## Doctoral student wins Best Full Paper Award at national cyber security conference

Ahmad Mansour, a Computer Science and Informatics Ph.D. candidate at Oakland University, recently won the award for Best Full Paper at the 12<sup>th</sup>annual Cyber and Information Security Research Conference held at the Oak Ridge National Laboratory in Tennessee.

His paper, entitled "Multi-Asymmetric Cryptographic RSA Scheme," proposed a multicast, one-to-many, cryptographic scheme that secures online communication between one sender and multiple receivers.

"Existing solutions for multi-asymmetric RSA schemes have limitations. They either require to trust all receivers or need to make some sort of agreements beforehand," Mansour explained. "The proposed scheme addressed these limitations. Unlike normal cryptographic systems, this scheme allows the sender to send different information to multiple receivers, and each receiver is only able to get the message intended for him."

The paper has been published in *the Journal of the ACM*, the official peer-reviewed journal of the Association for Computing Machinery. It was co-



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authored by Richard Bassous, a Ph.D. candidate in Computer Science and Informatics at Oakland University, along with Andrew Davis frc University of Michigan – Flint, Matthew Wagner from Missouri University of Science and Technology, Professor Huirong Fu at Oakland University, and Professor Ye Zhu at Cleveland State University.

The research was performed under the supervision of Professor Fu, a professor in the Computer Science and Engineering Department an director of OU's Center of Cyber Security, and is partially supported by the National Science Foundation.

Mansour came to Oakland in 2015 after earning a bachelor's degree from Yarmouk University in Jordan and a master's degree from Jorda University of Science and Technology, both in Computer Science.

His research interests lie in the areas of Data Security, more specifically Cryptography (ECC and RSA), Steganography, and Network secu as well as their applications. His other areas of interest are Data Compression and Human Computation. His current research focuses on Multi-Asymmetric Cryptography, Multi-Symmetric Cryptography, and Vehicular Ad-hoc Network (VANETs) security and privacy.

To learn more about OU's Department of Computer Science and Engineering, visit the website.