PERSONNEL QUALIFICATIONS

Yang Feng Zheng | Principal

EDUCATION

- Lafayette College
  - Bachelor of Science, Electrical and Computer Engineering, 2006
  - Bachelor of Science, Physics, 2006
- Polytechnic Institute of New York University
  - Master of Science, Electrical Engineering, 2009

PRACTICE AREAS

- Electrical Engineering
- Bridge Engineering
- Design
- Inspections
- Rail Systems Engineering
- Computer-Aided Drafting
- Construction Observation and Troubleshooting
- Electrical Testing
- Constructability Review
- Emergency Response

REGISTRATIONS

- Professional Engineer in CA, CT, IL, LA, MD, ME, and TX
- Tunnel Safety Inspection (FHWA-NHI 130110)

PROFESSIONAL AFFILIATIONS

- Institute of Electrical and Electronic Engineers

CONTACT

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EXPERIENCE

Yang Zheng is a senior electrical engineer with more than thirteen years of experience applying electrical engineering principles and communications technology to design and construction for movable bridges and public railroad infrastructure projects. Mr. Zheng is experienced in low- and medium-voltage electrical power and control, communications and security system design, construction, and system deployment/integration experience. His areas of expertise include movable bridge electrical systems design, electrical inspections, field surveys, power quality testing, and troubleshooting. Mr. Zheng's experience also includes design, power distribution design and construction, control systems, programmable logic controllers, advanced security systems, CCTV, access control design, fire/life safety, and fiber optic communication transmission systems design. He has represented clients and contractors as part of the installation process of electrical power and control systems and has acted as a quality assurance engineer for the installation of electrical systems for movable bridges.

REPRESENTATIVE PROJECTS

- Voinovich Park Pedestrian Bridge - Cleveland, OH: Double-leaf bascule pedestrian bridge's design, including electrical utility service, underground electrical distribution system, submarine power and control cables, and motor control centers
- LaSalle Causeway Bascule Bridge - Kingston, ON: Annual comprehensive detailed inspection and secondary mechanical inspection of 1917 single-leaf Strauss heel trunnion bascule bridge's machinery systems
- West Third Street Vertical Lift Bridge - Cleveland, OH: Troubleshooting of ongoing operational and reliability problems at newly rehabilitated bridge
- Alford Street Bridge - Boston, MA: Replacement of urban twin double-leaf bascule bridge, shop drawing review, coordination between subcontractors, factory testing, and field installation
- Norfolk Southern Railroad System-Wide Movable Bridge Inspection Program - AL, IL, LA, NC, OH, and VA: Ongoing evaluation of system-wide movable bridges, initial inspections and evaluations to improve operational, mechanical, and electrical reliability
- Connecticut Department of Transportation, Saugatuck Swing Span Bridge - Westport: Condition assessment of storm-damaged equipment and systems; specification of replacement of enhanced and environmentally hardened equipment and control systems
- New York City Transit Traction Power Modeling and Simulation: Engineering services for modeling and traction power simulation of existing subway lines to determine capability and necessary reinforcements
- SEPTA Signal Power Generation and Distribution Study - Philadelphia, PA: Testing and assessment of signal power failures to determine the cause of abnormal operating and nuisance overvoltage fault conditions
- Valley Metro Rail Central Phoenix/East Valley LRT Project, Northwest Extension - AZ: Traction power study to verify the number, siting, and sizing of traction power substations necessary to support proposed rail operating plan
- Quogue Bridge - Quogue, NY: Power quality testing and analysis to determine the cause of low voltage and poor power factor conditions; survey of existing incoming utility service and power quality data acquisition testing
- Metro North Railroad, Upper Harlem Line - NY: Coordination of medium-voltage services for ten proposed additional substations to reinforce and increase capacity
- Sir Ambrose Shea Lift Bridge - Placentia, NL: Electrical engineering design services for electrical power and control systems associated with new tower drive-life bridge associated with new tower drive-lift bridge
- East Washington Bridge - Bridgeport, CT: In-depth electrical inspection of single-leaf bascule span
- Burlington Canal Lift Bridge - Hamilton, ON: In-depth electrical inspection consisting of a visual inspection of the complete electrical installation