

SMARTH SALARIA

SENIOR ENGINEER

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- Pune, MH, INDIA, Preferred location
Delhi NCR, and Chandigarh.
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PROFESSIONAL OVERVIEW

Control Systems - Senior Engineer with 3+ years of work experience in Energy management Systems (EMS), Power Plant Controllers (PPC), Hybrid Energy Management Systems (HEMS), and SCADA System integration. experience in system architecture design, controlling logic development, system testing (FAT, SAT, HIL), and Project Engineering for grid-scale solar renewable and storage projects.

WORK EXPERIENCE

Senior Engineer

Premier Energies Storage Solutions Pvt. Ltd. - Premier Energies Limited, Pune | Jun 2025 – Present

A subsidiary of Premier Energies Limited Group, PESSPL specializes in Battery Energy Storage Systems (BESS) and EMS product development for renewable energy integration.

- Led EMS product development initiatives, including competitor benchmarking and alignment of product requirements with key stakeholders.
- Driving vendor coordination for technical evaluation and approval of EMS components.
- Interpreted and applied IEEE 1547 and IEEE 2800 standards for control system development using MATLAB/Simulink.
- Facilitating coordination between outsourced software development teams and the in-house MATLAB application modeling group for project readiness.
- Designing preliminary control state logic and operational mode transitions for the planned EMS product in MATLAB.

Senior Engineer

Anvi Power Industries Pvt. Ltd. - Gensol Group, Pune | Jan 2025 – April 2025

A subsidiary of Gensol Group, Anvi Power specializes in Battery Energy Storage Systems (BESS) an EPC for BESS renewable energy power plant.

- Contributed to the 70MW/140MWh Standalone BESS project, leading the design of system architecture including control strategies, safety interlocks, and I/O signal mapping across EMS, PCS, and BMS systems.
- Developed and maintained key engineering documents such as Scope of Requirements (SoR) and Functional Design Specifications (FDS).
- Managed technical reviews, approvals, and vendor coordination for SCADA and EMS platforms to ensure compliance with project requirements.

EDUCATION

Bachelor's degree | 7.32 CGPA

B.E./B.TECH – CSE – IOT

Chandigarh University, Mohali
2018-2022

SKILLS

- BESS, PPC, EMS, SCADA
- System Integration/Testing
- Ubuntu
- Python
- MySQL
- Azure
- MATLAB/Simulink
- Modbus TCP/IP, IEC 104, IEC 61850
- Structured Text Programming

PROJECTS

- 70MW/140MWh Standalone BESS Bachunda, Gujarat
- 35MW Solar and 12MW/57MWh BESS, Kutch, Gujarat
- 230MW Solar and 30MVar Capacitor Bank, Ettaiyapuram, Tamil Nadu
- 700MW Solar, AR-Rass, Saudi Arabia
- 0.3MWh and 0.6MWh BESS Pilot Project, Telangana

Associate Engineer

Digital Energy Solutions – Power Transmission and Distribution (PT&D),
Larsen & Toubro – Chennai, India | July 2022 – Dec 2024

L&T's Digital Energy Solution Business Unit under PT&D, delivers advanced SCADA Integration, Power Plant Controllers, and plant automation solutions for solar, BESS, and hybrid power plants.

- Engineered and commissioned control systems for large-scale Solar + BESS projects:
 - 35MW Solar + 12MW/57MWh BESS, and 230MW solar plants.
 - Implemented PPC and HEMS integration with plant SCADA, RTU, and EMS, ensuring seamless real-time grid compliance and remote operability.
- Specialized in communication protocols:
 - Hands-on expertise with IEC 61850, Modbus TCP/IP, IEC 60870-5-104 for controller-to-equipment communication.
- Led Factory Acceptance Tests (FAT), Site Acceptance Tests (SAT), and Hardware-in-the-Loop (HIL) testing:
 - Used OpalRT simulators, SCADA (Zenon Copata), and Linux/Ubuntu-based EMS controllers to verify system responses under dynamic conditions.
- Developed, tested, and troubleshooted custom control logics:
 - Optimized functionalities like reactive/active power control, solar ramp rate smoothing, black start sequences, and automatic power factor correction (APFC).
 - Conducted detailed network and communication analysis using Wireshark, Structured Text programming, and system-specific fine-tuning across inverter brands (Sungrow, TBEA, Sineng, Fimer).

PROFESSIONAL DEVELOPMENT

Azure Cloud 900 and 104

Microsoft, Online
2024

Internet of Things

Verzeo, Online
2021

Web Development

Bolt IoT, Online
2020