



**Gokaraju Rangaraju Institute of Engineering and Technology**  
**(Autonomous)**

GRIET/CE/BOS/IE/G/21-22

9<sup>th</sup> April 2022

Minutes of Meeting

For

**I & II M. Tech Structural Engineering**

(For Students admitted from 2022-23 as per GR22 Regulations)

**Board of Studies**

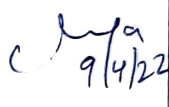
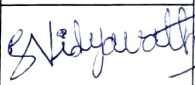



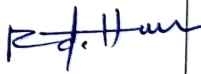

Held on 9<sup>th</sup> April 2022

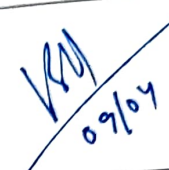
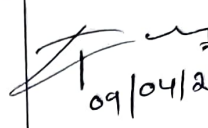

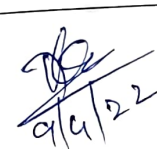





**GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY**  
(Autonomous)

Minutes of meeting of the BOS for M. Tech Structural Engineering, Course Structure and Syllabus approval for 1 & II-year GR22 Regulation of Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous) held on 9<sup>th</sup> April 2022 in the Department of Civil Engineering, GRIET at 11:30 AM.

Venue: Room No:4212, Seminar Hall, Civil Engineering Department.

S.No.	Name of the member	Position in the Current Engagements	Position in the BOS	Signature
<b>Chairperson</b>				
1	Dr C Lavanya	Professor & HOD, Department of Civil Engineering, GRIET, Hyderabad	Chairman	
<b>University Nominee</b>				
2	Dr S Vidyavathi	Professor, Department of Civil Engineering, JNTUH, Kukatpally	JNTUH Nominee	
<b>Educationist or Industrialist</b>				
3	Dr M V Seshagiri Rao	Professor, Department of Civil Engineering, CVR College of Engineering	External Expert (Academics)	
4	Dr. R. Prasanna Kumar	Professor & HOD, Department of Civil Engineering, Geetanjali College of Engineering & Technology.	External Expert (Academics)	
5	Dr V V Krishna Reddy	Chief Consultant & Proprietor, M/S Continental Designers Project Consultant	External Expert (Industry)	
<b>Members</b>				
6	Dr Mohammad Hussain	Professor, Department of Civil Engineering, GRIET, Hyderabad	Internal Member	
7	Dr G V V Satyanarayana	Professor, Department of Civil Engineering, GRIET, Hyderabad	Internal Member	

8	Dr V Srinivasa Reddy	Professor, Department of Civil Engineering, GRIET, Hyderabad	Internal Member	 09/04
9	Dr T Srinivas	Professor, Department of Civil Engineering, GRIET, Hyderabad	Internal Member	 09/04/22
10	Dr O S D Hima Bindu	Associate Professor, Department of Civil Engineering, GRIET, Hyderabad	Internal Member	 9/4/22
11	Mr T Srikanth	Associate Professor, Department of Civil Engineering, GRIET, Hyderabad	Internal Member	 9/4/22
12	Mr A Prakash	Assistant Professor, Department of Civil Engineering, GRIET, Hyderabad	Internal Member	 alun
13	Dr R Raman Goud	Professor, Department of Mechanical Engineering, GRIET, Hyderabad	Internal Member	 Raman
14	Ms K Ramya	System Support Engineer, Tata Consultancy Services, Hyderabad	Alumni	 Ramya

**Item 1:** Syllabus subject to approval by Academic council is confirmed for M.Tech Structural Engineering I & II Year.

**Item 2:** Subjects of BS, ES, HS and MC are confirmed by BOS of respective Departments.

**Item 3:** Evaluation Scheme suggested as per GR22 to be adopted.

**Item 4:** Panel of Examiners are suggested.

**Item 5:** Existing Practices to be strengthened and continued.



# GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Autonomous)

## ACTION TO BE TAKEN IN M. TECH COURSE STRUCTURE AND SYLLABUS

Minutes of meeting of the BOS for M. Tech Structural Engineering, Course Structure and Syllabus approval for I & II-year GR22 Regulation of Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous) held on 9<sup>th</sup> April 2022 in the Department of Civil Engineering, GRIET at 11:30 AM.

Venue: Room No:4212, Seminar Hall, Civil Engineering Department.

The following members constitute the board of studies of Civil Engineering, with effect from the Academic year 2021-22.

