

3. Theses/Projects Supervised

I. Postdoctoral/Visiting Scholars

- PD8. Vincent Denarie, Visiting Scholar (Sole supervisor), Ontario Tech, Oshawa, June 2019-December 2019.
Research: Development of aerodynamic devices to soiling mitigation
- PD7. Kacper Kowalski, Visiting Scholar (Sole supervisor), Ontario Tech, Oshawa, June 2019-December 2019.
Research: Development of aerodynamic devices to soiling mitigation
- PD6. Shabnam Pejhnan, PDF (Sole supervisor), UOIT, Oshawa, April 2019- .
Research: Experimental design and testing of e-bike riding scenarios and testing
- PD5. Giulio del Giudice, Visiting Scholar (Co-supervising with Dr. Marc Rosen, FEAS), UOIT, Oshawa, April 2019-August 2019.
Research:: Comparative techno-economic analysis of energy utilization
- PD4. Sylvester S. Djokoto, Visiting Fellow (Sole supervisor), UOIT, Oshawa, August 2018- December 2019.
Research: Application of smart fluids for energy harvesting
- PD3. Stan Kuipers, Visiting Scholar (Sole supervisor), UOIT, Oshawa, November 2017- April 2018
Research: Data analysis of e-bike testing and validation
- PD2. Qi Wang, Visiting Fellow (Sole supervisor), UOIT, Oshawa, August 2016 – March 2017
Research: Electro-mechanical integration of test facilities
- PD1. Samane Ghandehariun, PDF (Co-supervising with Dr. Marc Rosen, FEAS), UOIT, Oshawa, November 2015 – December 2016.
Research: Thermal hydraulics and the integration of the Cu-Cl cycle for hydrogen production.

II. Doctoral Students

- D7. Seham Shahid, PhD (Sole Supervisor), UOIT, Oshawa, May 2020 –

Thesis title: Innovative thermal management techniques for electric batteries

D6. Andre Bolt, MSc (Co-Supervisor with Dr. Ibrahim Dincer, FEAS), UOIT, Oshawa, January 2020 –

Thesis title: Design and Development of a Synthetic Natural Gas Reactor

D5. Wing Yi Pao, PhD (Sole Supervisor), UOIT, Oshawa, September 2019 –

Thesis title: Mitigating soiling on autonomous road vehicle sensors

D4. Naseeb Siddiqui, PhD (Sole Supervisor), UOIT, Oshawa, January 2019 –

Thesis title: Nature inspired aerodynamic devices for vehicles

D3. Shaimaa Seyam, PhD (Co-supervising with Dr. Ibrahim Dincer, FEAS), UOIT, Oshawa, September 2018 –

Thesis title: Analysis of integrated sustainable energy systems

D2. Satyam Panchal, PhD (Co-supervising with Dr. Ibrahim Dincer, FEAS), UOIT, Oshawa, May 2014 – December 2016.

Thesis title: Thermal characterization of new lithium-ion battery and their utilization in experimental electric vehicle settings.

D1. Mohammed Abdulrahman, PhD (Co-supervisor with Dr. Zhaoling Wang, FEAS), UOIT, Oshawa, January 2012 – July 2016.

Thesis title: Analysis of the thermal hydraulics of a multiphase oxygen production reactor in the cu-cl cycle.

Current position: Unknown

III. Masters Students

M27. Eric Villeneuve, MSc (Sole Supervisor), UOIT, Oshawa, September 2019 –

Thesis title: Flow characterization and flow quality improvement in the wind tunnel

M26. Wahid Besada, MSc (Sole Supervisor), UOIT, Oshawa, September 2019 –

Thesis title: Development of a novel cascade heat pump for residential applications

M25. Chunyu Mao, MSc (Co-Supervisor with Dr. Yuping He, FEAS), UOIT, Oshawa, September 2019 –

Thesis title: Development of active control systems for improving safety in high performance vehicles

M24. Bismark Addo-Binney, MSc (Sole Supervisor), UOIT, Oshawa, September 2018 –

Thesis title: Development of a novel cascade heat pump for residential applications

M23. Raphael Lace, MSc (Sole Supervisor), UOIT, Oshawa, May 2019 –

Thesis title: Analysis of aerodynamic devices and vortex identification using OpenFoam

