November 9, 2023 A more recent version may be available here: https://www.pulpspy.com/cv/cv.pdf

Jeremy Clark

NSERC / Raymond Chabot Grant Thornton / Catallaxy Industrial Research Chair in Blockchain Technologies

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Employment

Academic Positions

- Associate Professor, Concordia Institute for Information Systems Engineering (CIISE), Concordia University. 1 June 2018 – present.
- Assistant Professor, Concordia Institute for Information Systems Engineering (CIISE), Concordia University. 1 August 2013 – 31 May 2018.

Professional Designations

Professional Engineer (Non-Practicing Status). Professional Engineers of Ontario (PEO).
 December 2018 — present.

Consulting

- Subject matter expert on undisclosed digital asset subject, *Susman Godfrey LLP*. November 2022—present.
- Subject matter expert on undisclosed cryptocurrency subject, *Williams & Connolly LLP*. January 2018—March 2018.
- Subject matter expert on internet voting security, *City of Toronto*, RFP 3405-13-3197. November 2014—September 2015.

Advisory Boards

- Canadian Blockchain Supply Chain Association (CBSCA), Advisory Board, 2019—present.
- 3iQ Digital Asset Management, Advisory Board, 2017—2021.

Leaves

- Sabbatical: 1 July 2020—30 June 2021
- Parental: 27 October 2019—26 April 2020

Academic Background

Degrees

- Ph.D., Computer Science, University of Waterloo. Graduated: June 2011.
- M.A.Sc., Electrical Engineering, University of Ottawa. Graduated: October 2007.
- B.E.Sc., Computer Engineering, University of Western Ontario. Graduated: April 2004.

Post-Doctorate

 Post Doctoral Fellow, School of Computer Science, Carleton University. 1 July 2011 – 1 August 2013.

Awards

- Excellence in Teaching Award, Junior Faculty Member. Concordia University, 2017.
- Postdoctoral Fellowships Program (PDF). Natural Sciences and Engineering Research Council of Canada (NSERC). 2011–2013
- Alumni Gold Medal (Top Graduating PhD Student). University of Waterloo. 2011
- Alexander Graham Bell Canada Graduate Scholarship (CGS). Natural Sciences and Engineering Research Council of Canada (NSERC). 2008–2011
- David R. Cheriton Graduate Scholarship. University of Waterloo. 2008–2011
- President's Graduate Scholarship. University of Waterloo. 2008–2011
- Grand Prize: Best Election System. "The Punchscan Voting System." University Voting Systems Competition (VoComp). 2007

Publications

Summary

Unlike other fields, the most active venues for security research are **refereed conferences**, as opposed to refereed journals. Given the competitive nature of the top tier conferences, mid-tier venues are often called **workshops**. Unlike in other fields, these are also rigorously peer reviewed venues for completed technical papers and are typically competitive. In our field, the term workshop denotes a venue that is specific to a narrow domain, as opposed to conferences and symposiums, which tend to accept a broad range of papers.

As one illustrative example, our well-publicized work on the Scantegrity voting system (see media below) appeared initially at a **workshop** (USENIX EVT/WOTE which is co-located with USENIX Security; a top-4). The following year, we published a fuller version of the paper in a **journal** (IEEE Transactions on Information Forensics and Security). The workshop version has been cited 206 times, while the journal version has been cited only 114 times.

Statistics

| Туре | Lifetime | Concordia |
|----------------------------------|----------|-----------|
| Journals & Periodicals | 11 | 9 |
| Refereed Conferences & Workshops | 49 | 29 |
| Book Chapters | 5 | 2 |

Citations, h-index and i10 index is based on Google Scholar. Google Scholar is automated and not necessarily fully accurate; however it gives representative results.

| Updated Fall 2023 | Lifetime |
|-------------------|----------|
| Citations | 8810 |
| h-index | 30 |

Abbreviations

*Supervised student AR = Acceptance rate Rank = Core2021 LNCS XXXX = Volume XXXX of Springer's Lecture Notes in Computer Science

Refereed conference publications

| C49 | M. Moosavi*, M. Salehi*, D. Goldman, J. Clark. Fast and Furious Withdrawals from Optimistic Rollups. <i>Advances in Financial Technology</i> , 2023. | | |
|-----|--|--|--|
| C48 | A. Arun, J. Bonneau, J. Clark. Short-lived zero-knowledge proofs and signatures. 28th Annual International Conference on the Theory and Application of Cryptology and Information Security (ASIACRYPT), 2022. [Rank: A] | | |
| C47 | D. Demirag*, M. Namazi, E. Ayday, J. Clark. Privacy-Preserving Link Prediction. 17th DPM International Workshop on Data Privacy Management, 2022. | | |
| C46 | D. Chaum, R.T. Carback, J. Clark, C. Liu, M. Nejadgholi*, B. Preneel, A.T. Sherman, M. Yaksetig, F. Zagorski, B. Zhang. VoteXX: A Solution to Improper Influence in Voter-Verifiable Elections. Seventh International Joint Conference on Electronic Voting (E-VOTE-ID), 2022. | | |
| C45 | M. Salehi*, J. Clark, M. Mannan. Not so immutable: Upgradeability of Smart Contracts on Ethereum. WTSC, Proceedings of Financial Cryptography and Data Security: FC Workshops, 2022. | | |
| C44 | M. Moosavi*, J. Clark. Lissy: Experimenting with on-chain order books. WTSC, Proceedings of Financial Cryptography and Data Security: FC Workshops, 2022. | | |
| C43 | D. Demirag*, J. Clark. Opening sentences in academic writing: How security researchers defeat the blinking cursor. <i>ACM Technical Symposium on Computer Science Education (SIGCSE TS)</i> , 2022. [Rank: A] | | |
| C42 | S. Eskandari*, M. Salehi*, W. C. Gu, J. Clark. SoK: Oracles from the Ground Truth to Market Manipulation. <i>ACM Advances in Financial Technology</i> , 2021 | | |
| C41 | M. Salehi*, J. Clark, M. Mannan. Red-Black Coins. DeFi, Proceedings of Financial Cryptography and Data Security: FC Workshops, 2021. | | |
| C40 | D. Demirag*, J. Clark. Absentia: secure function evaluation on Ethereum. WTSC, Proceedings of Financial Cryptography and Data Security: FC Workshops, 2021. | | |
| C39 | M. Nejadgholi*, N. Yang*, J. Clark. Ballot secrecy for liquid democracy. VOTING, Proceedings of Financial Cryptography and Data Security: FC Workshops, 2021. | | |
| C38 | J. Clark, P.C. van Oorschot, S. Ruoti, K. Seamons, D. Zappala. Securing Email. Proceedings of Financial Cryptography and Data Security (FC), 2021. [Rank: A] | | |
| C37 | M Rahimian*, S Eskandari*, J. Clark. Resolving the Multiple Withdrawal Attack in ERC20 Tokens. 2019 IEEE Workshop on Security & Blockchains (IEEE S&B). | | |
| C36 | E. Mangipudi, K. Rao, J. Clark, A. Kate. Automated Penalization of Data Leakage using Crypto-augmented Smart Contracts. 2019 IEEE Workshop on Security & Blockchains (IEEE S&B). | | |
| C35 | S. Eskandari*, M. Moosavi*, J. Clark. Transparent Dishonesty: front-running attacks on Blockchain. <i>Trusted Smart Contracts</i> , <i>Proceedings of Financial Cryptography and Data Security: FC Workshops</i> , 2019. LNCS 11599. | | |
| | | | |

