

## SICK LTD. CANADA

# BARRETT CENTRE FOR TECHNOLOGY INNOVATION NEWSLETTER

JULY 2022

SICK Ltd. Canada (SICK) and Humber College are extending their partnership that is designed to build awareness of new industry automation sensor solutions and Industry 4.0 ready sensor technology solutions.

SICK, one of the world's leading sensor and sensor solutions manufacturers, will provide an additional \$110,000 to support Humber students and the Barrett Centre for Technology Innovation (Barrett CTI) over the next two years. SICK will continue its in-kind investment of products and services as well as supporting student education through scholarships.

As former Humber president and CEO Chris Whitaker stated in Humber Today: "We are grateful for SICK's ongoing investment in the Barrett CTI. As a result of their commitment, our students, staff and faculty will continue to benefit from meaningful experiential learning opportunities and access to the latest innovative technology."

On May 3, 2022, Humber hosted a signing celebration to mark the partnership extension. During the event, Craig Smith, president of SICK Ltd. Canada, was presented with a Medal of Gratitude to commemorate SICK's support of the Barrett CTI and its commitment to educating and training students.

"There is no doubt the coronavirus impacted us all. Now is the time to get back together and focus on our commitment to the Barrett CTI, bringing strategy into action," said Smith. "SICK is looking forward to even more united successes with Humber and the rest of the consortium partners."

UPDATE CONTINUED ON NEXT PAGE



Pictured above (L-R): Alex Mosor, student; Hartej Tapia, student; and Pallavi Gupta, project coordinator collaborate on performative maintenance initiatives from the Cisco Digital Transformation Zone data centre in the Barrett CTI. This data centre is capable of monitoring Internet of Things (IoT) smart devices and systems within the building.

## Canadian Foundation for Innovation and Ontario Research Fund enhance IoT research and development at Humber

The global Internet of Things (IoT) market is expected to hit more than one trillion dollars by the new year. IoT is the network of physical objects and devices embedded with technologies that connect and exchange data with other devices over the internet.

Those devices are ever-changing and becoming more prevalent. Consumers now have access to IoT through their smartwatches, security cameras, and remote assistants like Amazon Alexa. IoT has also transformed how we interact with the world outside our homes. For example, it is used to manage smart buildings, highways and other infrastructure and collect data that allows for analysis and predictive modelling, which is crucial for manufacturing and supply chain management.

However, small-and-medium-sized businesses rarely have access to financial and human resources to build complete IoT solutions. Humber and the Barrett Centre for Technology Innovation (Barrett CTI) is keenly aware of the needs of the industry. Humber was recently awarded \$2.5 million from the Canadian Foundation for Innovation (CFI), Ontario Research Fund (ORF) and industry partners to build an end-to-end IoT ecosystem for a full spectrum of research collaborators within Humber and the Barrett CTI.

"We're pleased that Humber is equipping and upgrading our Cisco Digital Transformation Zone, which is our data centre at the Barrett CTI, to bring needed technology to students, researchers and industry," said Neal Mohammed, director of the Barrett CTI.

"By updating our IoT infrastructure, we can work with multi-million-dollar operations, entrepreneurs and anyone who is researching the IoT, such as wearables, smart machine learning, and artificial intelligence. We now have the capacity, and we're taking it to the next level."

ARTICLE CONTINUED ON NEXT PAGE

[humber.ca/barrettcti](https://humber.ca/barrettcti)

Humber is one of the only institutions equipped with such high-level IoT infrastructure, and it will help fortify the security of Canadian-made IoT solutions and devices.

Humber's Advanced Manufacturing Skills Consortium partners and other community and industry partners will soon take advantage of the IoT upgrades and collaborate with Barrett CTI staff and student researchers to find innovative solutions to improve their operations. Experiential learning and work-integrated learning is at the heart of Humber's polytechnic model and a significant focus for the Barrett CTI.

"Building applied research skills helps student researchers become career-ready citizens. This grant will enhance our ability to train students on cutting-edge infrastructure and technology and supply them with in-demand, advanced digital skills while working with industry partners" said Tania Massa, associate dean of the Office of Research & Innovation.

"This grant helps students and industry partners become more innovative through their products and services. If the companies then hire and train students, that allows Humber to help build and enrich the community we're here to serve," said Massa.

Over the past four years, Humber has collaborated with community and industry partners on 80 IoT projects worth \$1.96M. It continues to be the most highly requested area of applied research assistance.

Humber has also been granted \$4.5M for ATSC 3.0 technology and research, the next-generation television broadcast standard. The new 3.0 standard is set to replace the current ATSC 1.0 standard in North America and Humber College is leading the way in establishing Canada's first Broadcast-Broadband Convergence B<sup>2</sup>C Lab.

The B<sup>2</sup>C lab is the first of its kind in North America. Phase One of the lab is now operational and is working with industry, students and faculty to research and harness the possibilities of ATSC 3.0 through novel applications.

For more information about the Barrett CTI, visit [humber.ca/barrettcti](http://humber.ca/barrettcti) or contact Neal Mohammed, director, Barrett Centre for Technology Innovation, [neal.mohammed@humber.ca](mailto:neal.mohammed@humber.ca).



Pictured above (L-R): Members of Humber and SICK Ltd. Canada (SICK) posing together during an on-campus event celebrating their partnership extension. Neal Mohammed, director, Barrett CTI, Humber; Gabriella Barillari, manager, project services, SICK; Craig Smith, president, SICK; Desiree Carter, marketing and communications, SICK; Fei Geng, market application engineer, SICK; Jose Murillo, senior industrial automation specialist, SICK; and Chris Whitaker, former president and CEO, Humber (retired June 2022).

The Barrett CTI, one of five Centres of Innovation (COI) at Humber, will continue to collaborate with SICK to shape the workforce of tomorrow. The new investment will support the Barrett CTI's SICK Sensor Lab, a state-of-the-art technology lab incorporating sensor intelligence for hands-on learning. A portion of the contribution will also support the SICK Leadership Award and SICK Visionary Award, two scholarships that foster student leadership and innovation.

SICK is one of the founding partners of Humber's Advanced Manufacturing Skills Consortium, which is comprised of nine global industry partners who are working with Humber to advance the skills and knowledge of Canadian employees and Humber students.

The extension will build on SICK's original commitment of \$765,000 to assist with:

- applied research opportunities related to Industry 4.0, the Internet of Things, Industrial Automation and SICK Sensor Intelligence;
- employment and exchange pathways for Humber students to work at SICK;
- educational programs in the areas of smart sensors, SICK Sensor Intelligence, factory, logistic and process automation, Industry 4.0 and the Internet of Things;
- and STEM outreach and awareness events to inspire secondary school students to consider industrial automation careers.

For more information about SICK, visit [www.sick.com](http://www.sick.com).



**HUMBER**  
Centres of Innovation  
Network