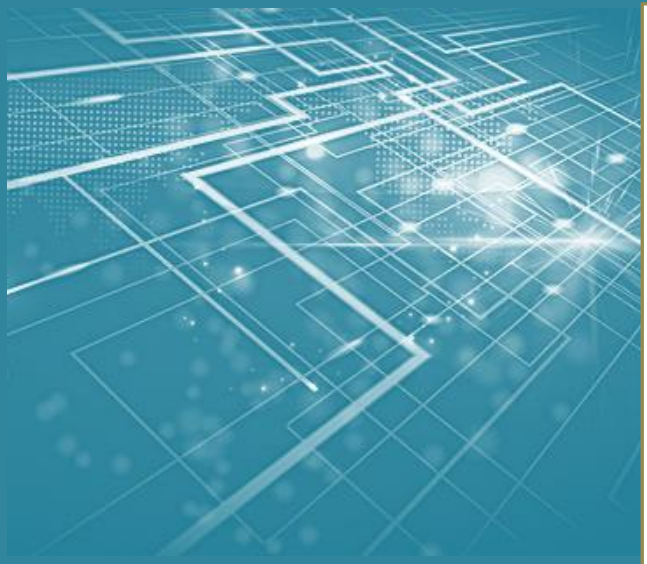
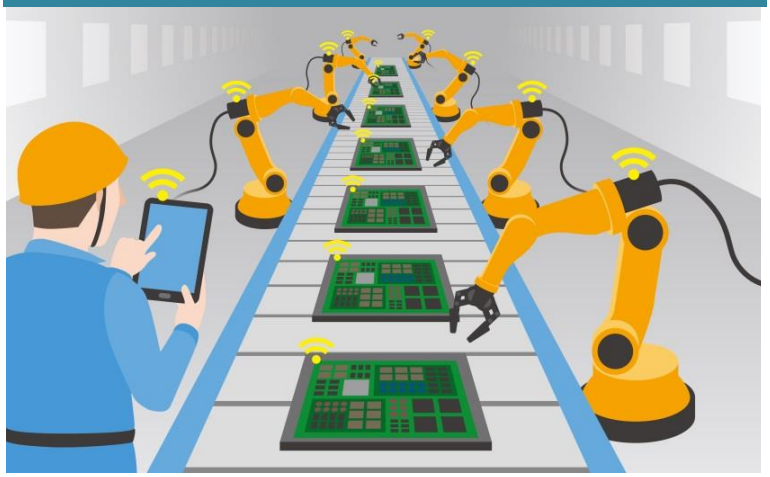


FIRST INTERNATIONAL INNOVATION 4.0 FORUM

November 6th, 2019
Palais des congrès de Montréal



A National and Global Perspective of Industry 4.0 Technology and Training

Organized by:

Réseau Innovation 4.0 Network

Université Concordia University · ÉTS Le génie pour l'industrie · Université Laval · McGill · Polytechnique Montréal · Université de Sherbrooke · UQÀM · UQTR Université du Québec à Trois-Rivières

In collaboration with :

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WELCOME

The fourth industrial revolution, branded as "Industry 4.0" by the Germans in 2011, is characterized by the digital transformation, automation and robotics, optimization and asset management, sharing and security of big data, tracking parts from cradle to grave (the “digital thread”), data analytics, the Internet of Things (IoT) and Artificial Intelligence (AI). Compared to the previous three revolutions, it is characterized by real-time connectivity, the speed of implementation, a profound change of culture and the development of new competencies.

In response to government strategy and industry needs, the **“**Réseau Innovation 4.0 Network**”** is an inter-university collaboration for research, development and training of highly skilled workforce for Industry 4.0. Participating Québec universities are : Concordia University, École de technologie supérieure (ÉTS), Université Laval, McGill University, Polytechnique Montréal, Université de Sherbrooke, Université du Québec à Montréal (UQAM) and Université du Québec à Trois Rivières (UQTR).

