tuesday Sign.	20-03-2024 Wednesday Sign.	21-03-2024 Thursday
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S. No	Roll No.	Name of the Student	Sign.	Sign.	Sign.	Sign.	Sign.	Sign.	Sign.	
29	20241A0131	MULA SUSHMA SRI	P	P	P	P	P	P	P	P
30	20241A0132	NAYINI SWETHA	P	P	P	P	P	P	P	P
31	20241A0134	P.SAI KIRAN REDDY	P	P	P	P	P	P	P	P
32	20241A0136	PATHLAVATH SHIVA NAYAK	P	P	P	P	P	P	P	P
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34	20241A0138	POREDDY ABHINAV REDDY	P	P	P	P	P	P	P	P
35	20241A0139	PULLAGURA SANTHOSH	P	P	P	P	P	P	P	P
36	20241A0140	RACHALA BHARATH	P	P	P	P	P	P	P	P
37	20241A0142	RAMAVATH ROJA	P	P	P	P	P	P	P	P
38	20241A0143	RATHLAVATH SAIRAM NAYAK	P	P	P	P	P	P	P	P
39	20241A0144	RAVI TEJA PASUNUTHI	P	P	P	P	P	P	P	P
40	20241A0146	SADDI SHRIANK REDDY	P	P	P	P	P	P	P	P
41	20241A0147	SATHVIKA NARLA	P	P	P	P	P	P	P	P
42	20241A0148	SOKKULA KOUSHIKREDDY	P	P	P	P	P	P	P	P
43	20241A0149	SRIRAM PANDAVULA	P	P	P	P	P	P	P	P
44	20241A0150	T.BHARGAVI	P	P	P	P	P	P	P	P
45	20241A0151	T.BHUVANESHWARI	P	P	P	P	P	P	P	P
46	20241A0152	S.TEJA RETIESH REDDY	P	P	P	P	P	P	P	P
47	20241A0153	TEJAVATH KALYANI	P	P	P	P	P	P	P	P
48	20241A0154	TELLAPURAM PRUDHVI RAJ	P	P	P	P	P	P	P	P
49	20241A0155	THADEM ROHITH	P	P	P	P	P	P	P	P
50	20241A0156	THUMMALA RAJASHEKAR	P	P	P	P	P	P	P	P
51	20241A0157	UVSGR KAMESWARA SAI KARTHIK	P	P	P	P	P	P	P	P
52	20241A0158	SREERAM VATTEM	P	P	P	P	P	P	P	P
53	20241A0159	V VIKESH	P	P	P	P	P	P	P	P
54	20241A0160	VENNAM SRIKAR	P	P	P	P	P	P	P	P
55	21245A0101	GUMADAVELLI ARUN KUMAR	P	P	P	P	P	P	P	P
56	21245A0102	KADIRABAD SRIRAM	P	P	P	P	P	P	P	P
57	21245A0103	MANIKONDA NIKITHA	P	P	P	P	P	P	P	P
58	21245A0104	PARIDULA PRATHYUSHA	P	P	P	P	P	P	P	P
59	21245A0105	PATERU MOUNA	P	P	P	P	P	P	P	P

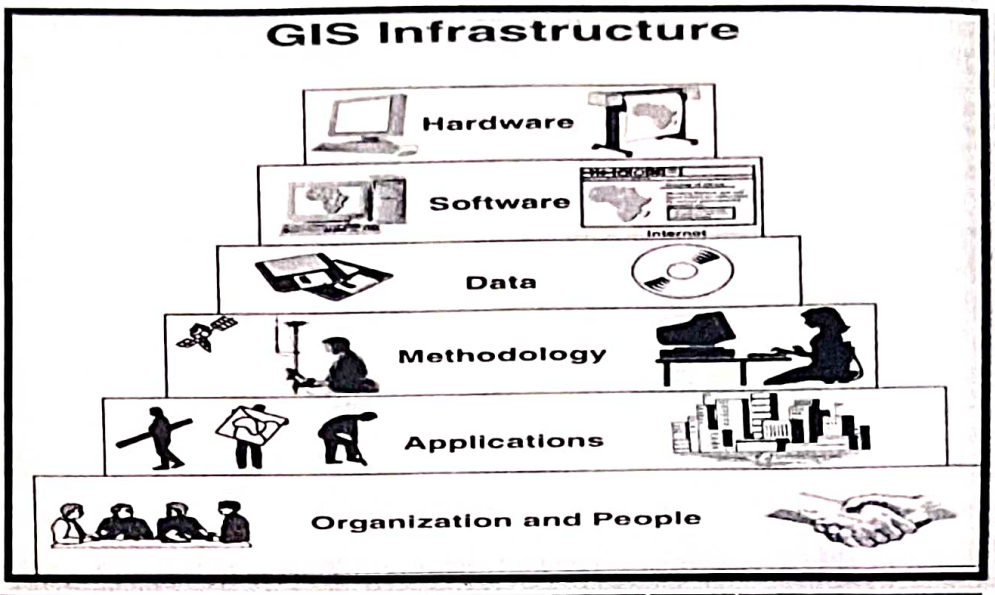
GRIET/6C/G/23-24

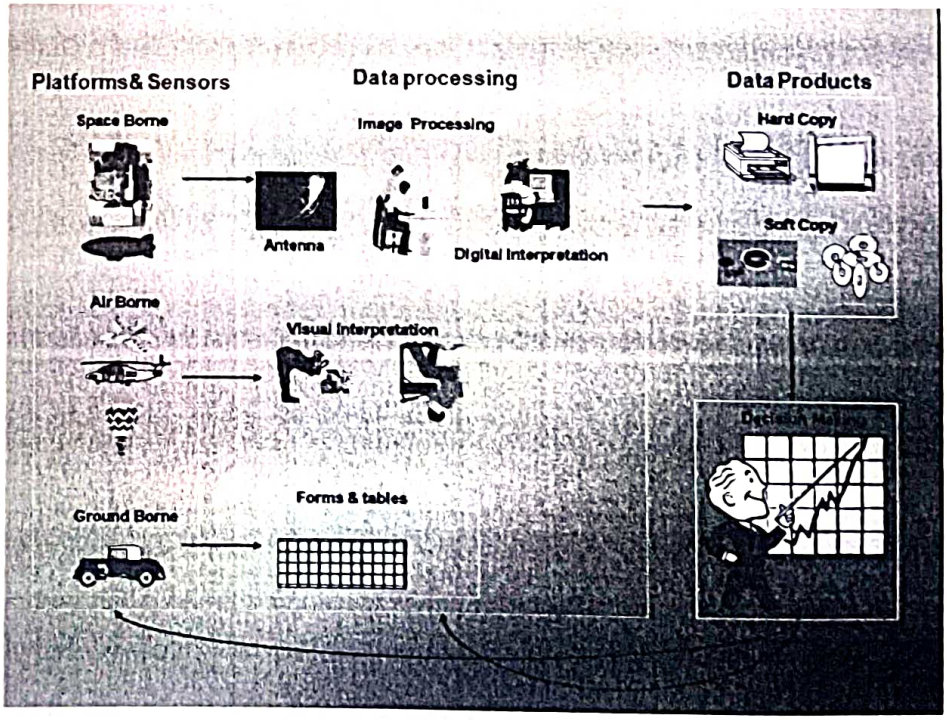
EVENT SUMMARY REPORT

Griet/Other institutes/Organization Address:	**GRIET**				
Department	**Civil Engineering**	**Professional Body**		**Institutional Body**	
Nature of the Event (Co & Extra Curricular Activities-Workshop / Seminar / Guest Lecture / Tech Talk/FDP/GD/ Training Program / Quiz / Any Prof. Bodyevents/Presentation/Conference/ Industry Visit)	**Value Added Course**				
Title / Theme of the Event	**Geographic Information System (GIS)**				
Details of the Coordinator& Designation	**Convenor** Dr. G V V Satyanarayana, Professor & HOD, CE, GRIET **Coordinators** 1. Mr. Rathod Ravinder Assistant Professor, CE, GRIET 2. Mr.C.Vivek Kumar Assistant Professor, CE, GRIET				
Event Dates/Days	From	To	No. of Days		
	04/03/2024	21/03/2024	15		
Details of the Speaker / Guest Organization Address:	1. Mr. Rathod Ravinder, Assistant Professor, CE, GRIET 2. Mr. C. Vivek Kumar, Assistant Professor, CE, GRIET				
Participants (Teaching Faculty / Non-Teaching Faculty / Students)	No. of Faculty	No. of UG students	No.of PG Students	No.of outside participants	Total Participants
	-	59	-	-	59
Faculty Names & Designation	-				

Summary of the Event	A Geographic Information System (GIS) is a framework for gathering, managing, and analyzing data rooted in the science of geography. GIS integrates many types of data and is used to analyze spatial locations and organize layers of information into visualizations using maps and 3D scenes. With this unique capability, GIS reveals deeper insights into data, such as patterns, relationships, and situations—helping users make smarter decisions. Some of the application seen for various departments such as Urban Planning, Environmental Management, Transportation, Agriculture, Public Health. GIS continues to evolve with advancements in technology, such as the integration of artificial intelligence (AI) and machine learning, cloud computing, and the Internet of Things (IoT), expanding its capabilities and applications across various fields.
IRG (in rupees) **Deposited A/C no A/C name and date and other details** **(enclose proof-A/C statement)**	NIL
Expenditure (in rupees) **(Enclose proof-bills)**	NIL
POs attained with this Event (number and description)	e. Use modern engineering tools such as CAD and GIS for the Civil Engineering practice. f. Understand the impact of engineering solutions in a global, economic and societal context. g. Understand the effect of Civil Engineering solutions on environment and to demonstrate the need for sustainable development. h. Understanding of professional and ethical responsibility. k. Demonstrate the management principles in Civil Engineering projects. l. Recognize the need for and an ability to engage in life-long learning.

Photographs of the event
(Hard copy and Soft copy)





	
Proofs: **1.Certificates copies** **2.Profile of Speaker** **3.PPT/Material as applicable. etc.,**	Yes

Signature of Coordinators

1. Mr. Rathod Ravinder
   Assistant Professor, CE, GRIET.
2. Mr.C.Vivek Kumar
   Assistant Professor, CE, GRIET

Signature of Convenor
Dr. G V V Satyanarayana,
Professor & HOD, CE, GRIET.

GOKARAJU RANGARAJU

Institute of Engineering and Technology

VALUE ADDED COURSE

on

Geographic Information System (GIS)

4th March to 21st March 2024

Organized by

Department of Civil Engineering

Certificate of Participation

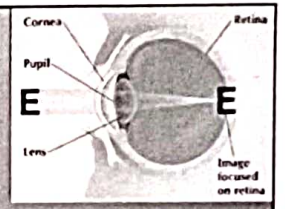
This is to certify that *AADHI SRIKAR RAO, Bearing Roll Number 20241A0101 Pursuing* ***IV B. Tech II Semester*** *in Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology* has attended **Value Added Course on Geographic Information System (GIS)** organized by Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology during 4th March to 21st March 2024.

Mr. Rathod Ravinder	Dr. G V V Satyanarayana	Dr. J. Praveen
Course Coordinator, CE	Convenor & HoD, CE	Principal, GRIET

Geographic Information System-GIS

Remote Sensing

Remote Sensing can be defined as an art, science and technology of obtaining information about an object without coming into actual contact with it through Aerial photography and Satellite scanning

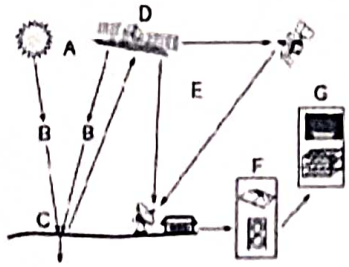


Space platforms or satellite systems comprise,

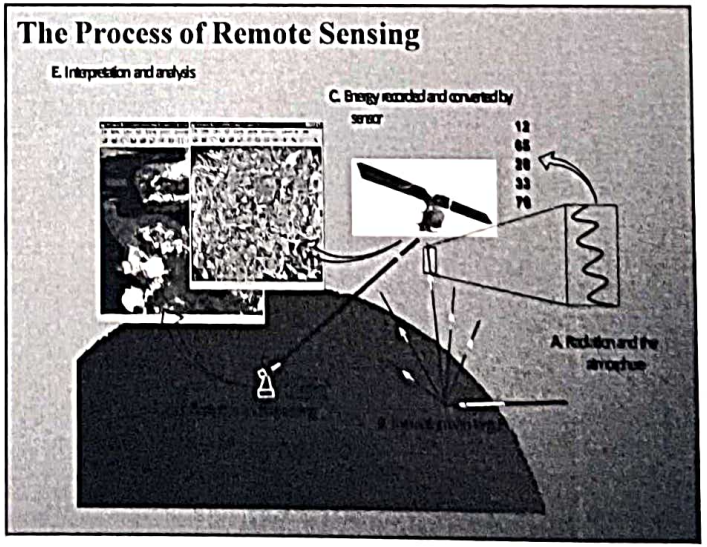
- **Space segment** – satellite put into an orbit
- **Sensor systems** – mounted on satellite and is the „eye" or instrument which observes and transmits information to ground
- **Ground segment** – Earth receiving station

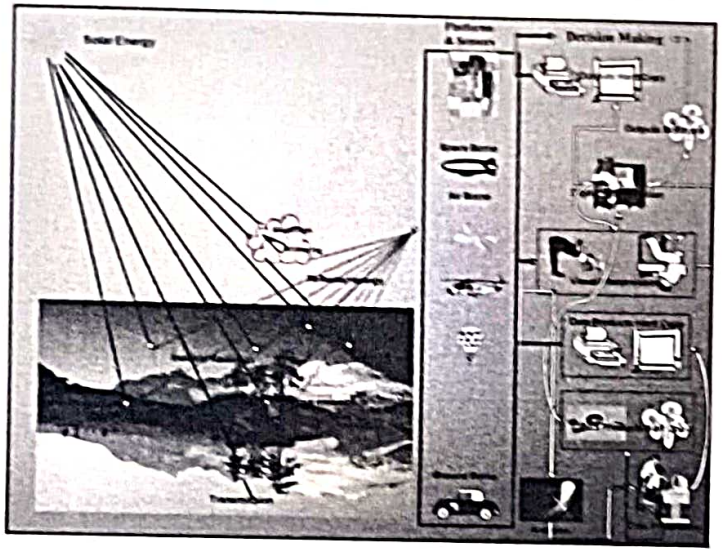
Elements of Remote sensing

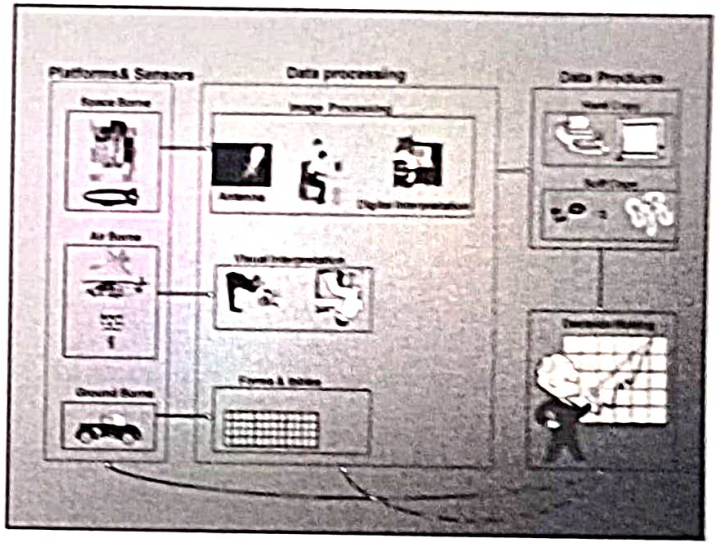
1. Energy Source or Illumination (A)
2. Radiation and the Atmosphere (B)
3. Interaction with the Target (C)
4. Recording of Energy by the Sensor (D)
5. Transmission, Reception, and Processing (E)
6. Interpretation and Analysis (F)
7. Application (G)