| C34 | M. Elsheikh, J. Clark, A. Youssef. Deploying PayWord on Ethereum. <i>Trusted Smart Contracts</i> , <i>Proceedings of Financial Cryptography and Data Security: FC Workshops</i> , 2019. LNCS 11599. |
|-----|--|
| C33 | V. Zhao, J. Choi, D. Demirag*, M. Mannan, K. Butler, E. Ayday, J. Clark. One-time programs made practical. <i>Proceedings of Financial Cryptography and Data Security (FC)</i> , 2019. LNCS 11598. [Rank: A] |
| C32 | S. Eskandari*, A. Leoutsarakosg, T. Mursch, J. Clark. A first look a browser-based cryptojacking. 2018 IEEE Workshop on Security & Blockchains (IEEE S&B). |
| C31 | C. Okoye*, J. Clark. Toward Cryptocurrency Lending. <i>Trusted Smart Contracts</i> , <i>Proceedings of Financial Cryptography and Data Security: FC Workshops</i> , 2018. LNCS 10958. |
| C30 | M. Moosavi*, J. Clark. Ghazal: toward truly authoritative web certificates using Ethereum. Trusted Smart Contracts, Proceedings of Financial Cryptography and Data Security: FC Workshops, 2018. LNCS 10958. |
| C29 | S. Eskandari*, J. Clark, M. Adham, V. Sundaresan. On the feasibility of decentralized derivatives markets. <i>Trusted Smart Contracts</i> , <i>Proceedings of Financial Cryptography and Data Security: FC Workshops</i> , 2017. LNCS 10323. |
| C28 | N. Yang* and J. Clark. Practical Governmental Voting with Unconditional Integrity and Privacy. VOTING, Proceedings of Financial Cryptography and Data Security: FC Workshops, 2017. LNCS 10323. |
| C27 | S. Eskandari*, J. Clark, A. Hamou-Lhadj. "Buy your Coffee with Bitcoin: Real-World Deployment of a Bitcoin Point of Sale Terminal." <i>Proceedings of the 13th IEEE International Conference on Advanced and Trusted Computing (Bitcoin Track)</i> , 2016. |
| C26 | G. Dagher*, B. Bünz, J. Bonneau, J. Clark, D. Boneh. Provisions: Privacy-preserving proofs of solvency for Bitcoin exchanges. <i>Proceedings of the 22nd ACM Conference on Computer and Communications Security (CCS)</i> , 2015. [Rank: A+] AR: 19% |
| C25 | J. Bonneau, A. Miller, J. Clark, A. Narayanan, J. Kroll, E. W. Felten. Research Perspectives and Challenges for Bitcoin and Cryptocurrencies. <i>Proceedings of the 34th IEEE Symposium on Security and Privacy (IEEE SSP)</i> , 2015. [Rank: A+] AR: 14%. |
| | 3rd highest cited security paper from 2015 |
| C24 | S. Eskandari*, D. Barrera, E. Stobert, J. Clark. A First Look at the Usability of Bitcoin Key Management. <i>Proceedings of the NDSS Workshop on Usable Security (USEC)</i> , 2015. |
| C23 | D. Barrera, D. McCarney, J. Clark, P. C. van Oorschot. Baton: Certificate Agility for Android's Decentralized Signing Infrastructure. <i>Proceedings of the 7th ACM Conference on Security and Privacy in Wireless and Mobile Networks (WiSec)</i> , 2014. |
| C22 | J. Bonneau, J. Clark, E. W. Felten, J A. Kroll, A. Miller, A. Narayanan. On Decentralizing Prediction Markets and Order Books. <i>Proceedings of the 13th Annual Workshop on the Economic of Information Security (WEIS)</i> , 2014. |

| C21 | M. Backes, J. Clark, P. Druschel, A. Kate, M. Simeonovski. Back-Ref: Accountability in Anonymous Communication Networks. <i>Proceedings of the 12th International Conference on Applied Cryptography and Network Security (ACNS)</i> , 2014. LNCS 8479. AR: 22%. |
|-----|--|
| C20 | J. Bonneau, A. Narayanan, A. Miller, J. Clark, J. A. Kroll, E. W. Felten. Mixcoin: Anonymity for Bitcoin with Accountable Mixes. <i>Proceedings of the 18th Conference on Financial Cryptography and Data Security (FC)</i> , 2014. LNCS 8437. [Rank: A] AR: 22% |
| C19 | F. Zagorski, R. Carback, D. Chaum, J. Clark, A. Essex, P. Vora. Remotegrity: Design and Use of an End-to-End Verifiable Remote Voting System. <i>Proceedings of the 11th International Conference on Applied Cryptography and Network Security (ACNS)</i> , 2013. AR: 23%. |
| C18 | J. Clark and P. C. van Oorschot. SSL and HTTPS: Revisiting past challenges and evaluating certificate trust model enhancements. <i>Proceedings of the 34th IEEE Symposium on Security and Privacy (IEEE SSP)</i> , 2013. [Rank: A+] AR: 12%. |
| C17 | D. McCarney, D. Barrera, J. Clark, S. Chiasson, and P. C. van Oorschot. Tapas: Design, implementation, and usability evaluation of a password manager. <i>Proceedings of the 2012 Annual Computer Security Applications Conference (ACSAC)</i> , 2012. AR: 19%. |
| C16 | D. Barrera, J. Clark, D. McCarney, P. C. van Oorschot. Understanding and improving app installation security mechanisms through empirical analysis of Android. <i>Proceedings of the 2nd Annual ACM CCS Workshop on Security and Privacy in Smartphones and Mobile Devices (SPSM)</i> , 2012. AR: 37%. |
| C15 | A. Essex, J. Clark, and U. Hengartner. Cobra: Toward concurrent ballot authorization for internet voting. <i>Proceedings of the 2012 USENIX Electronic Voting Technology Workshop/Workshop on Trustworthy Elections (EVT/WOTE)</i> , 2012. AR: 35%. |
| C14 | J. Clark and A. Essex. CommitCoin: Carbon dating commitments with Bit-coin. Proceedings of the 16th Conference on Financial Cryptography and Data Security (FC), 2012. LNCS 7397. [Rank: A] |
| C13 | J. Clark and U. Hengartner. Selections: an internet voting system with over-the- shoulder coercion-resistance. <i>Proceedings of the 15th Conference on Financial Cryptography and Data Security (FC)</i> , 2011. LNCS 7035. [Rank: A] |
| C12 | R. Carback, D. Chaum, J. Clark, J. Conway, A. Essex, P. S. Herrnson, T. Mayberry, S. Popoveniuc, R. L. Rivest, E. Shen, A. T. Sherman, P. L. Vora. Scantegrity II Municipal Election at Takoma Park: The First E2E Binding Governmental Election with Ballot Privacy. <i>Proceedings of the 19th USENIX Security Symposium, 2010</i> . [Rank: A+] AR: 15%. |
| C11 | A. Essex, J. Clark, U. Hengartner, C. Adams. Eperio: Mitigating Technical Complexity in Cryptographic Election Verification. <i>Proceedings of the 2010 USENIX Electronic Voting Technology Workshop/Workshop on Trustworthy Elections (EVT/WOTE</i>), 2010. |
| C10 | J. Clark, U. Hengartner. On the Use of Financial Data as a Random Beacon. <i>Proceedings</i> of the 2010 USENIX Electronic Voting Technology Workshop/Workshop on Trustworthy Elections (EVT/WOTE), 2010. |