Innovation Network 4.0 will reach all business sectors and present an important showcase to diffuse the achievements and the existence of a critical mass of expertise in Industry 4.0. This is a way of meeting a growing demand from all business sectors for Industry 4.0 in terms of R&D and training. There is a strong need to train skilled 4.0 workforces to integrate into centers of excellence and small and medium enterprises (SMEs). Network 4.0 will be an important platform that will foster collaboration between universities and industry in research and training.

The **First International Innovation 4.0 Forum,** a first major activity of the Network 4.0, will cover the global landscape of Industry 4.0 technologies and training initiatives at large and small companies, at academic institutions and at various research consortia and clusters. The Forum will address the various technologies of Industry 4.0 and how they are implemented at various business sectors such as: manufacturing, transport, aerospace, energy, health, construction, forestry, logistics, etc. The Forum will have 31 speakers: 15 from industry, 9 from academia and 7 from associations and clusters. The program includes a keynote speech from Eric Schaeffer, a well-known author of two books on Industry X.0 and Reinventing the Products, and key note presentations by senior executives from Bombardier Transport, Airbus, Siemens, General Electric, Microsoft, Ciena, Festo and Fraunhofer addressing their factories of the future and digitization in their enterprises. The Forum will have various sessions on: smart manufacturing, IoT, AI and big data, workforce, SMEs Industry 4.0 projects and financing of Industry 4.0. In addition, there will be various exhibits of the latest Industry 4.0 technologies.

On behalf of **“**Réseau Innovation 4.0 Network**”** and our partners, we look forward to having you at our first Innovation 4.0 Forum.

Sincerely yours,

Hany Moustapha, Ph.D.
Fellow ASME, CAE and CASI
Professor and Director of Innovation 4.0 Hub
Siemens Chair on Industry 4.0 Technology Integration
Pratt & Whitney Canada Chair on Propulsion System
École de technologie supérieure (ÉTS)
Président, Ambassadeurs Club, Montréal Congress Center
Hany.moustapha@etsmtl.ca

Leaders of **“**Réseau Innovation 4.0 Network**”**

Georges Abdul-Nour, Université du Québec à Trois-Rivières
Ygal Bendavid, Université du Québec à Montréal
Luis Antonio De Santa-Eulalia, Université de Sherbrooke
Yaoyao Fiona Zhao, McGill University
Jean-Marc Frayret, Polytechnique Montréal
Jonathan Gaudreault, Université Laval
Hany Moustapha, École de technologie supérieure
Rolf Wuthritch, Concordia University
reseauinnovation4network.com

First International Innovation 4.0 Forum
2019.11.06 | Palais des congrès de Montréal