- |   |                                |
|---|--------------------------------|
| 1. Dr C Lavanya, Professor & I/C HOD, DCE, GRIET  | BOS Chairman                   |
| 2. Dr S Vidyavathi, Professor, DCE, JNTUH, Kukatpally   | JNTU Nominee                   |
| 3. Dr M V Seshagiri Rao, Professor, DCE, CVR College of Engineering                                     | External Expert<br>(Academics) |
| 4. Dr. R. Prasanna Kumar, Professor & HOD, DCE, Geetanjali College of Engineering & Technology          | External Expert<br>(Academics) |
| 5. Dr V V Krishna Reddy, Chief Consultant & Proprietor,<br>M/S Continental Designers Project Consultant | External Expert<br>(Industry)  |
| 6. Dr Mohammad Hussain, Professor, DCE, GRIET   | Internal Member                |
| 7. Dr G V V Satyanarayana, Professor, DCE, GRIET  | Internal Member                |
| 8. Dr V Srinivasa Reddy, Professor, DCE, GRIET  | Internal Member                |
| 9. Dr T Srinivas, Professor, DCE, GRIET   | Internal Member                |
| 10. Dr O S D Hima Bindu, Associate Professor, DCE, GRIET  | Internal Member                |
| 11. Mr T Srikanth, Associate Professor, DCE, GRIET  | Internal Member                |
| 12. Mr A Prakash, Assistant professor, DCE, GRIET   | Internal Member                |
| 13. Dr R Raman Goud, Professor, DME, GRIET  | Co-opted Member                |
| 14. Ms K Ramya, System Support Engineer, TCS, Hyderabad   | Alumni                         |

Head of the department welcomed all members in BOS meeting and discussed the following points to be considered in the syllabus.

S.No	Actionable Items	Action to be Taken by
1	All the subjects must be included with Text Books and Reference Books separately with latest edition and year of Publication in uniform count and Citation.	Mrs K Hemalatha
2	<b>Theory of Thin Plates and Shells</b> is introduced as new Course in Professional Elective V in place of Analysis and Design of Shells and Folded Plates.	Dr V Mallikarjuna Reddy
3	<b>Theory and Application of Cement Composites:</b> Unit I, Unit II and Unit III are to be included with advanced topics as per AICTE guidelines as the syllabus is similar to Advanced Concrete Technology Unit I: Introduction-Classification and Characteristics of Composite Materials Unit II: Mechanical Behaviour Unit III: Cement Composites	Dr V Srinivasa Reddy
4	<b>Structural Design Lab:</b> ETABS Software name is be mentioned along with syllabus	Mr C Vivek Kumar
5	<b>Advanced Structural Engineering Lab:</b> Assessment of flexural behaviour of under reinforced R.C. Beam and Over Reinforced RC beam are included as Experiment 11 and 12.	Dr G V V Satyanarayana

  
BOS - Chairman

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





**GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY**  
(Autonomous)

Internal Minutes of meeting of the BOS for M. Tech Structural Engineering, Course Structure and Syllabus approval for I & II-year GR22 Regulation of Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous) held on 29<sup>th</sup> Jan 2022 through Online mode from 2:30 PM to 4:00 PM.

S.No	Name of the Member	Position in the current Engagements	Position in the BOS
<b>Chairperson</b>			
1	Dr C Lavanya	Professor, DCE, GRIET	Chairman
<b>Members</b>			
2	Dr V. Mallikarjun Reddy	Professor, DCE, GRIET	Internal Member
3	Dr. Mohammed Hussain	Professor, DCE, GRIET	Internal Member
4	Dr. V.Srinivasa Reddy	Professor, DCE, GRIET	Internal Member
5	Dr. G.V.V. Satyanarayana	Professor, DCE, GRIET	Internal Member
6	Dr. T.Srinivas	Professor, DCE, GRIET	Internal Member
7	Dr K Srikanth	Associate Professor, DCE, GRIET	Internal Member
8	Dr. O.S.D. Hima Bindu	Associate Professor, DCE, GRIET	Internal Member
9	Ms. K.Hemalatha	Assistant Professor, DCE, GRIET	Internal Member
10	Mr V Naresh Kumar Varma	Assistant Professor, DCE, GRIET	Internal Member
11	Mr A Vittalaiah	Assistant Professor, DCE, GRIET	Internal Member
12	C Vivek Kumar	Assistant Professor, DCE, GRIET	Internal Member
13	A Prakash	Assistant Professor, DCE, GRIET	Internal Member
14	G Swetha	Assistant Professor, DCE, GRIET	Internal Member
15	Polina V V S S R Krishna	Assistant Professor, DCE, GRIET	Internal Member
16	Mr. C Vanadeep	Assistant Professor, DCE, GRIET	Internal Member
17	Mr. V.Ramesh	Assistant Professor, DCE, GRIET	Internal Member
18	Ms. T. Jahnvi	Assistant Professor, DCE, GRIET	Internal Member
19	K Veera Babu	Assistant Professor, DCE, GRIET	Internal Member