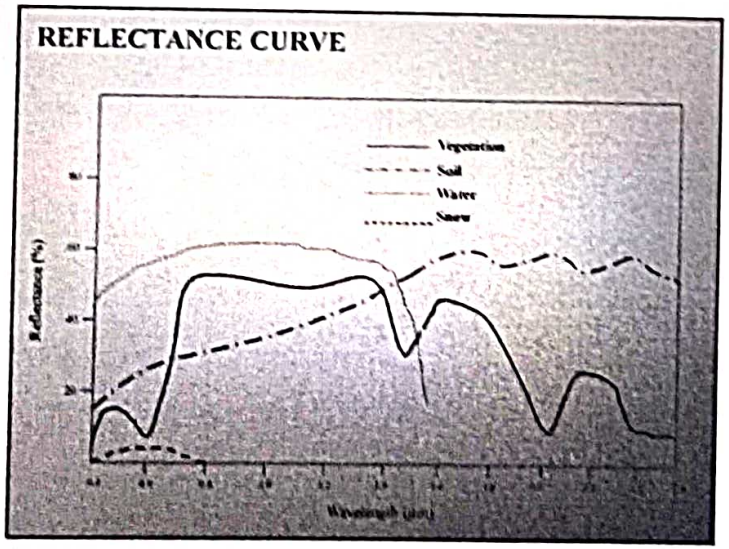


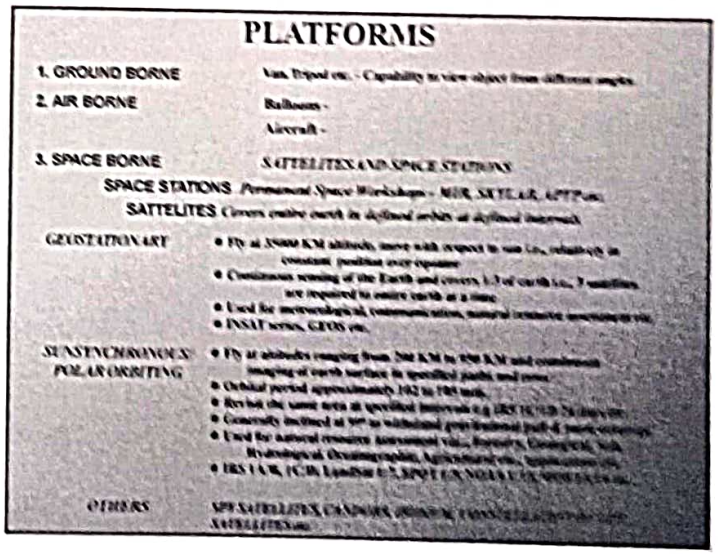
The Process of Remote Sensing




Solar Energy
Platform & Sensors
Decision Making


Platforms& Sensors
Data processing
Data Products
Space Borne
Air Borne
Ground Borne
Image Processing
Visual Interpretation
Forms & Tables
Decision Making


REFLECTANCE CURVE
Vegetation
Soil
Water
Snow
Reflectance (%)
Wavelength (μm)


PLATFORMS
1. GROUND BORNE
2. AIR BORNE
Balloons -
Aircraft -
3. SPACE BORNE
SATTELITES AND SPACE STATIONS
SPACE STATIONS
SATTELITES
GEOSTATIONARY
SUNSYNCHRONOUS POLAR ORBITING
OTHERS

SENSORS

A sensor is a device comprising of optical component or system and a detector with electronic circuitry that will be used to record the reflected and/or emitted energy from various objects

Non Image Forming → *Spectrometers, Radiometer IR&MW, Laser ranger*

Image Forming
- PASSIVE — *6° Measures reflected, emitted energy from surface objects and doesn't has it's own source of energy*
  - 1. Photographic Camera
  - 2. The Vidicon Television Camera
  - 3. The Optical Scanners
  - 4. The Microwave Radiometers
- ACTIVE — *6° Measures back scattered energy from surface objects and it has its own source of energy*
  6° RADAR, LIDAR etc

RESOLUTION

Spatial Resolution — The measure of smallest angular or linear separation between two objects that can be resolved by the sensor.
IRS 1C/1D PAN 5.8 Mt, WIFS 188.3 Mt, LISS III 23.5 & 70.5 Mt; NOAA/AVHRR 1.1 KM at nadir and 2.4 & 6.9 KM offnadir; etc

Spectral Resolution — Refers to the band width and the no. of bands used for collecting the data.
IRS 1C/1D LISS III 4 Bands, LandSat 7 ETM+ 8 Bands, SeaSat CZCS 8 Bands

Radiometric Resolution — Refers to the no. of quantisation levels into which the radiant flux reflected from the scene elements is recorded. *IRS 1C/1D PAN 6 Bits, LISS III 7 Bits, LandSat 7 ETM+ 8 Bits, SPOT 4&5 MLA 8 Bits, AVHRR 10 Bits etc.*

Interrelationship among above three — Large IFOV - High radiometric resolution, Low Spatial resolution
Large band width - High radiometric resolution, Low Spectral resolution

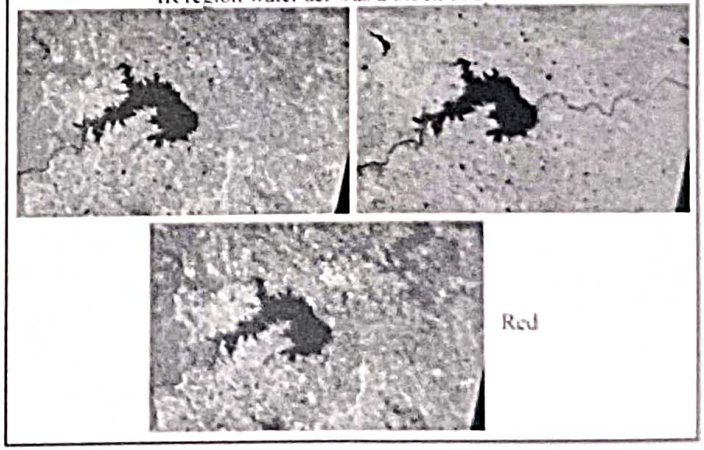
Temporal Resolution — Refers to the frequency of collection of data or the time interval between repetitive coverage of an area. It is vital for monitoring changes with time.
IRS 1C/1D PAN 5Days, LISS III 24 Days, NOAA/AVHRR half day for TIR one day for Visible, MOS 1 & 1a MESSR, VTIR and MSR 17 days etc

REMOTE SENSING SATELLITES AND SENSORS

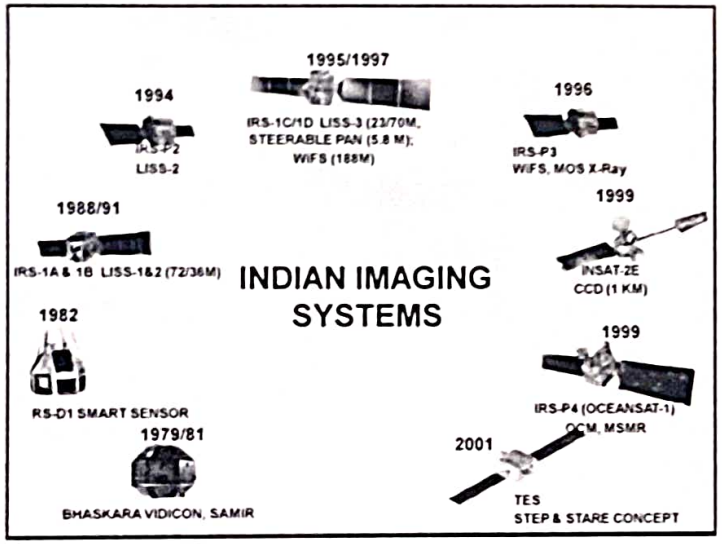
Name / characteristic	Altitude in km	Orbital Period in min	Temporal resolution (days)	Sensor	No. Of bands and region	Spatial resolution in mt	Quantisation (bits)	Swath in km	Off-nadir Viewing
IRS 1A/1B, (1988/1991)									
IRS 1C/1D (1994/1997)									
Landsat 4&5 (1982/1984)									
Landsat 7 (Proposed)									
SPOT 1,2,3 (1986,90,93)									
SPOT 4&5 (Proposed)									
NOAA 6-12									

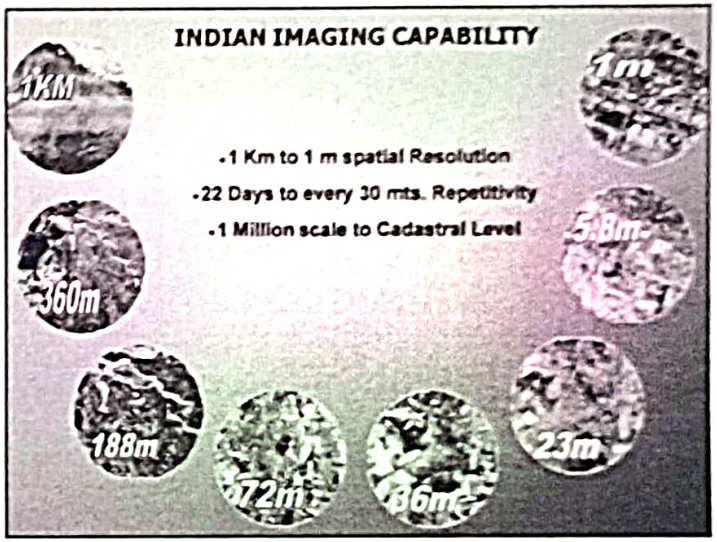
Identification of water bodies

FCC — IR region water act's as a block body. — NIR



Red





Advantages of Remote sensing

- Real time
- Spatial locations and extents of features
  can be collected accurately
- Cheaper
- Faster
- Different scales
- Easy updation
- More analytical themes

Limitations of Remote sensing

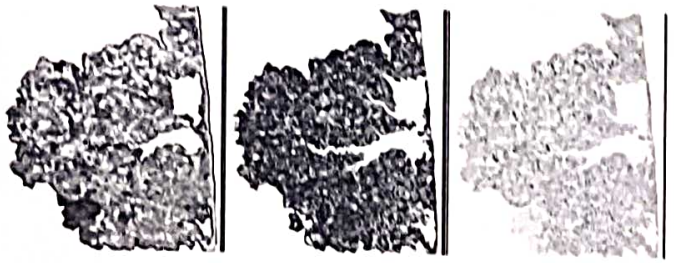
- Availability of cloud free data
- Limitations in mapping smaller areas
- Cumbersome processing
- Can not hold attributes
- Analysis needs vectorisation
- Consistency in data (CIRS 1C)

Soft Wares

- **ERDAS**
- **EASI PACE**
- **ENVI**
- **IDRISI**
- **ISROVISION**

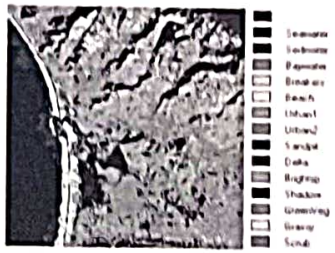
3.Image Transformations

Image transformations typically involve the manipulation of multiple bands of data, whether from a single multispectral image or from two or more images of the same area acquired at different times (i.e. multitemporal image data). Either way, image transformations generate "new" images from two or more sources which highlight particular features or properties of interest, better than the original input images.



4.Image Classification and Analysis

Digital image classification uses the spectral information represented by the digital numbers in one or more spectral bands, and attempts to classify each individual pixel based on this spectral information. This type of classification is termed **spectral pattern recognition**



classification

supervised classification

In a **supervised classification**, the analyst identifies in the imagery homogeneous representative samples of the different surface cover types (information classes) of interest. These samples are referred to as **training areas**. The selection of appropriate training areas is based on the analyst's familiarity with the geographical area and their knowledge of the actual surface cover types present in the image. Thus, the analyst is "supervising" the categorization of a set of specific classes.

unsupervised classification

Unsupervised classification techniques do not require the user to specify any information about the features contained in the images.

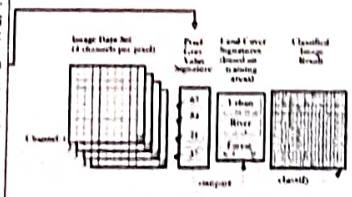


IMAGE PROCESSING

- *RADIOMETRIC CORRECTIONS*
- *GEOMETRIC CORRECTIONS*
- *IMAGE ENHANCEMENTS*
- *MERGING*
- *IMAGE CLASSIFICATION*
- *CHANGE ANALYSIS*
- *UTILITIES*
- *VECTORISATION*

RADIOMETRIC CORRECTION

LINE DROP CORRECTION

Original Image contains two line drops → *Restored image by averaging above and below pixel values*

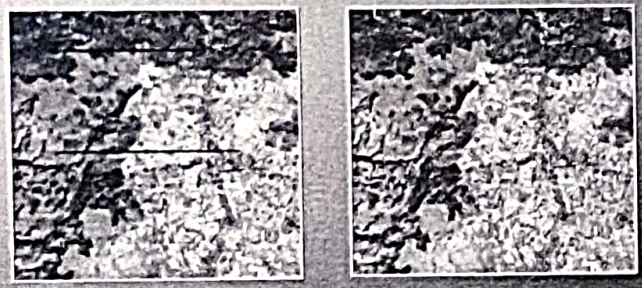
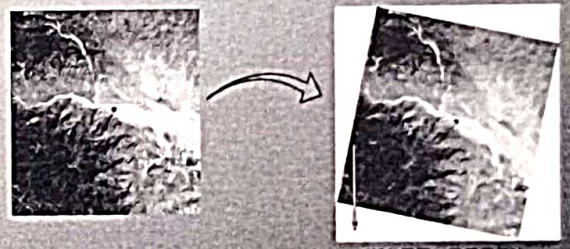


Image Geometric Correction

Correction is the process of giving an image a Real World coordinate system



Principal Component Analysis

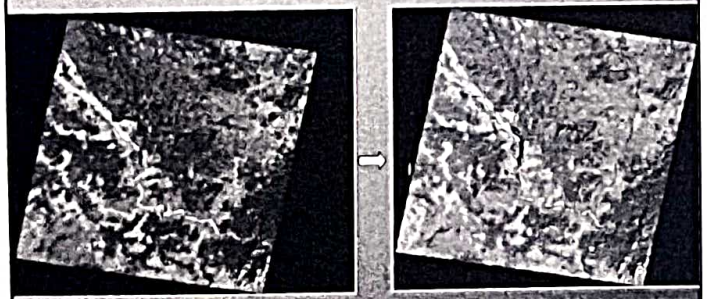
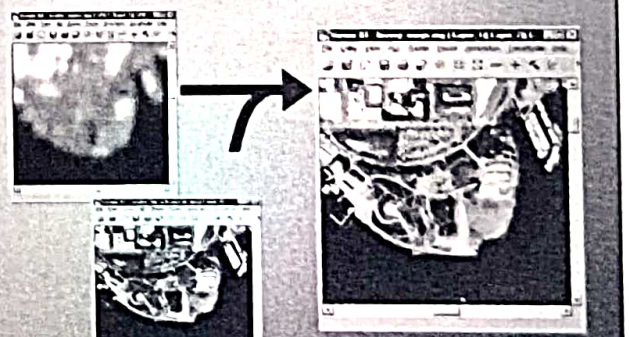


IMAGE MERGING



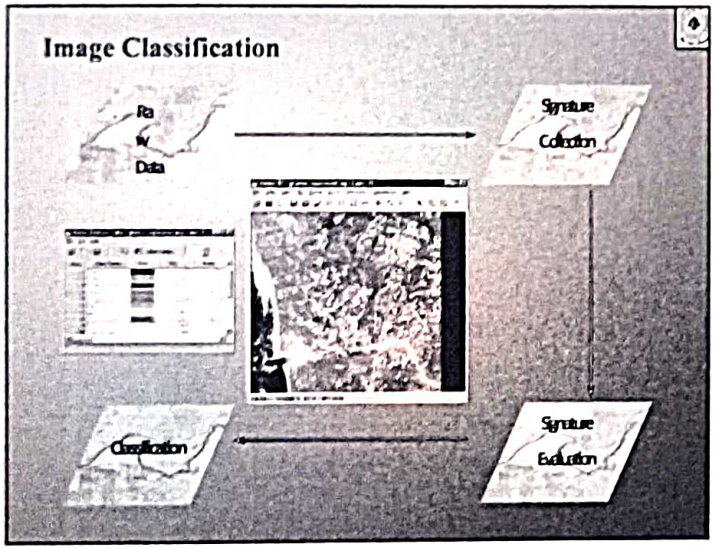
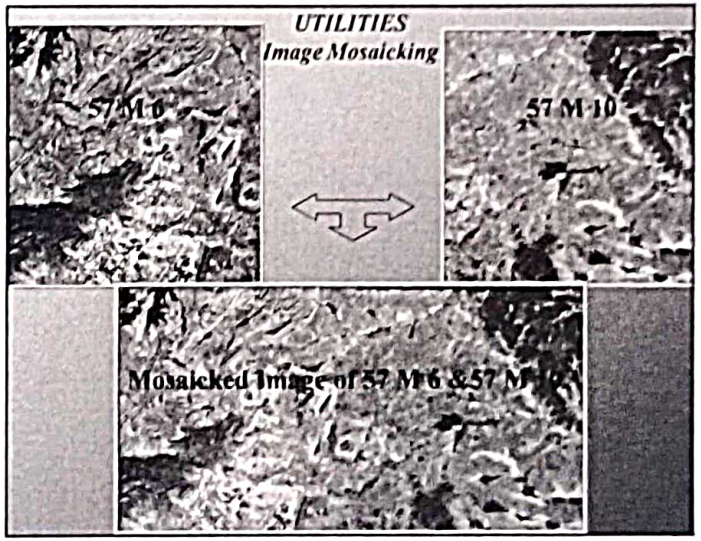
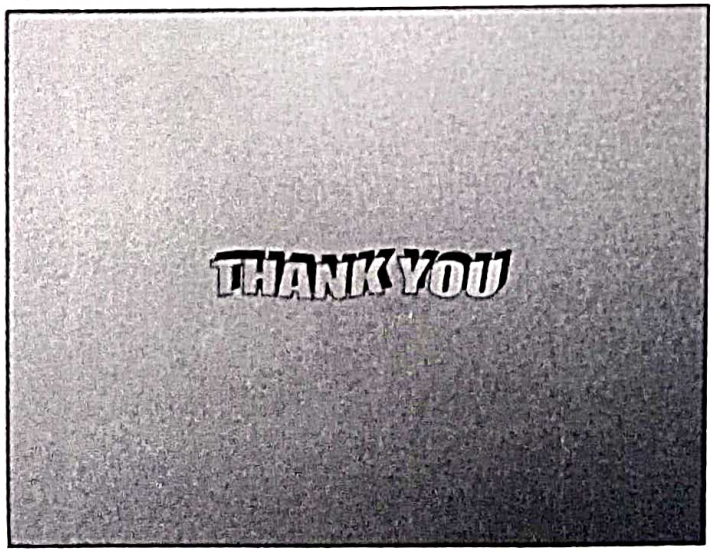


Image Classification
Ra
w
Data
Signature
Collection
Signature
Evaluation


UTILITIES
Image Mosaicking
57 M 6
57 M 10
Mosaicked Image of 57 M 6 &57 M


THANK YOU

DEPARTMENT OF CIVIL ENGINEERING

Ref No: GRIET/CE/1C/G/23-24 28 November 2023

From,
Dr GVV Satyanarayana
Professor & HOD
Civil Engineering Dept

To
The Principal,
GRIET,
Hyderabad.

