

SUMMARY

- +7 years of experience in power grid analysis, smart grid, multi-energy systems, energy management, electricity market, power electronics, energy systems, and smart cities.
- Passionate about technology and eager to join an industry leader to contribute to the growth and deliver results.
- Over two years of experience designing and installing +10 photovoltaic power plants and +10 designing smart homes (ORVIBO, BroadLink, Siemens (KNX)).
- Experienced engineer with +4 years of experience monitoring industrial automation systems and Instrumentation, PLC programming (Siemens, Allen Bradley, Schneider, Mitsubishi, Moeller, OMRON, Fatek, ABB, and Delta), industrial line control, piping, and assembling and Wiring switchgear, switchboard, power generation/distribution panels, capacitor bank panels.
- Published +8 scientific articles in these fields in the best journals in the world.

PROFESSIONAL EXPERIENCE

Electrical Designer and Engineer

Arman Pasargad Energy Technologies Development Company (APETDC) · Hybrid

Activities:

- *Designing and installing of +10 photovoltaic power plants with capacities of 1 kW to 100 kW and over 10MW for (off-grid, on-grid, and hybrid with Battery Energy Storage System (BESS))*
- *Designing and installing of +5 solar water heating for residential and commercial consumers (Direct-Circulation Systems and Indirect Water-Heating Systems)*
- *Designing and installation of electrical wiring and HVAC for +10 buildings*
- *Designing and installing smart systems in +10 residential and commercial buildings with ORVIBO, BroadLink, and KNX brands. (BMS and EMS)*
- *Designing power generation/distribution, including maximum demand calculations, protection sizing, cable sizing, cable schedules, three-line diagrams, wiring diagrams, power distribution panels, and layouts, including lighting, switchgear, lightning protection system, earthing, generator, conduit, and cable tray*
- *Managing the technical portions of projects (design reviews, costs, schedules)*
- *Power System Analysis – load flow, short circuit, dynamic & transient stability, harmonic analysis, protection by Digsilent (Power Factory), ETAP, and PSCAD*
- *National grid studies, including grid connection, network planning, system strength impact assessment, and research and development*

Tehran,
Iran
2014 - 2024

Automation, Instrumentation, MEP and Control System Engineer and Plc Programmer

Rad Smart Automation Company · Full-time

Activities:

- *Programming, configuring, and commissioning process control systems based on Siemens, Schneider, Mitsubishi, Allen Bradley, Moeller, OMRON, Fatek, ABB, and Delta PLCs. (IEC 61131-3)*
- *Familiarity with all switchgear and/or switchboard tools, including protective relays and thermal and magnetic switches.*
- *Designing power and control systems by Australian, European, and international renewable/power generation project standards.*
- *Setting up all kinds of industrial LV and MV (VLT, VFD, and VSD) drives and inverters such as LS, Delta, Siemens, Yaskawa, Mitsubishi, OMRON, ABB, etc.*
- *Drawing industrial electricity maps using EPLAN and AutoCAD electrical software and assembling them.*
- *Doing projects in High-Voltage (HV), Medium-Voltage (MV), Low-Voltage (LV), IOT, battery (BESS)-Substations, transformers, circuit diagrams, SCADA protection systems, substation design, designing HMI pages, EPLAN, SCADA, DCS, CSV, BMS, cable connection & electrification.*
- *Designing background in ELV electrical systems, PLC/telemetry, and Instrumentation and Control.*
- *Dominating MODBUS, PROFIBUS; PROFINET, CANBUS, Ethernet/IP, HART, and IEC 61850*
- *Control analog and digital processes based on PID control and Fuzzy control*
- *Mastery of all kinds of sensors and instrumentation equipment such as flowmeters, thermometers, level control sensors, temperature, weight, etc.*
- *Monitoring rotating machinery, for example, turbines, compressors, pumps, fans, blowers, generators, etc.*
- *Development, programming, and commissioning of machine-related visualizations as well as cross-machine SCADA systems*

Tehran,
Iran
2020 - 2024

- Knowledge of automation systems and IT infrastructure.
- Integration of robots and commissioning of ABB and KUKA robots
- Robot arm control with Delta (ASDA), Allen Bradley (1394-SJT) servo drives, and Leedshine step motor drive and using TIA Portal Motion (Siemens) and Rockwell Motion (Allen Bradley)
- Development of PC-based software for the implementation of digitalization products
- Implementation of various projects and process control in oil and gas industries, petrochemical, pharmaceutical, lumber, mining, water, environment, paper production, steel and aluminum production, electronic board, CNC cutting, ice cream making, prepared food, and packaging factories: [PDF file attached](#)

SKILLS

Programming Skills: Ladder, FBD, STL, SCL, CEM, Graph, RAPID, KRL, Matlab, GAMS, Python, C, C++, DPL, Math Power

Software Skills: EPLAN Electric P8, AutoCAD Electrical, Digsilent (Power Factory), ETAP, PSCAD, PVSyst, Design Builder, DiaLux, ETS, DeltaV

PLC Siemens: SIMATIC Manager, TIA Portal, PCS7, Siemens WinCC, WinCC Comfort, WinCC flexible, WinCC explorer, LOGO!Soft Comfort, SIMOTION SCOUT

PLC Allen Bradley: RSLogix 5000, Rockwell FactoryTalk, Logix designer, Panelbuilder, Rockwell Automation

PLC Schneider: SoMachine Basic, EcoStruxure Machine Expert, Zelio Soft

PLC Omron: CX-One, CX-PROGRAMMER, Sysmac Studio
DOPSoft

PLC Delta: ISPSOFT, Wplsoft, vfdsoft,

PLC Mitsubishi: GX Developer, GX Works

PLC Fatek: WINPRO LADDER, FV Designer

PLC ABB: Automation Builder, Compact Control Builder-AC800M, ABB PLC Control Builder Plus

PLC Moeller: EASYSOFT

Databases: SQL and NoSQL

Project Skills: Leadership, Team Working, Project Management, Time Management, Problem Solving, Critical Thinking, Eager to learn, Work under pressure ([LinkedIn Skill Endorsements](#))

EDUCATION

Master of Science in Electrical Engineering - Power Systems

Tarbiat Modares University [AMONG IRAN'S TOP Universities]

Tehran, Iran

2017 – 2020

Bachelor of Science in Electrical Engineering - Power

Arak University of Technology

Arak, Iran

2010 – 2016

LANGUAGE

English: Professional working proficiency

Persian: Native

CERTIFICATES

Data scientist

Sharif University of Technology (2024)

Electrical Panels Assembly Technician and Installer

Iran Technical & Vocational Training Organization (2024-2029)

Wind Energy

DTU - Technical University of Denmark (2024)

Electrical Installation Engineer

Tehran Construction Engineering Organization (TCEO) (2024-2027)

Databases and SQL for Data Science with Python

IBM (2024)

BMS building system designer

Iran Technical & Vocational Training Organization (2023-2028)

Photovoltaic Systems

DTU - Technical University of Denmark (2024)

Supervised Machine Learning: Regression and Classification

Stanford University (2024)

Building Electrician

Iran Technical & Vocational Training Organization (2024-2028)

Renewable Energy and Green Building Entrepreneurship

Duke University (2024)

HSE Requirements Implementation and Supervision for Residential and Industrial Photovoltaic Systems

Iran Technical & Vocational Training Organization (2023-2028)

On-grid solar power plant (Photovoltaic) Designer

Iran Technical & Vocational Training Organization (2023-2028)

Photovoltaic Power Plant Design

Iran Technical & Vocational Training Organization (2023-2028)

Exploring Renewable Energy Schemes

University of Pennsylvania (2023)