The members of board of studies during the meeting held on 29<sup>th</sup> January 2022 through Online meeting discussed thoroughly and drew the following recommendations for I and II years of GR22 Regulation:

1. All the subjects must be included with Pre-Requisites and action verbs in Course objectives, Course outcomes as per Blooms Taxonomy levels.
2. The following recommendations were done in Course Structure:
  - i) Advanced Concrete Lab title is changed with Advanced Concrete Technology Lab.
  - ii) Advanced Structural Engineering lab is introduced as new lab Course in I year II semester.
3. In Analytical and Numerical Methods for Structural Engineering syllabus is rearranged as follows
  - i) Solution of Nonlinear Algebraic and Transcendental Equations and Error Analysis topics is assigned in Unit I from Unit III.
  - ii) Fundamentals of Numerical Methods and Curve Fitting is allocated in Unit III from Unit I
  - iii) Richardson Extrapolation and Implicit & Explicit scheme concepts are removed from Unit IV
  - iv) Boundary Value problems were added in Unit IV
  - v) Developing an algorithm for simple mathematical problems concepts are added in Unit V
4. Structural Health Monitoring - RF/PSTN/GSM/Satellite Communications, Networking of sensor, Data compression technique is added in Unit II as today Health monitoring of all structures governed by sensors only.
5. Structural Design Lab-
  - i) Dynamic analysis of multi-storeyed structure added in Task 9 along with static analysis
  - ii) Analysis and design of retaining wall, Analysis of bridge deck slab experiments are removed as it is time consuming for both experiments.
6. Design of Advanced Structures-
  - i) Ribbed Slabs title is added in Unit I
  - ii) Design of Deck slab bridges title is changed with design of bridges and included design of T beam bridge in Unit V
7. Cost Management of Engineering projects-
  - i) Project site, data required for significance topics removed from Unit II as the topics repeated in same unit.
  - ii) Cost-Volume-Profit Analysis & Balanced Score Card and Value-Chain Analysis concepts are restricted to theory only in Unit III.
  - iii) Transportation and Assignment problems topics are restricted to only theory as these topics are related to another specialization.



**BOS-Chairman**

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



GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Autonomous)

DEPARTMENT OF CIVIL ENGINEERING

M.Tech Structural Engineering

Comparison of syllabus

S.No	Name of the Course	GR20 to GR22	POs
1	New Courses	Advanced Structural Engineering Lab Theory of Thin Plates and Shells	1,2,3,4,5,6 1,2,3,4,5,6
2	Title Change	Advanced Concrete lab title is changed with Advanced Concrete Technology Lab	1,4,5,6
3	Professional electives and open electives	Five professional electives starting from I yr I sem and one open elective in II yr I sem	-
4	Analytical and Numerical Methods for Structural Engineering	Syllabus is rearranged in all units. Boundary Value problems were added in Unit IV and developing an algorithm for simple mathematical problems concepts are added in Unit V	1,3,4,5,6
5	Structural Health Monitoring	RF/PSTN/GSM/Satellite Communications, Networking of sensor, Data compression technique is added in Unit II	1,3,4,5,6
6	Structural Design Lab	Dynamic analysis of multi-storeyed structure added in Task 9 & Analysis and design of retaining wall, Analysis of bridge deck slab experiments are removed	1,2,3,4,5,6
7	Design of Advanced Structures	Design of Deck slab bridges title is changed with design of bridges and included design of T beam bridge in Unit V	1,2,3,4,5,6
8	Cost Management of Engineering projects	Cost-Volume-Profit Analysis & Balanced Score Card and Value-Chain Analysis concepts, Transportation and Assignment problems topics are restricted to theory only in Unit III	4,5,6
9	Theory and Application of Cement Composites	Unit I, Unit II and Unit III are included with advanced topics as per AICTE guidelines as the syllabus is similar to Advanced Concrete Technology	1,5,6

BOS-Chairman

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





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**Gokaraju Rangaraju Institute of Engineering and Technology  
(Autonomous)**

GRIET/Management /BOS/1E/G/22-23

02 May 2022

**Minutes of Meeting  
For**

**BOS – MANAGEMENT**

**[Management and Allied Courses in B. Tech I – IV Year  
(CE, CSB, CSM, CSE, CSD, ECE, EEE, ME, IT ) & M. Tech I & II  
Years and B. Tech. with Minor program]**

*(For students admitted from 2022-23 as per GR 22 Regulations)*

**Board of Studies**

**Held on  
02 May 2022**



**Gokaraju Rangaraju Institute of Engineering and Technology  
(Autonomous)**

Minutes of meeting of the BoS for Management and other allied courses in B. Tech (I – IV Year) – all branches and M.Tech (I & II Years) and B. Tech. with Minor program all branches of Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous) Hyderabad held on 02<sup>nd</sup> May 2022 in GRIET Campus, at 1:00 PM.