- M22. Branson Chea, MASc (Sole Supervisor), UOIT, Oshawa, May 2019 –.
Thesis title: Numerical characterization of thermal profiles and cooling strategies for the electric car charging system
- M21. Chidiebere Nwaiwu, MSc (Co-supervising with Dr. M.F. Tachie), UofManitoba, Winnipeg, May 2016 – May 2020
Thesis title: Experiment investigation of turbulent jets at a free water interface
- M20. Andre Bolt, MASc (Co-Supervisor with Dr. Ibrahim Dincer, FEAS), UOIT, Oshawa, January 2019 –December 2019.
Thesis title: Development of a novel cascade heat pump for residential applications
- M19. Shaurya Rana, MASc (Sole Supervisor), UOIT, Oshawa, September 2018 –.
Thesis title: Aerodynamic optimization of a model road vehicle underside
- M18. Hayford Azangbebil, MASc (Sole Supervisor), UOIT, Oshawa, September 2018 –.
Thesis title: Analysis of renewable energy techniques for West Africa
- M16. Sam Gustin, MASc (Sole Supervisor), UOIT, Oshawa, September 2017 –.
Thesis title: Active flow control through the use of plasma actuators (PAs).
- M15. Mark Ironside, MASc. (Sole Supervisor), UOIT, Oshawa, September 2016 –
Project title: Calibration and commission of the low speed aerodynamic open circuit wind tunnel
- M14. Seham Shahid, MASc (Sole Supervisor), UOIT, Oshawa, January 2016 –July 2017.
Thesis title: Development and analysis of vortex induced thermal management systems for batteries in electric vehicles.
Current position: Project engineer at Airex Inc., Ontario, Canada
- M17. Abed Omran, MASc (Sole Supervisor), UOIT, Oshawa, September 2017 –2018.
Thesis title: Active flow control using aerodynamic diffuser
Current position: Engineer at Multimatic Inc., Ontario, Canada
- M13. Yuyang Wei, MASc (Sole Supervisor), UOIT, Oshawa, May 2016 –2018.
Thesis title: Development of an air-water hybrid battery management system for electric vehicles. ***Thesis was nominated for Best Thesis Award.***
Current position: Engineer at Multimatic Inc., Ontario, Canada
- M12. Mohammed Ibrahim, MASc (Sole Supervisor), UOIT, Oshawa, Sept. 2016 – October 2018.
Thesis title: Development and analysis of underbody fairing for drag reduction in trucks.
Current position: Engineer at ANSYS Canada, Ontario, Canada

- M11. Raymond Bingham, MASc (Co-Supervisor with Dr. Marc Rosen, FEAS), UOIT, Oshawa, May 2015 –August 2017.
Thesis title: Development of renewable energy and net zero buildings for inland communities.
Current position: Energy engineer at Graphile Engineering Ltd., The Bahamas
- M10. Bashar Alhayek, MASc (Co-Supervisor with Dr. Bale Reddy, FEAS), UOIT, Oshawa, September 2015 –November 2016.
Thesis title: Development and analysis of integrated biomass and solar system for power generation.
Current position: Energy analyst at Nexant Inc., Ontario, Canada
- M9. Abdalla Abdel-Rahman, MASc (Sole Supervisor), UOIT, Oshawa, May 2014 –July 2015.
Thesis title: Development and application of an integrated aerodynamic and thermodynamic testing system for cars.
Won 2nd place in the 2015 UOIT Three Minutes Thesis (3MT)
Current position: Engineer at Ford Motor Company, Detroit, USA
- M8. Weijie Shao, MASc (Sole Supervisor), UOIT, Oshawa, September 2013 – August 2014.
Thesis title: Experimental study of turbulent boundary layer flows over forward facing steps with different surface conditions.
Current position: CFD Analyst at CAD-IT Consultants, Shanghai, China
- M7. Rocky Khasow, MASc (Sole Supervisor), UOIT, Oshawa, May 2013 – December 2014.
Thesis title: Aerodynamic and thermal analysis of a heat source at the underside of a passenger vehicle.
Received the Best Student Paper Award at SEGE 2014
Current position: Design Engineer at Skyjack Inc., Ontario, Canada
- M6. Hassan Iftekhar, MASc (Sole Supervisor), UOIT, Oshawa, January 2015 – May 2016.
Thesis title: Experimental and numerical studies of flows over forward facing steps in pressure gradients.
Current position: Unknown.
- M5. Osama A. Ghani, MASc (Co-supervised with Dr. A. Barari, FEAS), UOIT, Oshawa, September 2011 –May 2013.
Thesis title: Design optimization of aerodynamic drag at the rear of generic passenger cars using NURBS representation.
Current position: Mechanical Engineer at Wenzel Downhole Tools, Edmonton, Canada
- M4. Anagal Ashutosh, MASc (Co-supervisor with Dr. B. Reddy, FEAS), UOIT, Oshawa, September 2012 – June 2014.
Thesis title: Performance analysis of gas turbine cogeneration systems.