| C09 | A. T. Sherman, R. Carback, D. Chaum, J. Clark, A. Essex, P. S. Herrnson, T. Mayberry, S. Popoveniuc, R. L. Rivest, E. Shen, B. Sinha, P. L. Vora. Scantegrity Mock Election at Takoma Park. <i>Proceedings of the 4th International Conference on Electronic Voting (EVOTE)</i> , 2010. | | | |
|-----|---|--|--|--|
| C08 | J. Clark, U. Hengartner, K. Larson. Not-So Hidden Information: Optimal Contracts for Undue Influence in E2E Voting Systems. <i>Proceedings of the Second IAVoSS International Conference on E-voting and Identity (Vote-ID)</i> , 2009, LNCS 5767. | | | |
| C07 | A. Essex, J. Clark, U. Hengartner, C. Adams. How to Print a Secret. <i>Proceedings of the 4th USENIX Workshop on Hot Topics in Security (HotSec)</i> , 2009. AR: 28%. | | | |
| C06 | D. Chaum, R. Carback, J. Clark, A. Essex, S. Popoveniuc, R. L. Rivest, P. Y. A. Ryan, E. Shen A. T. Sherman. Scantegrity II: End-to-end verifiability for optical scan election systems using invisible ink confirmation codes. <i>Proceedings of the 2008 USENIX Electronic Voting Technology Workshop (EVT)</i> , 2008. | | | |
| C05 | J. Clark, U. Hengartner. Panic passwords: Authenticating under duress. Proceedings of the 3rd USENIX Workshop on Hot Topics in Security (HotSec), 2008. AR: 32%. | | | |
| C04 | A. Essex, J. Clark, C. Adams. Aperio: High integrity elections for developing countries. Proceedings of the IAVoSS Workshop on Trustworthy Elections (WOTE), 2008. | | | |
| C03 | J. Clark, P.C. van Oorschot, C. Adams. Usability of anonymous web browsing: An examination of Tor interfaces and deployability. <i>Proceedings of the Third Symposium On Usable Privacy and Security (SOUPS)</i> . ACM International Conference Proceedings Series, vol 229, 2007, pp. 41–51. AR: 31%. | | | |
| C02 | J. Clark, A. Essex, C. Adams. On the security of ballot receipts in E2E voting systems. Proceedings of the IAVoSS Workshop on Trustworthy Elections (WOTE), 2007. | | | |
| C01 | A. Essex, J. Clark, R. T. Carback III, S. Popoveniuc. Punchscan in practice: An E2E election case study. <i>Proceedings of the IAVoSS Workshop on Trustworthy Elections (WOTE)</i> , 2007. | | | |

Articles in journals & periodicals

*Supervised student

JIF = 2021 Journal Impact Factor, Journal Citation Reports, Web of Science / Clarivate

| J11 | E.V. Mangipudi, K. Rao, J. Clark, A. Kate. Pepal: Penalizing multimedia breaches and partial leakages. <i>International Journal of Information Security</i> , September 2023. |
|-----|---|
| J10 | Raphael Auer, Rainer Böhme, Jeremy Clark, Didem Demirag*. Mapping the Privacy Landscape for Central Bank Digital Currencies. <i>ACM Queue</i> , June/July 2022. |
| J09 | E. Pimentel, E. Boulianne, S. Eskandari,* J. Clark. Systemizing the Challenges of Auditing Blockchain-Based Assets. <i>Journal of Information Systems</i> , Summer 2021. |
| J08 | J. Clark, D. Demirag*, S. Moosavi*. Demystifying Stablecoins. <i>Communications of the ACM</i> . 63(7):40-46. July 2020. [JIF: 14.065] |

| J07 | S. Ruoti, B. Kaiser, A. Yerukhimovich, J. Clark, R. Cunningham. Blockchain Technology: What is it good for? <i>Communications of the ACM</i> . 63(1):46-53. January 2020. [JIF: 14.065] | | |
|-----|--|--|--|
| J06 | G. Dagher*, B. Fung, N. Mohammad, J. Clark. SecDM: Privacy-preserving Data Outsourcing Framework with Differential Privacy. <i>Knowledge and Information Systems</i> . 62:1923–1960, 2020. | | |
| J05 | A. Narayanan, J. Clark. Bitcoin's Academic Pedigree. <i>Communications of the ACM</i> . 60(12):36-45. 2017. [JIF: 14.065] | | |
| J04 | E. Moher, J. Clark, A. Essex. Diffusion of voter responsibility: potential failings in E2E receipt checking. <i>USENIX Journal of Election Technology and Systems</i> . 3(1):1-17. 2014. | | |
| J03 | J. Clark. Enhancing Anonymity: Cryptographic and statistical approaches for shredding our digital dossiers. <i>ACM Computing Reviews</i> , 2014. Invited. | | |
| J02 | D. Chaum, R. Carback, J. Clark, A. Essex, S. Popoveniuc, R. L. Rivest, P. Y. A. Ryan, E. Shen, A. T. Sherman, P. L. Vora. Scantegrity II: End-to-End Verifiability by Voters of Optical Scan Elections Through Confirmation Codes. <i>IEEE Transactions on Information Forensics and Security</i> , 4(4):611-627, 2009. [JIF: 7.231] | | |
| J01 | D. Chaum, A. Essex, R. T. Carback III, J. Clark, S. Popoveniuc and A. T. Sherman, P. Vora. Scantegrity: end-to-end voter verifiable optical-scan voting. <i>IEEE Security & Privacy</i> , vol. 6, no. 3, pp. 40–46, May/June 2008. [JIF: 3.105] | | |

Book chapters

| B05 | J. Clark. The Long Road to Bitcoin. Foreword to: "Bitcoin and Cryptocurrency Technologies." <i>Princeton University Press</i> , 2016. |
|-----|---|
| B04 | R. Carback, D. Chaum, J. Clark, J. Conway, A. Essex, P. S. Herrnson, T. Mayberry, S. Popoveniuc, R. L. Rivest, E. Shen, A. T. Sherman, P. L. Vora. The Scantegrity Voting System and its Use in the Takoma Park Elections. Chapter 10 in: "Real-World Electronic Voting: Design, Analysis and Deployment." <i>CRC Press</i> , 2016. |
| B03 | S. Popoveniuc, J. Clark, R. Carback, A. Essex, D. Chaum. Securing Optical-Scan Voting. Chapter in: "Toward Trustworthy Elections: New Directions in Electronic Voting." State of the Art Survey Series, <i>Springer</i> , 357–369. 2010. |
| B02 | A. Essex, J. Clark, C. Adams. Aperio: High Integrity Elections for Developing Countries. Chapter in: "Toward Trustworthy Elections: New Directions in Electronic Voting." State of the Art Survey Series, <i>Springer</i> , 388–401. 2010. |
| B01 | J. Clark, P. Gauvin, C. Adams. Exit Node Repudiation for Anonymity Networks. Chapter 22 in: "Lessons from the Identity Trail: Anonymity, Privacy and Identity in a Networked Society." <i>Oxford University Press</i> . 399-415, 2009. |

Editorial activities

| E03 | Bracciali, A., Clark, J., Pintore, F., Roenne, P., Sala, M. (Editors). "Financial Cryptography and Data Security: FC Workshops 2019." Lecture Notes in Computer Science (LNCS) 11599. Springer, 2020. |
|-----|--|
| E02 | A. Zohar, I. Eyal, V. Teague, J. Clark, A. Bracciali, F. Pintore, M. Sala (Editors). "Financial Cryptography and Data Security: FC Workshops 2018." Lecture Notes in Computer Science (LNCS) 10958. Springer, 2019. |
| E01 | J. Clark, S. Meiklejohn, P.Y.A.Ryan, D. Wallach, M. Brenner, K. Rohloff (Editors). "Financial Cryptography and Data Security: FC Workshops 2016." Lecture Notes in Computer Science (LNCS) 9604. <i>Springer</i> , 2016. |