TIME	TOPIC
7:00 – 8:00	**Registration – Breakfast Networking**
8:00 – 8:15	**Welcome Speech** Marie-Josée Blais, *Assistant Deputy Minister for Science and Innovation,* *Ministry of Economy and Innovation - Quebec (MEI)*
Global Perspective **8:15 – 9:30**	**Session Chair: Hany Moustapha, *Professor and Director, Innovation 4.0 Hub, Siemens Industry 4.0 Chair, École de technologie supérieure (ÉTS)*** **Industry X.0 and Digital Reinvention of Products** Eric Schaeffer, *Senior Managing Director, Global Industrial & Products Industry X.0, Accenture, France* **Bombardier Mobility Digitization** Danny Di Perna, *President, Bombardier Transport* **Digital Design, Manufacturing and Services "DDMS" at Airbus** Thierry Chevalier, *DDMS Chief Technologist, Airbus*
Smart Manufacturing **9:30 – 10:30**	**Session Chair: Yaoyao Fiona Zhao, *Assistant Professor and Head of Additive Design and Manufacturing Laboratory (ADML), McGill University*** **Next Gen Manufacturing Industrial Cluster** Jayson Myers, *CEO, NGen Industrial Cluster, Canada* **Challenges and Opportunities of Implementing Big Data in the Production System** Ljiljana Stojanovic, *Head, Smart Factory, Fraunhofer, Germany* **Future Skills and Training for Digital Manufacturing** Thomas Lichtenberg, *CEO, Festo Didactic*
10:30 – 11:00	**Coffee Break and Exhibit**
Internet of Things, Big Data and Artificial Intelligence **11:00 – 12:20**	**Session Chair: Ygal Bendavid, *Professor, Director of Internet of Things (IoT) Lab, UQAM*** **Self-Optimizing Corridor; an ENCQOR Co-Discovery** Kaniz Mahdi, *Vice President Advanced Architectures, CIENA* **Cloud Computing and Industry 4.0** Michaël Gardiner, *Manufacturing Industry Solution Executive, Microsoft Canada* **Cloud Manufacturing AI : Challenges Specific to SMEs** Vincent Thomasset-Laperrière, *Coordonator R&D, Productique Québec* **Industrial Internet of Things and Artificial Intelligence at Mont-Blanc Cluster** Jean-Marc André, *CEO, Mont-Blanc Industries*
Financing 4.0 **12:20 – 12:40**	**Session Chair: Luis Antonio De Santa Eulalia, *Associate Professor, Co-Director, IntelliLab, Université de Sherbrooke*** **Financing Initiaves on Industry 4.0** Sylvain Durocher, *Director Advanced Manufacturing, Investissement Québec*
12:40 – 13:30	**Lunch and Exhibit**

TIME	TOPIC
Factories of the Future **13:30 – 14:15**	**Session Chair: Jonathan Gaudreault, *Professor and Director, Consortium de recherche en ingénierie des systèmes industriel 4.0 (CRISI), Université Laval*** **Siemens Digital Factory: Implementation for Aero-Derivative Gas Turbines Division** Kostas Stavrianos, *Senior Executive and Head* Katherine Schmidt, *Head of Materials and Advanced Manufacturing Innovation* *Siemens Canada Aero Derivative Gas Turbines, Montréal* **General Electric Brilliant Factory: Automation and Additive Manufacturing** Alain Ouellette, *Executive Director, Operations and Manufacturing Innovation, General Electric Aviation, Québec*
Innovation 4.0 in Various Industrial Sectors **14:15 – 15:45**	**Session Chair: Jean-Marc Frayret, *Professor and Director of Poly-Industries 4.0 Lab , Polytechnique Montréal*** **Digital Technology in Transportation and Logistics** Mathieu Charbonneau, *General Manager, Cargo Montréal* **Aero-Engine Design: Technology Enabler for The Digital Twin** Benoit Blondin, *Manager, Research and Technology, Pratt & Whitney Canada* **Towards a Seamless Construction Process from Design to Construction and how Manufacturers can Benefit from the New Digital Technology** Daniel Barbeau, *Business Relationship Manager - Engineering and Digital Innovation, Canam Group Inc*. **Past and Future of Industrial Intelligence: Application to a Manufacturing SME and the Food Industry** Martin Landry, *CEO, Intelligence Industrielle*
15:45 – 16:15	**Coffee Break and Exhibit**
Workforce in Industry 4.0 **16:15 – 17:00**	**Session Chair: Rolf Wuthrich, *Associate Professor, Concordia Industry 4.0 Chair and Director of the Center for Advanced Manufacturing, Concordia University*** **Human at the Heart of the Digital Transformation – Femmes 4.0** Lyne Dubois, *Vice Presidente, CRIQ* **Digital Technology Addressing Manpower Shortage** Frederic Scherer, *President, JIT Base* Pierre Ayotte, CEO, Terranueva, *Board member, Alta Precision*
SMEs Industry 4.0 Clusters and Projects **17:00 – 18:00**	**Session Chair: Georges Abdul-Nour, *Professor and Director, Lead 4.0, UQTR*** **Industry 4.0 Hub Centers** Pascal Monette, *President, ADRIQ* **MACHFab 4.0: Supporting 30 Aerospace SMEs** Mélanie Lussier, *Vice President, Aéro Montréal* Bernard Boire, *Consultant, CEFRIO* **Digital Automation and Integration into Manufacturing** Yves Proteau, *President, APN*
18 :00 – 19:00	**Cocktail and Networking**