**Members Present:**

Dr.Y. Rama Krishna Prasad  
Professor, DMS  
GRIET, Bachupally, Hyderabad

Bos - Chairman

*Y. Prasad*  
02/5/22

Dr. Sindhu  
Professor & Director, SMS- JNTUH  
Hyderabad

Member (JNTU Nominee)

*Sindhu*

Dr. K. Veeraiah  
HOD, Department of Management Studies  
MLRITM -Hyderabad

Member (External Expert)

*K. Veeraiah*

Dr S Kalyan  
BVRIT Hyderabad College of Engineering for Women  
Bachupally, Hyderabad

Member (External Expert)

*S. Kalyan*  
02/05/2022

Mr. D.V.T. Prasad  
General Manager – Technical.  
Foshan Lisun Machinery Co, Ltd., Hyderabad

Member (Industry)

*D.V.T. Prasad*

Dr. G. Patrick  
Professor, HOD - Dept. of S&H  
GRIET, Bachupally, Hyderabad

Member

*G. Patrick*

Dr. D. Indira  
Professor and Assoc. Dean EDC  
DMS- GRIET, Bachupally, Hyderabad

Member

*D. Indira*

Mr. S. Ravendra Chary  
Associate Professor, DMS  
GRIET, Bachupally, Hyderabad

Member

*S. Ravendra Chary*

Mr. K K Sunil Kumar  
Associate Professor, Dept. Humanities  
GRIET, Bachupally, Hyderabad

Member

*K. K. Sunil Kumar*

Ms. Y Gayathri  
Assistant Professor, Dept. Humanities  
GRIET, Bachupally, Hyderabad

Member

*Y. Gayathri*

Ms. K Latha  
Assistant Professor, Dept. Humanities  
GRIET, Bachupally, Hyderabad

Member

*K. Latha*

- Item 1: Course structure, Syllabus subject to the approved by Academic Council is confirmed for B. Tech (I – IV Year) of all branches and M. Tech (Audit Courses) of all branches with Minor program all branches for the \*subjects of Management as confirmed by BOS of respective subjects are accepted (copy enclosed)
- Item 2: Evaluation scheme suggested as per GR22 to be adopted
- Item 3: Panel of examiners are suggested
- Item 4: Existing practices to be strengthened and confirmed.





**Gokaraju Rangaraju Institute of Engineering and Technology**  
(Autonomous)

**DEPARTMENT OF HUMANITIES AND SCIENCES (Management)**

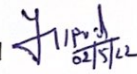

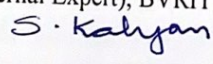
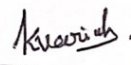
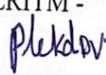
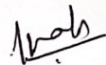
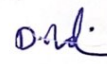


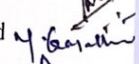

**Minutes of Meeting for reviewing and emending the changes suggested by the BoS of Management and other allied courses in B. Tech (I – IV Year), M.Tech (I & II Years), B. Tech. with Minor program of the GR22 Regulations on 27<sup>th</sup> April 2022**

GRIET/H&S – Humanities /15A/G/22-23

02<sup>nd</sup> May 2022

The following members are present to discuss the BoS of Management and other allied courses in B. Tech (I – IV Year) and M.Tech (I & II Years) and B.Tech with minor program of the GR22 Regulations on 02May 2022 and suggested some modifications and the same is implemented.

**The following faculty members were presented:**

1. Dr.Y. Rama Krishna Prasad , Bos – Chairman, Professor, DMS,GRIET, Bachupally, Hyderabad 
2. Dr. Sindhu , Member (JNTU Nominee), Professor, SMS, JNTUH, Hyderabad 
3. Dr S Kalyan, Member (External Expert), BVRIT Hyderabad College of Engineering for Women Bachupally, Hyderabad 
4. Dr. K. Veeraiah, Member (External Expert), HOD, Department of Management Studies, MLRITM - Hyderabad   

