# Ibrahim AbuAlhaol

PhD | MEng | SMIEEE

VENUS Cyber-security Corp. Ottawa, ON K1E3W3 (613) 216-9474 ibrahimee@ieee.org alhaol.com



## Summary

Cyber-Security R & D engineer working on operationalizing collective intelligence with artificial intelligence to improve cyber-security | Hands-on experience in machine learning using Python and MATLAB | Hands-on experience in data analysis using R and Python | Data visualization using Visjs and D3 JavaScript open source libraries | Digital signal processing to secure cyber physical systems | Design and development of 4G Wireless systems PHY/MAC layers simulation using C, C++, and MATLAB.

#### Education

2014–2015 M.Eng. in Technology Innovation Management, Carleton University, Canada, GPA:11/12.

2005–2008 Ph.D. in Electrical Engineering, University of Mississippi, United States, GPA:4.0/4.0.

2002–2004 M.Sc. in Electrical Engineering, Jordan University of Science & Technology, Jordan, GPA:84.0%.

1995–2000 B.Sc. in Electrical Engineering, Jordan University of Science & Technology, Jordan, GPA:84.4%.

### Experience

2015-Present Cyber-Security R & D Engineer, VENUS Corporation, Ottawa, Canada.

Collective Intelligence | Machine Learning | Data Mining | Cyber Physical Systems | Intrusion Detection | Visualization with Visjs and D3 | Data Analysis with R, Python, and MATLAB.

2014-2015 Cyber-Security Researcher, Carleton University, Ottawa, Canada.

D2D Wireless Security | Security Scoring Measure | RSA Key exchange | AES Encryption | MATLAB.

2009-2014 Assistant Professor, Khalifa University, Sharjah, United Arab Emirates.

Cross-Layer Design for Secure Land Transport Systems | VANETs for Intelligent Transportation Systems | Professional Engineering | Probability and Statistics | Wireless Communications | Modulation and Coding | Digital Communications.

2008-2009 Wireless System Engineer, Broadcom Corporation, San Diego, USA.

3G/4G System Design | RF Compliance | 3GPP Standard | Bluetooth | WLAN.

2008-2008 System Engineer Intern, Qualcomm Corporation, San Diego, USA.

4G Wireless Network Analysis and Simulation | GSM | HSPA | WiMAX | LTE.

2005-2008 Research Assistant, University of Mississippi, Oxford, USA.

Cooperative (UAV) network | Transmission rate in MIMO/OFDM systems | MATLAB | C++.

#### **Publications**

Statistics: 3 Book chapters | 5 Journals | 33 Conferences | 146 Google Scholar citations | h-index = 6

Keywords: Intrusion detection | Security | Privacy | VANET | Physical layer attacks | Resource allocation | Cooperative relays | Wireless systems | MIMO-OFDM | UAVs | Optimization | Device-to-Device | Non-coherent detection | Fairness | Multi-Relay | BER Performance | Fading Channels | Wireless sensors Network | Equalization | Capacity analysis | Cooperative Coding | Finite mixture modeling.







