



Kot Bhalwal, Jammu



Model Institute of Engineering
& Technology (Autonomous)
Lab Handout

LABORATORY HANDOUT

BUILDING SERVICES & MAINTENANCE (CE-211)

ECE-2ND SEMESTER

ACADEMIC YEAR (2023-24)

Dr Niranjan Singh

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Department of Civil Engineering



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Course Code	Course Name	Course Type	Cd	L	T	P	Marks		
							Sessional	Final Exam	Total
CE-211	Building Services & Maintenance Lab	PCC	2	0	0	4	50	-	50

COURSE OUTCOMES

At the end of the course the student will be able to:	
CO1	Analyse the Electrical Configuration layout.
CO2	Design layout plan for Water harvesting, commercial complex and residential complex
CO3	Understand about plumbing activities.
CO4	Identify proper locations for Lift/Escalator/Elevator etc.
CO5	Understand about layout for electrical, water supply, sanitary and related allied services.

LIST OF EXPERIMENTS

S.No.	Title
1	Prepare electrical layout plan for given building
2	Prepare a plan for fire safety measures for a given multistory building
3	Prepare Lighting plan for a commercial complex
4	Prepare rainwater harvesting layout plan for a building
5	Prepare a grey water management for a residential complex.
6	Assembling of Plumbing works with help of Tools
7	Practice on Holding Tools- bench wise, pipe wise.
8	Practice on Wrenches, Water- pump plier, Spanners, Hacksaw etc.
9	Prepare Lift standards as per norms
10	Suggest noise control methods for a given commercial complex
11	Prepare a plan for fire safety measures for a given multistory building
12	Prepare Lighting plan for a commercial complex
13	Identify proper locations for Lift/Escalator/Elevator in given commercial complex
14	Prepare a grey water management for a residential complex.
15	Case Study: Prepare a case study for the fire fighting services for commercial building in the nearby area
16	Site Visit: Visit a residential building & commercial building under construction and prepare layout for electrical, water supply, sanitary and related allied services of civil engineering and prepare site visit detailed report

ADDITIONAL WEB RESOURCES

1.	https://www.designingbuildings.co.uk/wiki/Building_services
2.	https://www.designingbuildings.co.uk/wiki/Building_services_for_residential_and_comm



Dr. Arun K. Gupta Teaching-Learning Centre

Version 1.1



Please Do Not Print Unless Necessary



Kot Bhalwal, Jammu



[ercial development](#)

LAB REPORT INSTRUCTIONS

- *Provide specific title of the lab experiment.*
- *Theory: Provide a concise abstract (typically 100-200 words) that summarizes the purpose, methods, key findings, and significance of the experiment.*
- *Materials/ Equipment: List all materials, components, and equipment used in the experiment. Include specifications when applicable.*
- *Software/Simulation Tools:*
- *Experimental Procedure: Describe the step-by-step procedure for conducting the experiment. Be detailed and clear in your instructions. Include diagrams or schematics to illustrate the setup, connections, and component placement. Explain any variations or adjustments made to the standard procedure.*
- *Observation & Calculations/Analysis: Detail the data you collected during the experiment. Include descriptions of measurements and any calculations made. Use tables, charts, or graphs to present data clearly. Discuss any trends, patterns, or significant observations. Interpret the data in the context of the experiment's objectives. Ensure that all figures, tables, and equations are correctly labeled.*
- *Results: Summarize the key findings of the experiment. Present results in a clear and organized manner using tables and graphs. Include units of measurement and labels for data points.*
- *Conclusion: Provide a concise summary of the experiment's key points and outcomes.*

GRADING AND ASSESSMENT

- **Continuous Evaluation:** 30 marks
- **Final Demo & Viva:** 10 marks
- **Attendance:** 10 marks
- **Lab Overall Marks:** 50 marks

COURSE POLICIES

- **Attendance:** Minimum 75% attendance is mandatory to appear in the final examination of the course.
- **Late Submissions:** Manuals and projects must be submitted by the specified timelines.

FACULTY INFORMATION

- **Office Hours**
Monday (12:05 PM - 12:55 PM)
Friday (12:05 PM - 12:55 PM)
- **Contact Information**
niranjana.ash@mietjammu.in



RUBRICS FOR LAB CONTINUOUS EVALUATION

Parameters	Performance			Marks
	Low	Medium	High	
Execution of the Experiment	Student was not able to setup and conduct the Experiment completely	Student was able to setup and conduct the experiment but measurement/results/observations were not correct	Students was able to set and conduct the experiment and the measurement/results/observations were not correct	10
	0-2 Marks	3-6 Marks	7-10 Marks	
Record	Student was not able to describe the detailed procedure and could not record the measurement.	Student was able to describe the detailed procedure partially or with some inaccuracy.	Student was able to describe the detailed procedure accurately and record all measurements correctly.	10
	0-2 Marks	3-6 Marks	7-10 Marks	
Viva Voice	Students could not demonstrate sufficient knowledge of foundation, functional or applied aspects related to the experiment during viva.	Students demonstrated sufficient knowledge of foundation, functional or applied aspects related to the experiment during viva.	Students demonstrate strong knowledge of foundation, functional or applied aspects related to the experiment during viva	10
	0-2 Marks	3-6 Marks	7-10 Marks	
Total Marks				30