Funding

External Funding

| Year | Title, Program, Agency | Amount | PI | Co-Applicants |
|------|---|---|----|-------------------------------|
| 2023 | "Understanding Blockchains through Experimentation," Extension to previous project, Autorité des marchés financiers (AMF) | \$200,000 over 3 years Share: 50% | Y | Emilio Boulianne (JMSB) |
| 2021 | "Privacy Design Landscape for Central Bank Digital Currencies," Contributions Program, Office of the Privacy Commissioner of Canada (OPC) | \$26,450 once Share: 100% | Y | |
| 2021 | "Understanding Blockchains through Experimentation," Extension to previous project, Autorité des marchés financiers (AMF) | \$100,000 once Share: 50% | Y | Emilio Boulianne (JMSB) |
| 2021 | "Enhancing transparency, inclusion, and privacy for financial and democratic technologies," Discovery Grant (DG), Natural Sciences and Engineering Research Council of Canada (NSERC) | \$35,000/year for 5 years Share: 100% | Y | |
| 2020 | "The Human-Centric Cybersecurity Partnership (HC2P)," Partnership Grant, Social Sciences and Humanities Research Council (SSHRC) | \$2,434,323 over 5 years Share: TBD | N | Benoit Dupont + 32 others |
| 2020 | "Toward Scalable Systems for Securities on Blockchains," Fintech Chaire, Autorité des marchés financiers (AMF) and Finance Montreal | \$50,000 once Share: 50% | N | Kaiwen Zhang (ETS) |
| 2019 | "NSERC / Raymond Chabot Grant Thornton / Catallaxy Industrial Research Chair on Blockchain Technologies," Natural Sciences and Engineering Research Council of Canada (NSERC) | \$1,380,000 over 5 years Share: 100% | Y | |
| 2017 | "Understanding Blockchains through Experimentation," Education and Good Governance Fund (EGGF), Autorité des marchés financiers (AMF) | \$100,000/year for 2 years Share: 50% | Y | Emilio Boulianne (JMSB) |
| 2016 | "One Person, One Vote? Blockchain Technologies and Experiments in Voting and Party Governance," Seed Grant, Centre for the Study of Democratic Citizenship (CSDC) | \$6831 once Share: 50% | N | Fenwick Mckelvey (Comm) |
| 2015 | "Certificate Authority Report Card: Examining the Root of Data Protection on the Web," Contributions Program, Office of the Privacy Commissioner of Canada (OPC) | \$50,000/year for 1 year Share: 50% | Y | Mohammad Mannan (CIISE) |

| Year | Title, Program, Agency | Amount | PI | Co-Applicants |
|------|---|---|----|---------------|
| 2015 | "Vote par Internet : des technologies favorisant la démocratie," Programme Établissement de nouveaux chercheurs universitaires, Fonds de recherche du Québec - Nature et technologies (FRQNT) | \$19,000/year for 2 years Share: 100% | Y | |
| 2014 | "Secure online services for private user data," Discovery Grant (DG), Natural Sciences and Engineering Research Council of Canada (NSERC) | \$24,000/year for 5 years Share: 100% | Y | |

Internal Funding

| Year | Program | Amount | PI | Co-Applicants |
|------|---|------------|----|---------------|
| 2023 | Aid to Research Related Events, Exhibition, Publication and Dissemination Activities (ARRE) Program | \$5K once | Y | |
| 2020 | Aid to Research Related Events, Exhibition, Publication and Dissemination Activities (ARRE) Program | \$5K once | Y | |
| 2015 | Aid to Research Related Events, Exhibition, Publication and Dissemination Activities (ARRE) Program | \$5K once | Y | |
| 2015 | Individual Seed Program | \$7K once | Υ | |
| 2013 | Start-Up Grant | \$50K once | Υ | |

Research Centres/Networks

- Human-Centric Cybersecurity Partnership (HC2P). Co-Investigator, 2020—present.
- Centre for the Study of Democratic Citizenship (CSDC). Member, 2016—present. Advisory Board, 2022—present.
- Smart Cybersecurity Network (SERENE-RISC). Knowledge Mobilization Network, Networks of Centres of Excellence of Canada (NCE). Co-Investigator, 2016—2021.

Evidence of Impact

Invited Talks and Seminars

- CSNet 2023, "Privacy Options for Central Bank Digital Curriencies (CBDCs)." Keynote, October 17, 2023.
- Cyberjustice Labratory, University of Montreal, "Web3: Landscape and Future Directions."
 Keynote, October 16, 2023.
- Cybersecurity and Privacy Institute (CPI) Annual Conference, University of Waterloo. "Transparent Dishonesty: front-running attacks on Blockchain." Invited Talk, October 12, 2023.
- UMBC Cyber Defense Lab Seminar, "Fast Withdrawals from Optimistic Rollups." September 8, 2021.
- a16z crypto, "Fast Withdrawals from Optimistic Rollups," June 27, 2023.
- MIT Digital Currency Initiative (DCI), "Privacy Options for Central Bank Digital Curriencies (CBDCs)," May 23, 2023.
- Berkman-Klein Center for Internet & Society (Harvard), "Privacy Options for Central Bank Digital Curriencies (CBDCs)," Blockchain and Privacy Workshop, May 22, 2023.
- Digital Economy Taxation Network / Revenu Québec, DET 2023, "Going Digital: Tax Systems and Emerging Technology," June 18, 2023.
- C-Dem/CSDC Forum, "Roundtable: Electoral Integrity," Panel, June 4, 2023.
- CIADI/GCS Aerospace Meets Cybersecurity Forum, "Cybersecurity challenges in aerospace,"
 Moderator, April 17, 2023.
- Financial Management Institute of Canada, PD Week. "Blockchain and DeFi: Landscape," November 24, 2022.
- FIC, International Cybersecurity Forum, November 1-2, 2022.
- MTL Connect, "MTL Inspire." Panel, October 19, 2022.
- ACT International Midterm Conference, "Policing Blockchain." Panel, October 6, 2022.
- Fintech Cadence | Fintech Drinks, "Fintech & DeFi: How is fintech DeFi-ing the traditional banking system?" Panel, July 12, 2022.
- Blockchain Technology Symposium. "Blockchain Culture, Leisure and Luxury." Panel, June 10, 2022.
- Quartier de l'innovation de Montréal. "Entre Terre et techno, ça clique ?" Panel, May 26, 2022.
- Fintech Cadence Certificate Program. "Understanding blockchain and its uses in the financial sector." February 22, 2022.
- Autorité des marchés financiers. "Finance décentralisée et crypto : état de la situation, nouveaux risques et points de vigilance." Panel, October 26, 2021.
- Smith School of Business, Queen's University. "New Frontiers in Auditing: Risk and Opportunities in the Blockchain Sector." Panel, October 7, 2021.

