

SUMMARY

A highly motivated, hardworking, experienced professional and currently a graduate student looking for full-time opportunity starting January 2018

EDUCATION

- MS in Electrical Engineering** **GPA: 3.74/4.0**
Michigan Technological University, MI (Jan 2016-Dec 2017)
- BS in Electrical Engineering** **GPA: 3.80/4.0**
Malaviya National Institute of Technology, IN (July 2007-May 2011)

PROJECTS

Electrical Power Systems: Machines, Distribution system, Transient Analysis and Protection

- ❖ **Crew management for distribution system:** Involved study of crew management during emergencies and maintenance activities of distribution system using techniques such as fuzzy logic/rule for management/deployment of work force as part of outage management
- ❖ **Mitigation of transformer inrush currents during energization:** Involved simulation of inrush currents in transformer using ATP Draw and mitigation techniques such as controlled switching and proposed type of protection system needed
- ❖ **Designing and control of excitation system of a synchronous generator:** Involved use of control system approach and TACS in ATP Draw and a programmed model block for IEEE DC1A type excitation system was implemented for voltage stabilization
- ❖ **Transmission line pricing and loss allocation for modified IEEE 14 bus system:** Involved use of GAMS and ASPEN load flow
- ❖ **Simulation of three phase faults using MATLAB/Simulink** and identification of corrective relay protection for the system
- ❖ **Modeling of brushless dc motor used in two wheelers,** aimed at developing a MATLAB/Simulink model to derive characteristics of brushless dc motor and study its performance to design and manufacture for industrial purposes
- ❖ **Simulation of transformer internal and external faults:** Using MATLAB identification of fault current and relay operation
- ❖ **Distribution system planning and design for upcoming township** using AutoCAD by estimating connected loads for a typical household in city and town.

Renewable Energy and Sustainability: Wind, Solar, LCA, Battery system

- ❖ **Hydrogen generation for fuel cell based electric vehicle using photovoltaic system:** Involved simulation of PV system and electrolyser using MATLAB/Simulink and proposed feasible location for hydrogen generation plant for large-scale use.
- ❖ **Wind power project** at Hindustan Petroleum Corporation Ltd, Hassan Petroleum Terminal, aimed at meeting the captive energy demand with installation of 5 units of 20kW wind turbines
- ❖ **Design and simulation of solar floating photovoltaic system** using NREL-SAM and study of its technical and economic feasibility
- ❖ **Life cycle assessment of crystalline and thin-film solar cells using SimaPro:** Involved identification of sustainable practices in renewables by effectively reducing GHG emissions

SKILLS

SCADA	MATLAB	CYME	ASPEN
Relay Testing	ERP (JD Edwards)	AutoCAD	MS Excel
NREL- SAM	GAMS	SimaPro	ATP Draw
MS Office	MS Powerpoint	C++	Power World

ON CAMPUS EMPLOYMENT/ ACTIVITIES

- ❖ **Research Assistant:** Performing testing of NiMH batteries for capacity and impedance **6hrs/week**
- ❖ **Learning Center Coach:** Helping undergraduate students with electrical engineering problems **6hrs/week**
- ❖ Active member of Mind Trekkers promoting STEM
- ❖ Organizing committee member for Keweenaw Color Run 2016

COURSES

- ❖ Power System Protection
- ❖ Transient Analysis Methods
- ❖ Advanced Methods in Power System
- ❖ Sustainable futures
- ❖ Distribution Engineering
- ❖ Energy Storage Systems
- ❖ Solar PV Technology
- ❖ Power System Operations

WORK EXPERIENCE

Operations Officer (Electrical) Sep 2011 to Jan 2015 (Hindustan Petroleum Corporation Limited)

- ❖ Handled safety and maintenance of electrical automation system and electrical equipment such as pump-motor sets, VFD, transformers, motor starters, batch controllers and flow meters
- ❖ Handled electrical maintenance of protection system such as fuse, protective relays and circuit breakers
- ❖ Designed 20 kW lighting system developed a 100 kW wind power project adding a positive return on investment of 5%, savings and sustainable practices
- ❖ Monthly MIS reporting and daily inventory management by preparing indents and follow up activities with vendors and clients

Automation

- ❖ Flow meter calibration, SCADA management, tank farm and pipeline management of 38,854 KL of product
- ❖ Troubleshooting failures in automation system with regular walk downs to test the field devices
- ❖ Monitored cross country pipeline transfer automation operations—from refinery to tap off point through multiproduct pipeline carrying variants of high speed diesel and motor spirit—supplying products major region ensuring timely deliveries, customer delight and quality control

Fire Safety, PPE, HSE

- ❖ Implemented health and safety recommendations as per Oil Industry Safety Directorate Standards with recommended use of personal protective equipment and developed standard operating procedures for safe practices in handling electrical equipment during plant operations
- ❖ Ensured team management with training and motivational sessions for 500 technicians monthly, with demonstrations of equipment and PPE use.
- ❖ Trained for fire hazard/emergency—fire chief during shift operations—to combat fire and initiate emergency shutdown procedures

Project Management

- ❖ Handled projects in retail engineering starting from procurement to commissioning
- ❖ Planned product receipt and dispatch of \$38 million and daily operations ranging \$50,000
- ❖ Stock reconciliation of daily transactions \$50,000 with respect to documented transactions using ERP
- ❖ Site inspection and generation of inspection reports
- ❖ Handled business development and marketing of petroleum products and their variants with 11% annual growth

Projects Engineer Feb 2015 to Nov 2015 (Sankhwar Auto Pvt. Ltd.)

- ❖ Planned and commissioned diesel generator sets and installation of electrical system for various retail dealerships of automobiles

INTERNSHIPS/TRAININGS

- ❖ Summer internship at 645 MW **combined cycle thermal power plant** at National Thermal Power Corporation Limited, Kawas
- ❖ Internship at 30 MW **thermal power plant** at Ambuja Cements, Ropar
- ❖ **Live firefighting training, OSHA and safety:** Within refinery premises for electrical and petroleum fire incident at Vishakapatnam
- ❖ **Strategic marketing** for business development with identification of key customers and root cause analysis