Subject: Value Added Course on **Building Planning and Orientation** - Reg.,

Sir,

With reference to the above subject, we the Department of Civil Engineering introduce Value Added Course on "**Building Planning and Orientation**", for II-year B. Tech Civil Engineering. Certificates will be awarded to all students who clear both Internal and External examination. The examination pattern is 30 marks for Internal Examination and 70 marks for External Examination. Kindly provide the subject code for the proposed Value-Added Course. Timetable and syllabus are enclosed below.

Thanks & Regards

28.11.23

Dr.GVV Satyanarayana
Professor & HOD
Civil Engineering Dept

J. Praveen

Principal

Regulation : GR22
Course code : GR23V8005

Gokaraju Rangaraju Institute of Engineering and Technology

Department of Civil Engineering

Timetable for Value Added Course AY: 2023-24 (I-Semester)

w.e.f : 04th December to 21th December 2023				
Day	**08:50am – 11:20am**	**11:20am - 12:00pm**	**12:00pm – 02:30pm**	**2:30pm-4:30pm**
Monday	Regular Classwork	LUNCH BREAK	Regular Classwork	**VAC- BPO**
Tuesday	Regular Classwork		Regular Classwork	**VAC- BPO**
Wednesday	Regular Classwork		Regular Classwork	**VAC- BPO**
Thursday	Regular Classwork		Regular Classwork	**VAC- BPO**
Friday	Regular Classwork		Regular Classwork	**VAC- BPO**
Saturday	Regular Classwork		Regular Classwork	**VAC- BPO**

Sub. Code	Sub. Short form	Subject	Speaker Name
GR23V0005	VAC – BPO	Building Planning and Orientation	1. Dr.GVV Satyanarayana Emp ID: 841 Civil Dept. 2. C Vivek Kumar Emp ID: 1500 Civil Dept.

HOD-CE 28.11.23

One Credit Course

Course Title : Building Planning and Orientation

Total Number of Lecture Hours : 30

Course Objective: The objective of the course is to equip the student with building planning and orientation by drawing skills using AUTOCAD software.

Course Outline: The students are made to understand the real time applications in the building orientation with the help of basic requirements of building like sun path, direction, ventilation, lighting, coordination of spatial requirements in all aspects. Also, it is useful to make them to understand and draw in the drafting software AutoCAD to enhance the drawing skills.

1. Practice Sessions Conducted in AutoCAD.
2. Regular assignments and quizzes are also conducted.

Syllabus:

1. Introduction of Building Orientation, Factors affecting Orientation of buildings, Availability of space for efficient design, planning, and internal layout.
2. Goals for Building Orientation, Thermal Radiation and Direction, Humidity, Wind Direction, Rainfall, Neighborhood Conditions.
3. Development of a Layout plan using the VAASTHU.
4. Orientation of Rooms, Dimensions, Directions, Minimum Spacing requirements, Effective utilization of spacing guidelines.
5. Basic guidelines in building planning, Components of buildings, Different types of Drafting Software in Civil Engineering, Units and Unit Conversion,
6. Introduction to AutoCAD, Advantages and Uses in the Civil Engg. Applications, 2D and 3D Drawings. Isometric and Orthogonal Views
7. AutoCAD Commands and its definitions
8. Hands on Training with simple drawings.
9. Orientation of Building spaces in the layout of a plot
10. Hands on Training with using 2D drawings in the given Plot.
11. Planning of a residential building plan (1BHK)
12. Planning of a residential building plan (2BHK). Section and Elevation

Session Plan

Session1: Introduction of Building Orientation,

Session2: Factors affecting Orientation of buildings.

Session 3: Availability of space for efficient design, planning, and internal layout.

Session 4: Availability of space for efficient design, planning, and internal layout

Session 5: Goals for Building Orientation, Thermal Radiation and Direction

Session 6: , Humidity, Wind Direction

Session 7: , Rainfall, Neighborhood Conditions.

Session 8: Orientation for Thermal Needs,

Session 9: Orientation for Visual Needs

Session 10: Orientation for Ventilation

Session 11: Development of a Layout plan using the VAASTHU.

Session 12: Development of a Layout plan using the VAASTHU.

Session 13: Basic guidelines in building planning, Components of buildings

Session 14: Orientation of Rooms, Dimensions,

Session 15: Directions, Minimum Spacing requirements,

Session 16: Effective utilization of spacing guidelines

Session 17: Different Drafting Software in Civil Engineering, Units and Unit Conversion,

Session 18: Introduction to AutoCAD, Advantages and Uses in the Civil Engg.

Session 19: Applications, 2D and 3D Drawings. Isometric and Orthogonal Views

Session 20: AutoCAD Commands and its definitions

Session 21: Hands on Training with simple drawings.

Session 22: Orientation of Building spaces in the layout of a plot

Session 23: Practice session on Orientation of Building spaces in the layout of a plot

Session 24: Hands on Training with using 2D drawings in the given Plot.

Session 25: Hands on Training with using 2D drawings in the given Plot.

Session 26: Planning of a residential building plan (1BHK)

Session 27: Planning of a residential building plan (1BHK)

Session 28: Planning of a residential building plan (2BHK).

Session 29: Planning of a residential building plan (2BHK).

Session 30: Section and Elevation

Targeted Audience :

1. B. Tech (Civil) II Year Students

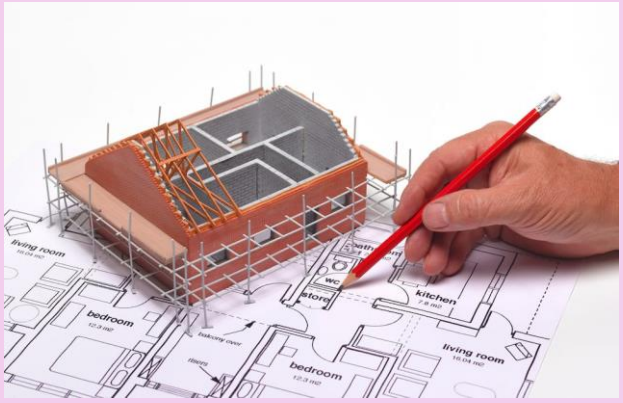
Resource Persons

1. Dr.GVV Satyanarayana, Professor and HOD,
   Civil Engg. Dept, GRIET.
2. C Vivek Kumar, Assistant Professor
   Civil Engg. Dept, GRIET

About Value Added Course

Building planning and orientation refer to the process of strategically designing and positioning buildings within a site to optimize factors such as sunlight, ventilation, views, energy efficiency, and overall functionality. Before designing a building, architects and planners conduct a comprehensive site analysis to understand the site's characteristics, including topography, soil conditions, climate, vegetation, and surrounding built environment.

Program Development: This phase involves defining the project's goals, requirements, and constraints. Architects work closely with clients to understand their needs, budget, timeline, and functional requirements for the building.



Course Contents

Introduction:

Building Orientation, Factors affecting Orientation of buildings, Availability of space for efficient design, planning, and internal layout, Goals for Building Orientation, Thermal Radiation and Direction, Humidity, Wind Direction, Rainfall, Neighbourhood Conditions, Thermal Needs, Visual Needs, Orientation for Ventilation

VAASTHU and Planning

Development of a Layout plan using the VAASTHU, Basic guidelines in building planning, Components of buildings, Orientation of Rooms, Dimensions, Directions, Minimum Spacing requirements, Effective utilization of spacing guidelines,

AutoCAD

Introduction to AutoCAD, Advantages and Uses in the Civil Engg, Applications, 2D and 3D Drawings. Isometric and Orthogonal Views, AutoCAD Commands and its definitions, Hands on Training with simple drawings, Orientation of Building spaces in the layout of a plot, Hands on Training with using 2D drawings in the given Plot. Planning of a residential building plan (1BHK and 2BHK)

Section and Elevation.

Registration

There is **NO** Registration Fee for the Value-Added Course on “Structural Health Monitoring (SHM) – Applications and Case Studies”

Expected Outcome:

This course will help students to learn the basic concepts of Building Planning and Orientation to extend the learning to projects in the practical implications in Civil engineering domain.

Important Dates

Receipt of Registrations : **02-12-2023**

VAC Duration :

4th December to 21st December 2023

(Daily 3pm to 5pm)

Gokaraju Rangaraju
Institute of Engineering and Technology

Gokaraju Rangaraju Institute of Engineering and Technology (GRIET) is established in 1997 by Dr. G Gangaraju as a self-financed institute under the aegis of Gokaraju Rangaraju Educational Society. GRIET is approved by AICTE, New Delhi, permanently affiliated to and autonomous under JNTUH, Hyderabad. GRIET is committed to quality education and is known for its innovative teaching practices.

The mission of GRIET is to achieve and impart quality education with an emphasis on practical skills and social relevance. Presently GRIET has 9 UG and 6 PG programs. The college is NBA accredited in CE, CSE, ECE, EEE, IT, and ME. CSBS, AI&ML, DS are new programs. The institute is accredited by NAAC with 'A++' grade.

Department of Civil Engineering

The Department of Civil Engineering is established in the year 2008, with an intake of 60 students. It is a fast-growing discipline in tune with the infrastructure growth.

The department has master's program in Structural Engineering, established in the year 2014 with an intake of 18 students which is further increased to 30 students from the academic year 2017. The department has well equipped laboratories with an emphasis on practical skills and fundamentals. The Department has well experienced and talented faculty which includes nine doctorates.

Patrons

Dr. Jandhyala N. Murthy,
Director, GRIET

Dr. J. Praveen,
Principal, GRIET

Dr. K. V. S. Raju,
Senior Administrative officer, GRIET

Convenor

Dr. G V V Satyanarayana,
Professor & HOD, CE, GRIET

Coordinators

1. **Mr. C Vivek Kumar**
   Assistant Professor, CE, GRIET
2. **Ms. K. Hemalatha**
   Assistant Professor, CE, GRIET

Resource Persons

1. **Dr. GVV Satyanarayana**
   Professor & Head, CE, GRIET
2. **Mr. C Vivek Kumar**
   Assistant Professor, CE, GRIET

Value Added Course

on

Building Planning and Orientation

(4th December to 21st December 2023)

Organized by

Department of Civil Engineering

Gokaraju Rangaraju Institute of Engineering & Technology
Griet
1997

Gokaraju Rangaraju

Institute of Engineering and Technology
(Autonomous)
Bachupally, Hyderabad,
Telangana. India-500090
Office: 7207344440, 7207714441
www.griet.ac.in

Gokaraju Rangaraju Institute of Engineering & Technology

(Autonomous)

Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009

Value-Added Course on Building Planning and Orientation

LIST OF REGISTERED PARTICIPANTS

S.No	Reg No	Student Name
1	22241A0101	ANDELA NANDU YADAV
2	22241A0102	BANOTH MANASA
3	22241A0103	BHUKYA NAVEEN
4	22241A0104	BODDU MANOJ
5	22241A0105	BOINA RAMA KRISHNA
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33	22241A0138	UDAY TEJA KUCHIPUDI
34	22241A0139	VADAPARTHI INDU SATISH KUMAR
35	22241A0140	VADDE ANIL KUMAR
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55	23245A0122	TAMPA CHANDANA
56	23245A0123	UDDANDAM ANU SREE
57	23245A0124	VARALA SANTHOSH KUMAR
58	23245A0125	VOLLEM MANJUSHA

Gokaraju Rangaraju Institute of Engineering & Technology

Bachupally, Nizampet Road, Kukatpally, Hyderabad-500090

B.Tech Civil Engg. II Yr-II Sem- Section A- GR22 2023 -24

Value Added Course on Building Planning and Orientation

04th December to 21th December 2023

S.No	Roll Number	Student Name	4.12.23	5.12.23	6.12.23	7.12.23	8.12.23	11.12.23	12.12.23	13.12.23
1	22241A0101	ANDELA NANDU YADAV								
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Value-Added Course on Building Planning and Orientation

INTERNAL ASSESSMENT QUESTION PAPER

1. In CAD, the LIMITS command allows you to determine the:

1. Size of the drawing space.
2. Amount of time that is needed to draw the
3. Size of the text.
4. None of the above

Answer: Size of the drawing space.

2. A uniform pattern of dots/lines on the CAD screen is called a/an_____

1. Snap pattern.
2. Reference dot pattern.
3. Grid
4. All of above

Answer: Grid

3. What do you mean by AutoCAD?

1. Automatic Candidate Address Detection
2. Automatic Card Address Direction
3. Automatic Computer Active Décor
4. Automatic Computer-Aided Design/Drafting

Answer: Automatic Computer-Aided Design/Drafting

4. What does CAD in AutoCAD stand for?

1. Computer Aided Design
2. Computer Advance Detail
3. Computer Assignment Description
4. All of above

Answer: Computer Aided Design

5. Which key can be used to quickly cancel a command?

1. backspace
2. esc
3. tab
4. enter

Answer: esc

6. What does UCS means? (In the context of CAD)

1. User Coordinate System
2. United CAD Software
3. United Coordinate System
4. User CAD Software

Answer: User Coordinate System

7. What are the characteristics of a Triangle?

1. 2 sides, 4 angles
2. 4 sides, 4 angles
3. 4 sides, 3 angles
4. 3 sides, 3 angles

Answer: 3 sides, 3 angles

8. A command used to move the view planar to the screen.

1. offset
2. fillet
3. pan
4. dist

Answer: pan

9. A command used to check a distance_____

1. fillet
2. offset
3. pan
4. dist

Answer: dist

10. What does the Offset command do?

1. Moves to specified distance

2. Moves above specified distance
3. Moves away from specified distance
4. none of the above

Answer: Moves to specified distance

11. Where would AutoCAD ask you for something?

1. Tool Icons
2. Command Line
3. Properties Palette
4. Toolbar

Answer: Command Line

12. This type of triangle has TWO equal sides? _____

1. isosceles
2. Scalene
3. equilateral
4. Right

Answer: Scalene

13. In Cartesian coordinate system, the ___ axis is vertical.

1. X
2. Y
3. Z
4. W

Answer: Y

14. Minor axis and major axis must be specified in order to draw a(n) _____

1. ellipse
2. line
3. chamfer
4. circle

Answer: ellipse

15. When saving your drawings in Autocad the default file type is...?

1. pdf
2. dwg
3. bak
4. doc

Answer: dwg

16. What does the command Fillet do?

1. Straightens an angle
2. Curves an angle
3. Deletes an angle
4. All of above

Answer: Curves an angle

17. The shortcut command key for UNDO.

1. CTRL+C
2. CTRL+Z
3. CTRL+CU
4. CTRL+CHA

Answer: CTRL+Z

18. The shortcut command key for TABLE.

1. TL
2. TE
3. TN
4. TB

Answer: TB

19. This type of triangle has TWO equal sides? _____

1. Move
2. Trim
3. Extend
4. Scale

Answer: Extend

20. The _____command is used to lengthen a line to meet an edge.

1. Array
2. Chamfer
3. Extend
4. Rotate

Answer: Extend

21. A command used to insert multiline text_____

1. units
2. trim
3. join
4. mtext

Answer: mtext

22. What a phantom line used for?

1. To show an alternate position
2. To represent a line of symmetry
3. To represent an edge not visible
4. To eliminate a section of drawing not needed because of size

Answer: To show an alternate position

23. When you type a second point by first moving the cursor to indicate direction and then entering a distance, you are using the _____

1. Direct Distance entry technique
2. Relative Polar Coordinates
3. Interactive
4. Absolute Coordinates

Answer: Direct Distance entry technique

24. Which CAD command enlarges or reduces selected objects proportionally in the X, Y, and Z directions from a base point?

1. Stretch
2. Divide
3. Array
4. Scale

Answer: Scale

25. Which CAD command creates multiple copies of objects in a circular or rectangular pattern?

1. Array
2. Extend
3. Chamfer
4. Rotate

Answer: Array

26. The command provides length of an object but does not place a dimension line on drawing?

1. Annotate
2. Leader
3. Baseline
4. Distance

Answer: Distance

27. CAD commands such as LINE, CIRCLE, and ARC are examples of_____

1. Modify commands
2. Edit commands
3. Draw commands.
4. None of the above

Answer: Draw commands.

