GANDHI SCHOOL OF ENGINEERING
BHABANDHA, BERHAMPUR

BRANCH- CIVIL ENGINEERING

SEMESTER- 6th

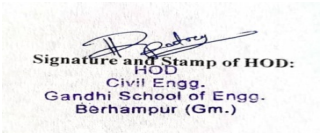
SUBJECT- Th 3. ADVANCED CONSTRUCTION TECHNIQUES & EQUIPMENT

Name of the Faculty- Er. SRIDHAR SAHU

		Topic to be taken				Actual topic taken		
Sl. No	**Topic/Module**	**No. of period**	**Details of the topics**	**Date**	**Topic No.**	**Topic Name**	**Date**	**Remarks**
1	Advanced construction materials	10	1.1 Fibers and Plastics 1.2 Artificial Timbers 1.3 Miscellaneous materials	16.01.2024-01.02.2024	1.1 1.2 1.3	Fibers and Plastics Artificial Timbers Miscellaneous materials	18.01.2024 19.01.2024 20.01.2024 25.01.2024 31.01.2024 01.02.2024 03.02.2024	
2	Prefabrication	8	2.1 Introduction, necessity and scope of prefabrication of buildings, history of prefabrication 2.2 The theory and process of prefabrication, design principle of prefabricated systems 2.3 Indian standard recommendation for modular planning.	02.02.2024-10.02.2024	2.1 2.2 2.3	Introduction, necessity and scope of prefabrication of buildings, history of prefabrication The theory and process of prefabrication, design principle of prefabricated systems Indian standard recommendation for modular planning.	06.02.2024 08.02.2024 09.02.2024 10.02.2024 13.02.2024 15.02.2024	

3	Earthquake Resistant Construction	8	3.1 Building Configuration 3.2 Lateral Load resisting structures 3.3 Building characteristics 3.4 Effect of structural irregularities-vertical irregularities, plan configuration problems. 3.5 Safety consideration during additional construction and alteration of existing Buildings. 3.6 Additional strengthening measures in masonry building-corner reinforcement, lintel band, sill band, plinth band, roof band, gable band etc.	12.02.2024-21.02.2024	3.1 3.2 3.3 3.4 3.5 3.6	Building Configuration Lateral Load resisting structures Building characteristics Effect of structural irregularities-vertical irregularities, plan configuration problems. Safety consideration during additional construction and alteration of existing Buildings. Additional strengthening measures in masonry building-corner reinforcement, lintel band, sill band, plinth band, roof band, gable band etc.	16.02.2024 17.02.2024 20.02.2024 22.02.2024 23.02.2024 24.02.2024	
4	Retrofitting of Structures	8	4.1 Seismic retrofitting of reinforced concrete buildings 4.2 -Sources of weakness in RC frame building 4.3 -Classification of retrofitting techniques and their uses	22.02.2024-01.03.2024	4.1 4.2 4.3	Seismic retrofitting of reinforced concrete buildings Sources of weakness in RC frame building - Classification of retrofitting techniques and their uses	27.02.2024 29.02.2024 01.03.2024 02.03.2024 07.03.2024 12.03.2024	
5	Building Services	8	5.1 Cold Water Distribution in high rise building, lay out of installation 5.2 Hot water supply – General principles for central plants-layout 5.3 Sanitation –soil and waste water installation in high rise buildings 5.4 Electrical services 5.5 Lighting – Requirement of lighting, Measurement of light intensity 5.6 Ventilation - Methods of ventilation	02.03.2024-13.03.2024	5.1 5.2 5.3 5.4 5.5 5.6	Cold Water Distribution in high rise building, lay out of installation Hot water supply – General principles for central plants-layout Sanitation –soil and waste water installation in high rise buildings Electrical services Lighting – Requirement of lighting, Measurement of light intensity Ventilation - Methods of ventilation	13.03.2024 15.03.2024 16.03.2024 19.03.2024 21.03.2024 22.03.2024 23.03.2024 28.03.2024	
6	Construction and earth moving equipments	10	6.1 Planning and selection of construction equipments 6.2 Study on earth moving equipments like drag line, tractor, bulldozer, Power shovel 6.3 Study and uses of compacting equipments. 6.4 Owning and operating cost – problems	14.03.2024-27.03.2024	6.1 6.2 6.3 6.4	Planning and selection of construction equipments Study on earth moving equipments like drag line, tractor, bulldozer, Power shovel Study and uses of compacting equipments. Owning and operating cost – problems	30.03.2024 02.04.2024 04.04.2024 05.04.2024 09.04.2024 12.04.2024 13.04.2024	

7	Soil reinforcing techniques	8	7.1 Necessity of soil reinforcing. 7.2 Use wire mesh and geo-synthetics. 7.3 Strengthening of embankments, Slope stabilization in cutting and embankments by soil reinforcing techniques.	28.03.2024-08.04.2024	7.1 7.2 7.3	Necessity of soil reinforcing. Use wire mesh and geo-synthetics. Strengthening of embankments, Slope stabilization in cutting and embankments by soil reinforcing techniques.	16.04.2024 18.04.2024 19.04.2024 20.04.2024 22.04.2024 25.04.2024 26.04.2024	



Signature & Stamp of HOD