



II SCHOOL OF ENGINEERING
IABANDHA, 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	11.02.2023 - 23.02.2023	1.1 1.2 1.3	Fibers and Plastics Artificial Timbers Miscellaneous materials	13.02.2023 15.02.2023 16.02.2023 17.02.2023 20.02.2023 22.02.2023 24.02.2023 01.03.2023 02.03.2023 03.03.2023	
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.	24.02.2023 - 04.03.2023	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.	10.03.2023 13.03.2023 15.03.2023 16.03.2023 17.03.2023 20.03.2023 22.03.2023	

3	Earthquake Resistant Construction	8	<p>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.</p>	<p>06.03.2023 - 16.03.2023</p>	<p>3.1 3.2 3.3 3.4 3.5 3.6</p>	<p>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.</p>	<p>23.03.2023 24.03.2023 27.03.2023 29.03.2023 31.03.2023 03.04.2023 05.04.2023 06.04.2023</p>	
4	Retrofitting of Structures	8	<p>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</p>	<p>17.03.2023 - 25.03.2023</p>	<p>4.1 4.2 4.3</p>	<p>Seismic retrofitting of reinforced concrete buildings Sources of weakness in RC frame building - Classification of retrofitting techniques and their uses</p>	<p>17.04.2023 19.04.2023 20.04.2023 21.04.2023</p>	

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	27.03.2023 - 06.04.2023	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	24.04.2023 26.04.2023 27.04.2023 28.04.2023 01.05.2023 03.05.2023	
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	08.04.2023 - 17.04.2023	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	04.05.2023 08.05.2023 10.05.2023 11.05.2023 12.05.2023 15.05.2023	
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	18.04.2023 - 27.04.2023	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	17.05.2023 18.05.2023 22.05.2023	

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