

Mangesh Sapre

Substation Engineering Protection and Control Engineering

Phoenixville, PA - Email me on Indeed: indeed.com/r/Mangesh-Sapre/fc47379c9b58ebe1

Seeking a position in the field of substation engineering/ protection and control engineering

Willing to relocate: Anywhere

Sponsorship required to work in the US

WORK EXPERIENCE

Electrical Engineer

CG Power Solutions USA INC - Collegeville, PA - January 2014 to Present

Responsibilities

- Working on substation design that includes single line and three line drawings, relay one line drawing, bill of material, substation grounding plan, conduits plan, substation plan and elevation view drawings, AC/DC schematics and wiring diagram.
- Involved in system studies including current limiting reactor sizing study for wind farms, short circuit study, load flow study, grounding grid analysis (IEEE 80-2000) using WIN IGS software tool, Insulation coordination (IEEE C62.22), lightning protection (IEEE 998-2012).
- Battery and charger sizing, station service transformer sizing, cable and conduit schedule, conduit fill calculations, CT saturation calculations.
- Helping in writing project proposals and scope of work documents..

Electrical Engineer

Iberdrola Energy Projects - Rochester, NY - May 2012 to December 2013

Responsibilities

- Worked on Rochester Area Reliability Project (RARP) as a protection and control engineer.
- Worked on relay one line diagram, single line diagram, substation one line diagram for bulk electric systems (345/115kV).
- Good understanding of integration one line diagram and communication one line diagram.
- Relay logic diagrams and DNP data maps for SEL and GE relays.
- Work also involved implementation of physical security and cyber security on bulk electric systems.
- Control building design using NPCC and NERC requirements.
- DC battery and charger sizing calculations and DC single line diagram.
- Reviewed 115kV circuit breaker and 345/115 kV transformer control drawings.
- Major part of work involved developing a lab for testing IEC 61850 protocol for relay communication. Lab consisted of SEL, GE, ZIV and Ruggedcom IEDs. Worked on developing relay logics and sending GOOSE messages between relays.
- Experience in writing technical reports related to protection issues.
- Good overall understanding of substation engineering and telecommunication protocols used.
- Provided commissioning support for a 34.5 kV GIS substation.

EDUCATION

Bachelors in Electrical Engineering

University of Pune

2009

M.S. in Electrical Engineering

Michigan Technological University

SKILLS

Power Systems Analysis, Power System Transients, Protection and Control, Electrical and Physical Design, Substation Design

LINKS

<http://www.linkedin.com/pub/mangesh-sapre/24/7a2/187>

ADDITIONAL INFORMATION

COMPUTER SKILLS:

- Operating Systems: Windows
- Programming Languages: C, Matlab.
- Electrical Softwares: SKM, ASPEN, ATP, Etap, WIN IGS.
- Application Software: MS Word, Excel, PowerPoint

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OTHER SKILLS:

- Skilled in problem solving, leadership, teamwork
- Fluent in English, Hindi and Marathi (languages of India)
- Ready to relocate and get adapted to any situation