Current position: New Product Induction Coordinator, UTIL, Canada

- M3. Fahad Suleman, MSc (Co-supervisor with Dr. Ibrahim Dincer, FEAS), UOIT, Oshawa, January 2014 – December 2014.
Thesis title: Comparative study of various hydrogen production methods for vehicles.
Current position: Engineer at Mafna Air Technologies, Ontario, Canada
- M2. Forough Foroutan, M.Eng. (Sole Supervisor), UOIT, Oshawa, January 2015 – January 2016.
Project title: Mobility improvement and sand reduction techniques for enhanced oil recovery.
Current position: Engineer at Cosgroves Ltd Engineering Consultant, New Zealand
- M1. Varad Thalnerkar, M.Eng. (Sole Supervisor), UOIT, Oshawa, September 2015 – August 2016.
Project title: Aerodynamic improvements in passenger cars.
Current position: Engineer at Honda Motor Company, Ontario, Canada

IV. Undergraduate Students

- U24 Olivia Shurtleff, NSERC undergraduate scholar (Summer and Fall 2020)
Project title: Soiling mitigation devices for road vehicles.
- U23 Michael Lamanna, Summer undergraduate researcher (Summer 2019), UOIT.
Project title: Fabrication of full scale Ahmed body for soiling mitigation testing
- U22. William Collings, NSERC undergraduate scholar (Summer 2019)
Project title: Soiling mitigation devices for road vehicles.
- U21. Michael Currie, NSERC undergraduate scholar (Summer 2018)
Project title: Active aerodynamic drag reduction devices for road vehicles.
- U20. Kirtan Patel, NSERC undergraduate scholar (Summer 2017)
Project title: Aerodynamic drag reduction devices for road vehicles.
- U19. Mustafa Haji, Summer undergraduate researcher (Summer 2016), UOIT, FEAS, Oshawa.
Project Title: Development of active underbody aerodynamic devices for high performance SUVs
- U18. Hao Tan, NSERC undergraduate scholar (Summer 2016)
Project title: Aerodynamic drag reduction devices for road vehicles.
- U17. Aaditya Geed, Summer undergraduate researcher (Summer 2016), UOIT, FEAS, Oshawa.
Project title: Aerodynamics of bicycles.

- U16. Radu Giurca, Summer undergraduate researcher (Summer 2016), UOIT, FEAS, Oshawa.
Project title: Aerodynamics of bicycles.
- U15. Ryan Ashley, Summer undergraduate researcher (Summer 2016), UOIT, FEAS, Oshawa.
Thesis/Project Title: Integration of the continuous Cu-Cl thermochemical cycle for Hydrogen production
- U14. Raphael Lace, Canada-Brazil CsF Scholarship Program students summer research internship (Summer 2016).
Project title: Aerodynamic drag reduction devices for road vehicles.
- U13. Felipe Pereira, Canada-Brazil CsF Scholarship Program students summer research internship (Summer 2016).
Project title: Development of a solar water pumping system.
- U12. Sellenne Verastegui, General Electric Canada Energy Female in Summer Experience Award (Summer 2016). Co-supervised with Dr. Bale Reddy.
Project title: Analysis of a solar energy cooling system
- U11. Olutope Omole, Undergraduate researcher (Summer 2016/Fall 2016)
Project title: Aerodynamic devices for bicycles
- U10. Ahmad Alnabulsi, Undergraduate researcher (Summer 2016/Fall 2016)
Project title: Radio controlled boats application in modern shipping methods
- U9. Mark Mihailov, Undergraduate summer research (2015)
Project title: Integration of the continuous Cu-Cl thermochemical cycle for Hydrogen production.
Current position: Final year UOIT student
- U8. Victor Mazzuocco, Undergraduate researcher (Summer 2014 to Winter 2016)
Project title: Race car aerodynamics.
Current position: MAsC student at the University of Toronto
- U7. Eunsik Bae, NSERC undergraduate scholar (Summer 2015)
Project title: Aerodynamic drag reduction devices for road vehicles.
Current position: Final year UOIT student
- U6. MD Safayaat-UL Alam, NSERC undergraduate scholar (Summer 2014)
Project title: Full scale wind tunnel measurement of a race car.
Current position: Mechanical Engineer at Trench Canada Limited
- U5. Jonas Fernandes, Canada-Brazil CsF Scholarship Program students summer research internship (Summer 2014).

Project title: Full scale wind tunnel flow visualization and thermal studies of a race car.

Current position: Working as engineer in Brazil

- U4. Iuri F. Viera, Canada-Brazil CsF Scholarship Program students summer research internship (Summer 2014).

Project title: Full scale wind tunnel flow visualization and thermal studies of a race car.

Current position: Working as engineer in Brazil

- U3. Nicolas P. Quintão, Canada-Brazil CsF Scholarship Program students summer research internship, (Summer 2013).

Project title: Aerodynamic and thermal analysis of a heat source at the underside of a passenger vehicle.

Current position: Working as an engineer in Brazil

- U2. Adylio V. Neto, Canada-Brazil CsF Scholarship Program students summer research internship, (Summer 2013).

Project title: Aerodynamic and thermal analysis of a heat source at the underside of a passenger vehicle.

Current position: Unknown

- U1. Diego P. de Andrade, Canada-Brazil CsF Scholarship Program students summer research internship (Summer 2013).

Project title: Thermal decomposition process of the copper oxychloride inside the oxygen reactor for the Cu-Cl cycle.

Current position: Unknown