



Personal information

Surname(s) / First name(s) **Segata, Michele**
Address(es) 15a, Via Sacun, 39047, Santa Cristina Valgardena (BZ), Italy
Telephone(s) +39 329 9850098
Email(s) msegata@disi.unitn.it
Nationality(-ies) Italian
Date of birth 30/08/1986
Gender M

Work experience

Apr. 2016 - Ongoing
Main activities and responsibilities PostDoc
As of April 2016 I am a PostDoc researcher at the University of Trento, currently continuing my research on Inter-Vehicular Communication and cooperative driving technologies, as well as on cooperative safety applications for vulnerable road users such as pedestrians and cyclists.
Employer D.I.S.I. University of Trento

Oct. 2013 - Feb. 2016
Main activities and responsibilities PhD Student
Since October 2013, I moved to the University of Trento to continue and complete my PhD studies under the supervision of Prof. Renato Lo Cigno. In Trento, I continued my work on cooperative driving developing detailed models for the simulation of control systems and vehicle dynamics, with the aim of evaluating new communication strategies for platooning. During this period, I also worked with research groups at the University of Naples Federico II in the development of control algorithms for vehicles.
Employer D.I.S.I. University of Trento

Apr. 2012 - Oct. 2013
Main activities and responsibilities PhD Student
In April 2012 I started a joint PhD program between the Universities of Innsbruck (AT) and Trento (IT). I spent one and a half years in Innsbruck working with the research group of Prof. Falko Dressler. My research work was mainly focused on cooperative and automated driving, but I also worked on software defined radio, communication protocols and safety application for vehicular networks, and energy models for smart-phones.
Employer University of Innsbruck, AT

Apr. 2011 - Apr. 2012
Main activities and responsibilities Research assistant
Work as a research assistant after winning a research grant from the Department of Information Engineering and Computer Science of the University of Trento. Research topics: communications and safety applications for vehicular ad-hoc networks.
Employer D.I.S.I. University of Trento

Teaching

2017/2018	Teaching assistant for the <i>Simulation and Performance Evaluation</i> and the <i>Wireless Mesh and Vehicular Networks</i> courses at the University of Trento (IT)
2016/2017	Teaching assistant for the <i>Reti (Computer Networks)</i> and the <i>Simulation and Performance Evaluation</i> courses at the University of Trento (IT)
2015/2016	Teaching assistant for the <i>Reti (Computer Networks)</i> and the <i>Simulation and Performance Evaluation</i> courses at the University of Trento (IT). In addition, I held a seminar on Vehicular Networks for the <i>Nomadic Communications</i> course (University of Trento (IT))
2014/2015	I held a seminar on Vehicular Networks for the <i>Nomadic Communications</i> course (University of Trento (IT))
2013/2014	I held a seminar on Vehicular Networks for the <i>Nomadic Communications</i> course (University of Trento (IT))
2012/2013	Teaching assistant for the <i>Vehicular Networks (C2X)</i> course (University of Innsbruck (AT))

Other Academic Activities

Conference Chairing	I had been Web Chair for the 2015 edition of the Italian Networking Workshop (INW 2015). I had been Publication Chair for the 2015 edition of the IEEE Vehicular Networking Conference (VNC 2015), as well as Web, Publicity, and Publication Chair for the 2016 edition of the Wireless On-demand Network systems and Services Conference (WONS 2016). I had been a TPC member of several conferences since 2017, including Globecom, VNC, VTC, and Med-Hoc-Net.
Reviewing	During my academic career I have been a reviewer for several international journals, magazines, and conferences. Some of them include IEEE Transactions on Mobile Computing, IEEE Transactions on Vehicular Technology, IEEE Vehicular Technology Magazine, Elsevier Ad Hoc Networks, Elsevier Transportation Research, Elsevier Vehicular Communications, IEEE INFOCOM, IEEE Vehicular Networking Conference, IEEE GLOBECOM, IEEE ICC.

Education and training

February 2016	Double PhD in Computer Science from the Universities of Innsbruck (AT) and Trento (IT). Thesis: "Safe and Efficient Communication Protocols for Platooning". Advisors: Prof. Falko Dressler and Prof. Renato Lo Cigno.
March 2011	Master in Computer Science - Specialization in Systems and Networks, University of Trento. Thesis: "Models and performance of VANET-based emergency braking" Graduated with 110/110 cum laude.
December 2008	Bachelor in Computer Science Engineering, University of Trento. Thesis: "Il framework ExtJS per le applicazioni web." Graduated with 102/110.

