



# A Symposium on



## *Canadian Education at a Crossroads: Responding to Global Trends*

**Organized by:** The Athens Institute

**Place:** 5<sup>th</sup> Floor, 9 Chalkokondili Street, Athens.

**Date:** Monday, 19 May 2025

**Time:** 15:00-16:30

### **P R O G R A M**

**Moderator:** Gregory T. Papanikos, President, The Athens Institute.

#### **Invited Speakers:**

1. **Svetlana Mikhaylichenko**, Professor, University of Toronto Scarborough, Canada. Title: *Teaching Natural Sciences in a Canadian University*.
2. **Catherine Lanaris**, Professor, University of Quebec in Outaouais, Canada. Title: *Challenges Of Developing Inclusive Practices in French-Canadian (Quebec) Elementary Schools and Teacher Training*.
3. **[Tom Wanyama](#)**, Associate Professor, W Booth School of Engineering Practice and Technology, McMaster University, Canada. Title: *Reimagining Canadian Engineering Education Through Learning Factories*. ([summary](#))
4. **Ron Phillips**, Associate Professor, Nipissing University, Canada. Title: *Education in Canada: DEI (Diversity, Equity and Inclusion) are not Dirty Words to be Erased*.

#### **Discussion**

*The working language of the Symposium will be English. If you are interested in participating, please contact Celia Sakka at [info@atiner.gr](mailto:info@atiner.gr) or by phone at +30 210 3634210.*

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**20:30-22:30 Modern Athenian Early Evening Symposium-Dinner** (includes: continuous academic discussions, dinner, wine, music and dancing): Kalokairinos Tavern, 10 Kekropos St., Athens, Greece. Please note that our table reservation lasts until 22:30 and the dinner is served up to 21:00. T  
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## **Short Biographies of Invited Speakers, Listed Alphabetically**

**Tom Wanyama** is an Associate Professor in the Faculty of Engineering at McMaster University, where he also serves as the Director of the School of Engineering Practice and Technology (SEPT) Learning Factory and Chair of the Bachelor of Technology (BTech) program in Automation Systems Engineering Technology. With a distinguished academic and professional career spanning over two decades, Dr. Wanyama has made significant contributions to engineering education and applied research in automation and smart systems. Dr. Wanyama's academic expertise lies at the intersection of electrical engineering, automation systems integration, and digital manufacturing. His teaching portfolio includes a range of undergraduate and graduate courses, where he is known for integrating theoretical knowledge with practical, hands-on learning experiences. As Director of the SEPT Learning Factory, he leads a state-of-the-art facility that supports experiential learning, applied research, and industry collaboration in areas such as Industry 4.0, industrial automation, and intelligent systems. His research is focused on advancing the fields of manufacturing automation, Industrial Internet of Things (IIoT), artificial intelligence for decision support in industrial environments, and the development of innovative, computer-based teaching and learning tools. Dr. Wanyama's work has had a tangible impact on both the academic community and industry partners, fostering knowledge transfer and helping to bridge the gap between classroom theory and industrial practice. In addition to his academic and research activities, Dr. Wanyama plays a key role in shaping curriculum and program development for the BTech in Automation Systems Engineering Technology, ensuring that graduates are well-equipped with the skills and knowledge required to meet the demands of today's rapidly evolving technological landscape.

## Speeches' Summaries

### **Tom Wanyama - *Reimagining Canadian Engineering Education Through Learning Factories.***

As Canadian engineering education grapples with rapid global shifts—ranging from digital transformation and Industry 4.0 to the evolving demands of the workforce—traditional classroom models are no longer sufficient. Traditional classroom models, while foundational, are increasingly insufficient in preparing engineering students for today's fast-evolving world. These models often emphasize theoretical instruction over hands-on experience, leaving graduates with knowledge that may not translate directly into workplace readiness. As technology advances rapidly—particularly in fields like automation, AI, and smart manufacturing—educational institutions struggle to keep pace with the tools, systems, and interdisciplinary thinking demanded by industry. At the same time, employers are placing greater value on experiential learning, problem-solving abilities, and real-world project experience. Traditional classrooms also tend to operate in isolation from industry, missing opportunities for collaboration, mentorship, and curriculum co-design that could better align education with workforce needs. In contrast, countries like Germany and Singapore have embraced integrated learning environments that connect academic and practical training. To remain globally competitive and effectively prepare students for the future, Canadian engineering education must evolve beyond the limits of the traditional classroom. This talk explores how learning factories offer a powerful, practice-based response to these challenges by bridging academic theory with real-world industry applications. Drawing on the experience of the SEPT Learning Factory at McMaster University, we highlight how immersive, interdisciplinary environments can cultivate technical expertise, foster innovation, and strengthen industry-academia collaboration.