

Publications

Alberto Ferrante

May 15, 2024

1 Peer Reviewed Journals and Book Chapters

1. Luca Butera, Alberto Ferrante, Mauro Jermini, Mauro Prevostini, and Cesare Alippi. Precise agriculture: Effective deep learning strategies to detect pest insects. *IEEE/CAA Journal of Automatica Sinica*, 9(2):246–258, 2022
2. Jelena Milosevic, Miroslaw Malek, and Alberto Ferrante. Time, accuracy and power consumption tradeoff in mobile malware detection systems. *Computers & Security*, 82:314–328, 05/2019 2019
3. Alberto Ferrante, Miroslaw Malek, Fabio Martinelli, Francesco Mercaldo, and Jelena Milosevic. *Extinguishing Ransomware - A Hybrid Approach to Android Ransomware Detection*, volume 10723, pages 242–258. Springer International Publishing, Cham, 02/2018 2018
4. Jelena Milosevic, Miroslaw Malek, and Alberto Ferrante. *Runtime Classification of Mobile Malware for Resource-constrained Devices*, volume 764, pages 195–215. Springer International Publishing AG, 2017
5. Antonio Vincenzo Taddeo, Marcello Mura, and Alberto Ferrante. Dynamic adaptation of security and QoS in energy-harvesting sensors nodes. In MohammadS. Obaidat, GeorgeA. Tsihrintzis, and Joaquim Filipe, editors, *e-Business and Telecommunications*, volume 222 of *Communications in Computer and Information Science*, pages 243–258. Springer Berlin Heidelberg, 2012
6. Christian Gamrat, Jean-Marc Philippe, Chris Jesshope, Alex Shafarenko, Labros Bisdounis, Umberto Bondi, Alberto Ferrante, Joan Cabestany, Michael Huebner, Juha Parsinnen, Jiri Kadlec, Martin Danek, Benoit Tain, Susan Eisenbach, Michel Auguin, Jean-Philippe Diguët, Eric Lenormand, and Jean-Luc Roux. Aether: Self-adaptive networked entities: Autonomous computing elements for future pervasive applications and technologies. In Joao M. P. Cardoso and Michael Huebner, editors, *Reconfigurable Computing: From FPGAs to Hardware/Software Codesign*, pages 149–184. Springer, New York, USA, 2011
7. Onur Derin, Alberto Ferrante, and Antonio Vincenzo Taddeo. Coordinated management of hardware and software self-adaptivity. In *Journal of System Architectures*, volume 55, pages 170–179. Elsevier North-Holland, Inc., New York, NY, USA, 2009
8. Alberto Ferrante, Satish Chandra, and Vincenzo Piuri. IPSec database query acceleration. In Mohammad S. Obaidat Joaquim Filipe, editor, *Communications in Computer and Information Science*, volume 23, pages 188–200. Springer, 11 2008
9. Vincenzo Piuri Antonio Vincenzo Taddeo, Alberto Ferrante. Scheduling Small Packets in IPSec Multi-accelerator Based Systems. In *Journal of Communications (JCM)*, volume 2, pages 53–60. Academy Publisher, March 2007

2 Peer Reviewed Conferences and Workshops

1. Luca Crupi, Luca Butera, Alberto Ferrante, and Daniele Palossi. A deep learning-based pest insect monitoring system for ultra-low power pocket-sized drones. In *Wireless Sensors and Drones in the Internet of Things (Wi-DroIT) 2024*. IEEE, April 2024

