Michele Polese

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Mobile: +39 3498724075 **Skype:** michele.polese **E-mail:** michele.polese@gmail.com
Github profile: github.com/mychele **Website:** polese.io
Date of birth: 22/02/1992 **Nationality:** Italian **Mother tongue:** Italian

EDUCATION	Ph.D. in Information Engineering (*University of Padova, Italy*) **Project Title:** Protocols and architectures for a consistent end to end user experience in mmWave 5G networks Supervisor: Prof. Michele Zorzi	Start(2016, 10) – current
	Visiting Academic (*NYU Wireless – NYU Tandon School of Engineering, NY, USA*)	Start(2017, 04) – End(2017, 04)
	MSc Student in Telecommunication Engineering (*University of Padova, Italy*) Final Grade: 110 (over 110) summa cum laude Grade Point Average: 30 (over 30)	Start(2014, 10) – End(2016, 07)
	First level degree in Information Engineering (*University of Padova, Italy*) Final Grade: 110 (over 110) summa cum laude Grade Point Average: 29.86 (over 30)	Start (2011, 10) – End (2014, 07)
	High School Diploma (*Liceo Scientifico Brandolini Rota, Oderzo, Italy*) Final Grade: 100 (over 100) with honors	Start (2006, 09) – End (2011, 07)
RELEVANT PROFESSIONAL EXPERIENCES	Teaching Assistant *(Attività didattica integrativa)* for Telecommunication Networks 16/17 classes (*University of Padova, Italy*) Final projects definition and evaluation, mentoring students in research projects, frontal lessons on LTE networks and with exercises (classes are taught in English).	Start (2016, 09) - End (2017, 02)
	Tutor Junior for Telecommunication Networks 15/16 classes (*University of Padova, Italy*) Homework assignment and evaluation, frontal lessons with exercises (classes are taught in English).	Start (2015, 09) - End (2016, 02)
	Collaborator (*LiveRobotics*) Responsible for the implementation of a video streaming platform for 3G connected drones, project selected for the European Maker Faire in Rome (October 2014). Webmaster for the website liverobotics.it.	Start (2013, 09) – End (2015, 05)

PUBLICATIONS

Journals

[JSAC2017] M. Polese, M. Giordani, M. Mezzavilla, S. Rangan and M. Zorzi, "Improved Handover Through Dual Connectivity in 5G mmWave Mobile Networks," in IEEE Journal on Selected Areas in Communications, vol. 35, no. 9, pp. 2069-2084, Sept. 2017.

[COMST2017] Marco Mezzavilla, Menglei Zhang, Michele Polese, Russell Ford, Sourjya Dutta, Sundeep Rangan, Michele Zorzi, "End-to-End Simulation of 5G mmWave Networks", submitted to IEEE Communications Surveys and Tutorials (1st round of review).

[IOT2017] Massimo Dalla Cia, Federico Mason, Davide Peron, Federico Chiariotti, Toktam Mahmoodi, Michele Zorzi, Andrea Zanella, "Using Smart City Data in 5G Self-Organizing Networks", IEEE IoT Journal pre-print available http://ieeexplore.ieee.org/document/8038764/.

[PSC2017] Marco Mezzavilla, Michele Polese, Andrea Zanella, Aditya Dhananjay, Sundeep Rangan, Coitt Kessler, Theodore (Ted) Rappaport, Michele Zorzi, Public Safety Communications above 6 GHz: Challenges and Opportunities, to appear on IEEE Access

Magazine

[IC2017] Michele Polese, Rittwik Jana, Michele Zorzi, "TCP and MP-TCP in 5G mmWave Networks," in IEEE Internet Computing, vol. 21, no. 5, pp. 12-19, 2017.

Conferences

[ICC2016] Michele Polese, Marco Centenaro, Andrea Zanella and Michele Zorzi, "M2M Massive Access in LTE: RACH Performance Evaluation in a Smart City Scenario", in Proceedings of the IEEE International Conference on Communications (ICC), pg. 4613-4618, May 2016, Kuala Lumpur.

