

# IFIP SEC 2019 (Final Program)

Monday: 24 June, 2019

IFIP Sec Business Meeting (by invitation). Room 101 on the New Quelhas Building, ISEG, Universidade de Lisboa, from 08:00 to 18:00

Tuesday: 25 June, 2019

8.00 - 9.00	Registration	
9.00 - 9.15	<p>Opening Remarks            Auditório CGD            Gurpreet Dhillon, Steven Furnell, Co-General Chair            Fredrik Karlsson, Karin Hedström, André Ventura Zúquete, Co-Program Chairs</p>	
9.15 - 10.15	<p>Keynote 1: Access Control Evolution and Prospects (Chair: Steven Furnell)            Auditório CGD            Ravi Sandhu: Kristian Beckman Award Recipient            Professor and Lutcher Brown Endowed Chair in Cyber Security            University of Texas at San Antonio, USA</p>	
10.15 - 10.30	Coffee Break	
10.30 - 12.00	<p><b>Crypto and Encryption</b> (Auditorio 4)            Chair: André Zúquete</p> <p>Arcana: Enabling Private Posts on Public Microblog Platforms (#12)  <i>Anirudh Narasimman, Qiaozhi Wang, Fengjun Li, Dongwon Lee, and Bo Luo</i></p> <p>Fast Keyed-Verification Anonymous Credentials on Standard Smart Cards (#21)  <i>Jan Camenisch, Manu Drijvers, Petr Dzurenda and Jan Hajny</i></p> <p>BlockTag: Design and Applications of a Tagging System for Blockchain Analysis (#42)  <i>Yazan Boshmaf, Husam Al Jawaheri, and Mashaal Al Sabah</i></p>	<p><b>Organizational and Behavioral Security</b> (Auditorio 5)            Chair: Lech Janczewski</p> <p>Differentially Private Generative Adversarial Networks for Time Series, Continuous, and Discrete Open Data (#32)  <i>Lorenzo Frigerio, Anderson Santana de Oliveira, Laurent Gomez, and Patrick Duverger</i></p> <p>ESARA: A Framework for Enterprise Smartphone Apps Risk Assessment (#64)  <i>Majid Hatamian, Sebastian Pape and Kai Rannenber</i></p> <p>SocialAuth: Designing Touch Behavioral Smartphone User Authentication based on Social Networking Applications (#81)  <i>Weizhi Meng, Wenjuan Li, Lijun Jiang, and Jianying Zhou</i></p>
12.00 - 13.30	Lunch	
13.30 - 15.00	<p><b>User Data and Privacy Controls</b> (Auditorio 4)            Chair: Bart De Decker</p> <p>Predicting Students' Security Behavior Using Information-Motivation-Behavioral Skills Model (#46)  <i>Ali Farooq, Debora Jeske, and Jouni Isoaho</i></p> <p>Why Do People Pay for Privacy-Enhancing Technologies? The Case of Tor and JonDonym (#50)  <i>David Harborth, Xinyuan Cai, and Sebastian Pape</i></p> <p>Towards Contractual Agreements for Revocation of Online Data (#37)  <i>Theodor Schnitzler, Markus Dürmuth, and Christina Pöpper</i></p>	<p><b>WIPER</b> (Auditorio 5)            Chair: Kane Smith</p> <p>Physical presence verification using TOTP and QR codes (#87)  <i>Emin Huseynov and Jean-Marc Seigneur</i></p> <p>An Authentication and Key Agreement Scheme using ECQV in IoT Environments (#90)  <i>Dae-Hwi Lee and Im-Yeong Lee</i></p> <p>Efficiently Vectorized Anonymization in Data Mining using Genetic Algorithms (#99)  <i>Fatemeh Amiri, Gerald Quirchmayr, Peter Kieseberg, Alessio Bertone and Edgar Weippl</i></p> <p>Access Control Models via Non-Standard Logics (#101)  <i>Mikhail M. Kucherov and Bogulskaya Nina A.</i></p>
15.00 - 15.30	Coffee Break	