- Vancouver International Privacy & Security Summit (VIPSS). "Banking on the Future: How the Digital Surge Will Reshape How We Do Business." Panel, May 6, 2021.
- CyberEco Cyber Conference. "Technology & blockchain." May 5, 2021.
- Quartier de l'innovation de Montréal. "Blockchain multiples usages." Panel, April 28, 2021.
- Holt Accelerator, "[I AM PROTECTED]." Panel, April 21, 2021.
- UMBC Cyber Defense Lab Seminar. "Transparent Dishonesty: front-running attacks on Blockchain." March 26, 2021.
- 1st Annual Lecture on Computer Science and Society. "The Blockchain and Cryptocurrency Landscape." Carleton University. March 10, 2021
- Workshop on The State of Canadian Cybersecurity Conference: Human-Centric Cybersecurity. "Decentralized Finance: Landscape and Future Directions." SERENE-RISC, February 18, 2021.
- Fintech Cadence Certificate Program. "Understanding blockchain and its uses in the financial sector." January 30, 2021.
- Montreal Lakeshore University Women's Club. "Bitcoins: What, why and how..." February 10, 2020.
- Elections Quebec. "Internet Voting." November 2, 2019.
- Blockchain at McGill. "Introduction to Blockchain for Non-Profits," Social Innovation: Int'l Development and Blockchain. 29 March 2019.
- Canada Mortgage and Housing Corporation (CMHC). "Blockchain Technologies: Landscape and Future Directions." 26 February 2019.
- CFA Montreal FinTech Rendez-vous. "Blockchain Technologies: Landscape and Future Directions." 7 February 2019.
- Loto-Quebec. "Lunch and learn." 22 January 2019.
- RISQ Colloquium. "Blockchain Technologies: Landscape and Future Directions." 29 November 2018.
- TriPAC Pension Advisory Committees. "Blockchain Technologies: Landscape and Future Directions." Treasury Board Secretariat. 21 November 2018.
- Defending Democracy: Confronting Cyber-Threats At Home And Abroad. "Liquid Democracy and Blockchains." October 26, 2018.
- Blockchain and National Security. "Blockchain Technology: National Security Use-Cases." Public Safety Canada, October 18, 2018.
- Montreal Police Pension Fund (ABRPPVM). "Blockchain Technology: Landscape & Future Directions." Invited speaker, September 22, 2018.
- BMO 13th Annual Realestate Conference. "Blockchain Applications & Real-Estate." Panel, BMO Capital Markets. September 20, 2018.
- Blockchain Technology Symposium (BTS). "Blockchain Nuances: Lessons from Fintech usecases." Invited talk, Fields Institute. September 18, 2018.
- GoSec. "Blockchain Technologies: Landscape and Future Directions." August 29, 2018.
- StartupFest. "Democracy Enhancing Technologies." CryptoFest. July 10, 2018.

- FinteQC. "Blockchain Nuances" Keynote, Desjardins Labs & UQAR, June 20, 2018.
- The Walrus LIVE. "The Future of Money" Panel Discussion with David Tax (TD) and Susan Prince (CBC). June 14, 2018.
- BMO ThinkSeries. "Blockchain Technologies: Landscape and Future Directions." June 12, 2018.
- Autorite des marches financiers (AMF). "Crypto Primer II." June 11, 2018.
- Canada Pension Plan Investment Board (CPPIB). "Blockchain Technologies." June 1, 2018.
- Security Revolution. "Blockchain Primer." SERENE-RISC, May 31, 2018.
- "Blockchain Technologies: Landscape and Future Directions." True North Science Bootcamp. May 25, 2018.
- Anticipating Future Trends and Managing Risks Program. "Blockchain Technologies: Landscape and Future Directions," HEC Paris and Concordia. May 10, 2018.
- Autorite des marches financiers (AMF). "Crypto Primer I." May 1, 2018.
- GC Blockchain Day. "Ledgers Past, Present and Future." Treasury Board Secretariat of Canada. April 23, 2018.
- "Workplace 2020." Management Consulting Club, Concordia. Panel. April 8, 2018.
- "Blockchain Technologies: Landscape and Future Directions." Canadian National Railway (CN). February 8, 2018.
- Kenneth Woods Portfolio Management Program. "Cryptocurrencies: An Investable Asset?" John Molson School of Business. January 23, 2018.
- "Provisions: Privacy-Preserving Proofs of Solvency." Newcastle University. December 7, 2017.
- "Democracy Enhancing Technologies: From Theory to Practice." CSDC Speaker Series. McGill, September 15, 2017.
- Hydro-Québec Symposium 3i. "Bitcoin & Blockchains: Landscape and Future Directions." Invited Speaker, Montreal,
- Privacy, Security and Trust (PST). "Bitcoin & Blockchains: Landscape and Future Directions."
 Keynote, Calgary, August 28, 2017.
- Metropolis 2017. "The Bitcoin & Blockchain Technology Landscape." June 28, 2017.
- Blockchain Meetup. "Zero Knowledge." District 3. May 4, 2017.
- Canada Music Week. "Blockchains: Smart Contracts and Media-Driven Crypto Currencies" Panel discussion, April 19, 2017.
- District 3. "The Future of Blockchain." Panel discussion, December 8, 2016.
- Symposium on Foundations & Practice of Security. "The Bitcoin & Blockchain Technology Landscape." Keynote presentation. Université Laval, October 26, 2016.
- Online Voting Roundtable: Electoral Futures in Canada. "Blockchain and Voting: Assessment & Critique." Invited Speaker, University of Ottawa. September 26, 2016.
- P2P Financial Systems Workshop. "Blockchain nuances." Keynote presentation. UCL, September 8, 2016.
- Bank of Canada. "Bitcoin & Blockchains: Part 2." July 14, 2016.

- Anti-phishing working group (APWG) eCrime 2016. "Bitcoin: an impartial assessment of its use and potential for cybercrime." May 31, 2016.
- C.D. Howe. "Blockchain Technologies and the Future of Finance." May 30, 2016.
- ASIMM Colloque RSI. "Bitcoin & Blockchains: Tutorial," May 12, 2016.
- Bank of Canada. "Bitcoin & Blockchains: Landscape and Future Directions," May 11, 2016.
- National Research Council (NRC), "Security Training Course," March 22, 2016.
- MIT Bitcoin Expo. "Blockchain-based voting: potential and limitations," MIT, March 6, 2016.
- Bitcoin and Cryptocurrency Research Conference. "Altcoins," Center for Information Technology Policy (CITP), Princeton University, March 27, 2014.
- USENIX Summit on Hot Topics in Security (HotSec 2013). "Eroding Trust and the CA Debacle," August 13, 2013.
- CIISE Distinguished Seminar. "How to Carbon Date Digital Information," Concordia University, March 8, 2012.
- MITACS Digital Security Seminar Series. "Panic Passwords and their Applications," Carleton University, January 27, 2011.
- CACR Cryptography Seminar. "The First Governmental Election with a Voter Verifiable Tally: Experiences using Scantegrity II at Takoma Park," University of Waterloo, February 5, 2010.
- CACR Cryptography Seminar. "Selections: An Internet Voting System with Over-the-shoulder Coercion Resistance," University of Waterloo, December 3, 2010
- Information Technology and Innovation Foundation (ITIF) Forum: Future of Voting. "Panel Discussion," Longworth House Office Building, Washington, D.C. March 6, 2008.
- CACR Cryptography Seminar. "Combating Adverse Selection in Anonymity Networks," University of Waterloo, October 17, 2007.

