

Schedule

Module	Topic	Activities
1	Introduction	Overview of Electrical Engineering, Networks, Data Communication, and Smart Lighting
2	Analog Discovery	Operating the Analog Discovery board, Digital and analog signals in time and frequency
3	Basic Circuits	Investigate the operation of resistive and capacitive circuits
4	Light Emitting Diodes	Investigate LED operation and electrical characterization
5	Photodiodes and Visible Light Comms	Investigate PD operation and optical channel characterization
6	The Smart Lighting VLC Board	PCB based VLC transceiver assembly Assignment: Presentation Topic Decision
7	Analog Transmission	Investigate VLC transmission using analog signals
8	Digital Transmission	Investigate VLC transmission using digital signals
9	VLC Applications	VLC text messages and presentation rehearsal
10	Presentations	Student presentations

Course Structure

- Work in assigned teams (2 or 3 students per team).
- Work with and help your teammate(s).
- Collaborate with other teams.
- Keep an individual lab notebook.
- Tinkering/experimenting with the tools and components is good!
- Modules may change depending on the progress of the class.