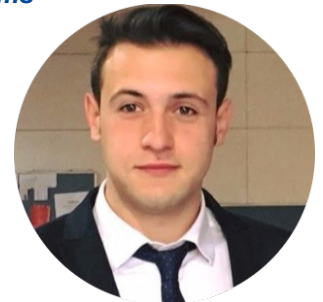**STRATEGOS**

Master of Science on Engineering Technologies for Strategy and Security,

Modelling, Simulation, Data Analysis, AI/IA for Strategies on Operations and Systems

Name Ivan Vaccari

Affiliation **Genoa Network Security Group of the CNR**

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Engineering and Telecommunications

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URL **http://www.ieiit.cnr.it/people.php?show=448**

Ivan Vaccari obtained a Master's Degree in Computer Engineering on March 31, 2017 at the University of Genoa, Department of Computer Science, Bioengineering, Robotics and Systems Engineering, with a score of 110/110 and conferment of praise. The work was carried out during a semi-annual internship from July 2016 to March 2017 carried out at the National Research Council (CNR-IEIIT), in Genoa. Thesis title: "Study of security issues on ZigBee networks in reference to the Internet of Things phenomenon" Speakers: Prof. Alessandro Armando, Dr. Maurizio Aiello, Dr. Enrico Cambiaso

WORKING EXPERIENCE
- October 2017 - Present PhD student in Computer Science at the University of Genoa (cycle XXXIII)
- 01/06/2019 – Present Research fellow at the Genoa Network Security group of the CNR Institute for Electronics and Information Engineering and Telecommunications, for the european project " Integrated Framework for Predictive and Collaborative Security of Financial Infrastructures – FINSEC ". Scientific responsible: Dr. Enrico Cambiaso. Selection announcement n. IEIIT-003-2019-GE.
- 01/06/2017 – 31/05/2019 Research fellow at the Genoa Network Security group of the CNR Institute for Electronics and Information Engineering and Telecommunications, for the european project "My Health – My Data (MH-MD)". Scientific responsible: Dr. Maurizio Aiello. Selection announcement n. IEIIT-006-2017-GE.
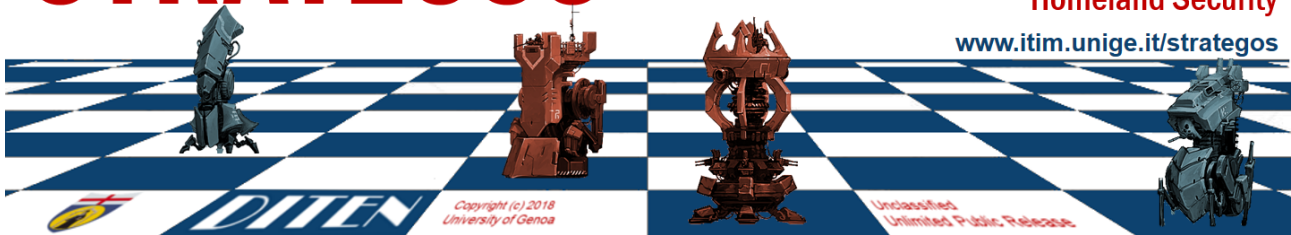
KNOWLEDGE OF LANGUAGES
- Mother language: Italian
- Other language(s): Good knowledge of the English language

AWARDS
- Degree Award "G.B. Ferrari" delivered by ABB on the theme "Digitization through the Internet of Things in the power generation industry" on November 20, 2017

