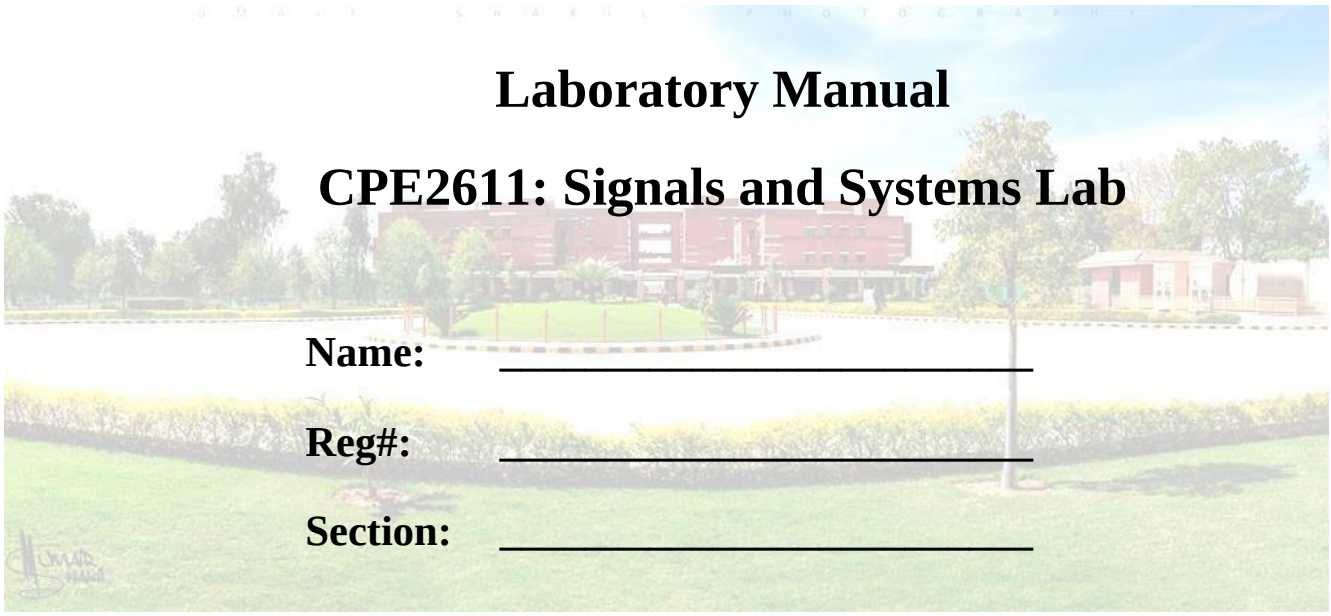


Laboratory Manual

CPE2611: Signals and Systems Lab

Name: _____

Reg#: _____

Section: _____

Department of Electrical and Computer Engineering

Capital University of Science and Technology

Islamabad, Pakistan

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LABORATORY HEALTH & SAFETY INSTRUCTIONS

Students must read and follow these instructions before and during every laboratory session:

1. **Follow Instructions:** Follow the Lab Engineer/Instructor's instructions and use laboratory computers and equipment only for their intended purpose.
2. **Maintain Discipline:** Keep the laboratory and workstation clean and organized. Running, horseplay, food, and drinks are not permitted.
3. **Electrical Safety:** Keep hands and equipment dry. Check power cables and connections before use, avoid overloaded sockets, and never use damaged electrical equipment.
4. **Computer Safety:** Handle computers, monitors, keyboards, and other peripherals carefully. Do not open, modify, disconnect, or tamper with computer hardware without permission.
5. **MATLAB & Simulink:** Use **MATLAB and Simulink** only as instructed. Do not install unauthorized software, modify system settings, or execute unknown or untrusted scripts or files.
6. **Simulation Safety:** Check MATLAB code and Simulink models before execution. Stop simulations if unexpected behavior, excessive system load, or other abnormal conditions occur.
7. **Report Hazards & Accidents:** Immediately report damaged equipment, exposed wires, sparks, smoke, overheating, electrical faults, software/system problems, accidents, or any other unsafe condition to the **Lab Engineer/Instructor** and follow the **emergency SOP guidelines for accident reporting**.
8. **Emergency & Leaving the Lab:** Know the locations of the **first-aid kit, fire extinguisher, emergency exit, and main electrical switch**. Follow emergency instructions, close applications, log out or shut down the computer as instructed, and leave the workstation clean and safe.

SAFETY FIRST

When in doubt, STOP the activity and consult the Lab Engineer/Instructor before proceeding.

Name: _____

Sign:_____

Reg#:_____

Date:_____

S. No	List of Experiments
1	Introduction to MATLAB and Signals in MATLAB
2	Understanding the Basic Signals using MATLAB
3	Properties of Signals and their transformations
4	Linearity and time invariant verification of LTI systems
5	Convolution of Continuous Time Signals
6	Convolution of Discrete Time Signals
7	Sampling, periodicity, Harmonics and Sound Manipulation
8	Laplace Transform and inverse Laplace Transform Analysis
9	Z-Transform and Inverse Z-Transform Analysis
10	MATLAB implementation of Fourier Series
11	Discrete-time Fourier Transform Analysis
12	Introduction to SIMULINK Modeling in MATLAB
13	Lab Project (Part I)
14	Lab Project (Part II)