SPEC Battery Boot Camp
June 19, 2023-Aug 18, 2023

Application: https://forms.gle/nvfNo2WbkR8ghrGh7
Deadline: April 8, 2023

GOALS AND OBJECTIVES
This summer camp will introduce the fundamental design principles and operation mechanisms of lithium-ion batteries, as well as techniques to fabricate and evaluate their performance. There are three key focus of this camp:
➢ Materials and chemistry of lithium-ion batteries
➢ Theory and modeling of cell operation
➢ Fabrication, testing and performance evaluation.

INSTRUCTORS

PARTICIPANTS
• Undergraduates
• Junior graduate students
• Industry fellows
• Limited to 10-12 trainees

STRUCTURE AND SCHEDULE
• Open ceremony and introduction
• 2-hour lecture daily
• Lab training and experiments 6hr daily
• Synthesis and fabrication
• Half-cells and full cells
• Testing and data analysis
• Modeling and projection
• Weekly assignment/report
• Presentation and Award ceremony

APPLICANT REQUIREMENT
✔ Solid background (nanoengineering, chemical engineering, chemistry, materials science, etc.);
✔ Strong interest in renewable energy;
✔ Passionate about science and research
✔ Research experience not required.
✔ GPA > 3.3

TA/COACH
• Participants grouped into 2-3 teams
• A coach assigned to each team
• Coaches interact with participants daily

APPLICATIONS
Professor Ping Liu: piliu@eng.ucsd.edu
Professor Zheng Chen: zhengchen@eng.ucsd.edu

FOR QUESTIONS

BENEFITS
➢ Knowledge in lithium-ion batteries
➢ Hands on experience in fabrication and testing
➢ Internship and job opportunities
➢ Stipend for students: $4000/8 weeks
➢ Win a ride on Honda Race Car!