

Siva Kaviya, Trichy Siva Raman

Master of Science in Electrical Power Engineering | Smart Grids | Energy Market & IoT Enthusiast | Java and Python Developer |

Professional Profile

Energetic Power Engineering professional with a passion for power systems and related tools, energy markets, IoT, and customer-centric approach. Enriched with experience in **smart grids, power system related python tool development and scripting, energy modeling** with a special focus on **demand-side congestion management and flexibility**. Bestowed with strong analytical and organizational skills supported by coding expertise in Java and Python. Looking for a career in **energy markets, power system tool development and power system operations** to help device energy market scenarios and a sustainable future for electrical networks.

Professional Experience

- TNEI Services Ltd, Manchester, United Kingdom** Jul'21 - *Present
Junior Power System Software Engineer, IPSA Power
 - Responsible for developing and maintaining the interactive user-friendly power system software tool IPSA power which helps in visualizing power system operations such as load flow, fault analysis etc.
 - Leading the testing framework fro IPSA testing and data integration into IPSA using data conversion tools for converting other power system software into IPSA using frameworks such as CIM (Common Information Model).
 - Primarily responsible for power system related technical client, scripting queries and client management.
 - Leading the content management of IPSA social media pages and also responsible for sales and marketing of IPSA Software and training courses
 - Occasionally helped the business as usual network system study support for DNO by performing P28 Studies and Contingency studies
 - Responsible for building applications on top of IPSA using the python interface PyIPSA
- TU Delft, Delft, Netherlands** Sep'20-Dec'20
Energy System Integration, Research Assistant, Power Web Institute
 - Developed & maintained python package as part of the **Energy system integration development tool kit** (Illuminator) for middleware system.
 - Facilitated knowledge transfer of the research work for future research objectives.
- Universal Smart Energy Framework (USEF)** Sep'19-Dec'19
Applicability of E-mobility, Research Intern
 - Studied **flexibility trading** offered by EV (Electric Vehicle) to **DSO** (Distribution System operator or Utility Grid) during congestion.
 - Recommended techniques for better predictability of EV consumption.
- Tata Consultancy Services** Jun'16-Apr '18
CITI Bank North America, Assistant System Engineer
 - Worked as JAVA developer as part of Citibank North America.
 - Developed backend **Microservices** web page using **Springboot architecture, Hibernate, and SQL**.
 - Deployed the application in **Pivotal Cloud Foundry**.
 - Secured knowledge in IBM WebSphere, DevOps, Rational Clear Case, and Version Control Tool

Projects

- Development of a business model for improved green gas production. Course work : Turning Technology into Business, Nov'19-Feb'-20.
- Demand-side management for peak shaving and distribution grid. Coursework: Co-Simulation. Feb'19-Apr'19.



Contact

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Organizations

- Social media volunteer, TEDx, Delft, Jun'2019
- Overall coordinator, Master of events, Citi March Events, May'17-Apr'18

Personal Details

D. O. B	Sep 26 th , 1994
Gender	Female
Nationality	Indian
Marital Status	Married
Languages	English (C1) Hindi (B1) Telugu (Native) Tamil (Native)

Skills

Technical skills

- Power Systems Operations.
- Smart grids. (AC/DC)
- Renewable energy integration.
- Energy market and flexibilities.
- Power System Tool Development

Software Skills

- Raspberry Pi integration.
- Python (Panda Power, FMU and data analytics libraries)
- Jenkins.
- Java.
- Shell Scripting.
- JIRA.
- Bitbucket/ Git version controls.
- REST API.
- Microservices.
- DigSilent Power Factory.
- PSS/E
- IPSA (Interactive Power System Analysis)
- Open Modelica.
- MATLAB (advanced user).
- MATPOWER.
- LATEX.
- Linux/Unix/Debian.
- SQL.
- MS Office.
- XML

Non Technical skills

- Planning.
- Public speaking.
- Requirements gathering.
- Relationship management.
- Analytical and critical thinking.
- Cross functional collaboration.
- Proactive.
- Business.
- Project and people management.
- Moderating and negotiation.
- Quick learner.
- Customer-centric.

Academic Qualifications

1. **Master of Science in Electrical Power Engineering** Aug'18-Aug'20
TU Delft, Netherlands, Specialization – Smart grids.
Grade: Distinction
Coursework – Power System Analysis - II, Co-simulation, Intelligent Electrical Power Grids, AC & DC Microgrids, Networking, Control System Design, and Electrical Power Systems of the future

Thesis: Design of midway energy (middleware system) as part of Illuminator.

- a. Designed a Middleware System as a python package/library for prototyping various proof of concepts for energy system integration demonstrator tool kit and validated it.
- b. Developed and tested various **demand-side congestion management** scenarios for analyzing the impact of the middleware system.
- c. Documented research work using **Bitbucket & JIRA** and submitted a research paper on Illuminator at the IEEE conference.

2. **Bachelor of Technology-Electrical and Electronics** July'12-Sep'16
SASTRA UNIVERSITY, Thanjavur, India.

Grade: First class

Thesis: Lead-acid battery charging using bridgeless CUK converter.

Coursework: Power System Analysis - I, Power System Economics & Controls, High voltage Transmission system, and Transmission & Distribution system.

Extra Curricular

1. **International Representative, CIGRE NGN UK** May'22-Present*
 - Representing CIGRE UK NGN in international committee
 - Including CIGRE Paris 2022
2. **Event Committee Member, CIGRE NGN UK** May'21-Present*
 - Responsible for organizing technical events with different horizons of CIGRE technical working groups and across different countries and continents of the world
 - Plays a significant role in introducing CIGRE NGN to the world and preparing the event playing for the technical events and communicating with different experts in the field for facilitating the same, responsible for after event news article.
3. **Chief PR Manager, Nova Electric racing** Oct'18-Mar'19
 - Worked to spread the word of Nova Electric Racing Team, one of the D: DREAM Teams of the TU Delft.
 - Held responsibilities in leading the PR team, team recruitment process, attending workshops, and managing social media platforms.
4. **President, ESN cultural committee, Delft Chapter (Erasmus Student Network),** Aug'18- Jan'19
 - Worked on creating a 'Home away from Home' environment for exchange and international students through organizing city trips.
 - Enabled exchange and international students to explore the European and Dutch culture.

Declaration

I hereby certify that all the above information is true to the best of my knowledge.

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