Scientific Responsibility for International and National Research Projects, admitted to the financing of the base of Competitive bands
- Participant in the FreeTool v2.0 European Project "Maturing and Extending the FREETOOL Tool development Initiative", winner of the DG Migration and Home Affairs announcement. Project Coordinator: University College of Dublin. Agreement n. HOME/2014/ISFP/AG/BYBR/7160. ABAC n. 30-CE-0736867/00-05.
- Participant in the European project ANASTACIA "Advanced Networked Agents for Security and Trust Assessment in CPS / IOT Architectures" winner of the call H2020 (call Digital Security). Softeco srl Project Coordinator (years 2017-2019). Prot. CNR-IEIIT n. 1308 of 22/09/2016. The financing of the European project for CNR-IEIIT units: approximately € 326,000. Project website: http://www.anastacia-h2020.eu
- Participant in the MH-MD European Project "My Health-My Data", winner of the H2020 call (ICT call). Project Coordinator Lynkeus srl (years 2016-2019). Prot. CNR-IEIIT n. 1307 of 22/09/2016. Total cost of the Project: € 3,456,188. The financing of the European project for CNR-IEIIT units: € 212,250. Project website: http://www.myhealthmydata.eu
- Participant in the European Project FINSEC "Integrated Framework for Predictive and Collaborative Security of Financial Infrastructures", winner of the call H2020 (call ICT).
- Project Coordinator GFT Italia s.r.l. (years 2018-2021). Total cost of the Project: 10.194.437,87 euros. The financing of the European project for CNR-IEIIT units: € 350,500. Project website: https://www.finsec-project.eu/

Review Activities for International Sector Reviews
- Reviewer for scientific article sent by EasyChair titled "Tweetchain: An alternative to Blockchain using Twitter" on 18/01/2017.
- Reviewer for scientific article sent by SSCC-2017 titled "NPSO based cost optimization for load scheduling in cloud computing" on 03/07/2017.
- Reviewer for scientific article sent by ITASEC19 titled "AndroIDS: a mobile Botnet detection method based on the frequency domain analysis" on 03/07/2017
- Reviewer for scientific article sent by ITASEC19 titled "Macro-Oblivion: Extensive Analysis of Macro-Based Microsoft Office Malware" on 03/07/2017
- Reviewer for scientific article sent by SCI-2018 entitled "Creating Internet of Thing for the benefit of Indian Society" on 01/23/2019
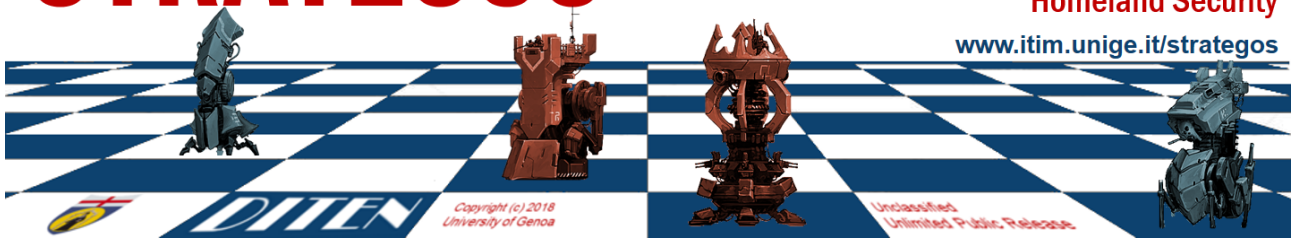
- Reviewer for scientific article sent by SCI-2018 entitled "An Overview of the Internet of Things (IoT): From Literature Survey to Application Implementation Perspective" dated 01/23/2019
- Reviewer for scientific article sent by SSCC-2017 entitled "NPSO based cost optimization for cloud scheduling load" on 06/07/2017
- PC Member of the FINSEC'19 event organized during the "Twenty-fourth European Symposium on Research in Computer Security (ESORICS 2019) https://esorics2019.uni.lu, Luxembourg - September 23-27, 2019". Protocol number: 387-2019
- Reviewer for scientific article sent by IJCDS entitled "An Employment of Neural Network Classifiers to evaluate the Performance of Color Feature Descriptors in an Image Retrieval System: An Experimental Survey" on 10/16/2019. Protocol number: 1314
- Member of the Editorial Board of the AS Computer Science (ACTA Scientific) magazine.
- Reviewer for scientific article sent by ITASEC20 entitled "a survey on sdn-provided security solutions" on 03/07/2017.
- Reviewer for scientific article sent by ITASEC20 entitled "Self-Sovereign Management of Privacy Consensus Using Blockchain" on 03/07/2017.
- Member of the Program Commitee for ITASEC20 PhD forum event.