15.30 - 17.00	<p><b>Data Integrity and Security</b> (Auditorio 4) Chair: Carlos Rieder</p> <p>On the Effectiveness of Control-Flow Integrity Against Modern Attack Techniques (#44) <i>Sarwar Sayeed and Hector Marco-Gisbert</i></p> <p>Automatically Proving Purpose Limitation in Software Architectures(#67) <i>Kai Bavendiek, Tobias Mueller, Florian Wittner, Thea Schwaneberg, Christian-Alexander Behrendt, Wolfgang Schulz, Hannes Federrath, and Sibylle Schupp</i></p> <p>Commit Signatures for Centralized Version Control Systems (Extended Abstract) (#70) <i>Sangat Vaidya, Santiago Torres-Arias, Reza Curtmola, and Justin Capps</i></p>	<p><b>WISE12</b> (Auditorio 5) Chair: Matt Bishop</p> <p>A Short-cycle Framework Approach to Integrating Psychometric Feedback and Data Analytics to Rapid Cyber Defense (#22) <i>Erik Moore, Steve Fulton, Roberta Mancuso, Tristen Amador and Daniel Likarish</i></p> <p>Identifying Security Requirements Body of Knowledge for the Security Systems Engineer (#12) <i>Sune von Solms and Annize Marnewick</i></p> <p>Introducing Research into the Undergraduate Curriculum in Cybersecurity (#17) <i>Susanne Wetzel and Dimitrios Damopoulos</i></p>
18.00 - 20.00	<p><b>Opening Reception: Wine &amp; Cheese</b> <b>Rooftop: New Quelhas building, ISEG, University de Lisboa</b></p>	

Wednesday: 26 June, 2019

8.30 - 9.15	Registration	
9.15 - 10.15	<p>Keynote 1: Compliance vs. Risk Management - Two Perspectives on Supply Chain Risk Management (Chair: Gurpreet Dhillon) Auditório CGD Rob Arnold CEO, ThreatSketch, USA</p>	
10.15 - 10.30	Coffee Break	
10.30 - 12.00	<p><b>Intrusion Detection &amp; Access Control</b> (Auditorio 4) Chair: Abbas Shahim</p> <p>Towards an Automated Extraction of ABAC Constraints from Natural Language Policies (#59) <i>Manar Alohaly, Hassan Takabi, and Eduardo Blanco</i></p> <p>An Efficient and Scalable Intrusion Detection System on Logs of Distributed Applications (#48) <i>David Lanoë, Michel Hurfin, Eric Totel, and Carlos Maziero</i></p> <p>Hunting Brand Domain Forgery: A Scalable Classification for Homograph Attack (#17) <i>Tran Phuong Thao, Yukiko Sawaya, Hoang-Quoc Nguyen-Son, Akira Yamada, Kazumasa Omote, and Ayumu Kubota</i></p>	<p><b>Organizational and Behavioral Security</b> (Auditorio 5) Chair: Nora Cuppens</p> <p>The Influence of Organizational, Social and Personal Factors on Cybersecurity Awareness and Behavior of Home Computer Users (#19) <i>Joëlle Simonet and Stephanie Teufel</i></p> <p>To Be, or Not to Be Notified Eliciting Privacy Notification Preferences for Online mHealth Services (#47) <i>Patrick Murmann, Delphine Reinhardt, and Simone Fischer-Hübner</i></p> <p>A Structured Comparison of the Corporate Information Security Maturity Level (#49) <i>Michael Schmid and Sebastian Pape</i></p>
12.00 - 13.30	Lunch	
13.30 - 15.00	<p><b>WIPER</b> (Auditorio 4) Chair: Onyi Nwafor</p> <p>Privacy by Design using Agents and Sovereign Identities (#91) <i>Kalman Toth and Alan Anderson-Priddy</i></p> <p>ID-Based Proxy Re-encryption for Collusion Resistance in Cloud Storage (#92) <i>Won-Bin Kim and Im-Yeong Lee</i></p> <p>A Machine Learning Framework for Studying User Behaviors in Phishing Email Processing (#97) <i>Yi Li, Kaiqi Xiong and Xiangyang Li</i></p> <p>On the Administrative Information Security: definition and impact on Security Governance</p>	<p><b>WISE12</b> (Auditorio 5) Chair: Erik Moore</p> <p>Learning Principles and the Secure Programming Clinic (#26) <i>Matt Bishop, Melissa Dark, Lynn Fitcher and Johan van Niekerk</i></p> <p>Light Cryptography (#14) <i>Pascal Lafourcade, Takaaki Mizuki, Atsuki Nagao and Kazumasa Shinagawa</i></p> <p>An Educational Intervention for Teaching Secure Coding Practices (#10) <i>Vuyolwethu Mdunyelwa, Lynn Fitcher and Johan van Niekerk</i></p>

