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## Deep Transfer Learning from Data for Operational Excellence in Refineries

Shahla Alizadeh

Western University, salizad7@uwo.ca

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My project is dedicated to the use and management of diverse data sets and information to the generation of in-depth knowledge for operational excellence in petroleum refineries. The main goals are based on to:

- Develop a reliable algorithm that will help in achieving safe and profitable process operations in a typical refinery
- Assist in developing analytics that will help in predicting equipment failure  
Development of algorithms for root cause analyses,
- Contribute to Canada's long-term competitiveness by promoting and exporting new Artificial Intelligence technology,
- Add to Canada's long-term competitiveness in the manufacturing industry by developing trained personnel with the right skills and knowledge

These above goals are inter-related as they involve extensive use of data that are collected during normal operations, intended and unintended upsets and sometimes during an imminent failure. Thus, the results will allow companies to effectively improve refinery operations for sustainability, safety, and profitability.