Articles Published in Press on peer-reviewed International Scientific Journals & Magazines

1. **Vaccari, I.**, Cambiaso, E., Aiello, M. (2017). Exploiting Remote AT Command Attacks against IoT Networks
   Security and Communication Networks
   https://doi.org/10.1155/2017/1723658

2. **Vaccari, I.**, Cambiaso, E., Aiello, M. (2018). Evaluating Security of low-power Internet of Things Networks
   Submitted on Inter Journal of Computing and Digital Systems

3. Cambiaso, E., **Vaccari, I.**, Aiello, M., (2019). Darknet Security: A Categorization of Attacks to the Tor Network
   ITASEC 2019
   *http://ceur-ws.org/Vol-2315/paper10.pdf*

Book Chapter

1. Bernal, J., Molina, A., Skarmeta, A., Bianchi, S., Cambiaso, E., **Vaccari, I.**, Scaglione, S., Aiello, M., Trapero, R., Bouet, M., Belabed, M., Bagaa, M., Addad, R., Taleb, T., Rivera, D., El-Din Mady, A., Quesada Rodriguez, A., Crettaz, C., Ziegler, S., Kim, E., Filipponi, M., Bajic, B., Garcia-Carrillo D., Marin-Perez. R. (2019). Challenges in Cybersecurity and Privacy – the European Research Landscape

STRATEGOS

Engineering Technologies for Strategy in Defense, Industry, Government & Homeland Security

www.itim.unige.it/strategos
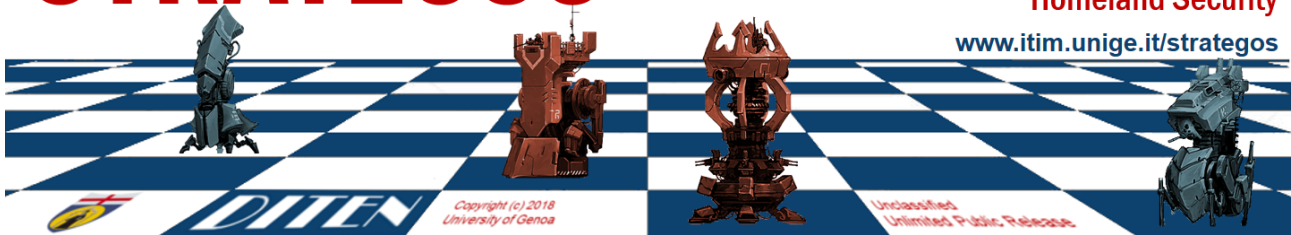
Workshop

1. **Vaccari, I.**, Cambiaso, E., Aiello, M. (2019). Security aspects about Internet of Things Networks and Devices
   Computer Science Workshop 2019
   PhD program in Computer Science and Systems Engineering, Università degli Studi di Genova
2. **Vaccari, I.** (2020). Security aspects about Internet of Things Networks and Devices
   PhD Forum ITASEC2020

Network services

During the period of University Studies and Research, I acquired:
- Good knowledge of the functioning of network devices, both in theoretical and practical terms
- Knowledge of network protocols: IEEE 802.11, IEEE 802.15.4, IEEE 802.3, Wi-Fi, ZigBee, HTTP/HTTPS, MQTT
- Network Engineering: TCP/IP Architecture, IP Routing, ISO/OSI,
- Bridging/Switching, Firewall, IDS and IPS
- Good knowledge of cloud and storage systems and backups on Physical Devices such as NAS or tape
- Excellent knowledge of Internet of Things (IoT), both in Hardware, Software and Cyber Security
- Development of IoT applications using different communication protocols, depending on the implemented applications
- Deep knowledge about Docker virtualization
- Knowledge of the Vulnerability Assessment and Penetration test processes
- 3D printing Knowledge and Procedure
- Machine Learning, basic knowledge and algorithms

Operating Systems

Skills and experience of using the following operating systems:
- Microsoft Windows: skills regarding the use and configuration of the Operating System, starting from Microsoft Windows XP.
- Linux and derivatives (eg Android): skills regarding the use and configuration of a Linux based system, both in the desktop and in the server.
- Apple macOS: skills regarding the use and configuration of the operating system

Web references: www.linkedin.com/in/ivanvaccari

www.ieiit.cnr.it/ge/index.php