2. Federico Umberto Mion, Manuela Faldarini, Fabio Scardino, Alberto Ferrante, Marco D'Ambros, Mauro Prevostini, and Gianmarco Beti. lot for medical waste management: the case of a swiss multisite hospital, June 2022. EHMA, EHMA 2022 Annual Conference — From people to systems: leadership for a sustainable future, Brussels, Belgium
3. Muhammad Abdul Wahab, Jelena Milosevic, Francesco Regazzoni, and Alberto Ferrante. Power and performance optimized hardware classifiers for eefficient on-device malware detection. In *Cryptography and Security in Computing Systems*, Valencia, Spain, 01/2019 2019. ACM, ACM
4. Filippo Maria Bianchi, Lorenzo Livi, Alberto Ferrante, Jelena Milosevic, and Miroslaw Malek. Time series kernel similarities for predicting paroxysmal atrial fibrillation from ecgs. In *IJCNN 2018 : International Joint Conference on Neural Networks*, Rio, Brazil, 07/2018 In Press. IEEE, IEEE
5. Jelena Milosevic, Miroslaw Malek, and Alberto Ferrante. A friend or a foe? detecting malware using memory and cpu features. In *SECRYPT 2016, 13th International Conference on Security and Cryptography*, Lisbon, Portugal, 07/2016 2016. SciTePress Digital Library, SciTePress Digital Library
6. Jelena Milosevic, Alberto Ferrante, and Miroslaw Malek. Malaware: Effective and efficient run-time mobile malware detector. In *The 14th IEEE International Conference on Dependable, Autonomic and Secure Computing (DASC 2016)*, Auckland, New Zealand, 08/2016 2016. IEEE Computer Society Press, IEEE Computer Society Press
7. Alberto Ferrante, Francesco Mercaldo, Jelena Milosevic, and Corrado Aaron Visaggio. Spotting the malicious moment: Characterizing malware behavior using dynamic features. In Eric Medvet, editor, *2016 11th International Conference on Availability, Reliability and Security (ARES)*, Salzburg, Austria, 08/2016 2016
8. Jelena Milosevic, Alberto Ferrante, and Miroslaw Malek. Trojan families identification using dynamic features and low complexity classifiers. In *24th EICAR Annual Conference 2016 "Trustworthiness in IT Security Products"*, Nuremberg, Germany, 10/2016 2016. EICAR, EICAR
9. Jelena Milosevic, Alberto Ferrante, and Miroslaw Malek. What does the memory say? towards the most indicative features for efficient malware detection. In *CCNC 2016, The 13th Annual IEEE Consumer Communications & Networking Conference*, Las Vegas, NV, USA, 01/2016 2016. IEEE Communication Society, IEEE Communication Society
10. Jelena Milosevic, Alberto Ferrante, and Miroslaw Malek. Can we achieve both privacy protection and efficient malware detection on smartphones? In *1st Interdisciplinary Cyber Research Workshop 2015*, Tallin, Estonia, 07/2015 2015. Tallinn University of Technology, Tallinn University of Technology
11. Jelena Milosevic, Alberto Ferrante, and Miroslaw Malek. A general practitioner or a specialist for your infected smartphone?, 05/2015 2015. Poster at the 36th IEEE Symposium on Security and Privacy, San Jose, CA, USA
12. Jelena Milosevic, Alberto Ferrante, and Francesco Regazzoni. Security challenges for hardware designers of mobile systems. In *2015 Mobile Systems Technologies Workshop (MST)*, May 2015
13. Jelena Milosevic, Andreas Dittrich, Alberto Ferrante, and Miroslaw Malek. A resource-optimized approach to efficient early detection of mobile malware. In *3rd International Workshop on Security of Mobile Applications - IWSMA 2014*, Fribourg, Switzerland, September 2014
14. Jelena Milosevic, Andreas Dittrich, Alberto Ferrante, Miroslaw Malek, Camilo Rojas Quiros, Rubén Braojos, Giovanni Ansaloni, and David Atienza. Risk assessment of atrial fibrillation: a failure prediction approach. In *Computing in Cariology (CinC)*, Cambridge, MA, USA, September 2014
15. Alberto Ferrante, Igor Kaitović, and Jelena Milosevic. Modeling requirements for security-enhanced design of embedded systems. In *ICETE SECRYPT*, Vienna, Austria, August 2014. ICETE, ICETE
16. Alberto Ferrante, Jelena Milosevic, and Marija Janjusevic. A security-enhanced design methodology for embedded systems. In *SECRYPT 2013*, Reykjavik, Iceland, July 2013
17. Alberto Ferrante, Massimo Chelodi, Francesco Bruschi, and Valeria Mozzetti. An algorithm for extended dynamic range video in embedded systems. In *SENSORNETS 2013*, Barcelona, Spain, February 2013

18. Leandro Fiorin, Alberto Ferrante, Konstantinos Padarnitsas, and Francesco Regazzoni. Security enhanced linux on embedded systems: A hardware-accelerated implementation. In *ASP-DAC*, pages 29–34. IEEE, 2012
19. Antonio Vincenzo Taddeo, Luis Germán García Morales, and Alberto Ferrante. A framework for security and workload gradual adaptation. In *SECRYPT 2011 - Proceedings of the International Conference on Security and Cryptography, Seville, Spain, 18 - 21 July, 2011, SECRYPT is part of ICETE - The International Joint Conference on e-Business and Telecommunications*
20. Antonio Vincenzo Taddeo, Luis Germán Garcia, and Alberto Ferrante. System policies for gradual tuning of security and workload in wireless sensor networks. In *Proceedings of the IEEE Wireless Telecommunication Symposium (WTS)*, New York, USA, April 2011
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26. A.V. Taddeo and A. Ferrante. Security and packets delivery trade-off for wsn. In *Consumer Communications and Networking Conference (CCNC), 2010 7th IEEE*, pages 1 –2, jan. 2010
27. Antonio Vincenzo Taddeo, Pierpaolo Marcon, and Alberto Ferrante. Negotiation of security services: a multi-criteria decision approach. In *Proceedings of the 4th Workshop on Embedded Systems Security, WESS '09*, pages 4:1–4:9, New York, NY, USA, 2009. ACM
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29. Onur Derin and Alberto Ferrante. Simulation of a self-adaptive run-time environment with hardware and software components. In *SINTER '09: Proceedings of the 2009 ESEC/FSE workshop on Software integration and evolution @ runtime*, pages 37–40, Amsterdam, The Netherlands, August 2009. ACM
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31. Alberto Ferrante, Roberto Pompei, Anastasia Stulova, and Antonio Taddeo. A protocol for pervasive distributed computing reliability. In *IEEE International Workshop on Security and Privacy in Wireless and Mobile Computing, Networking and Communications*, Avignon, France, October 2008. IEEE Communications Society
32. Alberto Ferrante, Satish Chandra, and Vincenzo Piuri. A Query Unit for the IPSec Databases. In *SECRYPT-2007*, Barcelona, Spain, July 2007
33. Luigi Dadda, Alberto Ferrante, and Marco Macchetti. A Memory Unit for Priority Management in IPSec Accelerators. In *ICC07*, Glasgow, Scotland, 24 June 2007. IEEE Communications Society

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36. Antonio Vincenzo Taddeo, Alberto Ferrante, and Vincenzo Piuri. Scheduling Small Packets in IPSec-based Systems. In *CCNC 2006*, Las Vegas, NV, USA, 8 January 2006. IEEE
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39. Alberto Ferrante, Giuseppe Piscopo, and Stefano Scaldaferrì. Application-driven Optimization of VLIW Architectures: a Hardware-Software Approach. In *Real-Time and Embedded Technology Applications*, pages 128–137, San Francisco, CA, USA, 7 March 2005. IEEE Computer Society
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