

Sara Rampazzi

Department of Electrical Engineering
and Computer Science

srampazzi@ufl.edu
srampazz@umich.edu
sararampazzi.com

University of Michigan
Computer Science and Engineering
Bob & Betty Beyster Building
2260 Hayward Street
Ann Arbor, MI 48109-2121

Research areas	Embedded hardware security, embedded systems design, modeling, and simulation with application to medical devices, automotive, and IoT	
Education	PhD in Electronics, Computer Science and Electrical Engineering University of Pavia (Italy), 2014 .	
	MEng in Computer Science Engineering University of Pavia (Italy), 2010 .	
	BS in Computer Science Engineering University of Pavia (Italy), 2008 .	
Academic positions	Incoming Assistant Professor Computer & Information Science & Engineering University of Florida	Jan 2021
	Research Investigator Electrical Engineering & Computer Science, University of Michigan	Feb 2018-present
	Intermittent Lecturer Electrical Engineering & Computer Science, University of Michigan	Jan 2019-Jan 2020
	Affiliate Researcher Electrical Engineering & Computer Science, University of Michigan	Aug 2017-Jan 2018
	Postdoc fellow Computer Science Engineering, University of Pavia	2014
Research experience	Principal Researcher for MCity PASS project University of Michigan	2018-present
	Senior personnel on THAW University of Michigan	2018-present
	Visiting researcher Univ. de Las Palmas de Gran Canaria (<i>Spain</i>)	Spring 2014

Imaging Instrument for On-Site Multi-Analyte Detection". In *Federated Conference on Computer Science and Information Systems (FedCSIS '13)*, September 2013.

Sara Rampazzi, Giovanni Danese, Lucia Fornasari, Francesco Leporati, Franco Marabelli, Nelson Nazzicari, Andrea Valsesia, "**Lab On Chip: Portable Optical Device for On-Site Multi-parametric Analysis**". In *IEEE Euromicro Conference on Digital System Design (Euromicro DSD'13)*, 4-6 Sept 2013, pp. 807-810.

Refereed journal publications Simone Marini, Francesca Vitali, Sara Rampazzi, Andrea Demartini, Tatsuya Akutsu, "**Protease target prediction via matrix factorization**". In *Bioinformatics*, 29 Aug. 2018, bty746.

Sara Rampazzi, Giovanni Danese, Francesco Leporati, Franco Marabelli, "**A Localized Surface Plasmon Resonance-Based Portable Instrument for Quick On-Site Biomolecular Detection**". In *IEEE Transactions on Instrumentation and Measurement*, Vol. 65 Is. 2, 1 Dec. 2015, pp. 317-327.

Posters Angel Rodriguez, Sara Rampazzi and Kevin Fu, "**IoT Two Factor Neurometric Authentication System using Wearable EEG**". In the Poster Session of the IEEE Workshop on the Internet of Safe Things (SafeThings 2019), May 2019.

Connor Bolton, Sara Rampazzi, Chaohao Li, Andrew Kwong, Wenyan Xu, Kevin Fu, "**Blue Note: How Intentional Acoustic Interference Damages Availability and Integrity in Hard Disk Drives and Operating Systems**". In the Poster Session of the 39th Annual IEEE Symposium on S&P, May 2018.

Patents issued Sara Rampazzi, Giovanni Danese, Lucia Fornasari, Francesco Leporati, Franco Marabelli, Nelson Nazzicari, Andrea Valsesia "**Detection device of molecular compounds based on Surface Plasmon Resonance**". European patent #IT2013MI01345 20130806. Priority 2013. Issued 2015.

Invited talks and seminars "EMI Attacks on Analog Sensors" Invited seminar, University of Louisiana Lafayette, 09/21/2020

"Cybersecurity In The Internet Of Medical Things Era: Research And Challenges", Invited Seminar, Archimedes 2020 Leadership Workshop Webinar Series, 06/03/2020

"I Always Feel Like Someone Is Listening to Me: Voice Assistants, the Internet of Things, and Privacy", Invited talk and discussion panel, 2020 Privacy@Michigan Symposium, 01/28/2020

"Protecting Cyber-physical Systems from Physical Attacks", Invited seminar, University of California Santa Barbara, 05/23/2019

"Cybersecurity in Hospitals: comparing EU and US strategies" Seminar & discussion panel in second level postgraduate Master in Cyberlaw and Policies for Digital Innovation, University of Milan Bicocca, 12/19/2018

“Cybersecurity and Implantable Devices”. In Women in Electrophysiology, Medical Education - Medtronic Accademy, 10/13/2018

“Fear The Hacked IoT Medical Devices: the apocalypse is already happening, and no one noticed?”. In Proceedings of USENIX 2018 Summit on Hot Topics in Security (HotSec 18), 08/14/2018

“Sensor Security in Cyber-Physical Systems”, seminar for graduate students of the Ph.D. School of Electrical and Electronics Engineering and Computer Science, University of Pavia, 07/15/2018

“Portable Lab-on-chips for biomolecular detection”, seminar in first level postgraduate Master and Specialization Course in Clinical Engineering, University of Pavia, 04/12/2016

Service to profession

Co-Chair:

2nd Annual Embedded System Workshop (EmSec 2020) at University of Michigan

PC Member:

30th USENIX Security Symposium (USENIX 2021)

DYnamic and Novel Advances in Machine Learning and Intelligent Cyber Security Workshop (DYNAMICS 2020)

ACM CCS 2020 Conference on Computer and Communications Security

14th USENIX Workshop on Offensive Technologies 2020 (WOOT '20)

SafeThings 2019 IEEE Workshop on the Internet of Safe Things

Organization Committee Member:

Euromicro SEAA 2014/ DSD 2014 Conference

Peer Reviewer:

ACM Transactions on Privacy and Security; 2019 – *present*

ACM Transactions on Computing for Healthcare; 2019 - *present*

Science Magazine; 2018 - *present*

Sensors; 2016 - *present*

NSF SaTC Grant Proposal Review Panelist

Consultant for Archimedes, Center of Medical Device Security

Mentoring & Advising

Computer Engineering Undergraduate Advisor

University of Michigan, Winter 2019

Mentor for the First Generation Engineering Program

University of Michigan, 2018-*present*

Society of Women Engineers Summer Camp mentor

University of Michigan, Summer 2018

IEEE Student Branch Computer Science Area Advisor
IEEE Pavia Student Branch, Region 8, Italian section,
University of Pavia, 2011-2014.

Technical Skills	PLs:	Matlab, C, Perl, Java
	Design/Modelling/ Simulation tools:	Matlab-Simulink, COMSOL Multiphysics, StateFlow, IBM Rational Rhapsody.
	Programming/ Validation/Testing tools:	IBM Rational Logiscope, GNURadio, QA System Cantata++, dSpace Target Link, MPLAB, MikroC for PIC and ARM
Languages	Italian	Native speaker
	English	Fluent
	Spanish	Fluent