

Proceedings of the  
Fifth Italian Conference on Cybersecurity  
— Scientific and Technical Track —

# ITASEC21

April 7-9, 2021 - Online

Edited by

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## Preface

ITASEC21 is the fifth edition of the Italian Conference on Cybersecurity gathering the academic, industrial, military and political community that is growing year by year. This edition was a success in terms of participation and events despite it was held online for the first time. ITASEC21 has a twofold goal: to foster multi-sectorial research that addresses the different issues related to cybersecurity; to present the most recent opportunities that arise at the intersection of technology, policy and society. This annual event is organized by the CINI Cybersecurity National Laboratory and is able to promote networking and profitable exchange of ideas among cybersecurity researchers and experts coming from universities, companies, public organizations, and government.

ITASEC21 was structured into an initial day of workshops organized by Prof. Stefano Bistarelli, a scientific track with the presentation of academic and industrial research papers, and a parallel track devoted to the presentation of company security solutions and to the discussion about national cybersecurity issues from top stakeholders. The conference call for papers solicited unpublished contributions to be included in the conference proceedings and also contributions related to the presentation of important already published work. There were 100 submissions from 14 countries. Each paper was reviewed by three Program Committee members. After a meeting and discussions on some controversial evaluations, the committee decided to accept 45 papers that are included in this proceedings volume. The overall schedule for submissions and decisions were strict, so we take this opportunity to express our sincere gratitude to the colleagues of the Program Committee and all the external reviewers that provided their assessments on time.

The technical and political academic tracks were opened by two keynote outstanding speakers: Prof. Lujó Bauer, Carnegie Mellon University, on “The practical risks and benefits of AI to cybersecurity”; Prof. Luciano Floridi, University of Oxford, on “Digital risks and their management”. We are in debt for your generous and brilliant presentations. Younger colleagues of the Program Committee organized excellent special tracks on hot cybersecurity topics. Many thanks go to Luigi Coppolino (e-health security), Gabriele Costa (cybersecurity training), Mirco Marchetti (automotive and smart mobility security), Luigi Martino (social and political issues), Alessio Merlo (mobile security), Mario Polino (industrial security), Aaron Visaggio (malware analysis). The quality of their selections and management work represents the best indication that the Italian cybersecurity community has a bright future. The event was concluded by a speech on “The national cybersecurity perimeter” by Prof. Roberto Baldoni, Deputy Director on Cybersecurity of the Presidency of Ministry Council.

The conference was made possible thanks to the incitements and tireless work of Prof. Paolo Prinetto, Director of the CINI Cybersecurity Lab, and Prof. Rocco De Nicola, General Chair of the conference, and of multiple persons behind the scenes. We will not forget your availability to evening and weekend calls to fix the multiple issues characterizing the organization of any event. Let us thank all of you for your efforts and generous support.

July 7, 2021

Alessandro Armando  
Michele Colajanni

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