28. How many AutoCAD OBJECTS are in a rectangle?

1. One
2. Two
3. Four
4. None of above

Answer: One

29. Which CAD command creates multiple copies of objects in a pattern?

1. Rotate
2. Array
3. none of the above
4. Extend

Answer: Array

30. When a layer is turned off_____

1. It makes no real difference. Details can still be added to the layer
2. Details on the layer cannot be seen
3. File space is saved when saving the file
4. Details cannot be erased from the layer

Answer: Details on the layer cannot be seen

31. CAD stands for_____

1. computer aided driving
2. computers and drawing
3. computer aided design
4. cats and dogs

Answer: computer aided design

32. The _____ tool is used to fill in an object with color/pattern design.

1. Arc
2. Hatch
3. Line
4. Pattern

Answer: Hatch

33. What a break line used for?

1. To show an alternate position
2. To represent an edge not visible
3. To represent a line of symmetry
4. To eliminate a section of drawing not needed because of size

Answer: To eliminate a section of drawing not needed because of size

34. The origin of a drawing is ALWAYS at_____

1. 0,0
2. The first point you select
3. A random point in space
4. UCS ICON

Answer: 0,0

35. Polar coordinates are used mostly for drawing _____

1. Arcs
2. Circles
3. Angled lines
4. Vertical and Horizontal Straight Lines

Answer: Vertical and Horizontal Straight Lines

36. The _____ command will adjust the display so that all objects in the drawing are displayed to be as large as possible.

1. Pan
2. Circle
3. Zoom All
4. Orbit

Answer: Zoom All

37.What is the difference between command Plot and Print?

1. print command can print up to A3 size paper
2. plot command prints only big plans
3. The plot command for CNC (CAM
4. No difference

Answer: No difference

38. From which direction does AutoCAD start measuring angles?

1. 6 o'clock
2. 9 o'clock
3. 3 o'clock
4. 12 o'clock

Answer: 3 o'clock

39. With the Multiline Text editor, you can do all of the following, except.

1. Create fields such as date, time and author
2. Insert numbered and bulleted lists
3. Insert pictures
4. Insert specific drafting and engineering symbols

Answer: Insert pictures

40. How many points do you need to define for the rectangle command?

1. Two
2. Four
3. One
4. None

Answer: Two

Gokaraju Rangaraju Institute of Engineering & Technology

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Value-Added Course on Building Planning and Orientation

Internal Assessment Score

S. No	Roll No.	Name of the Student	Score (30)
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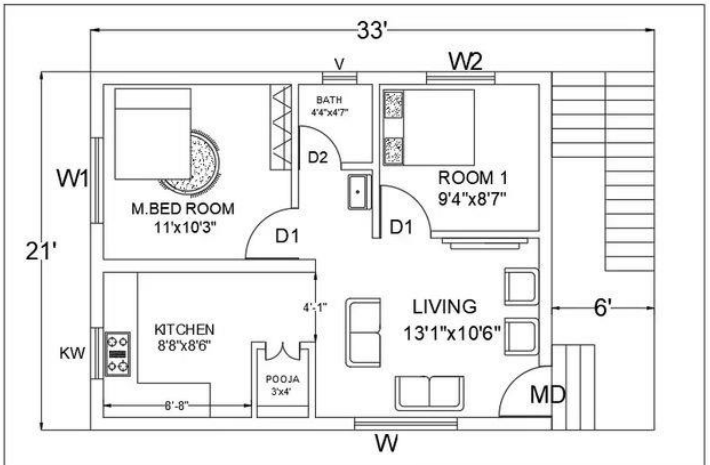
36	22241A0141	VENKATA NITIN BATTULA	18
37	23245A0102	BONAGIRI SHIVA PRASAD	23
38	23245A0103	CHETLAPALLY SUPRAJA	21
39	23245A0104	DANDU SHERYEL ANSHIKA	20
40	23245A0105	ERIGELA NIHARSHA	25
41	23245A0106	GAJAVELLY HARSHAVARDHAN	24
42	23245A0108	GURRAM ESHWAR	23
43	23245A0109	JANGILI RAVI KUMAR	24
44	23245A0110	JUKURU PRASANNA	28
45	23245A0111	JUPAKA ARANYA	26
46	23245A0112	KORADALA VENKAT	27
47	23245A0113	MOHAMMED ASHREEN SANIYA	26
48	23245A0114	N APURVA	27
49	23245A0115	PINAPAKA VYSHNAVI	24
50	23245A0116	PITTALA PRANAY KUMAR	20
51	23245A0117	RANGINENI MEGHANA	25
52	23245A0118	SAI GANESH	24
53	23245A0120	SRI VARDHAN PASUNURI	26
54	23245A0121	SRIRAMOJU ANUDEEP	20
55	23245A0122	TAMPA CHANDANA	24
56	23245A0123	UDDANDAM ANU SREE	25
57	23245A0124	VARALA SANTHOSH KUMAR	25
58	23245A0125	VOLLEM MANJUSHA	27

GRIET/6C/G/23-24

EVENT SUMMARY REPORT

<table>
<tr><td>Griet /Other institutes/Organization Address:</td><td colspan="5">GRIET</td></tr>
<tr><td rowspan="2">Department</td><td rowspan="2">Civil Engineering</td><td colspan="2">Professional Body</td><td colspan="2">Institutional Body</td></tr>
<tr><td colspan="2"></td><td colspan="2"></td></tr>
<tr><td>Nature of the Event (Co & Extra Curricular Activities -Workshop / Seminar / Guest Lecture / Tech Talk/FDP/GD/ Training Program / Quiz / Any Prof. Body events/Presentation/ Conference/ Industry Visit)</td><td colspan="5">Value Added Course</td></tr>
<tr><td>Title / Theme of the Event</td><td colspan="5">BUILDING PLANNING AND ORIENTATION</td></tr>
<tr><td>Details of the Coordinator& Designation</td><td colspan="5">Convenor
Dr. G V V Satyanarayana,
Professor & HOD, CE, GRIET
Coordinators
1. Mr. C Vivek Kumar
Assistant Professor, CE, GRIET
2. Ms. K. Hemalatha
Assistant Professor, CE, GRIET</td></tr>
<tr><td rowspan="2">Event Dates/Days</td><td>From</td><td colspan="2">To</td><td colspan="2">No. of Days</td></tr>
<tr><td>04/12/2023</td><td colspan="2">21/12/2023</td><td colspan="2">15</td></tr>
<tr><td>Details of the Speaker / Guest
Organization
Address:</td><td colspan="5">Dr. G V V Satyanarayana,
Professor & Head, CE, GRIET
Mr. C Vivek Kumar
Assistant Professor, CE, GRIET</td></tr>
<tr><td rowspan="2">Participants
(Teaching Faculty / Non-Teaching Faculty / Students)</td><td>No. of Faculty</td><td>No. of UG students</td><td>No. of PG Students</td><td>No. of outside participants</td><td>Total Participants</td></tr>
<tr><td>-</td><td>55</td><td>-</td><td>-</td><td>55</td></tr>
<tr><td>Faculty Names & Designation</td><td colspan="5">-</td></tr>
</table>

Summary of the Event	Building Planning and Orientation program in AutoCAD typically involves several key steps and tasks. Starting by introducing participants to the AutoCAD software, its interface, tools, and basic functions. Teaching to students about the fundamentals of building planning, including architectural design principles, space utilization, building codes, and regulations. Guiding the students through setting up a new drawing in AutoCAD, including setting units, scales, and drawing limits. Demonstration on creating the floor plans using AutoCAD, including drawing walls, doors, windows, and other architectural elements. Emphasize accuracy, scale, and dimensioning. Teaching students about site planning and orientation, including how to import site maps or survey data into AutoCAD, analyze sun paths for optimal orientation, and integrate landscaping elements. Providing the best practices, tips, and shortcuts for efficient building planning and orientation workflows in AutoCAD. Throughout the program, encourage hands-on practice and provide exercises and projects for participants to apply their skills. Additionally, incorporate discussions on industry trends, sustainability considerations, and emerging technologies in building planning and design.
IRG (in rupees**)** **Deposited A/C no A/C name and date and other details (enclose proof-A/C statement)**	NIL
Expenditure (in rupees**) (Enclose proof-bills)**	NIL
POs attained with this Event (number and description)	b. Analyse problem and interpret the data. c. Design a system component, or process to meet desired needs in Civil Engineering within realistic constraints. d. Identify, formulate, analyse, and interpret data to solve Civil Engineering problems. j. Work effectively as an individual or in a team and to function on multi-disciplinary context.
Photographs of the event (Hard copy and Soft copy)	



Engineer :	SCHEDULE OF OPENINGS			ORIENTATION
MOB NO :	W	6'X5'	*ALL DIMENSIONS ARE IN FEET AND INCHES*	W S N E
	W1	5'X5'		
	KW	3'X3'		
	W2	4'X5'		
	V	2'X1'6"		
	MD	3'X7'		
	D1	3'X7'		
	D2	2'6"X7'		

Proofs: **1.Certificates copies** **2.Profile of Speaker** **3.PPT/Material as applicable. etc.,**	 GOKARAJU RANGARAJU Institute of Engineering and Technology VALUE ADDED COURSE on Building Planning and Orientation 4th December to 21st December 2023 Organized by Department of Civil Engineering Certificate of Participation This is to certify that GANGAPURAM YUVARAJ, Bearing Roll Number 22241A0110 Pursuing II B. Tech I Semester in Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology has attended Value Added Course on Building Planning and Orientation organized by Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology during 4th December to 21st December 2023. Mr.C Vivek Kumar, Course Coordinator, CE Dr. G V V Satyanarayana, Convenor & HoD, CE Dr. J. Praveen, Principal, GRIET  GOKARAJU RANGARAJU Institute of Engineering and Technology VALUE ADDED COURSE on Building Planning and Orientation 4th December to 21st December 2023 Organized by Department of Civil Engineering Certificate of Participation This is to certify that JUKKURU PRASANNA, Bearing Roll Number 23245A0110 Pursuing II B. Tech I Semester in Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology has attended Value Added Course on Building Planning and Orientation organized by Department of Civil Engineering, Gokaraju Rangaraju Institute of Engineering and Technology during 4th December to 21st December 2023. Mr.C Vivek Kumar, Course Coordinator, CE Dr. G V V Satyanarayana, Convenor & HoD, CE Dr. J. Praveen, Principal, GRIET

Signature of Coordinators

1. Mr. C Vivek Kumar
   Assistant Professor, CE, GRIET.
2. Ms. K. Hemalatha
   Assistant Professor, CE, GRIET

Signature of Convenor

Dr. G V V Satyanarayana,
Professor & HOD, CE, GRIET.

Hyderabad,
20-03-2024.

To
The Principal
GRIET,
Bachupally.

Subject : Autodesk – Revit Architecture Certification course for Civil Engineering Students

Respected Sir,

In the view of Centre for Excellence in the Department of Civil Engineering, we are planning for Autodesk – Revit Architecture Certification course in Department of Civil Engineering. Kindly give permission for Centre of Excellence and guide us in Financial Aspects. As per the discussion with Team CANTER CADD INDIA Private Limited, an amount of ₹2500 (Rupees Two thousand Five Hundred Rupees Only) per student in a total of 50 Students are required to run the course.

Thanking You,

Yours Faithfully,

20.3.24

Hod – Civil

(Dr. G.V.V. Satyanarayana)

PROFESSOR AND HEAD
Department of Civil Engineering
Gokaraju Rangaraju Institute of
Engineering and Technology
Bachupally, Kukatpally,
Hyderabad-500 090

Dean Trg & Placement
kindly action
as per policy
for core branches

29/3/24

CANTER CADD INDIA PVT. LTD.

Date: 16-03-2024

To,
GRIET COLLEGE
Dr.G V V Satyanarayana
HOD Civil Department

Subject: Proposal for Software Training on Revit Architecture Workshop

This is with reference to the discussion we had with you regarding the training on Revit Architecture software. In continuation to the same, we are pleased to submit our best offer for the above training.

Hope our offer would be in line with your requirement.

We strongly believe that you will get the best value for money for the Training you get from CANTER CADD.

Thanking you once again for your interest and looking forward to receive your valuable order.

Best Regards,

Venkata Ramana
Mobile No: 8919478021

Enclosures: Company Profile
Proposal – Terms & Conditions.

CANTER CADD INDIA PVT. LTD.

COMPANY PROFILE

We would like to introduce ourselves as CANTERCADD. We commenced our operations in 2004 with focus on CAD training. Today we are proud to say that we are the Excellent CAD training Institution, having 18 Center sins Hyderabad over all 100centers across India. We have the privilege of training over 2,60,000 engineers and 200+ corporate houses from various industries.

The only one of its kind, CANTERCADD, to its credit has achieved many milestones and successively too. The Centre enjoys its status of the market leader in CAD education. We offer top of the line international quality training. Our training programs are comprehensive and are structured in a way that will impart industry specific skills to executives from different industries. The executives are encouraged to work on their own projects during the training program to make it more interacting, interesting, and useful.

Computer Aided Design (CAD) using AutoCAD, Catia v5, Creo, SolidWorks.

Finite Element Analysis (FEA) using Ansys workbench, Hyper mesh.

Project Management: Primavera and Microsoft Project

We offer following training programs on CAD / CAE that caters to the needs of the various disciplines of engineering like Mechanical, Civil, Architectural and Electrical. The training services offered by CANTERCADD ensure the following:

a. international quality course material
b. A learners Exercise book
c. An internationally recognized Certificate
d. Life time online technical support

At CANTERCADD, training is not a onetime phenomenon. It is the start of continuous learning process.

Quality & Customer Satisfaction Cell of CANTERCADD offers post-training support to customers to keep them updated on the latest trends of the industry, and to help them solve CAD related problem in their daily routine.

CANTER CADD INDIA PVT. LTD.

PROPOSAL:

Course on	:	Revit Architecture Workshop
Venue	:	AT COLLEGE
Software Using	:	Revit Architecture
Faculties	:	Expert faculties provided by CANTER CADD.
Course Material	:	One set of Reference Material
Course Timing:		Mutually Convenient Time
Course Date	:	Mutually Convenient Date.
Certificate	:	Test & certificate

COURSE FEE

Course	Duration	Actual Fee	Fee at your Place per individual	Min. Number of students
Revit Architecture	48 HRS	8900	Rs.2000	120
Revit Architecture	48 HRS	8900	Rs.2500	60

Inclusive of Service Tax.

HIGHLIGHTS OF CANTER CADD TRAINING:

Autodesk Authorized Training Centre in Hyderabad.

Lifetime Online Technical Support:
We provide lifetime online technical support to all our customers through our forum.

Internationally Recognized Certificate:

On successful completion of the course, candidates are eligible for CANTERCADD certificate, which is recognized in more than 90 countries.

World Class Detailed Courseware:

One set of CANTERCADD courseware will be given to each individual.

DEPARTMENT OF CIVIL ENGINEERING

Ref No: GRIET/CE/1C/G/23-24

11th April 2024

To

The Principal,

GRIET,

Hyderabad.

Subject: Value Added Course on **"Autodesk – Revit Architecture"**, Regd.

Respected Sir,

With reference to the above subject, we the Department of Civil Engineering introducing Value Added Course on "Autodesk – Revit Architecture" In association with Canter CADD India Pvt Ltd for III B. Tech Civil Engineering Students. Certificates will be awarded to all students who clear both Internal and External examination. The examination pattern is 30 marks for Internal Examination and 70 marks for External Examination. Kindly provide the subject code for the proposed Value-Added Course. Timetable and syllabus are enclosed below.

Thanks & Regards

11.4.24

Dr. G V V Satyanarayana
Professor & HOD
Civil Engineering Dept

J. Ravveen

Principal

PROFESSOR AND HEAD
Department of Civil Engineering
Gokaraju Rangaraju Institute of
Engineering and Technology
Bachupally, Kukatpally,
Hyderabad-500 090

Regulation: GR20.
Course code: GR23V8020

Gokaraju Rangaraju Institute of Engineering and Technology

Department of Civil Engineering

Timetable for Value Added Course AY: 2023-24

w.e.f : 18th April to 24th April 2024

Day	09:00am – 12:00pm	12:00pm -1:00pm	1:00pm – 04:00pm
18-04-2024 Thursday	VAC-Revit	LUNCH	VAC-Revit
19-04-2024 Friday	VAC-Revit		VAC-Revit
20-04-2024 Saturday	VAC-Revit		VAC-Revit
22-04-2024 Monday	VAC-Revit		VAC-Revit
23-04-2024 Tuesday	VAC-Revit		VAC-Revit
24-04-2024 Wednesday	VAC-Revit		VAC-Revit

Sub. Code	Sub. Short form	Subject	Speaker Name
GR23V 8020	VAC-Revit	Autodesk – Revit Architecture	Speakers from Canter CADD India Pvt Ltd 1. Lahari Priya, Training Manger. 2. Venkata Ramana, Manager. 3. Poojitha, Civil CADD Facilitator. 4. Nagaraju, Civil CADD Facilitator.