[SIM2016] Michele Polese, Marco Mezzavilla, and Michele Zorzi. "Performance Comparison of Dual Connectivity and Hard Handover for LTE-5G Tight Integration." Proceedings of the 9th EAI International Conference on Simulation Tools and Techniques, August 2016, Prague.

[ICNC2017] Federico Chiariotti, Davide Del Testa, Michele Polese, Andrea Zanella, Giorgio Maria Di Nunzio, and Michele Zorzi, "Learning methods for long-term channel gain prediction in wireless networks", in Proceedings of the International Conference on Computing, Networking and Communications (ICNC), January 2017, San Francisco.

[MOCAST2017] Enrico Lovisotto, Enrico Vianello, Davide Cazzaro, Michele Polese, Federico Chiariotti, Daniel Zucchetto, Andrea Zanella and Michele Zorzi, "Cell Traffic Prediction Using Joint Spatio-Temporal Information", 6th International Conference on Circuits and Systems Technologies (MOCAST), May 2017, Thessaloniki, Greece.

[INFOCOM2017] Michele Polese, Rittwik Jana, Michele Zorzi, "TCP in 5G mmWave Networks: Link Level Retransmissions and MP-TCP", in proceedings of the IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS), May 2017, Atlanta.

[WNS32017] Menglei Zhang, Michele Polese, Marco Mezzavilla, Sundeep Rangan, and Michele Zorzi, "ns-3 Implementation of the 3GPP MIMO Channel Model for Frequency Spectrum above 6 GHz", in Proceedings of the Workshop on ns-3 (WNS3 '17), June 2017, Porto.

[MEDHOC2017] T. Azzino, M. Drago, M. Polese, A. Zanella and M. Zorzi, "X-TCP: a cross layer approach for TCP uplink flows in mmwave networks," 2017 16th Annual Mediterranean Ad Hoc Networking Workshop (Med-Hoc-Net), Budva, Montenegro, 2017.

[ISWCS2017] M. Dalla Cia, F.Mason, D.Peron, F.Chiariotti, M.Polese, T.Mahmoodi, M. Zorzi, and A. Zanella, "Mobility-aware Handover Strategies in Smart Cities," in International Symposium on Wireless Communication Systems (ISWCS), Aug. 2017.

[MMNETS2017] M. Polese, M. Mezzavilla, S. Rangan, M. Zorzi, "Mobility Management for TCP in mmWave Networks", to be presented at 1st ACM Workshop on Millimeter-Wave Networks and Sensing Systems, 2017

[GC2017] Mattia Gentil, Alessandro Galeazzi, Federico Chiariotti, Michele Polese, Andrea Zanella, Michele Zorzi, "A Deep Neural Network Approach for Customized Prediction of Mobile Devices Discharging Time", to be presented at Globecom, 2017.

[ITENDER2017] M. Polese, M. Mezzavilla, S. Rangan, C. Kessler, M. Zorzi, "mmWave for Future Public Safety Communications", to be presented to The First CoNEXT Workshop on ICT Tools for

Emergency Networks and DisastEr Relief (I-TENDER 2017)

Other IEEE Student Member, SIGMOBILE student member

Reviewer: IEEE Communication Magazine, IEEE Communication Surveys & Tutorials, IEEE JSAC, European Wireless, ICC, RAWNET Workshop, TWC, VTC, WCNC, WNS3.

PERSONAL SKILLS

English

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C1	C1	C1	C1	C1
Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user **Common European Framework of Reference for Languages**				

Certified by Cambridge ESOL Certificate in Advanced English (CAE)

Computer skills

Advanced:
- computer programming with different languages (C/C++/Java);
- scripting and data analysis with MATLAB, Perl;
- knowledge and understanding of discrete events simulators (ns-3, Omnet);
- scripting and automation with Bash;
- LaTeX;

Intermediate:
- data visualization with gnuplot;
- scripting and data analysis with Python;
- Git, SVN, Mercurial versioning systems;
- MS Office suite;

Basic:
- performance oriented programming.

Other skills Experience with microcontrollers based on Arduino, video streaming systems (as ffmpeg), acquired during the period with LiveRobotics.it