Pushkal Mishra

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Cranfield University

PERSONAL STATEMENT

A creative and innovative thinking postgraduate student with a profound interest in Renewable Energy Technologies. Possess strong communication, analytical and technical abilities strengthened by academic and international work experience. Professional work focused on areas of designing sustainable energy services complemented with experience as an analyst. Active involvement in projects, especially those dealing with efficient use and optimisation of sources through superior performance. A track-record in providing problem-solving solutions to stakeholders delivering results in time and within the project life cycle.

KEY ACHIEVEMENTS

- Winner of an annual group project in floating offshore wind turbines, Energy and Power Cranfield University.
- Awarded Cranfield University Scholarship towards tuition. Scholarship granted in recognition of professional and academic achievement 2018-2019.
- Undertook five-month intensive project based on '180-degree solar tracking with an automated cleaning system for solar photovoltaic modules and home automation' was an attempt to prolong the effective life of solar modules. Recognised as one of the top projects in university and awarded 100% marks 2017-2018.
- Negotiated during an internship at Spinemat purchase of several distressed trades, resolve marketing and supplying of the product by gaining 5%+ profit and demand by 4%.

EDUCATION

MSc Renewable Energy: Cranfield University, Cranfield, UK- 1st Class (October 2018 - September 2019)

- **Modules:** Principles of Renewable Energy Technologies, Engineering Stress Analysis: Theory and Simulations, Risk and Reliability Engineering, Fluid Mechanics and Loading, Computational Fluid Dynamics for Renewable Energy, Management for technology, Post-Generation Engineering in Renewable Energy.
- **Group Design Project:** The project evaluated the fatigue life of a floating platform and mooring system at different sea state in the UK with a depth of more than 70 meters. FTA and FMEA techniques were used to analyse the reliability of wind turbine and supporting structure. The operation and maintenance planning for OPEX, inspection and monitoring for floating offshore wind farm were examined. Life cycle cost was calculated for 30 MW and 500 MW wind farm with the CAPEX, OPEX and electricity generated.
- **Individual Thesis:** Sonar Technology for Offshore Wind Industry: Applying image processing techniques for scour protection, prevention and monitoring by using machine learning and 3D point comparison method.

B-Tech Electrical and Electronics Engineering: Vellore Institute of Technology, India - 1st Class (July 2014 - May 2018)

- **Modules:** DC Machine and Transformers, AC Machines, Power System Engineering, Generation and Utilization of Electrical Energy, Power System Protection and Switchgear, Distribution Generation, Renewable Energy Sources, Operations Research, Probability and Statistics, International Business, Principle of Marketing, Entrepreneurship Development, Environmental Studies, Psychology and Sociology.
- **Group Design Project:** Performed five months of intensive project based on '180-degree solar tracking with an automated cleaning system for solar PV modules and home automation' was an attempt to protract effective lives of solar modules.

CAREER HISTORY

Multipro Enterprises Limited: Lagos, Nigeria- Internship (May 2018 - June 2018)
With over 21 years of experience, Multipro Enterprises Limited is a leading company of Tolaram Group with business in over 75 countries. They specialise in Digital services, Energy, Textile, Infrastructure and Financial Services.

- Planned, managed and presented power system protection and switchgear project with a team of experts of the company. Analysed data on the results of this.
- Involved in reviewing of the electrical distribution system of the company with a team of four members by supporting a project to evaluate fault occur in design.

Spinemat: Rajasthan, India- Internship (June 2017 - July 2017)
Established in 2013, Spinemat industry is one of leading mattress manufacturing companies, with more than 100 retail outlets in the state of Rajasthan, India.

- Investigated manufacturing defects in the product by scrutinizing production and supplying of product, resolve the issue by gaining 5%+ profit and demand by 4%.
- Formulated marketing and supplying of products, by cost reduction strategies to achieve procurement efficiency by 6.1% in 5 months and upgrade range as well as a domain for more suppliers.

IFFCO LTD: Phulpur, India- Internship (June 2016)
Operational from 1974, in 2016 IFFCO fertilizers adopted Gas Turbine power plant (22 MW) to diminish its carbon footprint and improve the efficiency.

- Involved in reviewing a team project on-site to evaluate installation of Gas Turbine power plant under ESP (energy saving project) by leveraging gas as a fuel and cutting down dependence from fossil fuel with a payback period of 2.7 years.
- Conducted project work on testing and analysis of turbo-generator as a technical team of five: collaborated with Mitsubishi Hitachi for an optimal model.

Vellore Institute of Technology, Vellore, Tamil Nadu, India (June 2014 - April 2018)
Established in 1984 VIT University is a progressive educational institution, dedicated to improving quality of research on a consistent basis with students from all corners of the globe.

- Redesigned a wavelet transforms and its application to multidimensional signals and infinite impulse response filter operating both types of Chebyshev prototypes with two members.
- Participated as a team of three to develop projects for the improvement of line and light the following robot by utilising a microcontroller during Makeathon.

SKILLS, INTERESTS & EXTRACURRICULAR ACTIVITIES

- **Languages:** Fluent English, Hindi and Punjabi.
- **IT Skills:** Confident IT user. Experienced with Microsoft Office (Word, Excel, PowerPoint and Project), Google Docs, Xilinx Simulink, Visual Spice, MATLAB, Python, Tableau, @Risk, PTC Windchill, ABAQUS, PV Syst, Wind Pro, ANSYS Fluent, AutoCAD, ICEM-CFD and XFLR5 (XFOIL).
- **Individual Interests:** Photography, cooking, running, trekking and travelling to new places. Currently learning the German language.
- **Volunteering:** Supported NGO Juvenile care "Sparsh" to help orphan children by teaching for hygiene and academics coursework. Fundraising for Hemophilia care centre "Ashadeep".
- **Professional/Technical training:** Python for Data Science Essential Training, Tableau 10 for Data Scientists, Tableau 10 Essential Training, Creating Interactive Dashboards in Tableau 10, Comparison of AC & DC power distribution in the data centre and demand response & smart grid at Schneider Electric University Energy.
- **Memberships:** Institute of Electrical and Electronics Engineers (IEEE), The American Society of Mechanical Engineers (ASME), Energy Institute (EI), Cranfield photography society.