HEMANTH HARIHARAN
hhemanth@stanford.edu, (669) 338-8122
Program: MS in Sustainable Design and Construction – Energy Track (Stanford University)

PROFESSIONAL AND SCHOLASTIC ACHIEVEMENTS

Program/Role	Institution/Company	GPA/Rating	Time of Completion
MS, School of Sustainability	Stanford University	4/4	Apr 24'
Project Coordinator	TATA Projects Limited	A+	Apr 22'
B. Tech, Civil Engineering	Indian Institute of Technology Madras	9.17/10	May 20'

EVIDENCE OF EXCELLENCE

- Ranked 338 out of 1.2 million students in the Indian Joint Entrance Examinations, 2016.
- Ranked 2 out of 101 students in the department of Civil Engineering at IIT Madras (undergraduate study).
- Coordinated and managed 3 international power transmission projects in Africa.
- Managed execution, quality and safety in one of India's largest power plant projects (4150 MW).

PROJECTS AND EXPERIENCE

Summer intern at Cypress Creek Renewables

Jun 23' – Sep 23'

Working with the ERCOT development team on utility-scale solar and battery-storage projects

Interconnection Queue Project: Analysed trends in historical data from public ERCOT information.
Financial Modelling: Compiling developer-facing models for all ERCOT pipeline projects and performing sensitivity analyses.
Development Support: Project management and tracking in real estate development (land parcel identification and GIS mapping, negotiation with land owners and signing lease agreements).

24/7 Carbon-Free Charging Project

Apr 23' – Jun 23'

Independent Study with Prof. Rajagopal on decarbonizing Stanford University's transportation (electric bus fleet – Marguerite)

Low Carbon Fuel Standards (LCFS): Applied California's LCFS to calculate potential monetary benefits for Stanford Transportation through both charging and capacity pathways.
Data Analytics: Identified trends in charging patterns, electricity costs incurred and grid emissions.

Developing a roadmap for a 100% WWS California

Apr 23' – Jun 23'

Research project in course - 100% clean, renewable energy and storage for everything

End-use energy: Quantified end-use demand in California from EIA-published data and converted to WWS energy.
Resource allocation: Rooftop and utility-scale solar, onshore and offshore wind and existing geothermal and hydroelectric power.
Resource Sizing: Calculation of number of devices and final energy mix in a 100% WWS California.

Net-Zero Energy Home Design in Wolfeboro, NH

Sep 22' – Dec 22'

Course project – Energy-efficient buildings

Concept: Redesigned an existing summer home in Wolfeboro, NH to make it a NZE home using passive solar design strategies, rooftop solar and a geothermal heat pump.
Design: Iterative process to optimize R-value of building envelope and minimize shading losses.
Economics: Achieved projected NPV of savings of ~$30k over 20 years.

MS in Sustainable Design and Construction

Sep 22' – Apr 24'

Pursuing the Energy track in Sustainable Design and Construction

Energy@Stanford: Attended summer conference (week-long multi-disciplinary session on Energy) and presented solutions for a <2°C future using the En-ROADS simulator.
Course Projects: LCA analysis of carbon-nanotube building, Financial modelling of HVDC undersea cable project, Design of an Urban Systems Sustainability Index.
Interests: Renewable energy, Grid-scale battery storage, Energy Resource Modelling.

EXTRA CURRICULAR ACTIVITIES

Indian Classical Music

Striving to uphold high standards in Tabla, a percussion drum in Indian Classical Music.

- **Graduation Concert:** Completed in July 2017 at Krishna Gana Sabha, Chennai.
- **Classical Arts Event - Saarang:** Two-time winner in 2016 and 2017 at IITM.
- **Concerts:** Currently performing with senior artists in the Bay Area.
- **Teaching:** Conducting online and offline classes for beginner and intermediate students.