

Energy and Power Innovation Centre (EPIC)

Mohawk College

 Hamilton, ON



ABOUT EPIC

The Energy & Power Innovation Centre (EPIC) provides expertise and facilities to support Canadian companies with their operational challenges with a particular focus on energy and resource management. EPIC also supports utilities and electrical companies with developing new solutions, as well as training in state-of-the-art facilities.

EPIC is also home to the Energy & Power Technology Access Centre (TAC), a national resource for the Canadian manufacturing and agri-food sector. As a TAC, EPIC helps companies who would like to adopt energy technologies that can reduce operating costs throughout the manufacturing process and/or de-risk the implementation of new technologies.

The cross-functional research team - which includes EPIC applied research staff, dedicated co-op students and Engineering Technology Faculty members- works collaboratively with the Sensor Systems and Internet of Things (IoT) Lab, the Centre for Climate Change Management, the Additive Manufacturing Innovation Centre (AMIC), and the mHealth & eHealth Development and Innovation Centre (MEDIC).



Caroline Substation Protection & Control Lab



Contact EPIC

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 [Hamilton, ON](#)

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RESEARCH AND INNOVATION EXPERTISE

EXPERTISE

1. Energy
2. Renewable energy
3. Energy conservation and efficiency
4. Energy planning
5. Protection and Control
6. Industrial communications
7. Automation
8. Data acquisition
9. Microgrids

Previous Research Projects

- Development of an online energy tool to provide a regional and community level automatic data for First Nations to better understand their energy-related opportunities
- Development of a short circuit brush finder for Printed Circuit Board (PCB): reverse engineering and quality control; including PCB design and 3D case printing
- Create an advanced case study and training guide to demonstrate new software tool applications for electrical protection relay testing, individual and system-based.
- Performance validation for new artificial intelligence (Fuzzy Logic) controller vs traditional PID controller using a lab test-bed, as well as replicating an industrial process using real-time simulation.
- Mechanical and electrical fault case test-bed for electric motors.
- Performance validation and modelling of Mohawk College Net Zero building solar thermal water system.
- Automation and remote monitoring support for a waste heat recovery pilot plant for reducing natural gas consumption in commercial buildings.