Réseau Innovation 4.0 Network

The Innovation 4.0 Network would like to thank the following global leaders for their participation at the First International Innovation 4.0 Forum

Global Perspective

Eric Schaeffer is Senior Managing Director at Accenture and leads Accenture's Products Industry X.0 practice. This brings together services across innovation, engineering and product development, manufacturing and digital operations, and product support services optimization. He is also the Global Lead for automotive, industrial equipment and infrastructure companies for digitally reinventing their businesses and creating new levels of innovation and efficiency across the extended connected value chain. He is a well-known speaker at international congresses and author of two books on Industry 4.0: Industry X.0 and Reinventing the Product: How to Transform your Business and Create Value in the Digital Age.

Danny Di Perna, President, Bombardier Transport. He joined Bombardier in 2018 as the President of Aerostructures and Engineering Services. In this role, he was responsible for leading the transformation and growth strategy for this business unit. He has more than 30 years of aerospace and industrial experience. Before joining Bombardier, he served as Vice President, Global Sourcing at GE Power. In this role, he was in charge of strategic sourcing, procurement and supplier quality. Prior to that, he held a number of senior leadership positions within United Technologies Corporation (UTC), where he worked for 24 years. He was notably Senior Vice President, Operations of the Pratt & Whitney Division during the production readiness phase of the PurePower® family of engines and led the Auxiliary Power business for the Hamilton Sundstrand Division in San Diego, California. In addition, Mr. Di Perna also served as Senior Vice President of Aircraft and Engine Maintenance from 2007-2009 for Air Canada Technical Services (ACTS). He began his career at Pratt & Whitney Canada, where he held positions of increasing responsibility within engineering, marketing, manufacturing, supply chain and operations. Mr. Di Perna earned a Bachelor's Degree in Mechanical Engineering from Concordia University and a Masters of Business Administration from McGill University.

Thierry Chevalier is the Head of Digital Design Manufacturing & Services, Airbus. He was previously in charge of Airbus Commercial Aircrafts research portfolio on processes, methods & tools as well as ground & flight test means. He joined Airbus in 2001 and successively led Aerodynamics methods & tools, then from 2007 to 2009 supported the creation of the Airbus Engineering Center India in Bangalore, and then took charge of the overall architecture of engineering methods & tools before moving to research in 2014. Before joining Airbus, Thierry spent 15 years at Dassault Aviation, largely focused on industrial multi-disciplinary simulation integration, addressing scientific, computational, security & methodological aspects of it.

Smart Manufacturing

Ljiljana Stojanovic, Head of the "Smart factory systems" group at Fraunhofer IOSB. Additionally, she heads the WG "Big Data", which forms the interface to the Fraunhofer Big Data & AI Alliance. She also represents Fraunhofer IOSB in the VDI/VDE GMA WG 6.12 and in the AutomationML association. She holds a PhD in Computer Science from KIT, Germany. Her primary domain of research is at the intersection between semantic technologies, event processing and Industry 4.0. She has had the opportunity to approach these topics in over ten European projects, serving mainly as a project or a technical coordinator. She has acted as a grant evaluator and external reviewer in programs funded by donors such as the European Commission. She published around 50 scientific papers and organized various workshops and tutorials.

Thomas Lichtenberger, CEO of Festo Didactic Inc., a leading provider of advanced solutions for technical and industrial education. Thomas is responsible for all market and sales activities in North America. A passionate advocate for career and technical education, Thomas is committed to working with educators to narrow the skills gap, thereby improving workforce development and Industry 4.0 career-readiness. Prior to joining Festo Didactic, Thomas served as President and CEO for Festo Canada where he oversaw all business activities of the automation market. He led the transformation into a profitable and successfully focused company that became the market leader in Canada. Before moving to Canada in 2008, Thomas had several senior management positions in Festo's headquarters in Germany. Thomas holds an executive MBA from the Graduate School of Business Administration in Zurich and a BS in Electrical Engineering from the University of Applied Science in Karlsruhe, Germany.

