



CIC News

CIC Welcomes New Members

CIC is delighted to have participated in a winning alliance with IPNet Institute of Technology (a private university in Togo, West Africa) and ATOS (11B Euro revenue, French multinational corporation and leader in cybersecurity). Together, we won the \$1.5M euro funding competition set by SIFA (Skills Initiative For Africa) and co-funded by the European Union. Our winning proposal funds a 28-month project to provide education grants and internships to over five hundred young people including, women, refugees, migrants, displaced people, and members of vulnerable groups. It also funds a new three thousand sqm teaching facility. CIC is proud to be involved in the training of cybersecurity teachers for this important, international project and welcomes IPNet as a Tier 1 member.

We are honored to welcome the Government of New Brunswick as our latest Tier 1 member. CIC will provide essential services, aiming to increase GNB capability and potential of dealing with cybersecurity and/or developing cybersecurity solutions.



CIC hosted Premier Higgs and Minister Austin last winter to discuss how cybersecurity has become a real strength in New Brunswick.

Recent Publications

- A gradient-based approach for adversarial attack on deep learning-based network intrusion detection systems
- CapsRule: Explainable Deep Learning for Classifying Network Attacks
- CICIoT2023: A real-time dataset and benchmark for large-scale attacks in IoT environment
- Detecting Malicious Remote Authentication Requests Using Graph Learning
- ImageFed: Practical Privacy Preserving Intrusion Detection System for In-Vehicle CAN Bus Protocol
- Internet of Things (IoT) security dataset evolution: Challenges and future directions
- IoT Zigbee device security: A comprehensive review
- Multimodal Fake News Analysis Based on Image-Text Similarity
- SecBerg: Secure and Practical Iceberg Queries in Cloud
- Security issues in Internet of Vehicles (IoV): A comprehensive survey

SECREV2023

In May, the Cybersecurity Revolution (SECREV) provides an open and inclusive event that streams discussions and presentations of cybersecurity research from locations around the world, following the sun from UTC 0:00 until midnight. It is a free event that CIC supports by providing presenters and promotes using through social media.

This year, our team included Pamela Kitchen, Brian Milthorp, Mohammed Yahya Al-Darwbi, Dr. Somayeh Sadeghi, and Dr Vikas Chouhan. In case you missed the livestream, HC2P shared it on their YouTube channel [here](https://youtu.be/OgLh0UfsCyQ), <https://youtu.be/OgLh0UfsCyQ>.

CIC Hosting PST Industry Summit in October

CIC is hosting its third Privacy, Security, and Trust Industry Summit in Fredericton in October. The cybersecurity industry summit will once again bring together experts from academia, government, and industry to discuss and share advances in cybersecurity research.

The speaker list includes:

- Associate Deputy Minister Tricia Geddes, Public Safety Canada
- Noemi Chanda, Partner, Risk Advisory at Deloitte LLP
- Jennifer Quaid, Executive Director of Canadian Cyber Threat Exchange (CCTX)
- Jennifer M. Sloan, Senior Vice President, Public Policy and Stakeholder Engagement, Mastercard Canada ULC
- Phil Lamey, Senior Security Analyst, Office of the Chief Information Officer, Treasury Board for Government of New Brunswick
- Kevin Magee, Chief Security Officer, Microsoft Canada
- Amir Belkheldi, Partner, National Leader, Cyber Risk Services at Deloitte LLP

- Rajiv C. Gupta, Associate Head of the Canadian Centre for Cyber Security
- Vio Onut, Co-Director, uOttawa-IBM Cyber Range & Adjunct Professor, University of Ottawa
- Rick Fawcett, Vice President Strategy and Business Development at ADGA
- Greg Murray, Senior Vice President, Information Security & CISO, Rogers Communications
- André A. Boucher, Sr.VP - Chief Information Security Officer, National Bank of Canada
- Steve Sparkes, CISO, Scotiabank
- Matt Davies, Chief Technology Officer, Shared Services Canada

The Summit will include a poster display to provide students, researchers and team leads an opportunity to showcase their research and/or projects. More information will be available soon on the Privacy, Security, and Trust Industry Summit website (<https://pstnet.ca/>).





Nashwaaksis Middle School Wins Cybersecurity Competition

Grade 7 students from NMS, the CyberDragons, won the Information and Communications Technology Council's (ICTC) CyberTitan VI National Finals cybersecurity competition, on May 8th and the school's Grade 8 Yottabyters team finished second.

