PERSONAL INFORMATION   Alessandro Cantelli-Forti

POSITION   Researcher in Cybersecurity and Digital Forensics

WORK EXPERIENCE

February, 2012 - to present   **Researcher**

National Inter-University Consortium for Telecommunications, Radar and Surveillance Systems National Lab

Since 2012 is a researcher of the "Radar and Surveillance Systems" (RaSS) National Laboratory of Pisa. Main research topics are cybersecurity, forensic engineering and incident management and remediation.

I was involved in several EU, Italian Ministry of Defense, Italian Ministry of Education, Universities and Research founded projects such as SMARP, SCOUT, HABITAT, ISAR-SKY, X-WALD, RING, COGITO and coordinated personally acquired projects: NavOp, Water4AgriFood, Anti-Drones.

In 2018, the research activity involved in the NATO AFSC Small Scale Study Project IV on "Information Assurance" (AFSC SSS-IA), for which my working group received a letter of appreciation signed by the NATO Chief Scientist Dr. Thomas H. Killion.

In the biennium 2020-2021 I was the research manager for the Cyber Resilience implementation of two projects funded by the Italian MoD called SMART-AESA, directed by Leonardo S.p.A. and ISS, coordinated by Drass Underwater Technology S.r.l. The two projects respectively deal with cyber risk management in radar systems for hypersonic threats and with the whole IT chain in military underwater environment.

I was appointed digital evidence expert of the court in several criminal cases such as the accidents of ships Costa Concordia, Norman Atlantic, Efe Murat, Msc Opera, Costa Deliziosa,the high-speed train accident occurred in Parma of November 2021, so-called "Diesel-Gate" scandal of Audi-Porsche, and Mottarone-cableway tragedy. The investigations for the Costa Concordia case lasted four years under the direct coordination of Admiral Cavo Dragone, Joint Operations Headquarters Commander. The research activities and the international collaborations developed in the framework of these projects have led to the publication of scientific papers and technical reports.

June, 2019 - September, 2022   **NATO Project Director**

Scientific and technical coordination of the *Anti-Drones – Innovative concept to detect, recognize and track "killer-drones"* project of the NATO Science for Peace and Security Programme, Emerging Security Challenges Division. Grant number: G5633 of 12 June, 2019. Total budget: 398014EUR

September, 2020 - to present   **European Defence Agency non-governmental expert**

Non-governmental expert of Cyber Defence Capability Technology Area (CapTech)

July, 2015 – to present	## Co-founder of ECHOES s.r.l
	Co-founder of *ECHOES*, a CNIT spin-off company developing on radar systems
October, 2021 - to present	## Lecturer
	Universita' degli Studi di Genova
	Network Forensics Advanced Training Course held at *Joint Telecommunications School, Stelmilit* in Chiavari (GE), a.y. 2021/2022
November, 2020	## Lecturer
	Universita' degli Studi di Modena e Reggio Emilia
	Gestione del processo di Incident Management e Remediation, 1st-level Master in Cyber Defence Governance held at *Joint Telecommunications School, Stelmilit* in Chiavari (GE), a.y. 2020/2021
May, 2019	## Lecturer
	Universita' degli Studi di Modena e Reggio Emilia
	Forensic Engineering: case study Cyberacademy Advanced Training Course in Cyber Security, a.y. 2018/2019
March - May, 2014	## Fixed Term Professor
	Universita' degli Studi di Napoli «Parthenope»
	Network Security 2nd-level Master, a.y. 2013/2014
March - May, 2013	## Fixed Term Professor
	Universita' degli Studi di Napoli «Federico II»
	Network Security 2nd-level Master, a.y. 2012/2013
November 2017 – October, 2018	## Internship
	WebLab Laboratory, Department of Engineering «Enzo Ferrari», Università degli Studi di Modena e Reggio Emilia, Modena
	As part of the PhD scholarship
April 2016 – July, 2017	## Guest Lecturer in Digital Forensics applied to industrial accidents
	Guest lecturer for EMAIIF (Marine Accident Investigators' International Forum), MAIB (Marine Accident Investigation Branch, United Kingdom), and DIGIFEMA (Direzione Generale per le Investigazioni Ferroviarie e Marittime, Italy) about naval safety and information security at University of Cranfield (UK) and at Southampton UK Ministry Offices.

