‘WHAT-IF’ TOOL: TRACKING ENERGY CONSUMPTION

BACKGROUND

Innovative Solutions is a consulting firm specializing in improving operations for their clients by evaluating their workflow. This project involved creating software that could gather information from all of the energy outputs in a factory or office (chillers, lights, boilers, HVAC, pumps, conveyers, machines, etc.) to understand how it should be operating. That way, if the equipment stops operating at the same efficiency, this can be noticed and rectified before the operational equipment becomes further damaged or the system is disrupted.

While Innovative Solutions was already offering its clients reports, which included data for them to use to monitor their operations, it wanted to make this process more efficient for its team by using a database. FESNS students created a ‘what if’ tool to use with the data gained by the software. It reconfigures the data based on changed variables (lights being left on, machines operating at a certain speed versus another, etc.) to provide the client with real-time, energy and cost-saving ideas. If this software technology becomes mass-marketed, it has the potential to make a big difference in energy consumption and environmental awareness.

OUTCOMES

Innovative Solutions now has a working model that is approaching commercialization. It is aiming to license the product to energy consulting companies and engineering companies.

UOIT students received valuable hands-on experience working with an industry partner, an opportunity made available by the ARC Initiative.

ABOUT FEDDEV ONTARIO

The Federal Economic Development Agency for Southern Ontario (FedDev Ontario) was created as part of Canada’s Economic Action Plan to support businesses and communities in southern Ontario as part of the Applied Research and Commercialization (ARC) Initiative. ARC is a pilot program designed to address the gap between small- and medium-size enterprises and post-secondary institutions. Launched in 2010, ARC’s goal is to accelerate innovation, improve productivity, create jobs and contribute to the creation of globally competitive Ontario companies with fewer than 1,000 employees.

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