

Alessio Merlo is a Full Professor of Computer Engineering at CASD, the Center for Higher Defense Studies, in Rome. He obtained a master's degree in Computer Science in 2005 from the University of Genoa and a Ph.D. in Computer Science in 2010 from the same university.

Since 2010, his research has been entirely focused on the Cybersecurity field, with a specific focus on Mobile Security, where over the years, he has contributed to defining innovative methods for the <u>static</u> and <u>dynamic</u> analysis of the security of Android applications, with applications to actual scenarios (e.g., <u>BYOD</u>), to define new methodologies for testing mobile applications and protecting them, such as <u>obfuscation</u> techniques and approaches to protect mobile apps from <u>repackaging</u> attacks.

He has also worked on developing new technologies for <u>user authentication</u> on mobile devices, techniques for profiling the <u>energy footprint</u> of attacks and <u>malware</u>, and methodologies for <u>protecting the personal data</u> of users acquired by mobile applications.

It also contributed to the discovery of a series of dangerous vulnerabilities, including the Zygote Vulnerability, two vulnerabilities in the GSM and UMTS protocols, others in some Android Password Managers, and one in the Android iNotify service, which would have led to various consequences on the final user, from the theft of credentials to the inability to use the mobile device.

Recently, he moved his research interests toward Maritime Security, starting collaborations with expert researchers in the sector. As a result, he contributed to discovering a <u>dangerous attack on a</u> <u>naval radar</u>.

He has received several awards for his research activity, including some "best paper awards" and a "best artifact tool award". He is an IEEE Senior Member and author of more than 130 publications in international cybersecurity journals and conferences.

In his career, he directed a Mobile Security research group at the University of Genoa from 2010 to 2023, which over the years, included more than 25 people, including 8 Ph.D. students, collaborators, postdocs, research fellows, and assistant professors.

Furthermore, he collaborates with several Italian and foreign universities and research centers, such as the CNR, the Bruno Kessler Foundation, the University of Salerno, Padua, the Mediterranean of Calabria, and Rome Sapienza. He was also director, for four years, of the <u>II level Master in "Cybersecurity and Critical</u>

<u>Infrastructure Protection</u> at the University of Genoa.

Useful Links: Google Scholar: <u>https://scholar.google.com/citations?user=F3Bkg\_MAAAAJ&hl=en</u> Scopus ID: <u>15136674200</u> ORCID: <u>0000-0002-2272-2376</u> ResearchGate: <u>Alessio Merlo</u>