Expert Testimony & Public Interest Consultations

- Elections Quebec. "Internet Voting," Citizen Jury. November 2, 2019.
- House of Commons, Standing Committee on Finance. Testimony: Statutory Review of the Proceeds of Crime and Terrorist Financing Act. March 27, 2018.
- Investissement Quebec. Bitcoin & Blockchains: Landscape and Future Directions. January 15, 2018.
- Government of Canada (GC) Digital Target State Architecture and Direction. Blockchain working group. August 2017 — April 2018.
- Karina Gould, Minister of Democratic Institutions (House of Commons, Canada). CSDC roundtable. August 30, 2017.
- Autorité des marchés financiers (AMF). "Blockchain nuances." March 29, 2017.
- Royal Canadian Mounted Police (RCMP). Bitcoin brainstorming session (#2). Participant in roundtable. September 28, 2016.
- Royal Canadian Mounted Police (RCMP). Bitcoin brainstorming session. Participant in roundtable. July 5, 2016.

- Formation régionale de la Cour du Québec. "Bitcoin: Introduction & Implications," May 9, 2015.
- 2013–2014 City of Toronto. Subject Matter Expert on Internet Voting Security and Cryptography (RFP No. 3405-13-3197).
- Senate of Canada, Standing Committee on Banking, Trade and Commerce. Testimony: Study on the use of digital currency. April 3, 2014.
- City of Edmonton: Citizen Jury on Internet Voting. "Security Risks Related to Internet Voting,"
 Centre for Public Involvement/University of Alberta, November 23–25, 2012.

Press & Media (Selected)

- "Two years after peak crypto, Bitcoin has faded from the political conversation," CBC News, November 3, 2023.
- "What is Worldcoin and what does it mean for our privacy?" *Context.news (Thomson Reuters Foundation)*, June 7, 2023.
- "Clarity, please." CBA/ABC National, November 14, 2022
- "Deception, exploited workers, and cash handouts: How Worldcoin recruited its first half a million test users." MIT Technology Review, April 6, 2022.
- "It's a first, Bitcoin is now legal tender in one country." CBC Radio, September 23, 2021.
- "New kid on the blockchain: the young people using crypto for good." DAZED, July 22, 2021.
- "Digital currencies bring new options for financial privacy." Hill Times, May 5, 2021.
- "Satoshi & Company: The 10 Most Important Scientific White Papers In Development Of Cryptocurrencies." Forbes, February 13, 2021.
- "Contact tracing segment." The Aaron Rand Show, CJAD 800, May 26, 2020.
- "Are we ready for an app that trades privacy for more freedom?" *Montreal Gazette*, May 25, 2020.
- "Chaînes de blocs: dompter la décentralisation de l'informatique." Le Devoir, March 2, 2020.
- "Academic: All Undergrads Should Learn About Bitcoin & Blockchain." Cryptonews, December 22, 2019.
- "Why Quebec is betting big on Bitcoin." Pivot Magazine (CPA Canada), January 8, 2019.
- "Banks Claim They're Building Blockchains. They're Not." Investopedia, July 13, 2018.
- "The evolution of cryptojacking." CryptoInsider, March 20, 2018.
- "The Ethics Of Cryptojacking: Rampant Malware Or Ad-Free Internet?" CoinTelegraph, March 16, 2018.
- "One of the Biggest Coinhive Users Made \$7.69 In 3 Months." Motherboard, March 14, 2018.
- "Attack Or Business Opportunity?: Academics Question Ethics Of Coinhive Cryptojacking."
 CoinTelegraph, March 10, 2018.
- "How much should I regret not buying Bitcoin?" Gizmodo, January 29, 2018.
- Interview on Bitcoin regulation. CBC Radio One, December 5, 2017.

- "How blockchain-based payment is changing the cannabis industry," *IBM thinkLeaders*, June 21, 2017.
- "Ottawa explores potential of 'blockchain,' billed as next-generation Internet tech." *Toronto Star*, February 28, 2017.
- "Block the vote: Could Blockchain Technology Cybersecure Elections?" Forbes, August 30, 2016.
- "He's Bitcoin's Creator, He Says, but Skeptics Pounce on His Claim," *New York Times*, May 2, 2016.
- "Logged out, but still out there," Globe and Mail, February 19, 2016.
- "Princeton University releases first draft of bitcoin textbook," CoinDesk, February 10, 2016.
- "The top 10 cryptocurrency research papers of 2015," CoinDesk, December 27, 2015.
- "Canada's Internet Voting Problem," SC Magazine, February 2015 issue.
- "Latest Internet voting reports show failures across the board," Al Jazeera America, February 8, 2015
- "How Block Chain Technology Could Usher in Digital Democracy," CoinDesk, June 16, 2014.
- "Can Bitcoin Help Predict the Future?," CoinDesk, May 24, 2014.
- "Heartbleed and sentinels of the net," Montreal Gazette, Apr 21, 2014.
- "PROFESSOR: There Is A Big, Gaping Flaw In The New Satoshi Study," *Business Insider*, March 28, 2014.
- "2014 Federal Budget Calls Bitcoin A Terrorist, Crime 'Risk', " Huffington Post, February 12, 2014.
- "Bitcoin: How its core technology will change the world," New Scientist, February 5, 2014.
- "More than money, bitcoin's real value lies in its algorithms," InfoWorld, January 12, 2014.
- "U. researchers develop Bitcoin prediction market," Daily Princetonian, January 5, 2014.
- "This Princeton professor is building a Bitcoin-inspired prediction market," *The Verge*, November 29, 2013
- "Montreal's Bitcoin Embassy bridges gap between digital currency and real world," *Montreal Gazette*, November 29, 2013.
- "Bitcoin online currency gets new job in web security," New Scientist, January 11, 2012.
- "Secure, verifiable voting: Cryptography, invisible ink, and other voting magic," *Imprint*, November 6, 2009.
- "Scantegrity: Voters Test New Transparent Voting System," Huffington Post, November 5, 2009.
- "Maryland Voters Test New Cryptographic Voting System," Wired News, November 4, 2009.
- "Voters try out new security system," UW Daily Bulletin, November 3, 2009.
- "E-voting system lets voters verify their ballots are counted," *Computerworld*, November 3, 2009.
- "First Test for Election Cryptography," Technology Review, November 2, 2009.

- "Mock election tests new voting system," Gazette.net, April 15, 2009.
- "Geek the Vote 2012: What Election Tech Will Look like 4 Years From Now," *Popular Mechanics*, November 4, 2008.
- "Canadian voting machine technology enters American political scene," *CBC.ca*, October 28, 2008.
- "New Voter Counter System Uses Encrypted Codes, Invisible Ink," Voice of America, October 24, 2008.
- "A Really Secret Ballot," The Economist, October 22, 2008.
- "Class voting hacks prompt call for better audits," MSNBC, October 20, 2008.
- "Clean Elections," Communications of the ACM, October 2008.
- "Protecting Your Vote With Invisible Ink," Discover Magazine, October 2008.
- "Flawless Vote Counts," Technology Review, September/October 2008.
- "Shift Back to Paper Ballots Sparks Disagreement," Morning Edition, March 7, 2008.
- "Down for the Count," ACM netWorker, March 2008.
- "The future of voting IT," Government Computer News, March 10, 2008.
- "A Damaging Paper Chase In Voting," Washington Post, September 8, 2007.
- "Punchscan Wins VoComp 2007," As It Happens (CBC), August 23, 2007.
- "US/Canada Team Wins Voting Competition," Threat Level (Wired), July 19, 2007.
- "Electronic Democracy," Digital Planet (BBC), January 29, 2007.
- "Making Every E-vote Count," IEEE Spectrum, January 2007.