11.4.24

HOD-CE

PROFESSOR AND HEAD
Department of Civil Engineering
Gokaraju Rangaraju Institute of
Engineering and Technology
Bachupally, Kukatpally,
Hyderabad-500 090

One Credit Course

Course Title : Autodesk – Revit Architecture

Total Number of Lecture Hours : 36

Course Content:

1. Introduction to Autodesk Revit Architecture
2. Starting an Architectural Project
3. Creating Walls
4. Using Basic Building Components-I
5. Using the Editing Tools
6. Working with Datum Planes and Creating Standard Views
7. Using Basic Building Components-II
8. Using Basic Building Components-III
9. Adding Site Features
10. Using Massing Tools
11. Adding Annotations and Dimensions
12. Creating Project Details and Schedules
13. Creating Drawing Sheets, and Plotting
14. Creating 3D Views
15. Rendering Views and Creating Walkthroughs
16. Advanced Features in Autodesk Revit Architecture

Targeted Audience :

1. B. Tech (Civil) III Year Students

Resource Persons

1. Lahari Priya, Training Manger.
2. Venkata Ramana, Manager.
3. Poojitha, Civil CADD Facilitator.
4. Nagaraju, Civil CADD Facilitator.

Gokaraju Rangaraju
Institute of Engineering and Technology

Gokaraju Rangaraju Institute of Engineering and Technology (GRIET) is established in 1997 by Dr. G Gangaraju as a self-financed institute under the aegis of Gokaraju Rangaraju Educational Society. GRIET is approved by AICTE, New Delhi, permanently affiliated to and autonomous under JNTUH, Hyderabad. GRIET is committed to quality education and is known for its innovative teaching practices.
The mission of GRIET is to achieve and impart quality education with an emphasis on practical skills and social relevance. Presently GRIET has 9 UG and 6 PG programs. The college is NBA accredited in CE, CSE, ECE, EEE, IT, and ME. CSBS, AI&ML, DS are new programs. The institute is accredited by NAAC with 'A++' grade.

Department of Civil Engineering

The Department of Civil Engineering is established in the year 2008, with an intake of 60 students. It is a fast-growing discipline in tune with the infrastructure growth.

The department has master's program in Structural Engineering, established in the year 2014 with an intake of 18 students which is further increased to 30 students from the academic year 2017. The department has well equipped laboratories with an emphasis on practical skills and fundamentals. The Department has well experienced and talented faculty which includes nine doctorates.

Patrons

Dr. Jandhyala N. Murthy,
Director, GRIET

Dr. J. Praveen,
Principal, GRIET

Dr. K. V. S. Raju,
Senior Administrative officer, GRIET

Convenor

Dr. G V V Satyanarayana,
Professor & HOD, CE, GRIET

Coordinators

1. **Mr. Akula Prakash**
   Assistant Professor, CE, GRIET.
2. **Mr. A. Vittalaiah**
   Assistant Professor, CE, GRIET.
3. **Mr. C Vivek Kumar**
   Assistant Professor, CE, GRIET

Resource Persons

Speakers from Canter CADD India Pvt Ltd

1. **Ms. Lahari Priya,**
   Training Manger.
2. **Mr. Venkata Ramana,**
   Manager.
3. **Ms. Poojitha,**
   Civil CADD Facilitator.
4. **Mr. Nagaraju,**
   Civil CADD Facilitator.

Value Added Course
on
Autodesk - Revit Architecture
(18th April to 24th April 2024)

Organized by

Department of Civil Engineering

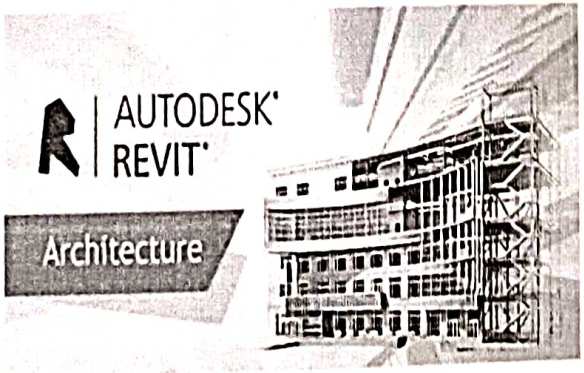
In Association with

CANTER CADD
ISO 9001:2015 Certified

Gokaraju Rangaraju
Institute of Engineering and Technology
(Autonomous)
Bachupally, Hyderabad,
Telangana. India-500090
Office: 7207344440, 7207714441
www.griet.ac.in

About Value Added Course

Revit is a design and documentation platform that supports building information modelling (BIM). It allows users to sketch, create 3D forms, and manipulate forms interactively. The software then creates floorplans, elevations, sections, 3D views, and more based on the user's specifications. Revit also allows users to analyse materials, quantities, sun position, and solar effects to optimize building performance outcomes. Revit is used by architects, interior designers, landscape architects, structural engineers, MEP engineers, and contractors. It's an industry standard for professionals who require software that offers efficient workflows and accurate outcomes. Revit's advanced tools enable custom building designs, fast editing, and optimized rendering. Revit is capable with tools to plan and track various stages in the building's lifecycle, from concept to construction and later maintenance and/or demolition. The name Revit originates from the phrase "Revise Instantly", inspired by the ease of making changes.



Course Contents

1. Introduction to Autodesk Revit Architecture
2. Starting an Architectural Project
3. Creating Walls
4. Using Basic Building Components-I
5. Using the Editing Tools
6. Working with Datum Planes and Creating Standard Views
7. Using Basic Building Components-II
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9. Adding Site Features
10. Using Massing Tools
11. Adding Annotations and Dimensions
12. Creating Project Details and Schedules
13. Creating Drawing Sheets, and Plotting
14. Creating 3D Views
15. Rendering Views and Creating Walkthroughs
16. Advanced Features in Autodesk Revit Architecture

Registration

Registered Participants should pay an amount of **Rs 1250/-** (Rupees One Thousand Two Hundred and Fifty only) and the same will be refunded after Successful Course Completion.

Expected Outcome:

This course will help students to learn the concepts of Autodesk – Revit Architecture and extended the learning to projects in the practical implications in civil engineering domine.

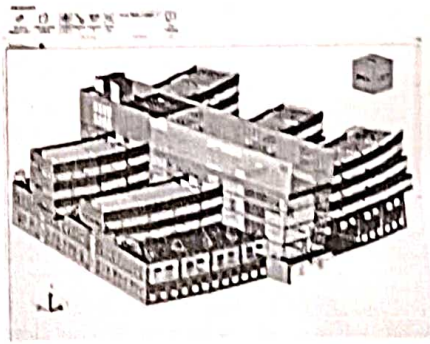
Important Dates

Receipt of Registrations : **11-04-2024**

VAC Duration :

18th April to 24th April 2024

(Daily 9am to 4pm)



Gokaraju Rangaraju Institute of Engineering & Technology

(Autonomous)
Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009
Department of Civil Engineering
Value-Added Course on Autodesk - REVIT Architecture

LIST OF REGISTERED PARTICIPANTS

S. No	Roll No	Name of Student	Mobile Number	E-mail ID
1	21241A0102	AGAM MALLIKARJUN	8688811699	mallikarjun21241a0102@grietcollege.com
2	21241A0105	ASALLA SAI KUMAR	9381775938	saikumar21241a0105@grietcollege.com
3	21241A0106	VISHNU PULI	6309776356	vishnu21241a0106@grietcollege.com
4	21241A0107	B SWATHI	7989179736	swathi21241a0107@grietcollege.com
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24	21241A0137	NALUVALA GOUTHAM	9121443052	gouthammm196@gmail.com
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28	21241A0143	RAMAVATH NAGESH	8897240512	nagesh21241a0143@grietcollege.com
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32	22245A0101	AKULA RAKSHITH	8897974659	rakshith22245a0101@grietcollege.com
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34	22245A0103	AFSANA	9398053897	afsana22245a0103@grietcollege.com
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45	22245A0115	RAJU MADHUKAR	9059542604	raju22245a0115@grietcollege.com

Coordinators

1) 2)

HOD

PROFESSOR AND HEAD
Department of Civil Engineering
Gokaraju Rangaraju Institute of
Engineering and Technology
Bachupally, Kukatpally,
Hyderabad-500 090

GRIET/6C/G/23-24

EVENT SUMMARY REPORT

Griet /Other institutes/Organization Address:	**GRIET**		
Department	**Civil Engineering**	**Professional Body**	**Institutional Body**
Nature of the Event (**Co & Extra Curricular Activities** -Workshop / Seminar / Guest Lecture / Tech Talk/FDP/GD/ Training Program / Quiz / Any Prof. Body events/Presentation/ Conference/ Industry Visit)	**Value Added Course**		
Title / Theme of the Event	**Autodesk - Revit Architecture**		
Details of the Coordinator& Designation	**Convenor** Dr. G V V Satyanarayana, Professor & HOD, CE, GRIET **Coordinators** 1. Mr. Akula Prakash Assistant Professor, CE, GRIET 2. Mr. A. Vittalaiah Assistant Professor, CE, GRIET. 3. Mr. C Vivek Kumar Assistant Professor, CE, GRIET		

Event Dates/Days	From	To	No. of Days
	18-04-2024	24-04-2024	06

Details of the Speaker / Guest Organization Address:	1. Ms. Lahari Priya, Training Manger. 2. Mr. Venkata Ramana, Manager. 3. Ms. Poojitha, Civil CADD Facilitator. 4. Mr. Nagaraju, Civil CADD Facilitator.

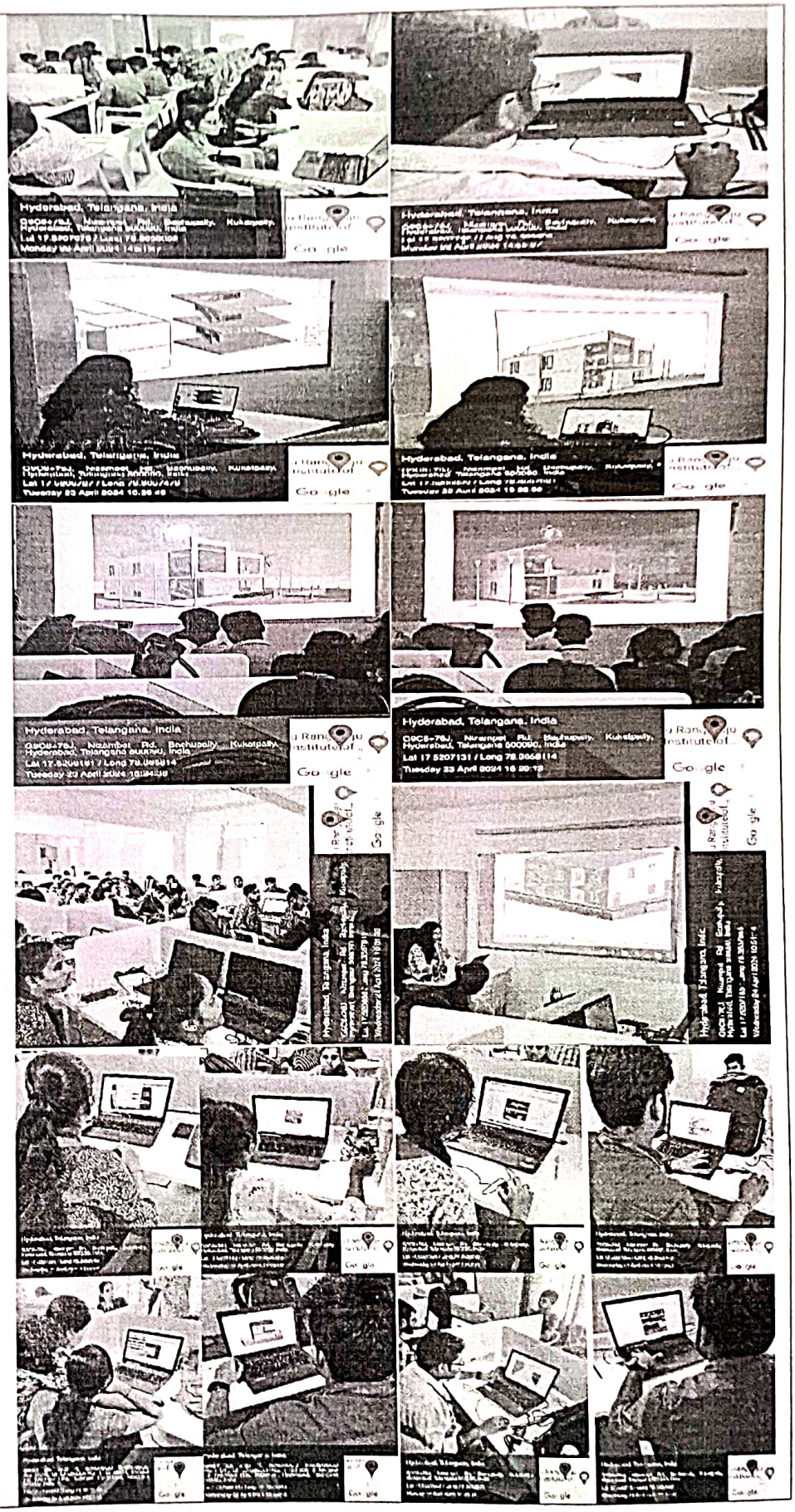
Participants (Teaching Faculty / Non-Teaching Faculty / Students)	No. of Faculty	No. of UG students	No. of PG Students	No. of outside participants	Total Participants
	-	45	-	-	45

<table>
<tr><td>Faculty Names & Designation</td><td>-</td></tr>
<tr><td>Summary of the Event</td><td>Autodesk - Revit Architecture program aimed to equip participants with the necessary skills and knowledge to effectively use Autodesk Revit for architectural design and documentation. Participants had the opportunity to learn from experienced instructors and industry experts through lectures, hands-on exercises, and real-world case studies. The program fostered a collaborative learning environment, allowing participants to share their experiences and insights with one another. Key outcomes of the program included improved proficiency in using Revit Architecture, enhanced understanding of BIM principles, and the ability to create detailed and accurate building designs and documentation. Participant feedback was overwhelmingly positive, with many praising the program for its relevance, practicality, and hands-on approach. Recommendations for future programs include incorporating more advanced topics, such as BIM management and advanced visualization techniques, and providing additional opportunities for networking and collaboration among participants.</td></tr>
<tr><td>IRG (in rupees)

Deposited A/C no A/C name and date and other details

(enclose proof-A/C statement)</td><td>Refundable Amount
A cautionary deposit of Rs 1250/- is collected from all the 45 Registered Participants which accounts for Rs 56,250/- (Rupees Fifty-Six Thousand Two Hundred and Fifty) and the same is refunded after the Successful completion of Course.</td></tr>
<tr><td>Expenditure (in rupees)

(Enclose proof-bills)</td><td><table><tr><td>Description</td><td>Expenditure Amount</td></tr><tr><td>Payment towards Canter CADD India Pvt Ltd</td><td>Rs 1,32,750.00 /-</td></tr><tr><td>Miscellaneous (Lunch and Refreshments)</td><td>Rs 4340.00 / -</td></tr><tr><td>Grand Total</td><td>Rs 1,37,090.00 / -</td></tr></table></td></tr>
<tr><td>POs attained with this Event
(number and description)</td><td>b. Analyse problem and interpret the data.
c. Design a system component, or process to meet desired needs in Civil Engineering within realistic constraints.
d. Identify, formulate, analyse, and interpret data to solve Civil Engineering problems.
j. Work effectively as an individual or in a team and to function on multi-disciplinary context.</td></tr>
<tr><td>Photographs of the event
(Hard copy and Soft copy)</td><td>  </td></tr>
</table>