5. Mr. D.V.T. Prasad, Member (Industry), General Manager – Technical, Foshan Lisun Machinery Co, Ltd.,Hyderabad
6. Dr. G. Partick, Member, Professor, HOD - Dept. of S&H, GRIET, Bachupally, Hyderabad 
7. Dr. D. Indira, Member, Professor and Assoc. Dean EDC, DMS- GRIET, Bachupally, Hyderabad 
8. Mr. S. Ravendra Chary , Member, Associate Professor, DMS, GRIET, Bachupally, Hyderabad 
9. Mr. K K Sunil Kumar, Member, Associate Professor, Dept. Humanities, GRIET, Bachupally, Hyderabad 
10. Ms. Y Gayathri, Member, Assistant Professor, Dept. Humanities, GRIET, Bachupally, Hyderabad 
11. Ms. K Latha, Member, Assistant Professor, Dept. Humanities, GRIET, Bachupally, Hyderabad 

The following points are discussed in the meeting:

S. No.	Item	Action
1	After review of the Economics and Accounting for Engineers course, it was suggested to remove or reduce some content in the unit- iv capital budgeting and all new national income components in unit -3 and finally after clarification same subject will be continued.	Suggested modifications done by JNUTH nominee



2	Received the suggestion on Value Ethics and Gender Culture to include the case lets for the better understanding the content in applied orientation.	Suggested modifications done
3	Acknowledged the Constitution of India syllabus and refereed to add some content on Judiciary content in the last unit (if possible and time into consideration).	Suggested content added in the course
4	Based on the University nominee and other experts 'suggestions the content of Fundamentals of Management and Entrepreneurship is modified based on the learning requirement of engineers	Suggested modifications done
5	For the open elective courses of Thread 1 they appreciated the courses proposed by the BOS and suggested to continue the same for the subjects of HRD & OB, but they suggested some modifications in the Cyber Law and Ethics in the title of the course as IPR & Cyber law as 60+40 ration and in Economic Policies in India the content to be added the current topics such as budgets, GDP, NITI Aayog and some current aspects.	Suggested content added in the course
6	Cleared the courses of Fundamentals of Economics, Design Thinking without any changes and suggested some changes i.e precise the content in the course LSPD-Life Skills and Personality Development, with reference textbooks.	The same syllabus continued
7	For the M. Tech audit courses, they recommended to add the judiciary aspects in the Indian Constitution, emphasized to change the title of Stress Management by Yoga as "Stress Management and Yoga" and for other courses they approved.	Suggested content added in the course
8	Finally, they emphasized on the reference books to be new additions and titles to be given to all courses and suggested to continue with modern case studies for all the subjects as per the need of syllabus and student requirements.	Suggested content added in the course
9	Courses proposed for the CSB program to be re-evaluated for the feasibility for completion and complexity for the UG programme	Informed to DAA for further actions.
10	JNUTH nominee suggested that B Tech Minors program syllabus to be as per the university pattern	Informed to DAA and proposed as per JNTUH

*Handwritten signature*

BOS – Humanities (Management)



## Changes made in GR 22 compared to GR 20 syllabus Under BOS of Management

### Subject Name: **Value Ethics and Gender Culture**

Unit	Include: GR22	Exclude from GR 20
Unit :1	Case Study added on values and self-development	NONE
Unit: 2	Case Study added on Personality	NONE
Unit: 3	Case Study added on professional ethics	NONE
Unit: 4	Case Study added on attitudes towards gender	NONE
Unit: 5	Case Study added on gender-based violence in view of human rights	NONE

### Subject Name: **Economics and Accounting for Engineers**

Unit	Include: GR22	Exclude from GR 20
Unit :1	NONE	NONE
Unit: 2	NONE	NONE
Unit: 3	National Income and its Components are added	NONE
Unit: 4	NONE	NONE
Unit: 5	NONE	NONE

### Subject Name: **Constitution of India**

Unit	Include: GR22	Exclude from GR 20
Unit :1	NONE	NONE
Unit: 2	NONE	NONE
Unit: 3	NONE	NONE
Unit: 4	NONE	NONE
Unit: 5	Composition of Indian Judiciary added	NONE

### Subject Name: **Design Thinking**

Unit	Include: GR22	Exclude from GR 20
Unit :1	NONE	NONE
Unit: 2	NONE	NONE
Unit: 3	NONE	NONE
Unit: 4	NONE	NONE
Unit: 5	End of the syllabus Case Studies to be done	NONE

### Subject Name: **LSPD-Life Skills and Personality Development (Removed the course)**

Unit	Include: GR22	Exclude from GR 20
Unit :1	NONE	NONE
Unit: 2	NONE	NONE
Unit: 3	NONE	NONE
Unit: 4	NONE	NONE
Unit: 5	NONE	NONE