Concordia Promotional Activities

- Thinking Out Loud. "Bitcoin & Cryptocurrency," Podcast, Episode 14. 27 February 2018.
- "Back to the future reclaiming the internet" Distinguished Alumni Speaker Series with Fay Arjomandi. September 22, 2018.
- This is Concordia. Now. "Bitcoin and cryptocurrency." Conversation with Alan Shepherd. April 11, 2018.
- "X EXPLAINED: What you need to know about internet cookies." Concordia Video. March 29, 2018.
- This Is Concordia. Now. "Jeremy Clark talks Bitcoin and cryptocurrency." Conversation with Sudha Krishnan (CBC Montreal). February 22, 2018.
- Next-Gen. Now. "The Campaign for Concordia." Promotional video with on-screen interview.
 November 24, 2017.
- Capstone Magazine. "Cyberattacks: everything you need to know." Fall 2016.
- Concordia Alumni Association. "Everyone knows your birthday: How secure is your password Hint: not very!" New York City, May 16, 2017.
- Thinking Out Loud. "One Vote," The Futurecast podcast, Episode 4. April 12, 2017.

- Next-gen. Now. "My Name is Jeremy Clark." Website feature. March 1, 2017.
- Concordia University Magazine. "Guardians of the IT galaxy." February 9, 2017.
- Thinking Out Loud. "Connecting your tech future," conversation with Nora Young (CBC), Concordia University. March 1, 2016.
- Breakfast Talk. "Heartbleed & other CIISE Research," Concordia University. May 6, 2014.

Highly Qualified Personnel

HQP Job Placement

| Sector | Organization |
|---|---|
| Blockchain Industry ConsenSys Diligence, Offchain Labs, Trail of Bits, Quantstamp, BitAccess, Ether Capital | |
| Faculty | Carleton University, Boise State University |
| Post-Doctoral | UQAM |
| General Industry | KPMG, Deloitte, Morgan Stanley |
| Government | National Defence |

Includes jobs while in program and first job after graduation

Post-Doctoral (Completed)

| Name | Dates | Research Topic | Papers | Co-Supervisor |
|----------------------|-------------------|-----------------|--------|---------------|
| Elizabeth Stobert | 2018/W- 2018/F | Usable security | C24 | |

/F (Fall term), /W (Winter term), /S (Summer term)

PhD (Completed)

| Name | Dates | Research Topic | Papers | Co-Supervisor |
|---------------|--------------------|---|------------------------------------|------------------------|
| Didem Demirag | 2018/ W-2022/F | "Moving Multiparty Computation Forward for the Real World" | C33, J08, C40, C43, C47, J10 | |
| Nan Yang | 2014/ S-2020/F | "Non-Local Contamination in Cryptography" | C28, C39 | C. Crépeau (McGill) |
| Gaby Dagher | 2013/F - 2015/F | "Toward secure and privacy-preserving data sharing and integration" | C26, J06 | B. Fung (McGill) |

PhD (In Progress)

| Name | Dates | Research Topic | Papers | Co-Supervisor |
|---------------|---------|----------------------|--------|---------------|
| Reza Rahimian | 2018/F- | Financial technology | C37 | |

| Name | Dates | Research Topic | Papers | Co-Supervisor |
|---------------------------|---------|-------------------------------|---|-----------------------|
| Mahsa Moosavi | 2018/S- | Layer-2 blockchain technology | C30, C35, J08, C44, C49 | |
| Shayan Eskandari | 2017/F- | Blockchain technology | C24, C27, C29, C32, C35, C37, C42, J09 | |
| Pratyusha Bhattacharya | 2017/S- | Smart Grid Security | | M. Debbabi (CIISE) |

Masters (Completed)

| Name | Dates | Research Topic | Papers | Co-Supervisor |
|-----------------------|-----------------------|--|---|--|
| Sina Pilehchiha | 2021/ S-2022/F | "Improving Reproducibility in Smart Contract Research" | | A.G. Aghdam (ECE) |
| Mahdi Nejadgholi | 2019/ F-2022/S | "Nullification, a coercion-resistance add-on for e-voting protocols" | C39, C46 | |
| Mehdi Salehi | 2020/ W-2022/ W | "An Analysis of Upgradeability, Oracles, and Stablecoins in the Ethereum Blockchain" | C41, C42, C45, C49 | M. Mannan (CIISE) |
| Corentin Thomasset | 2019/ F-2020/S | "SERENIOT : Politiques de sécurité collaboratives pour maisons connectées" | | D. Barrera (Carleton), J. Fernandez (Polytechnique) |
| Chidinma Okoye | 2016/S - 2017/F | "New applications of blockchain technology to voting and lending" | C31 | |
| Mahsa Moosavi | 2015/F - 2018/W | "Rethinking Certificate Authorities: Understanding and decentralizing domain validation" | C30, C35, J08, C44, C49 | |
| Michael Colburn | 2014/F - 2018/S | "Short-Lived Signatures" | | |
| Abhimanyu Khanna | 2014/F - 2017/S | "Towards Usable and Fine-grained Security for HTTPS with Middleboxes" | | M. Mannan (CIISE) |
| Shayan Eskandari | 2013/F - 2016/W | "Real world deployability and usability of Bitcoin" | C24, C27, C29, C32, C35, C37, C42, J09 | W. Hamou-Lhadj (ECE) |

Masters (In Progress)

| Name | Dates | Research Topic | Papers | Co-Supervisor |
|-------------|---------|-----------------------|--------|---------------|
| Youwei Deng | 2023/W- | Zero Knowledge Proofs | | |

Supervised Graduate Projects (ENGR 6991)

| Year | Students |
|------|---|
| 2023 | Mohammad Zawad Tahmeed |
| 2019 | Abhinav Kumar |
| 2018 | Jinumol James, Laleh Alimadadi, Rupesh Gawde, Brindha Shree, Isreal Tei, Saad Ahmen (MIAE: ENGR 6971) |
| 2017 | Temitiope Adetula, Shahab Odagar |
| 2016 | Ejiro Mary, Ogor Umukoro, Omoye Obazele |
| 2015 | S. Sandisha |
| 2014 | Paemka-Ojugbana Judah Chukwuma, Manish Megnath |

Teaching

Courses Taught

| Year/Term | Course | Class Size | Evaluation |
|-----------|--|------------|-------------|
| 2022/4 | INSE 6615: Blockchain Technology | 69 | 1.30 |
| 2022/4 | INSE 6150: Security Evaluation Methodologies | 100 | 1.48 |
| 2022/2 | INSE 6150: Security Evaluation Methodologies | 70 | 1.72 |
| 2021/4 | INSE 6630: Recent Developments in Info. Systems Security | 67 | |
| 2021/4 | INSE 6150: Security Evaluation Methodologies | 68 | Evaluations |
| 2021/2 | INSE 6150: Security Evaluation Methodologies | 49 | suspended |
| 2020/1 | INSE 6150: Security Evaluation Methodologies | 78 | |
| 2018/4 | INSE 6150: Security Evaluation Methodologies | 92 | 1.20 |
| 2018/4 | COMP 249: Object Oriented Programming II | 109 | 1.73 |
| 2018/2 | INSE 6630: Recent Developments in Info. Systems Security | 53 | 1.19 |
| 2018/2 | COMP 352: Algorithms and Data Structures | 68 | 1.57 |
| 2017/4 | INSE 6150: Security Evaluation Methodologies | 88 | 1.69 |
| 2017/2 | INSE 6110: Foundations of Cryptography | 79 | 1.22 |
| 2017/2 | INSE 6630: Recent Developments in Info. Systems Security | 35 | 1.71 |
| 2016/4 | INSE 6150: Security Evaluation Methodologies | 59 | 1.13 |
| 2016/2 | INSE 6150: Security Evaluation Methodologies | 63 | 1.09 |
| 2016/2 | INSE 6110: Foundations of Cryptography | 79 | 1.32 |
| 2015/4 | COMP 249: Object Oriented Programming II | 50 | 1.44 |
| 2015/4 | INSE 6150: Security Evaluation Methodologies | 86 | 1.15 |
| 2015/2 | INSE 6110: Foundations of Cryptography | 76 | 1.24 |
| 2014/4 | COMP 249: Object Oriented Programming II | 93 | 1.81 |
| 2014/4 | INSE 6150: Security Evaluation Methodologies | 86 | 1.41 |
| 2014/2 | INSE 6110: Foundations of Cryptography | 69 | 1.55 |
| 2013/4 | INSE 6150: Security Evaluation Methodologies | 46 | 1.73 |
| 2013/2 | INSE 6110: Foundations of Cryptography | 21 | 1.11 |