Hyderabad, Telangana, India
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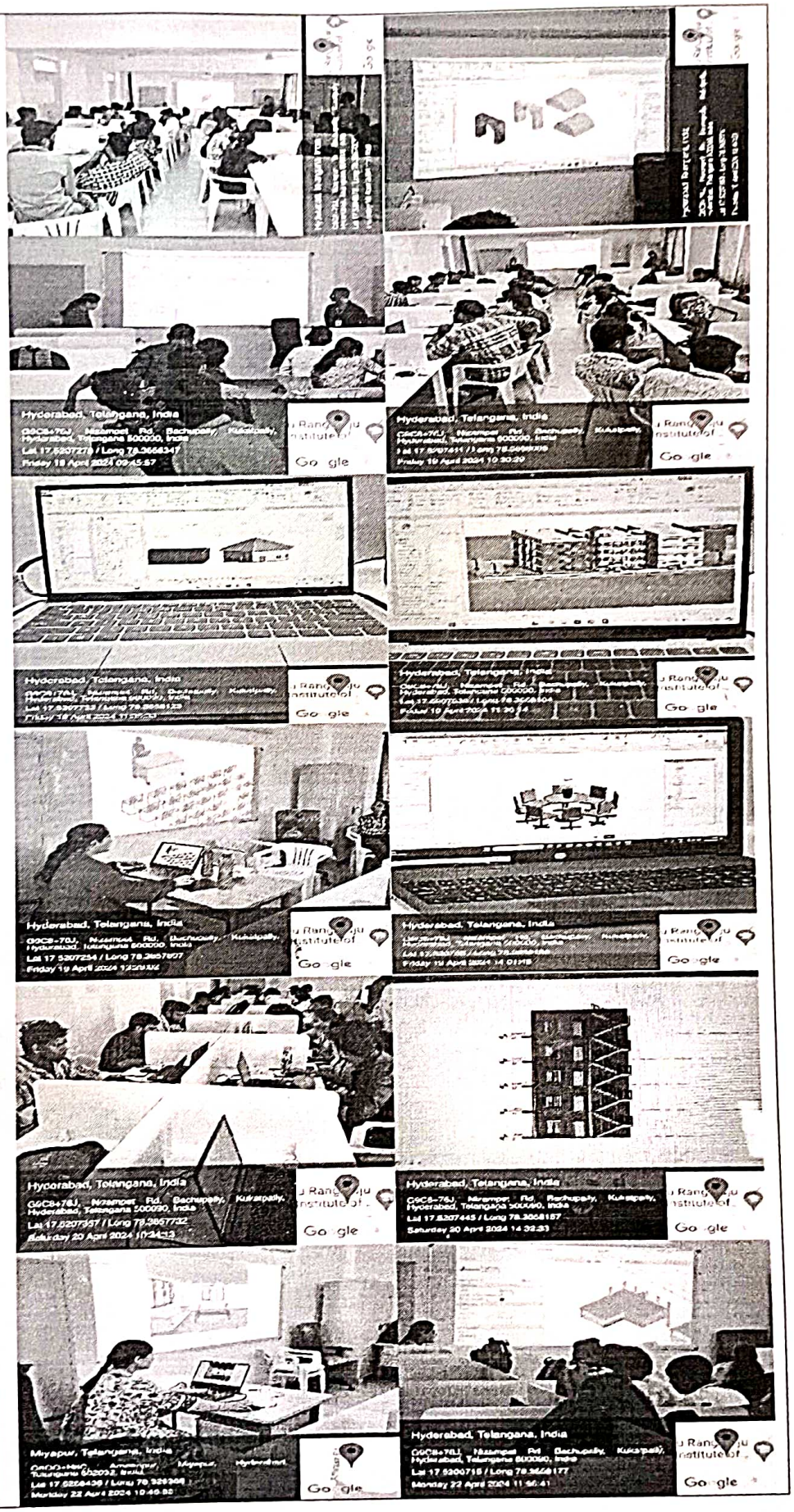
Hyderabad, Telangana, India


Hyderabad, Telangana, India
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Hyderabad, Telangana, India
Hyderabad, Telangana, India
Hyderabad, Telangana, India
Miyapur, Telangana, India
Hyderabad, Telangana, India

	
Proofs: **1.Certificates copies** **2.Profile of Speaker** **3.PPT/Material as applicable. etc.,**	Yes

7/5/24

Signature of Convenor
Dr. G V V Satyanarayana,
Professor & HOD, CE, GRIET

PROFESSOR AND HEAD
Department of Civil Engineering
Gokaraju Rangaraju Institute of
Engineering and Technology
Bachupally, Kukatpally,
Hyderabad-500 090

Signature of Coordinators

1. Mr. Akula Prakash 7/5/2024
   Assistant Professor, CE, GRIET.
2. Mr. A. Vittalaiah 7/5/24
   Assistant Professor, CE, GRIET.
3. Mr. C Vivek Kumar 7/5/24
   Assistant Professor, CE, GRIET.

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(Autonomous)

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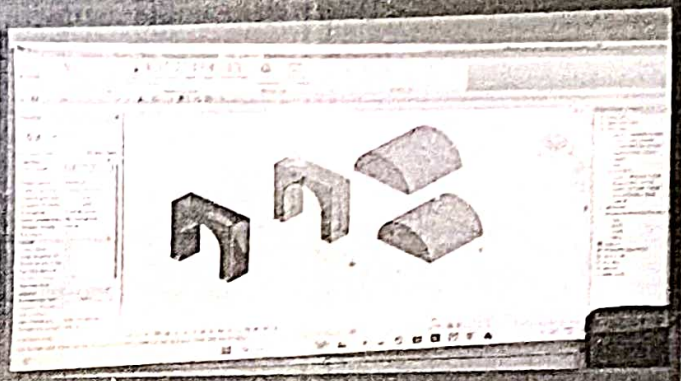
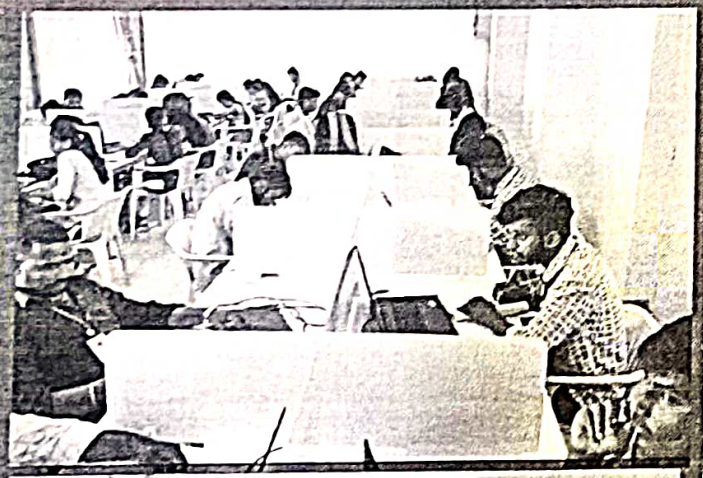
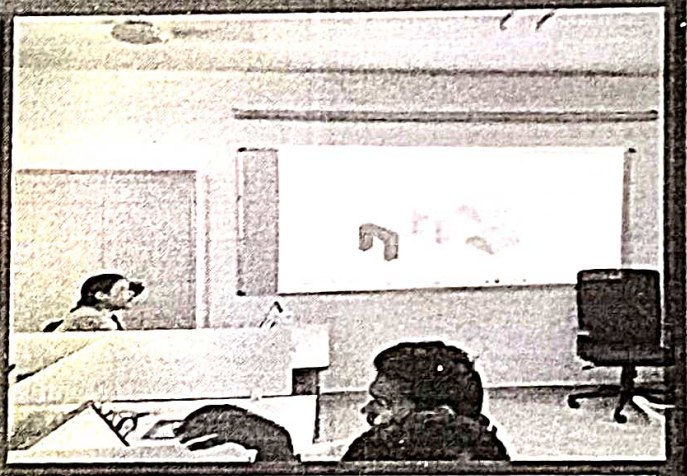
Department of Civil Engineering

Value-Added Course on Autodesk - REVIT Architecture







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(Autonomous)

Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009

Department of Civil Engineering

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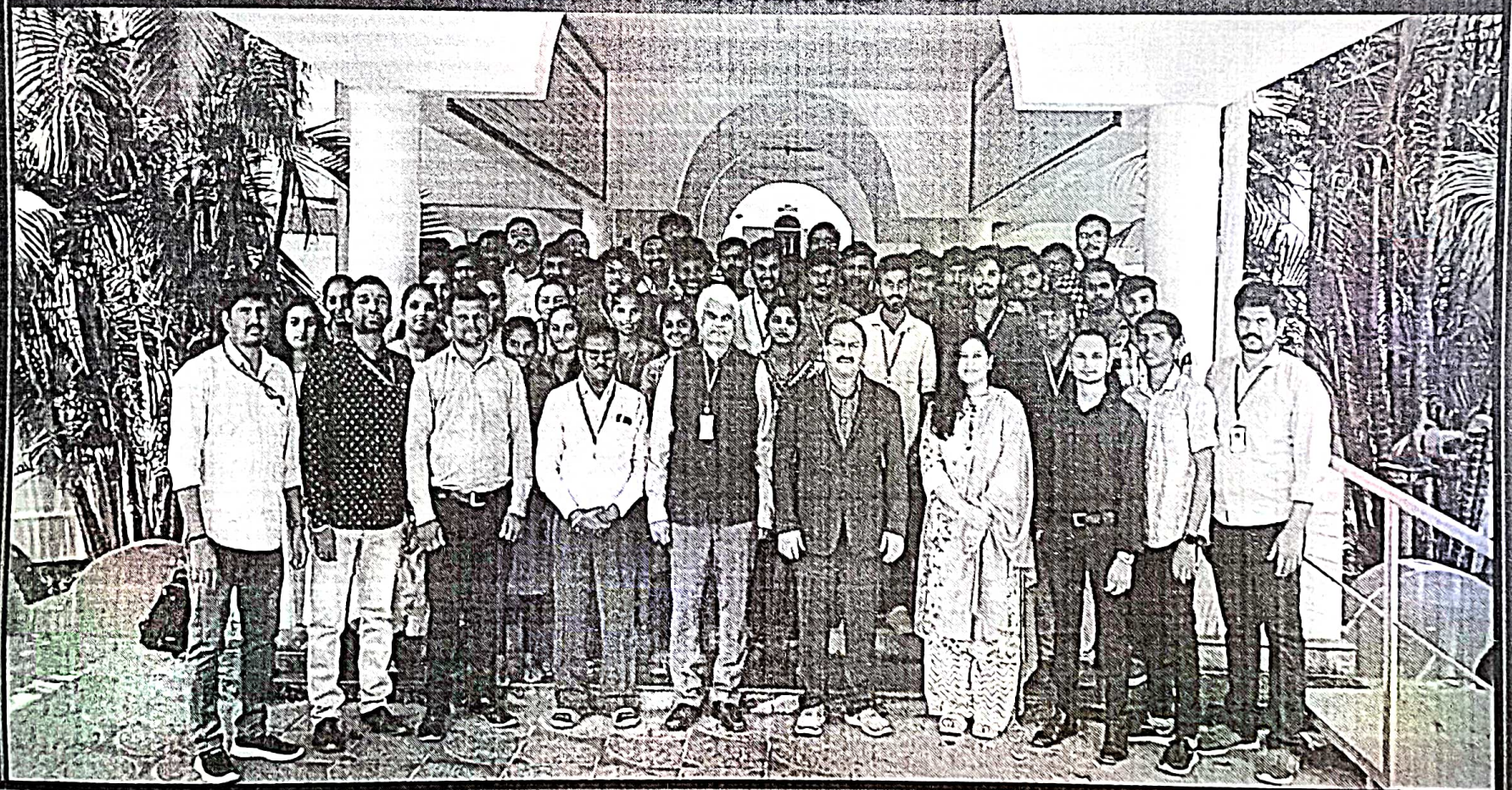
Value-Added Course on Autodesk – REVIT Architecture

in Association with Canter CADD India Pvt Ltd



Gokaraju Rangaraju Institute of Engineering & Technology

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Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009

Department of Civil Engineering

Value-Added Course on Autodesk - REVIT Architecture

ATTENDANCE SHEETS

			18-04-2024		19-04-2024		20-04-2024	
			Thursday		Friday		Saturday	
			FN	AN	FN	AN	FN	AN
S. No	Roll No.	Name of the Student	Sign.	Sign.	Sign.	Sign.	Sign.	Sign.
1	21241A0102	AGAM MALLIKARJUN						
2	21241A0105	ASALLA SAI KUMAR						
3	21241A0106	VISHNU PULI						
4	21241A0107	B SWATHI						
5	21241A0108	BACHA TOSHITH						
6	21241A0111	BANOTH VAMSHI NAIK						
7	21241A0112	BHIMAVARAPU HEMA SAI BHARADWAJA						
8	21241A0114	CHENNAM LOHITHA RAMA NAGA						
9	21241A0115	Ch. VENKATA SAI KARAN SRINIVASA RAO						
10	21241A0116	CHITAKOILA SHRUTHI						
11	21241A0117	DEEPATI VINAY KUMAR						
12	21241A0119	DURGAM SURAJ						
13	21241A0120	GEEDIGINJALA DHANRAJ						
14	21241A0121	GUDALA NITISH KUMAR						
15	21241A0122	JADHAV SIKINDAR						
16	21241A0125	JELLI JESSICA						
17	21241A0126	K ANUSHA						
18	21241A0128	KAMBLE SWAPNIL						

19	21241A0130	KHAJA KAMALUDDIN									
20	21241A0131	KODAKANDLA LOKESH									
21	21241A0132	KUPPALA NAGA NARENDRA									
22	21241A0133	KUTCHARLAPATI CHAITANYA									
23	21241A0135	MANDA RAGHUVARDHAN									
24	21241A0137	NALUVALA GOUTHAM									
25	21241A0138	OLETI DHANA LAXMI VARMA									
26	21241A0139	ORSU KARTHIK									
27	21241A0142	PENTAM ROHITH									
28	21241A0143	RAMAVATH NAGESH									
29	21241A0147	SAMA SHASHIDAR REDDY									
30	21241A0149	SREE CHARAN KANNAM									
31	21241A0153	VANKUDOTH USHA									
32	22245A0101	AKULA RAKSHITH									
33	22245A0102	ANAGANI SUSHMA									
34	22245A0103	AFSANA									
35	22245A0104	DEEKONDA AKSHITHA									
36	22245A0105	GANAPURAM SAI BHANVITHA									
37	22245A0106	GURRAM ABHISHEK									
38	22245A0107	J RUSHIKESH									
39	22245A0108	JANGAM RAJESHWARI									
40	22245A0109	JANGAPELLI VASU									
41	22245A0111	NEELI BHAVESH									
42	22245A0112	NANDI SRINIVASA SAI MURARI									
43	22245A0113	VIGNAN NANDIGAM									
44	22245A0114	ORSU AJAYKUMAR									
45	22245A0115	RAJU MADHUKAR									

Coordinator

HOD

Gokaraju Rangaraju Institute of Engineering & Technology

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Department of Civil Engineering

Value-Added Course on Autodesk - REVIT Architecture

ATTENDANCE SHEETS

			22-04-2024		23-04-2024		24-04-2024	
			Monday		Tuesday		Wednesday	
			FN	AN	FN	AN	FN	AN
S. No	Roll No.	Name of the Student	Sign.	Sign.	Sign.	Sign.	Sign.	Sign.
1	21241A0102	AGAM MALLIKARJUN	A.Mallikarjun	A.Mallikarjun	A.Mallikarjun	A.Mallikarjun	A.Mallikarjun	A.Mallikarjun
2	21241A0105	ASALLA SAI KUMAR	A.Saikumar	A.Saikumar	A.Saikumar	A.Saikumar	A.Saikumar	A.Saikumar
3	21241A0106	VISHNU PULI	P.vishnu	P.vishnu	P.vishnu	P.vishnu	P.vishnu	P.vishnu
4	21241A0107	B SWATHI	B.Swathi	B.Swathi	B.Swathi	B.Swathi	B.Swathi	B.Swathi
5	21241A0108	BACHA TOSHITH	Toshith	Toshith	Toshith	Toshith	Toshith	Toshith
6	21241A0111	BANOTH VAMSHI NAIK	B.Vamshi	B.Vamshi	B.Vamshi	B.Vamshi	B.Vamshi	B.Vamshi
7	21241A0112	BHIMAVARAPU HEMA SAI BHARADWAJA	B.Hema	B.Hema	B.Hema	B.Hema	B.Hema	B.Hema
8	21241A0114	CHENNAM LOHITHA RAMA NAGA	Lohitha	Lohitha	Lohitha	Lohitha	Lohitha	Lohitha
9	21241A0115	Ch. VENKATA SAI KARAN SRINIVASA RAO	Karan	Karan	Karan	Karan	Karan	Karan
10	21241A0116	CHITAKOILA SHRUTHI	Shruthi	Shruthi	Shruthi	Shruthi	Shruthi	Shruthi
11	21241A0117	DEEPATI VINAY KUMAR	Vinay	Vinay	Vinay	Vinay	Vinay	Vinay
12	21241A0119	DURGAM SURAJ	Suraj	Suraj	Suraj	Suraj	Suraj	Suraj
13	21241A0120	GEEDIGINJALA DHANRAJ	G.Dhanraj	G.Dhanraj	G.Dhanraj	G.Dhanraj	G.Dhanraj	G.Dhanraj
14	21241A0121	GUDALA NITISH KUMAR	G.Nitish	G.Nitish	G.Nitish	G.Nitish	G.Nitish	G.Nitish
15	21241A0122	JADHAV SIKINDAR	J.Sikindar	J.Sikindar	J.Sikindar	J.Sikindar	J.Sikindar	J.Sikindar
16	21241A0125	JELLI JESSICA	Jessica	Jessica	Jessica	Jessica	Jessica	Jessica
17	21241A0126	K ANUSHA	K.Anusha	K.Anusha	K.Anusha	K.Anusha	K.Anusha	K.Anusha
18	21241A0128	KAMBLE SWAPNIL	Swapnil	Swapnil	Swapnil	Swapnil	K.Anusha	K.Anusha

19	21241A0130	KHAJA KAMALUDDIN						
20	21241A0131	KODAKANDLA LOKESH						
21	21241A0132	KUPPALA NAGA NARENDRA						
22	21241A0133	KUTCHARLAPATI CHAITANYA						
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43	22245A0113	VIGNAN NANDIGAM						
44	22245A0114	ORSU AJAYKUMAR						
45	22245A0115	RAJU MADHUKAR						

Coordinator

1) 2)

HOD

CANTER CADD INDIA PVT.LTD.

