

Hasan Iqbal

EN 5055, 1000 E. University Ave., Laramie, WY 82071

hasan.iqbal@uwyo.edu | hasan.iqbal.anik@gmail.com

Education

| | |
|---|-------------|
| PhD , Computer Science and Engineering University of Connecticut (UConn) , Storrs, CT Dissertation: High-dimensional Quantum Key Distribution: New Protocols and Analysis. Committee: Dr. Walter O. Krawec (chair), Dr. Bing Wang, Dr. Alexander Russell | 2018 - 2024 |
| MS , Computer Science University of Illinois at Chicago (UIC) , Chicago, IL | 2015 - 2017 |
| BS , Information Technology IIT, University of Dhaka , Dhaka, Bangladesh | 2009 - 2013 |

Professional Experience

| | |
|--|----------------|
| University of Wyoming , Assistant professor of EECS | 2024 - Present |
| University of Connecticut , Research and teaching assistant | 2018 - 2024 |
| University of Illinois at Chicago , Teaching assistant | 2015 - 2017 |

Publications

1. New Security Proof of a Restricted High-Dimensional QKD Protocol. H. Iqbal and W.O. Krawec. IEEE ISIT 2024.
2. Analysis of a High-Dimensional Extended B92 Protocol. H. Iqbal and W.O. Krawec. Quantum Information Processing 20 (10) 344, 2021.
3. High-Dimensional Semi-Quantum Cryptography. H. Iqbal and W.O. Krawec. IEEE Transactions on Quantum Engineering, vol. 1, pp. 1-17, 2020.
4. Semi-quantum Cryptography. H. Iqbal and W.O. Krawec. Quantum Information Processing 19 (3) 97, 2020.
5. From Classical to Semi-Quantum Secure Communication. A. Gagliano, W.O. Krawec, and H. Iqbal. IEEE ISIT 2019.

Teaching

University of Wyoming

- | | |
|---|-------------|
| 1. COSC 4200 - Computability and Complexity | Fall 2024 |
| 2. EE 5885 - Introduction to Quantum Cryptography | Spring 2025 |

Professional Services

Served as a reviewer for the following journals:

1. Quantum Information Processing
2. EPJ Quantum Technology
3. IEEE Internet of Things
4. IEEE/ACM Transactions on Networking
5. IEEE Robotics and Automation Magazine

University Services

- | | |
|--|------------------|
| 1. Volunteered for showcasing research to the undergraduate students. | October 2023 |
| 2. Volunteered in welcoming new engineering graduate students. | August 2022 |
| 3. Served as an Orientation Representative for international students. | Dec '19, Aug '19 |
| 4. Volunteered for the School of Engineering research showcase. | March 2019 |

Presentations and Posters

- | | |
|---|---------------|
| 1. New Security Proof of HD-3-State-BB84 Protocol, Quantum Optics Seminar, NIST (Online). | October 2023 |
| 2. New Security Proof of HD-3-State-BB84 Protocol, QCrypt poster, UMaryland. | August 2023 |
| 3. HD-B92 Protocol, SOE poster competition, UConn. | April 2021 |
| 4. HD-Semi-quantum Key Distribution, CSE Security Seminar, UConn. | November 2020 |
| 5. Fully Device-independent QKD, Quantum Network Seminar, UMass/CQN. | July 2020 |
| 6. HD-Semi-quantum Key Distribution, SOE poster competition, UConn. | March 2020 |

Awards

- | | |
|---|----------------------|
| 1. Conference participation award, Graduate School, UConn | July 2023 |
| 2. Summer dissertation fellowship, Graduate School, UConn | April 2023 |
| 3. Synchrony Financial fellowship, CSE, UConn | 2021 - 2022, 2023 |
| 4. Pre-doctoral fellowship award, CSE, UConn | May 2024/23/22/21/20 |

References

Dr. Walter O. Krawec

Associate Professor, Computer Science and Engineering, University of Connecticut
walter.krawec@uconn.edu, (860) 486-5523

Dr. Bing Wang

Professor, Computer Science and Engineering, University of Connecticut
bing@uconn.edu, (860) 486-0582

Dr. Alexander Russell

Professor, Computer Science and Engineering, University of Connecticut
acr@uconn.edu, (860) 486-4290

Dr. Sanguthevar Rajasekaran

Professor, Computer Science and Engineering, University of Connecticut
sanguthevar.rajasekaran@uconn.edu, (860) 486-2428