- Evaluation is for Question 20: "Overall, the professor is an effective teacher." Score is from 1.00 (best) to 5.00 (worst).
- 1 means summer term, /2 means fall term, /4 means winter term (of the following calendar year)

Teaching Awards

• Teaching Excellence Award, Junior Faculty, ENCS, Concordia University, 2017.

External Lectures

- "Decentralized finance (DeFi)," Faculty of Law, University of Ottawa. 22 March 2021.
- "Improving usability and trust for moving Bitcoin adoption forward," MAS.S65 Blockchain Technologies, Massachusetts Institute of Technology (MIT). Guest lecture, 4 November 2015.
- "History of cryptocurrencies," Bitcoin and Cryptocurrency Technologies, Princeton University. Guest lecture, Online: Coursera, recorded in September 2015.
- COMP 4109: Applied Cryptography, Carleton University. Course, Winter 2013.

Service to University

University Committees

Leaves: Parental 2019-2020; Sabbatical 2020-2021

| Year | Committee |
|-----------|--|
| 2022- | GCS Elections Committee (Chair) |
| 2021-2023 | Concordia University Faculty Tribunal Pool |
| 2021-2023 | GCS Faculty Council |
| 2018-2019 | Concordia University Faculty Tribunal Pool |
| 2018-2019 | ENCS Blended/Online Pedagogy Committee |
| 2017-2019 | ENCS Elections Committee |
| 2015-2019 | CIISE PR/Website [Co-Chair] |
| 2013-2019 | CIISE Seminar Committee |
| 2014–2016 | Concordia University Faculty Tribunal Pool |
| 2014–2015 | CIISE Website Committee (merged with PR above) |
| 2013–2015 | CIISE PR Committee (merged with Website above) |

Graduate Student Committees

| Year | Occurrences | | | | |
|-----------|-----------------|--------------|-----------------|----------------|----------------|
| | MASc Defence | PhD Comp. | PhD Proposal | PhD Seminar | PhD Defence |
| 2023 | 2 | 1 | 1 | | |
| 2022 | 1 | 2 | 1 | 3 | 1 |
| 2021 | 3 | 1 | 1 | 1 | 1 |
| 2020 | 1 | 1 | | 1 | 1 |
| 2019 | | | 2 | 3 | 3 |
| 2018 | | 3 | 1 | | 2 |
| 2013-2017 | 6 | 6 | 3 | 4 | 2 |

External PhD Examiner

- Md Mamunur Rashid Akand, University of Calgary, 2023
- Farimah Ramezan Poursafaei, McGill, 2022
- Patrick McCorry, Newcastle University, UK, 2017
- Giulia Alberini, McGill, 2015
- Jérôme Dossogne, Université libre de Bruxelles, Belgium, 2015

Service to Academia

Program (Co-)Chairs

| Year | Conference |
|------|---|
| 2024 | Financial Cryptography and Data Security 2024 (FC) |
| 2022 | Blockchain Technology Symposium (BTS) |
| 2019 | FC Workshop on Advances in Secure Electronic Voting (VOTING) |
| 2018 | FC Workshop on Advances in Secure Electronic Voting (VOTING) |
| 2017 | The Smart Cybersecurity Network: Spring 2017 Workshop (SERENE-RISC) |
| 2016 | FC Workshop on Bitcoin and Blockchain Research (BITCOIN) |

General (Co-)Chairs

| Year | Conference |
|------|---|
| 2024 | Blockchain Technology Symposium (BTS) |
| 2023 | Blockchain Technology Symposium (BTS) |
| 2020 | Privacy Enhancing Technologies Symposium (PETS) |

Advisory Boards

| Year | Journal |
|-------|---|
| 2019— | Privacy Enhancing Technologies Symposium (PETS) |

Editorial Boards

| Year | Journal |
|-----------|---|
| 2013-2015 | USENIX Journal of Election Technologies (USENIX JETS) |

Program Committees

| Year(s) | Conference |
|---------|--|
| 2023— | ACM Computer and Communications Security (CCS): Blockchain Track |
| 2016— | Financial Cryptography and Data Security (FC) |

| Year(s) | Conference |
|-----------|---|
| 2023— | ACM Advances in Financial Technology (AFT) |
| 2021— | International Joint Conference on Electronic Voting (E-VOTE-ID) |
| 2022— | FC Workshop on Decentralized Finance (DeFi) |
| 2021— | ACM CCS Workshop on Decentralized Finance and Security (DeFiSec) |
| 2017— | ESORICS Workshop on Cryptocurrencies and Blockchain Technology (CBT) |
| 2023— | Science of Blockchain Conference (SBC) |
| 2022 | Workshop on Privacy in the Electronic Society (WPES) |
| 2018-2021 | IEEE Security & Privacy on the Blockchain (IEEE S&B) |
| 2013—2018 | FC Workshop on Bitcoin Research (BITCOIN) |
| 2017—2018 | APWG Symposium on Electronic Crime Research (eCrime) |
| 2018 | Symposium on Usable Privacy & Security (SOUPS) |
| 2016 | RSA Conference: Cryptographer's Track (CT-RSA) |
| 2016 | ACM CCS Workshop on Security and Privacy in Smartphones and Mobile Devices (SPSM) |
| 2014 | Annual Computer Security Applications Conference (ACSAC) |

Reviews for Journals (Most Recent Year)

| Most Recent Year | Journal / Conference |
|------------------------|--|
| 2023 | IEEE Security and Privacy Magazine |
| 2022 | IEEE Transactions on Information Forensics and Security (TIFS) |
| 2021 | Bank for International Settlements (BIS) Working Paper Series |
| 2021 | IEEE Transactions on Dependable Secure Computing (TDSC) |
| 2021 | Communications of the ACM (CACM) |

Reviews for Funding Agencies (Most Recent Year)

| Most Recent Year | Agency |
|------------------------|---|
| 2023 | Natural Sciences and Engineering Research Council of Canada (NSERC) |

| Most Recent Year | Agency |
|------------------------|---|
| 2023 | Israel Science Foundation (ISF) |
| 2023 | Luxembourg National Research Fund (FNR) |
| 2022 | Social Sciences and Humanities Research Council of Canada (SSHRC) |
| 2020 | MITACS |
| 2019 | Fonds de Recherche du Québec – Nature et technologies (FRQNT) |
| 2019 | Alberta Innovates |
| 2017 | Office of the Privacy Commissioner of Canada (OPC) |