Ausenco PSI

Education & Qualifications	**B.S., Electrical Engineering** Cal Poly State University, San Luis Obispo, CA, USA
Summary of experience	**Franklin has over 9 years of experience working as an electrical/control systems engineer. His experience includes the designs of all practical facets of Electrical & Controls Engineering. His recent projects for electrical power distribution designs include: grounding, lighting, motor control center, cable tray layout & distribution; power panel, lighting and cable schedule & routing. Recent projects highlights for controls systems engineering include: design, layout & programming of Allen Bradley, Koyo, DeltaV, and Siemens PLC interface with digital and analogue sensors, VFD & Motor Starters over a variety of network architectures MODBUS RTU/ASCII, Profibus, Profinet, DeviceNet, ControlNet and EtherNet. Lastly, detail experience in Graphical Display programming software using of RSView ME/SE, WonderWare Intouch/SytemPlatform 2012, and Inductive Automation.**
Interests	**Alpha Institute for Advance Studies (www.AIAS.us) Fellow since 2003** **Research electrical anomaly relating to parametric elements (L(t), C(t), R(t)).** **Variable speed homopolar generators for induced oscillations with positive feedback.** **Gabriel Kron, Nikola Tesla & Walter Russell's Research**
Languages	**English, Spanish**
Ausenco PSI Experience	**September 2006 – Present** **SunPower's Solar Project:** Electrical / Controls Engineer Part of the team executing programming, commissioning and start-up of the Solar Power plants ranging from 20MW to 250MW. SCADA system consisting of WonderWare Application Server & System Platform 2012. Reporting Services integration for data collection and emailing to client. **Sand Island Waste Water Treatment Project:** Electrical / Controls Engineer Part of the team executing programming, commissioning and start-up of the Honolulu's Waste Water Treatment Odor Control System. SCADA system consisting of Allen-Bradley PLCs and Rockwell Automation's RSView SE HMI software with distributed architecture. **Ambatovy Nickel Laterite Slurry Pipeline SCADA and Remote Power Systems:** Electrical / Controls Engineer Part of the team executing programming, commissioning and start-up of the Pipeline SCADA system consisting of Siemens S7 PLCs and WinCC SCADA software, implemented using Siemens Totally Integrated Automation (TIA). **Bao Tou Iron Concentrate & Water Pipelines SCADA Systems:** Electrical / Controls Engineer

Assisted with programming, start-up and commissioning on the Pipeline SCADA system. This system is based on Siemens S7 PLCs and WinCC SCADA software, with Siemens Totally Integrated Automation (TIA).

Minera Atacocha – Tailings Pipeline Systems: Electrical / Controls Engineer

Programming, commissioning and start-up of the pipeline SCADA system based on Allen-Bradley ControlLogix PLCs and RSViewSE HMI software. The SCADA system consists of the main pump station redundant ControlLogix PLC interfacing several vendor PLCs including three mainline pumps CompactLogix, thickener, hydraulic operated valves central unit and flocculant system. The main SCADA PLC communicates with remote IO via redundant ControlNet network and DeviceNet with the Motor Control Center.

Generon – Extrusion Line 1 expansion: Electrical / Controls Engineer

Programing and Start-Up of the expansion Extruder Line 1 HMI package. The SCADA system upgrade on the Allen-Bradley ControlLogix PLC with RSView SE & ME HMI Software Development. The system included a ControlLogix PLC with ControlNet Remote I/O racks and VFDs.

Pneumapress – FilterPress Units: Electrical / Controls Engineer

Programming, Commissioning and Start-up of the FilterPress Units with Allen-Bradley ControlLogix PLC with PanelView Plus HMI. Update of existing Ladder Logic program with Add-On Instruction programming, and Recipe control.

Aker Kvaerner – DeltaV Panel Design: Electrical / Controls Engineer

Three Panel Layout of DeltaV Redundant Controller employing both DeviceNet Network and Ethernet Redundant Fiber Optic Ring configuration. Panels Layout included HVAC system for Outdoor use. Three panels interfaced to two computer stations for complete SCADA control.

