

## **OBJECTIVES**

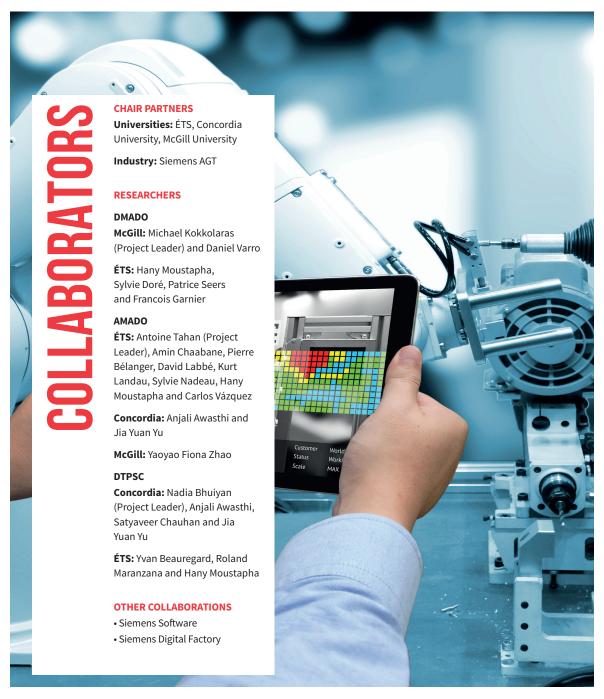
The main objectives of the chair are:

To build on and expand the three research projects (Design, Manufacturing and Supply Chain) to provide an integration framework for implementing these projects in Siemens' Aeroderivative Gas Turbines (AGT) division.

To position Siemens Power Generation (PG) as a world leader in academic collaboration for Industry 4.0 technologies and training.

To promote communication and share best practices between the three projects and between the projects and other Siemens divisions.

To provide a training platform for Siemens software at the three partnering universities, in order to train the next generation of highly qualified personnel (HQP).

















**CHAIRHOLDER** 

HANY MOUSTAPHA

## **SIEMENS RESEARCH CHAIR ON INDUSTRY** 4.0 TECHNOLOGY INTEGRATION

After a long career spanning 30 years with Pratt & Whitney Canada (P&WC) as senior manager of P&WC technology programs, Hany Moustapha joined ÉTS in 2010 as professor and director of AÉROÉTS. He was named P&WC Senior Research Fellow in 2011 and is a Fellow of ASME, CASI, CSME and CAE. He has also authored or coauthored over 100 publications, including two books on gas turbines.

Dr. Moustapha is the cofounder of CRIAQ, GARDN, Aéro Montréal and the Montreal Aerospace Institutes. He is an ambassador emeritus and the president of the Palais des congrès de Montréal's Ambassadors Club and represents Canada on the NATO-AVT panel. He has received more than 30 national and international awards, including: Chevalier de l'Ordre national du Québec, James C. Floyd Award AIAC, Montréal Inspiration-Innovation Award, CASI Senior McCurdy Award, ADRIO Prix Carrière industrielle and the House of Commons of Canada Award.

In 2016, Dr. Moustapha started exploring the challenges of Industry 4.0 and created an integrated research and education program on Industry 4.0 technologies for the aerospace sector at ÉTS called









**SIEMENS RESEARCH CHAIR** Hany Moustapha 514 396-8436 **ON INDUSTRY 4.0** hany.moustapha@etsmtl.ca TECHNOLOGY INTEGRATION



## **BACKGROUNI AND MISSION**

**Since the fall of 2017, Hany Moustapha has** This research chair's mission is to develop an the expertise of 20 professors from École de engineering fields: design engineering, technologie supérieure (ÉTS), Concordia and manufacturing and repair, and supply chain McGill Universities in the following fields: management.

- Digital Multidisciplinary Analysis and Design Optimization (DMADO, led by McGill University and involving 6 professors)
- Advanced Manufacturing Automation, Digitization and Optimization (AMADO, led by ÉTS and involving 11 professors)
- A Digital Technology Platform for Supply Chain (DTPSC, led by Concordia University and involving 7 professors)

been the key driver towards establishing integration platform to leverage the results **three major research projects funded by** of these projects for Siemens, researchers and Siemens, NSERC and MITACS on Industry students. This unique chair aims to integrate **4.0 technologies. These projects combine** Industry 4.0 technologies into three distinct



## **IMPACTS**



- Supporting the implementation of the outcomes of the three projects at Siemens, through integration projects, in order to advance the Siemens AGT PLM (Product Life Management) Vision.
- Expanding the ÉTS Numérix Laboratory, which uses Siemens software.
- Supporting the creation of a "Digital Enterprise" minor at ÉTS with courses focused on skills needed for Industry 4.0.
- Training the next generation of HQP so that they will be able to meet the needs of Siemens and other companies as they face new Industry 4.0 challenges.
- Holding an annual forum on integrating Industry 4.0 technologies, in collaboration with Siemens.

