



Farshid Dehghani

Power System Engineer

PROFILE

I have an M.Sc. in Electrical Power System Engineering from Shiraz University (2019) and a B.Sc. in Electrical Engineering from Malayer University (2015). My experience includes academic research and industry roles, focusing on electrical design and power engineering. At Shiraz University, I worked on resilience assessments of power systems in the Smart Network Laboratory. I have over four years of experience, including roles at MohebNiroo Engineering Company and HEDCO. At HEDCO, I specialize in electrical design for large-scale oil, gas, and petrochemical projects. I continuously enhance my skills through professional courses and studying industry standards.

EDUCATION

SHIRAZ UNIVERSITY

Sep 2016 - Feb 2019 - Shiraz

M.Sc. in Electrical Engineering-Power system

Grade: 3.18/4 - 15.15/20

MALAYER UNIVERSITY

Sep 2011 - Jul 2015 - Malayer

Bsc in Electrical Engineering -Power system

Grade: 3.38/4 - 16.12/20

WORK EXPERIENCE

HAMPA ENERGY ENGINEERING AND DESIGN COMPANY (HEDCO)

Nov 2021 - Present

Electrical Design Engineer

- Indoor, Outdoor, And Street Lighting Drawings Using Dialux Software.
- Lighting Calculations And 3D Modeling Using Dialux Software.
- Preparation Of Power Drawings Such as Lighting Layout, Small Power Layout (Power Socket Outlet Layout), Cable Route Layout, Tray and Ladder Layout, Earthing Layout, Lightning Protection Layout and Preparation of Their Associated Drawings/Documents.
- Designing substation electrical drawings including substation equipment layouts, substation opening layouts.
- Preparation of Overall and Detailed Power Single Line Diagrams Using AutoCAD Software.
- Electrical Power System Studies (Load Flow, Short Circuit, Motor Transient Starting).
- Creating Cable Schedule Document Based on Electrical Load List and Load Balance Document, and Sizing of Cables.
- Preparation of Communication and Telecom Drawings Such as LAN And Telephone Layout, Paging and Intercom Layout, Security and Process CCTV Layout and Preparation of Their Associated Drawings/Documents.
- Preparation Of Riser Diagram and Block Diagram Related to Communication System Such as Paging and Intercom Station, Fire Telephone (Hotline), Telephone, LAN, And Security and Process CCTV Systems.
- Preparation of Fire Alarm Layout for Buildings.
- Preparation of Data Sheet and Technical Specification for Different Electrical Equipment Based on Project's MDL.
- Preparing and Reviewing Material of Take-off (MTO) and Material Requisition (MRQ) of Different Electrical Bulk Items or Main Electrical Equipment.
- Review of Vendor Documents from Main Electrical Equipment to Bulk Electrical Items and Other Discipline Equipment, Communication with Vendor for Detail Design Problems and Creating Technical Clarification Sheets Based on Their Technical Offers.
- Preparation of Technical Bid Evaluation (TBE) Documents Based on Technical Offers of Different Bidders and Their Reply to TCLs.
- Working on 3D model of project in Navisworks software.

MOHEBNIROO ENGINEERING COMPANY

Dec 2020 - Nov 2021

Power System Engineer

Power loss reduction in distribution system - Key Responsibilities:

- Conducted Load Flow Analysis of Existing Distribution System Using DigSILENT Software to Identify Areas with High Losses.
- Proposed and Evaluated Network Reconfiguration Scenarios to Optimize Power Flow and Reduce Losses.
- Preparation of AutoCAD Design Drawings and Layout Plans for New Overhead Distribution Lines.
- Prepared Technical Reports and Documentation for Proposed Network Enhancements, Including Cost-Benefit Analyses.

Aug 2020 - Nov 2021

Solar-farm Design Engineer

- Analyzed Solar Energy Systems Using PVSyst Software and Preparation of System Simulation Report.
- Preparation of Mechanical and Electrical Design Plans for Large-Scale Solar Farms, Including Overall Plot Plan, Cable Route Layout, Earthing Layout, Ssingle-Line Diagrams, and Preparation of Their Associated Drawings/Documents Using AutoCAD Software.
- Performed Voltage-Drop, Short-Circuit Calculations and Cable Studies using CYMCAP.
- Prepared the Required Documentation for Construction of Photovoltaic Systems, Including a Comprehensive Equipment List, Detailed Specifications, Manuals for Each Piece of Equipment, and etc.

Dec 2019 - Dec 2020

Power System Engineer

Load Component Evaluation - Key Responsibilities:

- Conducting Thorough Studies on Load Curves.
- Investigating Load Curves Using Hourly Electricity Market Data and Examining Load Patterns for Insights into Energy Consumption Trends.
- Identifying Base Load, Daytime Peak, Nighttime Peak, and Off-Peak Periods Across Various Time Frames.
- Assessing and Quantifying Load Components for Efficient Load Management.
- Producing Detailed Reports on Load Distribution for Effective Energy Resource Allocation.

Apr 2019 - Dec 2019

Power System Engineer

The comprehensive plan for the development of the power distribution network - Key Responsibilities:

- Power Network Modeling Using DigSILENT Software, Along with Preliminary Studies of Distribution Systems Including Load
- Flow Analysis, Short Circuit Analysis, and Reliability Evaluation.
- Analyzing Residential, Commercial, Industrial, and Agricultural Consumption Patterns to Anticipate Future Load Demands.
- Collaborating with Urban Planning Departments to Determine Areas Earmarked for Construction and Development.
- Forecasting Future Network Requirements by Analyzing Consumer Load Growth, Load Demand, and City Expansion Plans.
- Conducting Studies on the Development of Distribution Substation (Upgradation of Existing Substations, Determining the Location and Sizing of Required new Substations) in a Long-Term Period.
- Determining Feeder Types, Cross-Sections, and Routing Strategies for Long-Term Network Sustainability.
- Developing a Strategic Roadmap for the Sustainable Development of the Distribution Network Over an Extended Period.

CONTACT DETAILS

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📍 Shiraz, Fars Province, Iran

LINKS

🌐 LinkedIn

🔍 ResearchGate

SKILLS

Software Proficiency

Engineering Software:

Digsilent, ETAP, EPLAN, Dialux, PVsol/Pvsyst, PSCAD, AutoCAD, SolidWorks, Simulink, ANSYS Maxwell, CYMCAP.

Programming:

C++, Matlab, Gams, Python.

Office and Design Software:

Microsoft Office (Word, Excel, Visio, PowerPoint, One Note), Latex, CorelDRAW.

Practical Experience in Teamwork

Quick Learner

Self-Motivated Problem-Solver

Outstanding Team Player

Ability to Work Independently

Strong Problem-Solving Skills

Analytical Thinking Abilities

LANGUAGES

English

Professional working proficiency

Persian

Native