Pharmaceutical Company – Sub-Bio Reactor Control Panel Design :Electrical / Controls Engineer

AB CompactLogix Control Panel with integration to a Sub-Bio Reactor over DeviceNet. Used Bulked head connectors' specific to DeviceNet and interfaced to Ethernet to two HMI Stations running iFIX.

Other Experience	**Dec 2004 – July 2006** **WRMS Critical Engineering**: Electrical Engineer

- 40-Ton Chiller Replacement project at Stanford University; designed and partially engineered demolition, power & control layout, lighting, grounding and instrumentation location drawings for the equipment associated with the York's 40 Ton Chiller.
- Updated instrumentation changes, power panel changes, and cable changes in Excel spread sheets.
- Calculated cable size and length for respective conduits.
- PG&E's Colgate 60kV Substation Breaker Replacement & Martin Protection Upgrade and RTU Replacement.
- Detail design for replacing existing oil circuit breakers (OCB's) with ABB 60kV SF6 breakers.
- Prepared physical layouts, AC & DC schematics, and SCADA drawings for the

successful completion of the Colgate 60kV Substation Breaker Replacement project: Prepared relay and control panel arrangement, AC & DC schematics, updated both the Meter & Relay Diagram and Single Line Diagram for the Martin Protecting Upgrade and RTU Replacement projects.

Stone & Webster, Inc. Electrical Engineer/ CAD Designer

- Reviewed Vendor Engineering Drawing Submittals, and updated our Plant Design 3D models to reflect changes.
- Updated Schematics for Medium and Low Voltage Main Breakers within Switchgear.
- Mediated engineering conferences between vendors and Stone & Webster's engineers.
- Inspected completion of Power Distribution Buildings and electrical equipment from the vendor's factory.

Bechtel Mining & Metals :Electrical Engineer/CAD Designer

- Drafted "Single Line Diagrams" & Developed "Electrical Load List.
- Developed and updated "Electrical Standard Details" for Construction.
- Calculated & designed "Electrical Raceways" for low voltage and Medium Voltage equipment feeds.
- Modeled transformers, medium voltage switchgear, low voltage switchgear, motor control centers, distribution panels & UPS systems.
- Produced IFC electrical drawings and minor revisions on Grounding, Panel Schedules, One Line Diagrams, Cable Trays, Instrument Locations, and Lighting drawings.

Bechtel National, Inc: Electrical Engineer/ Designer:

- Drafted "Single Line Diagrams, Schematics & U/G Power Distribution" drawings.
- Prepared "Power Factor, Load Flow, Short Circuit & Voltage Drop" calculation reports using ETAP PowerStation software
- Prepared and tabulated "Electrical Load List & Cable Size" calculation reports.
- Prepared MicroStation PowerPoint slide presentation of Project's Annual Power Consumption for the Department of Energy (DOE).

Cal Poly State University: Solar Car Club-Electrical Engineer Team Leader

- Researched specifications for Power Point Trackers, Motor Controllers, 3-phase Brushless DC motors, Data Analyzers, DC-to-DC Converters and electronic equipment.
- Designed 95% efficient DC-to-DC Converters using Pulse Width Modulation to track Maximum Power Point of solar panels output power.
- Designed efficient LED turn signal system for solar car.
- Responsible for connecting all electronic components within specified safety parameters.
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Bechtel National Inc., Summer Hire-Web Designer, Summer Hire-Interference Checker

- Designed Bechtel's Engineering, Science & Technology web site.
- Updated and developed important technical information to publish on the Intranet.
- Inspected and evaluated 3-D piping models
- Trained to use MicroStation SE to model 3-D commodities (i.e. conduits, HVAC, piping, and penetration plates).

Certifications, Licenses & Related Skills & Experience	AutoCAD 2005,Microsoft Office,MathCAD 2001i Prof.,MicroStation V8.1, ETAP PowerStation 4.0 OrCAD Capture & Layout, PDS Electrical Raceway,PDS Equipment ,Modeling, VisualSpice, Circuit Simulation, PLC (LD,ST,SFC), Python.