

**PAI**303 Bagot Street, Suite 501 Tel: (613) 545-3303 jhparker@parker-inc.com  
Kingston, ON, K7K 5W7 Fax: (613) 545-1154 www.parker-inc.com**Parker & Associates, Inc.**

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## ROBERT TOLLEY

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### EDUCATION

1973 M.A. Electrical Engineering, Cambridge University, England

### EXPERIENCE

2001 - Present **Associate, Parker & Associates, Inc., Ontario, Canada**

- Prepared and technically reviewed design descriptions, software documentation, verification and validation documents, manuals and training material and delivered training for the Taiwan Shinkansen project
- Prepared of electrical equipment descriptions for rail transit industry, including bid proposals (SEPTA Silverliner V, SCRRA Metrolink).
- Prepared manuals and training materials for the operation and maintenance of auxiliary power and propulsion systems (JFK, Vancouver Mark II, Manila Line 2)
- Trained vehicle maintenance and operations personal (JFK, Vancouver Mark II, Manila Line 2 – auxiliary power, propulsion systems and computer monitoring systems).
- Engineering analysis, particularly in the field of electromagnetic interference

2000 - 2001 **Contract Electrical Engineer Huron Technology Canada, Inc., Ontario, Canada**

- Prepared electrical installation designs for Cathodic Protection Systems.

1997 – 2000 **Applications Engineering Supervisor Electrical BICC-Pyrotenax, Ontario, Canada**

- Responsible for design and approval of heat tracing projects, including heating cable designs, power distribution and control.
- Major projects designed for Alcan, Kitimate, including field work, Syncrude, Esso-Nanticoke and Marathon Oil, Detroit.

1994 – 1996 **Electrical Engineer, Labotix Automation Inc., Ontario, Canada**

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- Worked on contract to design the control systems including component purchasing, wiring and electrical/instrumentation layout design, PLC programming (A/B PLC5's), message display & barcode reader programming.

**1988 – 1993** ***Lead Electrical Engineer, Fluor Daniel Inc, ( Dupont Kingston office), Ontario, Canada***

- Led the electrical engineering & design group of up to 10 people including hiring & quality assurance responsibility in the Kingston office.
- Engineering design work for specific projects, including Kingston's Research Autoclave and Nylon 1212 projects, and Maitland's Lycra expansion. Work included specifying and selecting the electrical equipment, designing equipment and wiring layouts, heat tracing calculations, drafting supervision, writing PLC (Modicon and AB) logic and communication programs, producing construction packages, field supervision and support, and commissioning.

**1981 – 1988** ***Electrical Engineer, Alcan, Ontario, Canada***

- Electrical engineering required for relocating and upgrading two Alcan Tension Leveling Line to Kingston. Work included budgeting, sizing and specifying new motors, transformers, switch-gear, and motor control centres, designing an operator's control desk, preparing scope of work packages for installation, construction supervision and support, programming and debugging PLC's and drives.
- Designed and implemented installation of a central control system for the Foil Mill furnaces, including programming a T.I. control vision unit and PLC to improve productivity;
- Designed and developed the electric controls for a new dross cooling system, tripling its capacity;
- Modernized the controls of three extrusion presses and their billet furnaces reducing electrical downtime by 30% and "dead cycle" (non productive) time typically from 15 to 9 seconds using Modicon PLC's;
- Procured materials, designed a new PLC control system to replace destroyed relay controls, and supervised installation after an extensive fire to No.4 Extrusion Press. In two weeks the press controls were installed, debugged and producing again;

- Learnt and used AutoCad for the design work;
- Commissioned a welding robot.

1976 – 1981 **Plant Electrical Engineer, Motorwheel Corp. of Canada, Ontario, Canada**

- Responsible for electrical installation of all new equipment and troubleshooting
- Reduced plant lighting costs by 60%
- Designed new PLC controls for a wheel welding assembly machine
- Recovered 2000 sq. ft. of floor space by relocating a main transformer and switchgear bank on a mezzanine.

### **PROFESSIONAL AFFILIATIONS**

- Member of Professional Engineers Ontario
- Committee member of the Institution of Electrical Engineers, Ottawa Centre

### **LANGUAGES**

	<b><u>Read</u></b>	<b><u>Speak</u></b>	<b><u>Write</u></b>
<b>French:</b>	Fluent	Well	Well
<b>Spanish:</b>	Well	Moderate	Moderate
<b>German:</b>	Well	Moderate	Moderate