Internet of Things, Big Data and Artificial Intelligence

Kaniz Mahdi, Vice President Advanced Architectures, Ciena, is responsible for Ciena's technology vision, architecture, discovery and verification with industry and academia to drive new growth opportunities for Ciena. Her current area of focus is self-learning systems and AI. Kaniz spent the last seven years as VP/Head of Architecture at Ericson driving multi-faceted transformation of telecommunication industry with Cloud, SDN, and 5G. Prior to joining Ericsson, she headed Communications Services Standards Research at Huawei Technologies, and held various roles in Systems Architecture and Product Design at Nortel Networks. Kaniz has a stellar record of continuously pushing the envelope on new technologies with 45 patent grants and over 90 publications on Multimedia Broadband and Software Defined Systems. She is inventor of essential technologies underpinning current Voice over LTE systems and has been passionately shaping the 5G era landscape with disruptive technologies, e.g. ORAN and OMEC.

Factories of the Future

Kostas Stavrianos, Senior Executive and Head, Siemens Canada Aero-Derivative Gas Turbines, Montréal. Spent his career in the Gas Turbine industry. Initially in aerospace, working for Pratt & Whitney Canada and BMW-Rolls Royce, Germany and for the past 25 years in Industrial gas turbines for Rolls-Royce and Siemens Canada. A seasoned operational manager with experience in R&D engineering, supply chain, assembly and test, he has been involved in industry / academia collaborative projects as well as global functions and operations. Currently, he is the Senior Executive for the Montreal AGT Site, responsible for about 450 union and non-union employees. Montreal's main accountability is to design, procure and deliver to Siemens' customers all the new build Aero-Derivative engine variants and overhaul the SGT-A65 & A45 engines.

Katherine Schmidt, Head of Materials and Advanced Manufacturing Innovation at Siemens Canada Aero-Derivative Gas Turbines. Started her career in lean manufacturing in serial production before joining Rolls-Royce where she held several roles in R&D, supply chain and production in gas turbine in Europe. After the Siemens acquisition of the Rolls-Royce energy division in 2014, she returned to her hometown of Montreal to manage the factory, which is where she got introduced to Digitalisation. Recently, she have moved to a technology and innovation role with the Siemens Power and Gas division, driving materials and advanced manufacturing technologies.

Alain Ouellette, Executive Director of Operations and Manufacturing Innovation for GE Aviation, Bromont, Quebec. He was named Executive of the GE Aviation Global Automation R&D Center in the Fall of 2011. He was previously involved with Operations and New Production Introduction (NPI) at the GE Bromont Aviation manufacturing site. The Automation site was officially opened in July of 2013. This organization, co-located with the manufacturing operations has a mandate of deploying automation solutions for the eighty plus sites located in twenty-one countries worldwide. Alain started with GE in 1989, taking on multiple assignments in operations, manufacturing and quality. He had previously worked for two years at Bell Helicopter.

REGISTRATION

$250 (including taxes) before October 5th, 2019
$350 (including taxes) after October 5th, 2019
$50 (including taxes) for students*
Registration will close when maximum capacity of 750 participants is reached

Includes:
- Conference and exhibits** attendance, and access for presentations
- Breakfast, lunch, cocktail and coffee breaks

To Access Online Registration: https://innovation4forum.eventbrite.ca
Or visit the Innovation 4.0 Network at: reseauinnovation4network.com

*In order to qualify for the student reduced registration fee, proof of current student status (e.g., current Student ID or other proof of current enrollment) must be emailed to maggie.contant-hebert@etsmtl.ca
**For details on exhibit space and fee please contact maggie.contant-hebert@etsmtl.ca

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