CIC supported the teams by providing mentorship and a space for the competition. We appreciate CIC employee, Griffin Higgins, for overseeing the group during the competition. He ensured they had a space with connections and checked in with them several times throughout the day.

We hope to see these brilliant young people in our classes when they pursue their degrees.

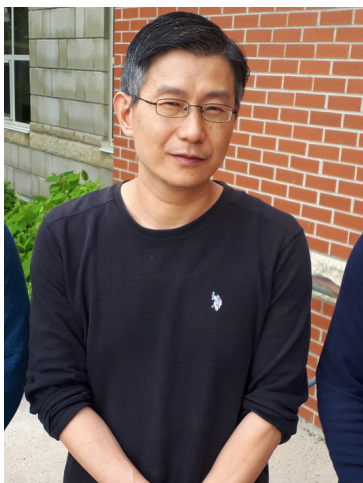
ICTC's CyberTitan program is a unique Canadian cybersecurity school competition that allows middle and secondary students to develop critical thinking and digital skills necessary to pursue post-secondary education STEM programs. ICTC offers CyberTitan in affiliation with the (US) Air Force Association's CyberPatriot Program.

Visitors

Now that the pandemic is in the past and travel restrictions are lifted, CIC has received several requests to visit. We were pleased to welcome Dr. Han and Dr. Lu in July. We are expecting others that we will announce as they arrive.



Dr. Chansu Han joined CIC as a Visiting Scholar for the summer months. Dr. Han is a Researcher at the National Institute of Information and Communications Technology in Japan. NICT is hosting a workshop at CIC in August that will include presentations by Dr. Daisuke Inoue and Dr. Takeshi Takahashi .



Dr. Wei Lu visited for a week to conduct some data collection using the Mastercard IoT testing networking environment. He brought an IoT device to integrate into the lab network and performed penetration testing to collect network traffic data. Dr. Lu is a former University of New Brunswick Postdoctoral Fellow.

Recently Published Datasets

- Truth seeker dataset 2023: A real-time dataset and benchmark for large-scale attacks in IoT environment
- CIC IoT Attack Dataset 2023: One of the most extensive benchmark datasets with more than 180,000 labelled Tweets.



Congratulatory Notes

Every year, UNB recognizes outstanding faculty and instructors with teaching awards. Our congratulations are extended to Dr. Saqib Hakak for winning the UNB "2022-23 Excellence In Teaching Award" for a second time.

Research.com ranked Dr. Rongxing Lu as the 27th Best Scientists in the field of Computer Science in Canada. Position in the ranking is based on a researcher's D-index (Discipline H-index), which takes into account only publications and citation metrics. Dr. Lu was also recognized as the 2023 AI 2000 Most Influential Scholar Honorable Mention in Internet of Things for his contributions to the field.

CIC is proud of the students who work with us. Some stay briefly for a co-op or work term while others spend several years studying with our team and working on industry projects. At UNB's 194th Encaenia, Bahman Jamshidi, Hamid Azimy, Hadiseh Izadi Yekta, Hossein Moeini, Logan Alexander Davidson, Mahdi Abrishami, Priscilla Kyei Danso, Sai Priya Guntupalli, Shlomi Linoy, Songnian Zhang, and Yamin Aye received their degrees. They have bright future, and we wish them all the best.

Teams Take Flight to Share CIC Research

Two CIC teams travelled to Ottawa recently to share research results and demonstrate products.

Sajjad Dadkhah, Euclides Carlos Pinto Neto, Alireza Zohourian, Amir Firouzi, Erfan Ghiasvand, and Mahdi Abrishami (pictured above) attended the Artificial Intelligence for Logistic (AI4L) Conference in Ottawa at the National Research Council of Canada's building from May 16th and 19th. Research teams from Universities across Canada provided presentations about their AI related work.

Ali Ghorbani attended the 2023 IDEaS Marketplace with Sajjad Dadkhah, Xichen Zhang, and Amir Firouzi from June 1st to June 3rd. They held a space in the Innovator Exhibitions and presented, "Deep-Defender: A Real-time Hostile Activities, Prevention, Detection, and Mitigation System" as part of their project related to detecting and responding to hostile information activities.