Revit Architecture Question Paper:

Q1. BIM stands for_____

a) Building Information Management
b) Business Information Management
c) Building Information Modelling
d) Building intelligent Management

Q2. File format of Revit Project file_____

a) .RVT b) .RFA c) .RFT d) .RTE

Q3. Which of the following template is INVALID template in REVIT_____?

a) Architecture b) construction c) civil d) Mechanical e) Residential

Q4. What is the full form of UI in Revit Architecture? _____-

a) User interface work flow
b) User interfere
c) User Interface
d) None of the above

Q5. Which two are type properties of wall? _____

a) Base constraint
b) Coarse fill pattern
c) Top constraint
d) Function
e) Location line

Q6. What is the short cut key for walls _____-

a) WL
b) WLL
c) WA
d) WAL

Q7. where can we find "FILLET" tool in Revit _____

a) Modify panel
b) Draw tools
c) Geometry panel
d) Datum panel

Q8. When you trim or extend elements to corner, you click on the portion of the elements you want to _____

a) Move
b) Keep
c) Remove
d) Offset

Q9. Which is/are door instance parameter _____?

a) Thickness
b) Door Material
c) Height
d) Level

Q10. Where is the option door located in ribbon palette? _____

a) Build
b) Model
c) Circulation
d) None of the above

Q11. The default sill height of the DOOR is _____

a) 0'0"
b) 3'0"
c) 7'0"
d) None of the above

Q12. What is the short cut key for Window? _____

a) WD
b) WI
c) WN
d) WIN

Q13. To move the window from one wall to another wall into another you can _____

a) All of the above
b) Ctrl+x ——————→ ctrl+v
c) Using button "pick new host"
d) Just drag it with mouse

Q14. This key rotates a component counter clockwise by 90 degrees: _____

a) Enter
b) CTRL
c) SPACEBAR

d) ALT

Q15. What does the small triangle next to the roof boundary line indicate in the roof sketch? _____

a) Gable
b) Orientation
c) Slope
d) Overhang

Q16. Which two are automatically created by default when adding a new level? _____

a) Floor plan
b) 3d view
c) Section
d) Ceiling plan

Q17. Where can you see a list of groups that you create in a project _____

a) Project Browser
b) View Tab
c) Status Bar
d) Manage Tab

Q18. How many types of Area plans exist in Revit Architecture _____

a) 3 b) 2 c) 5 d) 1

Q19. The following tool is used to create an opening perpendicular to the selected face of the roof, floor or ceiling _____

a) Vertical opening
b) Shaft opening
c) Wall opening
d) By face opening

Q20. Which of the following two tools are used to create a vertical opening for roof, floor or ceiling _____

a) Vertical opening
b) Wall opening
c) Shaft opening
d) By face opening

Q21. Grids are: _____

a) Parameter elements
b) Datum elements
c) Type elements
d) Category elements

Q22. What are the critical parts of stair: _____

a) Nosing Structure
b) Stringer
c) Treads
d) Baluster/railing
e) All of the above

Q23. Which one of the following elements does not have the option to create a slope arrow during the edit mode? _____

a) Floors
b) Ceiling
c) Roofs
d) Walls

Q24. The color fill legend panel is located in the _____

a) View tab
b) Manage tab
c) Option tab
d) Annotation tab

Q25. View Cube can be found in _____ view

a) Elevation view
b) Section view
c) Camera view
d) 3d view

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Department of civil Engineering

Certificate of Participation

This is Certify That Mr./Ms. A.Mallikarjun .....of B.Tech 3rd Year has

Participated a Software Training On Revit Architecture From 18th to 24th

April,2024 at GRIET,Bachupally,Hyderabad.

Dr.G.V.V.Satyanarayana
HOD Civil Department

KATTA RAHUL
Managing Director

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Dr.G.V.V.Satyanarayana
HOD Civil Department

KATTA RAHUL
Managing Director

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This is Certify That Mr./Ms.....P.Vishnu.....of B.Tech 3rd Year has Participated a Software Training On Revit Architecture From 18th to 24th April,2024 at GRIET,Bachupally,Hyderabad.

Dr.G.V.V.Satyanarayana
HOD Civil Department

KATTA RAHUL
Managing Director

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Certificate of Participation

This is Certify That Mr./Ms. B.Swathi .....of B.Tech 3rd Year has Participated a Software Training On Revit Architecture From 18th to 24th April,2024 at GRIET,Bachupally,Hyderabad.

Dr.G.V.V.Satyanarayana
HOD Civil Department

KATTA RAHUL
Managing Director

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This is Certify That Mr./Ms.....B.Toshith.....of B.Tech 3rd Year has

Participated a Software Training On Revit Architecture From 18th to 24th

April,2024 at GRIET,Bachupally,Hyderabad.

Dr.G.V.V.Satyanarayana
HOD Civil Department

KATTA RAHUL
Managing Director

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Institute of Engineering and Technology
(Autonomous)
Approved by AICTE, New Delhi - Permanently affiliated to JNTUH, Hyderabad
Accredited by NAAC with A++grade

Department of Civil Engineering

LETTER OF APPRECIATION

25-04-2024

To
M/s. Canter CADD India Pvt Ltd
Level-IV, Diamond Corner,
Khajaguda Main Road,
Gachibowli, Hyderabad
Telangana.

Dear Sir / Madam

I am writing to provide feedback on the training sessions you conducted for our III B. Tech Civil Engineering students of GRIET. Your Expert Team from Kukatpally Branch expertise and dedication were evident throughout the training program, and I would like to express my gratitude for your efforts. The training sessions were informative and engaging, providing valuable insights into Revit Architecture. Your team ability to explain complex concepts in a clear and concise manner was particularly appreciated by the students. Your team passion for the subject matter was contagious, making the sessions both Educational and Enjoyable.

Additionally, your team professionalism and approachability were notable. Your team created a positive learning environment where students felt comfortable asking questions and sharing their thoughts. Your team willingness to go above and beyond to help students understand the material did not go unnoticed. Overall, the feedback from students regarding your training sessions has been overwhelmingly positive. They have expressed appreciation for your team knowledge, teaching style, and the relevance of the content to their studies.

Thank you once again for your valuable contribution to our students' learning experience. We look forward to the possibility of working with you again in the future.

Sincerely,

25.4.24

Dr. G V V Satyanarayana
Professor & Head
Dept. of Civil Engineering
GRIET(A).

PRO
Departm
Gokaraju
Engineer
Bachupa
Hyderab

Date - 15/04/2024

To

The HOD

Department of CSE & IT, GLWEC

[Sub- Handovering 30 laptops & 30 chargers to the placement team of GRIET regards]

Respected Madam,

With the reference to the subject cited above, we (N. Swathi and Salini Roychowdhury) handovering 30 HP laptops & 30 chargers within a good working condition to the team of placement incharges of GRIET to conduct the workshop from 18th April, 2024 to 24th April, 2024 in the room no 2309, GLWEC. After completion of one week workshop we'll collect the things return back.

This is for your kind notice and please give us the permission to handover the above things.

Thanking you,

Yours sincerely,

N. Swathi and

C. Vivek Kumar
97914-26508
Asst. Prof/ Civil
GRIET.

Returned 30 laptops & chargers after uninstalling softwares

21/4/2024.

Received
N. Swathi

Gokaraju Rangaraju Institute of Engineering & Technology
Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009
B.Tech Civil Engg. III Yr-II Sem- Section A- GR20 2023 -24
REVIT ARCHITECTURE REGISTRATION

S. No	Roll No	Name of Student	Signature
1	21241A0101	ADAKULAPALLY ANIL	
2	21241A0102	AGAM MALLIKARJUN Online	A. Mallikarjun
3	21241A0104	AMIRNENI YASASVI	
4	21241A0105	ASALLA SAI KUMAR Online	A. Sai Kumar
5	21241A0106	VISHNU PULI CASH	P. Vishnu
6	21241A0107	B SWATHI ONLINE	Swa
7	21241A0108	BACHA TOSHITH online	paid
8	21241A0109	BADAVATH BHAGYASREE	
9	21241A0110	BADHAVATH YAMINI	
10	21241A0111	BANOTH VAMSHI NAIK (online)	B. vamshi naik (online)
11	21241A0112	BHIMAVARAPU HEMA SAI BHARADWAJA	1000 online 250
12	21241A0114	CHENNAM LOHITHA RAMA NAGA (online)	Lohitha
13	21241A0115	Ch. VENKATA SAI KARAN SRINIVASA RAO (phonepe)	Sairam
14	21241A0116	CHITAKOILA SHRUTHI (Cash)	Shruthi
15	21241A0117	DEEPATI VINAY KUMARG (Bank Transfer)	VinayKumar. → (SBI)
16	21241A0118	DEGA PRANAY	
17	21241A0119	DURGAM SURAJ (online)	
18	21241A0120	GEEDIGINJALA DHANRAJ (online)	G. Dhanraj
19	21241A0121	GUDALA NITISH KUMAR (Cash)	G.
20	21241A0122	JADHAV SIKINDAR (online)	J. Sikindar
21	21241A0123	JAJAALA SAINADH	
22	21241A0124	JAVVADI SRIYANKA	
23	21241A0125	JELLI JESSICA G-pay (online)	
24	21241A0126	K ANUSHA (online)	K. Anusha
25	21241A0127	K SREENU	
26	21241A0128	KAMBLE SWAPNIL online	online)
27	21241A0129	KANDULA SHASHANK	
28	21241A0130	KHAJA KAMALUDDIN (online)	
29	21241A0131	KODAKANDLA LOKESH (cash)	LOKESH
30	21241A0132	KUPPALA NAGA NARENDRA (online)	K. Narendra
31	21241A0133	KUTCHARLAPATI CHAITANYA (online)	paid
32	21241A0135	MANDA RAGHUVARDHAN (Cash)	

33	21241A0136	MEGHARAJ YASHESHWAR	
34	21241A0137	NALUVALA GOUTHAM (Cash)	N. Goutham
35	21241A0138	OLETI DHANA LAXMI VARMA (cash)	Laxman
36	21241A0139	ORSU KARTHIK (Online)	Karthik → 16/4/24
37	21241A0140	P SRIVANI	
38	21241A0141	PATTHI SAI GANESH	
39	21241A0142	PENTAM ROHITH (cash)	P. Rohit →
40	21241A0143	RAMAVATH NAGESH (online)	R. Nagesh
41	21241A0144	RATHOD SANJEEV	
42	21241A0145	RAVURI AKASH	
43	21241A0147	SAMA SHASHIDAR REDDY (cash)	Shashi
44	21241A0148	SANDEEP KOTA	
45	21241A0149	SREE CHARAN KANNAM (Cash)	K. Sree charan
46	21241A0151	TALARI SRIKEERTHAN	
47	21241A0153	VANKUDOTH USHA (Online)	Usha. V
48	22245A0101	AKULA RAKSHITH (online)	Paid
49	22245A0102	ANAGANI SUSHMA (online).	Sushma
50	22245A0103	AFSANA Online	Afsanaa
51	22245A0104	DEEKONDA AKSHITHA (cash)	D. Akshitha
52	22245A0105	GANAPURAM SAI BHANVITHA (cash)	Bhanvitha → Idly
53	22245A0106	GURRAM ABHISHEK (online)	Paid
54	22245A0107	J RUSHIKESH (online)	Paid — late payment
55	22245A0108	JANGAM RAJESHWARI (online)	Raji
56	22245A0109	JANGAPELLI VASU online	Paid →
57	22245A0110	MARAPELLY ASHRITHA	
58	22245A0111	NEELI BHAVESH (Online)	Bhavesh
59	22245A0112	NANDI SRINIVASA SAI MURARI (online)	Murari
60	22245A0113	VIGNAN NANDIGAM (online)	Vignan Nandigam
61	22245A0114	ORSU AJAYKUMAR (Online)	Ajay
62	22245A0115	RAJU MADHUKAR (online)	Paid
63	22245A0116	SAMALA SRIJA SRI	

No. of Registrations = 43 × 1250 = 53,750/- → A/c

+ 2 × 1250 = 2500/- → Pending
(139, 140)

56250/-

BACHUPALLY
CASH RECEIPT
A/C 18822191002750
Customer Name
HOD CIVIL DEPARTMENT
Detail BY CASH
Amt Deposit 53,750.00 INR
Fifty Three Thousand
Seven Hundred Fifty Only.

Amt Received By 5136091
on 16-04-2024 10:28:58
Txn/Sr no M75980/2
Cashier
Punjab National Bank Welcomes Yo
u
TollFree 24 Hours Call Center :
1800 180 2222, 0124-2340000
, 18001032222
Corruption free India for a deve
loped Nation
Thankyou!

.....

REVIT - Regd Fee

पंजाब नेशनल बैंक
Punjab national bank

KUKATPALLY Branch (Dist. No. 4857)

दिनांक Date 16 04 24

बचत/चालू/ओडी/नकद उधार/आवर्ती जमा/आवधिक ऋण/सांपत्ति खाता संख्या /क्रेडिट कार्ड संख्या
SF/CA/OD/CC/RD/TL/DLA/c No./Credit Card No.

1 8 8 2 2 1 9 1 0 0 2 7 5 0

नाम/Name HOD CIVIL Dept

दूर /Tel.

राशि Amount रु 53,750/- पै

Amount (in words) Rupees Fifty three thousand Seven Hundred

चेक का पहचान कोड/नाम Cheque I.D./Name of Bank	रु	पै
	53,	750/-
कुल/Total		

Officer/Cashier/SWO

Punjab National Bank Toll free
24 hours call centre 1800 180 2222/1800 103 2222

REVIT Regd Fee
43 x 1250 = Rs 53,750/- → Deposited in HOD - CIVIL Account
(No. of Students)

BACHUPALLY
CASH RECEIPT
A/C 18822191002750
Customer Name
HOD CIVIL DEPARTMENT
Detail BY CASH
Amt Deposit 2,500.00 INR
Two Thousand Five
Hundred Only.

Amt Received By 5184806
on 20-04-2024 11:02:38
Txn/Sr no M156750/3
Cashier
Punjab National Bank Welcomes Yo
u
TollFree 24 Hours Call Center :
1800 180 2222, 0124-2340000
, 18001032222
Corruption free India for a deve
loped Nation
Thankyou!

.....

REVIT Regd Fee

2 x 1250/- = Rs 2500/-

(No. of students)

Deposited in HOD- CIVIL Account

punjab national bank
बचुपल्ली (मेडचल) तेलंगाना
BACHUPALLY(Medchal) Telangana-500090
RTGS/NEFT IFS Code : PUNB0188210

सभी शाखाओं पर देय PAYABLE AT ALL BRANCHES

2	9	0	5	2	0	2	4
D	D	M	M	Y	Y	Y	Y

PAY A. Prakash. या धारक को OR BEARER

रुपये RUPEES Fifty Six thousand Two hundred fifty only

अदा करें ₹ 56250/=

खाता सं० A/c. No. 18822191002750

बचत खाता SAVINGS A/c

18822191002750

For HOD CIVIL DEPARTMENT

J. Praveen

Authorised Signatory(ies)
Please sign above

केवल तीन माह के लिये वैध VALID FOR THREE MONTHS ONLY

MH1123 738089

HI2C7U IPJ

⑈738089⑈ 500024076⑆ 31

Note :- An Amount of Rs 56250/- withdrawn after Succesful course completion and the same is refunded to Registred participants

Gokaraju Rangaraju Institute of Engineering & Technology

(Autonomous)
Bachupally, Nizampet Road, Kukatpally, Hyderabad-500009
Department of Civil Engineering
Value-Added Course on Autodesk - REVIT Architecture

CANTER CADD
ISO 9001:2015 Certified

Checklist for Receipt of Registration Fee and Certificate of Participation

S. No	Roll No	Name of Student	Received Participation Certificate	Received Registration Fee	Signature of the Participant
1	21241A0102	AGAM MALLIKARJUN	Yes	Yes	A. Mallikarjun
2	21241A0105	ASALLA SAI KUMAR	Yes	Yes	B. Vamshi Naik
3	21241A0106	VISHNU PULI	Yes	Yes	P. Vishnu
4	21241A0107	B SWATHI	Yes	Yes	B. Swathi
5	21241A0108	BACHA TOSHITH	Yes	Yes	TOSHITH
6	21241A0111	BANOTH VAMSHI NAIK	Yes	Yes	B. Vamshi Naik
7	21241A0112	BHIMAVARAPU HEMA SAI BHARADWAJA	Yes	Yes	B. [illegible]
8	21241A0114	CHENNAM LOHITHA RAMA NAGA	Yes	Yes	Lohitha.
9	21241A0115	Ch. VENKATA SAI KARAN SRINIVASA RAO	Yes	Yes	[illegible]
10	21241A0116	CHITAKOILA SHRUTHI	Yes	Yes	Shruthi.
11	21241A0117	DEEPATI VINAY KUMAR	Yes	Yes	Vinay Kuma.
12	21241A0119	DURGAM SURAJ	Yes	Yes	[illegible]
13	21241A0120	GEEDIGINJALA DHANRAJ	yes	yes	G. Dhanraj
14	21241A0121	GUDALA NITISH KUMAR	Yes	Yes	G. Nitish
15	21241A0122	JADHAV SIKINDAR	Yes	Yes	J. Sikindar
16	21241A0125	JELLI JESSICA	Yes	Yes	[illegible]
17	21241A0126	K ANUSHA	Yes	Yes	K. Anusha
18	21241A0128	KAMBLE SWAPNIL	yes	yes	K. Swapnil
19	21241A0130	KHAJA KAMALUDDIN	Yes	Yes	K. [illegible]
20	21241A0131	KODAKANDLA LOKESH	yes	Yes	Lokesh [illegible]

