

Internship Syllabus

DERConnect Internship Program

Example Talk: https://www.youtube.com/watch?v=lKr_woA-A-8

Technical talk must cover the topic in detail with reporting from at least ONE journal paper

- Renewable Energy Technologies **Mariela Cueto**
- How do Solar Photovoltaics work? - **Marc Olsher**
- What are microgrids and how do they work? - **Jeff Smit**
- What are distributed energy resources, how do they work and their role in the future of energy. **Antoine Bonhomme**
- How do Battery Energy Storage Systems work? **Phuong Nguyen**
- [What are cyber-physical systems?](#) **Oren Balmir-Cloven**
- Role of Energy Forecasting and Data Science: **Tsion-Aduesa Smart**
- Cost Functions and Optimization in DERs **Stephen Hidalgo**

Tentative Schedule for Spring 2025

Date	Lecture
02/07	Spring Schedule, Create Presentation Decks: Weekly Reports on Progress - Documentation Letter of Rec Exercise, LinkedIn+Bio+Picture, Discuss MATLAB Access
02/14	Zoom: Letter of Rec Exercise, How to Perform Research Workshop from 10:30a - 12pm Slides Check, LinkedIn+Bio+Picture [https://ucsd.zoom.us/j/92074326718] Zoom: Mathworks Simulink Workshop 12pm - 1:30pm
02/21	Hardware Work Session with Tahseen @ B106 from 10:30a - 12pm Zoom: Mathworks Simulink Workshop 12pm - 1:30pm
02/28	Hardware Work Session with Tahseen @ B106 from 10:30a - 12pm Zoom: Mathworks Simulink Workshop 12pm - 1:30pm
03/07	Hardware Work Session with Tahseen @ B106 from 10:30a - 12pm
03/14	10:30AM - 11AM: Technical Talk #1: Antoine Bonhomme 11AM - 11:30AM: Technical Talk #2: Tsion-Aduesa Smart
03/21	Work-Based Learning Site Visit over Zoom 11:30AM - 12PM: Technical Talk #3: Stephen Hidalgo
03/22	Special Hardware Session with Tommy 9AM - 12PM: Envision Studios at UC San Diego
03/28	11AM - 11:30AM: Technical Talk #4: Phuong Nguyen WORK DAY! MUST BE UP TO DATE WITH SLIDES
04/11	Simulink Workshop #1 with Belma @ B106 from 10:30a - 12pm
04/18	9AM: Tahseen + Nikita Workshop at IRL Workshop Simulink Workshop #2 with Belma @ B106 from 10:30a - 12pm
04/25	9AM: Tahseen + Nikita Workshop at IRL Workshop 10:30AM - 11AM: Technical Talk #5: Jeff Smit 11AM - 11:30AM: Technical Talk #6: Marc O. 11:30PM - 12PM: Technical Talk #7: Mariela C. 12PM: Presentation on Presentations
05/02	9AM: Tahseen + Nikita Workshop at IRL Workshop Simulink Workshop #3 with Tony @ B106 from 10:30a - 12pm 12PM: Technical Talk #8: Oren Balmir-Cloven
05/09	Simulink Workshop #4 with Belma @ B106 from 10:30a - 12pm Time Left: Work on Presentations
05/16	9AM - 10:30AM: DRY RUN PRESENTATIONS 10:30AM - 11AM: Resume Workshop; Report Job; Discuss Summer Research 11AM - 11:30AM: Presentation: Cyber Physical Systems, Smart Grids, Decentralization
05/23	Final Presentations: Recap of Semester's Work to UC San Diego and Mesa College Faculty