Solar Energy Certificate

HURU School

12/12/2020

Overview

HURU Schools' Certificate in Solar Energy will provide you a good foundation to become a world sought after solar professional. Through dynamic student led lectures, practical work and group discussions and presentations, you will gain exposure to the latest methods, techniques, and tools. The course will equip you with concepts and data science principles with a focus on today's cutting edge tools for solar.

Course Objectives

- To impart an in-depth understanding of the interplay between solar tools and their applications. This includes (i) emphasizing the ways in which insights into solar can "scale up" to affect your community, as well as (ii) understanding how solar has evolved into an energy source transforming domestic and industrial landscapes.
- To think creatively about major questions in solar energy in Kenya and refine students' skills in posing ethical approaches to energy and sustainable development.
- To appreciate the history, calculations and practical applications of solar energy.
- To achieve a working knowledge and level of comfort with cutting edge solar tools for science and business.

Instructors

Main Instructors:

Name: TBD

Days: Monday and Wednesday every week from Jan 11th to April 23rd

Time: 8:30 am - 10:00 pm (East African Time)

Field Lab Assistant:

Name: John Mwangi

Days: 3rd Saturday of Course month.

Time: 9:00 am - 6:30pm (Transport and Lunch Inclusive)

Academic & General Support:

info@huruschool.org

Scholarship Information:

finance@huruschool.org

Course Duration:

- 1.5 Months (1 Month class and 0.5 Month for supervised individual projects)

Learning Outcomes

Throughout the semester, students will learn to:

- Think about the ethical implication of the skills they will acquire.
- Envision and execute impactful practical solar pipelines.
- Prepare professional solar presentations.

Text:

There will be no course textbook; instead we will rely heavily on local case studies .

Grading:

Students will be evaluated based on presentation and analysis of the class project

- "info update" presentations - 10%
- Group/individual proposals - 10%
- Group/individual final presentation - 20%
- Individual reports - 30%
- Attendance - 30%

Class project:

You will work individually or in groups to design and propose a data science project. Students will be required to present this project, inculcate instructor feedback, carry out the project to completion and turn in an R markdown project for their final project.

Course outline:

Week 1: Energy and forms of energy and project ideas

Week 2: Solar Energy and Recent Developments in Solar Energy

Week 3: Solar Energy Components and Calculations

Week 4: Solar Systems in Kenya - Field visit to study on demand and off grid systems

Week 5: Solar components and repair

Week 6: Presentations, Report writing and Final Exam

Welcome to a unique learning experience at HURU!