EDUCATION AND TRAINING

October 2015 - April, 29 2019	## Ph.D. Program in Information Engineering of the Engineering Ph.D. School "Leonardo da Vinci" of the University of Pisa	Final grade: excellent
	Università degli studi di Pisa – Pisa	
Ph.D. Thesis	Developing innovative cybersecurity tecniques for protection of critical infrastructure	
September, 2013	## Summer School on Computer Security & Privacy, Department of Electrical and Electrinic Engineering	

Università degli studi di Cagliari – Cagliari

Final Examination   Building trust in the Information Age

July, 15 2011   ## Bachelor's and Master's degree in Computer Science Engineering

Università degli studi di Genova – Genoa

Master's Thesis   Studio ed analisi di un data-link tra sottosistemi di un radar HF-OTH di tipo skywave

August, 2001   ## ELP Program, Academic Plus

UCSD, University of California, San Diego

Academic Program Plus   English Language Program

PUBLICATIONS

A. Cantelli-Forti, M. Colajanni, "Digital Forensics in Vessel Transportation Systems", Lecture Notes in Computer Science LNCS, Springer, DOI: 10.1007/978-3-030-45371-8_23

A. Cantelli-Forti, A. Capria et al., "SCOUT Multitech SeCurity system for intercOnnected space control groUnd staTions: System Architecture and Experimental Results", submitted to: Inter-national Journal of Critical Infrastructure Protection (IJCIP), Elsevier, DOI: 10.1016/j.ijcip.2020.100407

L. Fiorentini, L. Marmo and A. Cantelli-Forti, Book chapter "Fire on board of a ferryboat", Book chapter in Principles of Forensic Engineering Applied to Industrial Accidents, pp. 280-296, ISBN: 978-1-118-96280-0, Wiley, Dec 2018

Cantelli-Forti, "Forensic Analysis of Industrial Critical Systems: The Costa Concordia's Voyage Data Recorder Case", Proc. of 2018 IEEE International Conference on Smart Computing (SMARTCOMP), pp. 458-463, June 2018, DOI: 10.1109/SMARTCOMP.2018.00046

A. Cantelli-Forti, M. Colajanni, Adversarial Fingerprinting of Cyber Attacks based on Stateful Honeypots, Proceedings of the 2018 International Conference on Computational Science and Computational Intelligence, Las Vegas USA, DOI: 10.1109/CSCI46756.2018.00012

W. Matta, A. Cantelli-Forti, An innovative Airport Physical-cyber Security System (APSS), Information & Security: An International Journal, 2018, DOI: DOI: 10.11610/isij.4321

Capria A., Moscardini C., Conti M., Cantelli Forti A., Berizzi F. and al, "Passive radar research activity at Lab RaSS-CNIT", presented to IEEE South Australia Workshop on Passive Radar, Ade-laide, Australia, 23-24 November, 2015.

A. Capria, D. Petri, C. Moscardini, M. Conti, A. Cantelli-Forti et al., "Software-defined Multiband Array Passive Radar (SMARP) demonstrator: A test and evaluation perspective", Proc. of OCEANS 2015, pp. 1-6, Genoa, 2015, 18-21 May 2015

B. Chiaia, R. Sicari, A.Cantelli-Forti et al., "Incendio della Motonave Norman Attlantic: Indagini Multidisciplinari in Incidente Probatorio", IF CRASC Conference on Forensic Engineering, Politecnico di Milano, 14-16 Settembre 2017

A. Cantelli-Fori, "Tactical Digital Forensics per Infrastructure Critiche, Book Chapter, Legal Tech Forum Report 2021, EAN:9788828837633

Callegari, C.; Cantelli Forti, A.; D'Amore, G.; de la Hoz, E.; Santamaria, D.; García-Ferreira, I. and López-Civera, G. (2016). An Architecture for Securing Communications in Critical Infrastructure. In Proceedings of the 13th International Joint Conference on e-Business and Telecommunications - DOI: 10.5220/0006016801110120

Driving licence   AB (Italy); C (Texas, USA)