Michael Curran

Electrical Engineer

Marlton, NJ - Email me on Indeed: indeed.com/r/Michael-Curran/5a1714b40bf8bca2

An electrical engineer in the design of HV substation's protection and control systems, including breaker relay communication integration, sizing of station service transformers, and calculations for substation batteries. Experienced in electrical control systems of varying sizes and complexities.

• Substation Calculations • AutoCAD Design • IEEE, NFPA standards
• Sub Grid Grounding / WinIGS • ASPEN One-liner Simulator • Protection relays:Schweitzer, GE
• One line/elementary/wiring • Systems Integration • Technical Documentation
• Constructability Reviews
• Engineering Change Proposals

• Ruggedized/Vibration Design
• Team lead

• Budgetary Estimates

WORK EXPERIENCE

Electrical Engineer

ALTRAN - Cranbury, NJ - 2012 to 2013

Determined AC station service transformer and corresponding HV fuse requirements for 11kV, 34.5kV and 115kV substations in accordance with IEEE Standards.
• Provided corresponding calculation reports outlining reasoning for the recommendations.
• Provided DC battery calculations for 11kV, 34.5kV, 115kV substations in accordance with IEEE Standards with corresponding reports.
• Provided conceptual physical layouts of equipment cabling, trenches, and conduit design for both above ground and below ground facilities.
• Design interfaces between multiple vendors equipment for substations relay communications for protection and control.
• Updated portions of schematics for high voltage breaker upgrades on single line, elementary, and wiring diagrams.
• Determine AC and DC panel layout and load balancing.
• Contacted manufactures for technical data sheets to support client requests to meet schedule requirements.
• Calculated lightning protection calculation of substations following IEEE-998 standards
• Determine substation grid grounding requirement per IEEE-80 standards.

Systems Integration Engineer

LOCKHEED MARTIN - Moorestown, NJ - 2004 to 2010

Designed and tested switching configuration networks in support of Combat System Engineering Development Site (CSEDS). Resolving hardware and software system integration issues
• Developed production process diagnostic burn-in test procedures. Change management resulted in improved quality of SUN Enterprise Servers prior to implementation aboard ship. Unix scripts used to cycle sub system units during testing

• Prepared Engineering Change Proposals (ECPs) to facilitate the transition away from legacy rack-based systems and provide software certification.
• Liaison with technical design authority for AEGIS, NAVSEA, and SPAWAR programs.
• Development/review of Installation Control Diagrams and Interface Requirement Specifications.
• Resolved design issues on Cruise Missile and Naval Mission Planning Systems in support of the Navy.
• Certified NAVSEA Reliability Centered Maintenance(RCM) and Level II certification for Planned Maintenance System (PMS).

Design/Test Engineer

LOCKHEED MARTIN - 1997 to 2004

Evaluator and performance analyst for Commercial of the Shelf (COTS) products installation, performance verification and procurement.
• System integrator, providing testing and performance verification for Command, Control, Communications, Computers and Intelligence(C4I) for Defense Electronic Systems.
• Produced MTBF reports while performing benchmarking and application performance analysis. Presented results to SPAWAR with recommendations on higher rated components which resulted in improved MTBF rates and lower cost to the government.
• Redesigned environmental controls in the rack and prepared test procedures to validate that the hardware was performing with spec with the required redundancy to survive a power failure.
• Provided onboard live testing to validate that the environment and infrastructure performed within specifications to limit system shut-downs.
• Planned, reviewed and documented Shock / EMI / shielding (MIL-STD-810E) live tests onboard ship. Provided on-call support, focused on isolating and resolving network outages.

EDUCATION

BS in Engineering

College of New Jersey - Ewing, NJ

AAS in Electronics Technology

Burlington County College - Pemberton, NJ

Camden County College - Camden, NJ