S. No	Roll No	Name of Student	Received Participation Certificate	Received Registration Fee	Signature of the Participant
21	21241A0132	KUPPALA NAGA NARENDRA	Yes	Yes	K. Narendra.
22	21241A0133	KUTCHARLAPATI CHAITANYA	Yes	Yes	Chaitanya.
23	21241A0135	MANDA RAGHUVARDHAN	Yes	Yes	
24	21241A0137	NALUVALA GOUTHAM	Yes	Yes	N. Goutham.
25	21241A0138	OLETI DHANA LAXMI VARMA	Yes	Yes	O. Varma,
26	21241A0139	ORSU KARTHIK	Yes	Yes	O. Karthika.
27	21241A0142	PENTAM ROHITH	Yes	Yes	
28	21241A0143	RAMAVATH NAGESH	Yes	Yes	
29	21241A0147	SAMA SHASHIDAR REDDY	Yes	Yes	
30	21241A0149	SREE CHARAN KANNAM	Yes	Yes	K. Sree charan
31	21241A0153	VANKUDOTH USHA	Yes	Yes	Usha. V
32	22245A0101	AKULA RAKSHITH	Yes	Yes	A. Rakshith
33	22245A0102	ANAGANI SUSHMA	Yes	Yes	Sushma
34	22245A0103	AFSANA	Yes	Yes	Afsana.
35	22245A0104	DEEKONDA AKSHITHA	Yes	Yes	
36	22245A0105	GANAPURAM SAI BHANVITHA	Yes	Yes	Bhanvitha.
37	22245A0106	GURRAM ABHISHEK	Yes	Yes	
38	22245A0107	J RUSHIKESH	Yes	Yes	J. Rushikesh
39	22245A0108	JANGAM RAJESHWARI	Yes	Yes	Raji
40	22245A0109	JANGAPELLI VASU	Yes	Yes	J. Vasu
41	22245A0111	NEELI BHAVESH	Yes	Yes	Bhavesh
42	22245A0112	NANDI SRINIVASA SAI MURARI	Yes	Yes	
43	22245A0113	VIGNAN NANDIGAM	Yes	Yes	
44	22245A0114	ORSU AJAYKUMAR	Yes	Yes	
45	22245A0115	RAJU MADHUKAR	Yes	Yes	

Conductors
1) 2)

HOD
PROFESSOR AND HEAD
Department of Civil Engineering
Gokaraju Rangaraju Institute of
Engineering and Technology
(Autonomous)
Hyderabad-500 090

TAX INVOICE

invoice : 110/24 Date: 18.04.2024

From

M/s.Canter Cadd India Pvt Ltd

Level-IV,Diamond Corner,

Khajaguda Main Road,

Gachibowli,Hyderabad

Telangana-19

HDFC BANK A/C.NO : 50200022856070

IFSC : HDFC0009015

GSTIN/UIN : 36AAFCC7853D1ZN

TO

GRIET COLLEGE

Bachupally,Nizampet Rd,Kukatpally,

Hyderabad,Telangana- 500090

Sl.NO.	Description of course	No. of participants	Price	Total
1	Revit Architecture	45	2500	112500.00
			Total	112500.00
			CGST 9%	10125.00
			SGST 9%	10125.00
			Grand Total	132750.00

Amount Payble(in words)One Lakh Thirty Two Thousand Seven Hundred and Fifty Rupees Only.

Company's PAN : AAFCC7853D

Declaration :
We declare that this is invoice shows the actual price of the course of training given and all the particulars are true and correct.

Prepared by : Verified by : Authorized signatory :

N pay & see with all our privileges of Non profit society can we reduce GST
22/4/24

Pay with GST please
23/4/24

TAX INVOICE

Invoice : 110/24 Date: 18.04.2024

From

M/s.Center Cadd India Pvt Ltd

Level-IV,Diamond Corner,

Khajaguda Main Road,

Gachibowli,Hyderabad

Telangana-19

HDFC BANK A/C.NO : 50200022856070

IFSC : HDFC0009015

GSTIN/UIN : 36AAFCC7853D1ZN

TO

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Sl.NO.	Description of course	No. of participants	Price	Total
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			Total	112500.00
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			SGST 9%	10125.00
			Grand Total	132750.00

Amount Payble(in words)One Lakh Thirty Two Thousand Seven Hundred and Fifty Rupees Only.

Company's PAN : AAFCC7853D

Declaration :
We declare that this is invoice shows the actual price of the course of training given and all the particulars are true and correct.

Prepared by : Raaj

Verified by :

P.Venkata Ramana
Authorized signatory :

Forward to Sto Sir.
This invoice is related to cadtechnology training
to civil students (3rd year). 18/04/2024

Trg & placement

0100

PAYMENT VOUCHER

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY, BACHUPALLI

(Sponsored by Gokaraju Rangaraju Educational Society)
Bachupally, Kukatpally, Hyderabad - 500 090.
Phone : 7207344440 / 7207714441

Cash/ Bank	Cheque/D.D No. 807142	Voucher No.	Date : 24/4/24

Paid to Cooler Cold Tudea Pvt. Ltd.

Rupees One lakh twenty one thousand five hundred only.

towards Core technology training to 3rd year CIVIL students.

Sl.No	PARTICULARS	DEBIT	CREDIT	BILL No.	DATE
1.	Cooler Cold	1,21,500 00 ✓			
2.	Tudea Pvt. Ltd.				
3.					
4.					
5.					
6.					
	Total	1,21,500 00 ✓			
	Balance				

24/04/24.

Prepared by | President/Principal | Checked by / Acct. | Receiver's Signature

GRIET
GRIET
NIZAMPET ROAD,
BACHUPALLY,
HYDERABAD-500 072.
State Name : Telangana, Code : 36
E-Mail : info@gokaraju.org

Journal Voucher

No. : Dated : 23-Apr-2024

Particulars		Debit	Credit
STUDENT TRAINING	Dr	1,12,500.00	
GST ON REVENUE EXP	Dr	20,250.00	
To TDS (194J) PROFESSIONALS			11,250.00
To CANTER CADD INDIA PVT LTD			1,21,500.00
On Account of :			
BEING THE AMOUNT PAYABLE TOWARDS CORE TECHNOLOGY TRAINING TO CIVIL STUDENTS (3RD YEAR) VIDE INVOICE NO.110/24, DT.18.04.2024.			
		Rs 1,32,750.00	**Rs 1,32,750.00**

Authorised Signatory

Solit AC's ~~2nd~~ Fixing

O/C Core Technology
III, Civil - Training

Pls Transfer A.c No.18821011000013 RTGS/NEFT DT.29.04.2024

S.No	Beneficiary Name	Beneficial Account Numb	Bank Name	IFSC Code	Brach Nar	Amount
1	CANTER CADD INDIA PVT LTD	50200022856070	HDFC BANK	HDFC0009015	HYD	1,21,500

CHEQUE NO.807142/24-04-24

PUNB12412004092 8

GRIET Transaction Statement

[Select Another Account / Period]

Closing Balance: INR

Date	Narration	Cheque/Ref. No.	Value Date	Withdrawal	Deposit
29 Apr 2024	NEFT Cr-PUNB0188210-GOKARAJU RANGARAJU INSTITUTE OF ENG-CANTER CADD INDIA PVT LTD-PUNBL24120040928	PUNBL24120040928	29 Apr 2024		121,500.00

Transaction statement from CANTER CADD

CASH / CREDIT

MEMO

From Rivit Architecture

Date 18/4/24 TO 24/4/24 (6days)

M/s. 3rd year Civil Engg

QTY	PARTICULARS	RATE	AMOUNT Rs.	Ps.
	Meals 35 Nos X ₹ 50		= 1750	00
	Chicken Biryani 7 Nos X ₹ 130		= 910	00
	Water bottle 42 Nos X 10		= 420	00
	Biscuit - 42 Nos X ₹ 10		= 420	00
		TOTAL	3500	00

SREE LAKSHMI CATERING SERVICES
MIG-1394, BHEL, Nallagandla,
Serilingampally, Hyderabad-500032

18/4/24

SUNDARAM PAPER PRODUCTS Thanks

Goods once sold will not be taken back or exchanged.

Signature

CASH / CREDIT

MEMO

From Chandu Tea Point

GRIET Campus, 3rd year

Bachupally, Hyderabad Civil

Cell: 9100500361

Rivit Architecture

Date :

No. : 18/4/24 TO 24/4/24

M/s.

QTY	PARTICULARS	RATE	AMOUNT Rs.	Ps.
	Tea - 42 Nos X ₹ 10		= 420	00
	Buttermilk 42 Nos X ₹ 10		= 420	00
		TOTAL	840	00

24.4.24

SUNDARAM PAPER PRODUCTS Thanks

Goods once sold will not be taken back or exchanged.

Signature

222-15-7010

Gurram Abhishek
gurramabhishek123@gmail.com
8106124732

19/25

CANTER CADD INDIA PVT.LTD.

CANTER CADD

Revit Architecture Question Paper:

Q1. BIM stands for ___c___

a) Building Information Management
b) Business Information Management
c) Building Information Modelling
d) Building intelligent Management

Q2. File format of Revit Project file ___a___

a) .RVT b) .RFA c) .RFT d) .RTE

Q3. Which of the following template is INVALID template in REVIT ___c___ ?

a) Architecture b) construction c) civil d) Mechanical e) Residential

Q4. What is the full form of UI in Revit Architecture? ___c___.

a) User interface work flow
b) User interfere
c) User Interface
d) None of the above

Q5. Which two are type properties of wall? ___e,d___

a) Base constraint
b) Coarse fill pattern
c) Top constraint
d) Function
e) Location line

Q6. What is the short cut key for walls ___c___.

a) WL
b) WLL
c) WA
d) WAL

Q7. where can we find "FILLET" tool in Revit ___a___

a) Modify panel
b) Draw tools
c) Geometry panel
d) Datum panel

Q8. When you trim or extend elements to corner, you click on the portion of the elements you want to _____ b

a) Move
b) Keep
c) Remove
d) Offset

Q9. Which is/are door instance parameter __a,c__ ?

a) Thickness
b) Door Material
c) Height
d) Level

Q10. Where is the option door located in ribbon palette? __a__

a) Build
b) Model
c) Circulation
d) None of the above

Q11. The default sill height of the DOOR is __a__

a) 0'0"
b) 3'0"
c) 7'0"
d) None of the above

Q12. What is the short cut key for Window? __c__

a) WD
b) WI
c) WN
d) WIN

Q13. To move the window from one wall to another wall into another you can __d__

a) All of the above
b) Ctrl+x ----------→ ctrl+v
c) Using button "pick new host"
d) Just drag it with mouse

Q14. This key rotates a component counter clockwise by 90 degrees: __c__

a) Enter
b) CTRL
c) SPACEBAR

d) ALT

Q15. What does the small triangle next to the roof boundary line indicate in the roof sketch? c

a) Gable
b) Orientation
c) Slope
d) Overhang

Q16. Which two are automatically created by default when adding a new level? a,d

a) Floor plan
b) 3d view
c) Section
d) Ceiling plan

Q17. Where can you see a list of groups that you create in a project a

a) Project Browser
b) View Tab
c) Status Bar
d) Manage Tab

Q18. How many types of Area plans exist in Revit Architecture b

a) 3 b) 2 c) 5 d) 1

Q19. The following tool is used to create an opening perpendicular to the selected face of the roof, floor or ceiling d

a) Vertical opening
b) Shaft opening
c) Wall opening
d) By face opening

Q20. Which of the following two tools are used to create a vertical opening for roof, floor or ceiling a,c

a) Vertical opening
b) Wall opening
c) Shaft opening
d) By face opening

Q21. Grids are: b

a) Parameter elements
b) Datum elements
c) Type elements
d) Category elements

Q22. What are the critical parts of stair: c, d, b

a) Nosing Structure
b) Stringer
c) Treads
d) Baluster/railing
e) All of the above

Q23. Which one of the following elements does not have the option to create a slope arrow during the edit mode? d

a) Floors
b) Ceiling
c) Roofs
d) Walls

Q24. The color fill legend panel is located in the d

a) View tab
b) Manage tab
c) Option tab
d) Annotation tab

Q25. View Cube can be found in d view

a) Elevation view
b) Section view
c) Camera view
d) 3d view

J Vasu
2224520109
8688415521
Vasujangapelli@gmail.com

CANTER CADD INDIA PVT.LTD.

CANTER CADD

18/25

Revit Architecture Question Paper:

Q1. BIM stands for C (C)

a) Building Information Management
b) Business Information Management
c) Building Information Modelling
d) Building intelligent Management

Q2. File format of Revit Project file a

a) .RVT b) .RFA c) .RFT d) .RTE

Q3. Which of the following template is INVALID template in REVIT C ?

a) Architecture b) construction c) civil d) Mechanical e) Residential

Q4. What is the full form of UI in Revit Architecture? C .

a) User interface work flow
b) User interfere
c) User Interface
d) None of the above

Q5. Which two are type properties of wall? a & b

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b) Coarse fill pattern
c) Top constraint
d) Function
e) Location line

Q6. What is the short cut key for walls C .

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b) WLL
c) WA
d) WAL

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b) Draw tools
c) Geometry panel
d) Datum panel

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c) Remove
d) Offset

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b) Door Material
c) Height
d) Level

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b) Model
c) Circulation
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c) Using button "pick new host"
d) Just drag it with mouse

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a) Enter
b) CTRL
c) SPACEBAR.

d) ALT

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c) Slope.
d) Overhang

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c) Section
d) Ceiling plan

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c) Type elements
d) Category elements

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b) Stringer
c) Treads
d) Baluster/railing
e) All of the above

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b) Ceiling.
c) Roofs
d) Walls

Q24. The color fill legend panel is located in the _____ d _____

a) View tab
b) Manage tab
c) Option tab
d) Annotation tab

Q25. View Cube can be found in _____ d _____ view.

a) Elevation view
b) Section view
c) Camera view.
d) 3d view

CANTER CADD INDIA PVT.LTD.

FEEDBACK FORM

Date: 24/04/24

Student Name: D Karthik Student ID Q1241A0139

Contact Number: 9100534133 Course : Revit Instructor name:

Please tick √	Yes	No
The facilitator had thorough knowledge in the subject.	✓	
The facilitator has been able to explain the features and benefits of the software.	✓	
I am satisfied with the training sessions and have been able to understand the software.	✓	
The training sessions were on time and exercises were given.	✓	
All my doubts have been cleared by the facilitator.	✓	
Are you able to do project in software?	✓	
If yes did you submitted Y/N	✓	

Please give your valuable rating	Excellent	Good	Average
The overall rating for this demo session is	✓		

Any additional comments /feedback /suggestions:

Very good explanation & features & are explained very well.

Thank you very much for your kind feedback.

CANTER CADD INDIA PVT.LTD.

FEEDBACK FORM

Date: 24/04/2024

Student Name: suraj Student ID 21241A0119

Contact Number: 9347335010 Course : Revit Instructor name: Lahari

Please tick √	Yes	No
The facilitator had thorough knowledge in the subject.	✓	
The facilitator has been able to explain the features and benefits of the software.	✓	
I am satisfied with the training sessions and have been able to understand the software.	✓	
The training sessions were on time and exercises were given.	✓	
All my doubts have been cleared by the facilitator.	✓	
Are you able to do project in software?	✓	
If yes did you submitted Y/N	✓	

Please give your valuable rating	Excellent	Good	Average
The overall rating for this demo session is	✓		

Any additional comments /feedback /suggestions:

very interesting course which I never heard before.

Thank you very much for your kind feedback.

CANTER CADD INDIA PVT.LTD.

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FEEDBACK FORM

Date: 24/4/24

Student Name: G. Sai Bhanvitha Student ID 22245A0105

Contact Number: 8688150400 Course : REVIT Instructor name: Lahari Priya

Please tick √	Yes	No
The facilitator had thorough knowledge in the subject.	✓	
The facilitator has been able to explain the features and benefits of the software.	✓	
I am satisfied with the training sessions and have been able to understand the software.	✓	
The training sessions were on time and exercises were given.	✓	
All my doubts have been cleared by the facilitator.	✓	
Are you able to do project in software?	✓	
If yes did you submitted Y/N	✓	

Please give your valuable rating	Excellent	Good	Average
The overall rating for this demo session is	✓		

Any additional comments /feedback /suggestions:

Topics are being explained clearly and doubts clarification is done simultaneously

Thank you very much for your kind feedback.

CANTER CADD INDIA PVT.LTD.

FEEDBACK FORM

Date: 24/04/24

Student Name: k. Naga Narendra Student ID 21241A0132

Contact Number: 9392401378 Course : civil Eng Instructor name: ~~GREET~~ Lahari priya Revit

Please tick √	Yes	No
The facilitator had thorough knowledge in the subject.	✓	
The facilitator has been able to explain the features and benefits of the software.	✓	
I am satisfied with the training sessions and have been able to understand the software.	✓	
The training sessions were on time and exercises were given.	✓	
All my doubts have been cleared by the facilitator.	✓	
Are you able to do project in software?	✓	
If yes did you submitted Y/N	✓	

Please give your valuable rating	Excellent	Good	Average
The overall rating for this demo session is	✓		

Any additional comments /feedback /suggestions:

good explaning each and everything. I am learning very quickly. because of clarifing doughts very good.

Thank you very much for your kind feedback.