	<i>Gurpreet Dhillon and Winnie Picoto</i>	
15.00 - 15.30	Coffee Break	
15.30 - 17.00	<p><b>Access Control</b> (Auditorio 4) Chair: Kai Rannenberg</p> <p>Performance of Password Guessing Enumerators Under Cracking Conditions (#35) <i>Mathieu Valois, Patrick Lacharme, and Jean-Marie Le Bars</i></p> <p>An Offline Dictionary Attack against zkPAKE Protocol (#23) <i>José Becerra, Peter Y. A. Ryan, Petra Sala, and Marjan Skrobot</i></p> <p>Fine-Grained Access Control in Industrial Internet of Things: Evaluating Outsourced Attribute-Based Encryption (#56) <i>Dominik Ziegler, Josef Šabongui, and Gerald Palfinger</i></p>	<p><b>WISE12</b> (Auditorio 5) Chair: Lynette Drevin</p> <p>Lessons Learned from an Organizational Information Security Awareness Campaign (#20) <i>Jacques Ophoff and Juan-Marc Scrimgeour</i></p> <p>A Comprehensive Framework for Understanding Security Culture in Organizations (#9) <i>Alaa Tolah, Steven Furnell and Maria Papadaki</i></p> <p>Using Gamification to Improve Information Security Behavior: A Password Strength Experiment (#25) <i>Jacques Ophoff and Frauke Dietz</i></p>
20.00 -	<p><b>Conference Dinner: Hotel Mundial – Varanda Restaurant located in Praça Martim Moniz</b> <b>20.00: Welcome cocktail: Dry and sweet port, moscatel and Petit fours</b> <b>20.30: Dinner (Traditional Bacalhau main course) and Fado music (Fado music will begin after the last dish)</b></p> <p>The hotel is walking distance from the Rossio and Martim Moniz metro stations. Street Address: Praça Martim Moniz 2, 1100-341 Lisboa, Portugal Google Maps: <a href="https://goo.gl/maps/GvZbBJypNjG6pS6">https://goo.gl/maps/GvZbBJypNjG6pS6</a></p>	

Thursday: 27 June, 2019

8.30 - 9.00	Registration	
9.00 - 10.30	<p><b>Identity &amp; Access Control</b> (Auditorio 4) Chair: Fredrik Karlsson</p> <p>Forward Secure Identity-based Signature Scheme with RSA (#80) <i>Hankyung Ko, Gweonho Jeong, Jongho Kim, Jihye Kim and Hyunok Oh</i></p> <p>Removing Problems in Rule-Based Policies (#63) <i>Zheng Cheng, Jean-Claude Royer, and Massimo Tisi</i></p> <p>Is This Really You? An Empirical Study on Risk-Based Authentication Applied in the Wild (#11) <i>Stephan Wiefing, Luigi Lo Iacono, and Markus Dürmuth</i></p>	<p><b>WISE12</b> (Auditorio 5) Jacques Ophoff</p> <p>Andragogy as a Scientific Basis for Training Professionals in Information Security (#5) <i>Alexander Tolstoy and Natalia Miloslavskaya</i></p> <p>Identifying Information Security Risks in a Social Network using Self-organising Map (#11) <i>Rudi Serfontein, Hennie Kruger and Lynette Drevin</i></p> <p>Blockchain and its Security: Ignore or Insert into Academic Training? (#1) <i>Natalia Miloslavskaya and Alexander Tolstoy</i></p>
10.30 - 11.00	Coffee Break	
11.00 - 12.00	<p><b>Intrusion Detection</b> (Auditorio 4) Chair: Yuko Murayama</p> <p>Control Logic Injection Attacks on Industrial Control Systems (#45) <i>Hyunguk Yoo and Irfan Ahmed</i></p> <p>GanDef: A GAN based Adversarial Training Defense for Neural Network Classifier (#6) <i>Guanxiong Liu, Issa Khalil, and Abdallah Khreishah</i></p>	<p><b>WISE Working Group</b> (Auditorio 5) Chair: Natalia Miloslavskaya</p> <p>Addressing the Graduate Student Pipeline Problem in Cybersecurity <i>Susanne Wetzel</i></p>
12.00 - 13.30	Lunch	
13.30 - 15.00	<p><b>WIPER</b> (Auditorio 5) Chair: Ella Kolkowska</p> <p>Integrating Blockchain into Security Curricula <i>Kane Smith</i></p>	<p><b>IFIP WG11.8 AGM</b> (Auditorio 5) Chair: Lynn Fitcher</p>

	<p>App Users Privacy and Personal Data Protection <i>Solomon Negash and Peter Meso</i></p> <p>A theoretical study and review on Blockchain's Privacy Mechanisms (98) <i>Adam Mihai Gergely and Bogdan Crainicu</i></p> <p>WHOIS and the GDPR - A (never) ending story in cyberspace? (85) <i>Matthias Hudobnik</i></p> <p>Soter: Trust Discovery Framework for Internet of Medical Things (IoMT) (#93) <i>Maha Allouzi and Javed Khan</i></p>
15.00 - 15.30	Coffee Break
15.30 - 17.00	Concluding remarks & IFIP 2020