Personal skills and competences

Mother tongue(s)

Other language(s)

*Self-assessment
European level^(*)*

English

German

Italian

English, German

Understanding		Speaking		Writing	
Listening	Reading	Spoken interaction	Spoken production		
B2 Independent user	B2 Independent user	B2 Independent user	B2 Independent user	C1 Proficient user	
A2 Basic user	A2 Basic user	A1 Basic user	A1 Basic user	A1 Basic user	

^(*) Common European Framework of Reference (CEF) level

Awards

Best PhD Student	Best PhD Student Award for the Dept. of Information Engineering and Computer Science, University of Trento (IT), A.Y. 2014-2015
Best Paper Award	Vehicular Networking Conference 2013, for the paper <i>"Towards an Open Source IEEE 802.11p Stack: A Full SDR-based Transceiver in GNURadio"</i>
Best Demo Award	MobiCom 2013, for the paper <i>"Decoding IEEE 802.11a/g/p OFDM in Software using GNU Radio"</i>
ACM SRC, 3 rd place	MobiCom 2012 Student Research Competition, for the paper <i>"A Simulation Tool for Automated Platooning in Mixed Highway Scenarios"</i>

Additional information

Journals

Publications

1. B. Bloessl, M. Segata, C. Sommer, and F. Dressler, "Performance Assessment of IEEE 802.11p with an Open Source SDR-based Prototype," *IEEE Transactions on Mobile Computing*, vol. 17, no. 5, pp. 1162–1175, May 2018
2. S. Santini, A. Salvi, A. S. Valente, A. Pescapè, M. Segata, and R. Lo Cigno, "A Consensus-based Approach for Platooning with Inter-Vehicular Communications and its Validation in Realistic Scenarios," *IEEE Transactions on Vehicular Technology*, vol. 66, no. 3, pp. 1985–1999, March 2017
3. M. Segata, F. Dressler, and R. Lo Cigno, "Let's Talk in Groups: A Distributed Bursting Scheme for Cluster-based Vehicular Applications," *Elsevier Vehicular Communications*, vol. 8, pp. 2–12, April 2017
4. S. Joerer, B. Bloessl, M. Segata, C. Sommer, R. Lo Cigno, A. Jamalipour, and F. Dressler, "Enabling Situation Awareness at Intersections for IVC Congestion Control Mechanisms," *IEEE Transactions on Mobile Computing*, vol. 15, no. 7, pp. 1674–1685, June 2016
5. M. Segata, B. Bloessl, S. Joerer, C. Sommer, M. Gerla, R. Lo Cigno, and F. Dressler, "Towards Communication Strategies for Platooning: Simulative and Experimental Evaluation," *IEEE Transactions on Vehicular Technology*, vol. 64, no. 12, pp. 5411–5423, December 2015
6. C. Sommer, S. Joerer, M. Segata, O. K. Tonguz, R. Lo Cigno, and F. Dressler, "How Shadowing Hurts Vehicular Communications and How Dynamic Beaconing Can Help," *IEEE Transactions on Mobile Computing*, vol. 14, no. 7, pp. 1411–1421, July 2015
7. S. Joerer, M. Segata, B. Bloessl, R. Lo Cigno, C. Sommer, and F. Dressler, "A Vehicular Networking Perspective on Estimating Vehicle Collision Probability at Intersections," *IEEE Transactions on Vehicular Technology*, vol. 63, no. 4, pp. 1802–1812, May 2014
8. M. Segata and R. Lo Cigno, "Automatic Emergency Braking - Realistic Analysis of Car Dynamics and Network Performance," *IEEE Transactions on Vehicular Technology*, vol. 62, no. 9, pp. 4150–4161, October 2013
9. M. Segata, F. Dressler, R. Lo Cigno, and M. Gerla, "A Simulation Tool for Automated Platooning in Mixed Highway Scenarios," *ACM SIGMOBILE Mobile Computing and Communications Review*, vol. 16, no. 4, pp. 46–49, October 2012

Conferences

1. M. Segata, N. Facchi, L. Maccari, G. Gemmi, and R. Lo Cigno, "Centrality-based Route Recovery in Wireless Mesh Networks," in *IEEE International Conference on Communications (ICC 2018)*. Kansas City, MO: IEEE, May 2018, to appear
2. M. Segata, N. Facchi, L. Maccari, and R. Lo Cigno, "RoRoute: Tools to Experiment with Routing Protocols in WMNs," in *14th IEEE/IFIP Conference on Wireless On demand Network Systems and Services (WONS 2018)*. Isola 2000, France: IEEE, February 2018
3. G. Giordano, M. Segata, F. Blanchini, and R. Lo Cigno, "A Joint Network/Control Design for Cooperative Automatic Driving," in *9th IEEE Vehicular Networking Conference (VNC 2017)*. Torino, Italy: IEEE, November 2017, pp. 167–174
4. L. Terruzzi, R. Colombo, and M. Segata, "On the Effects of Cooperative Platooning on Traffic Shock Waves," in *9th IEEE Vehicular Networking Conference (VNC 2017), Poster Session*. Torino, Italy: IEEE, November 2017, pp. 37–38
5. M. Segata, R. Vijeikis, and R. Lo Cigno, "Communication-based Collision Avoidance between Vulnerable Road Users and Cars," in *3rd IEEE INFOCOM Workshop on Smart Cities and Urban Computing (SmartCity 2017)*. Atlanta, GA: IEEE, May 2017
6. M. Segata, "Platooning in SUMO: An Open Source Implementation," in *SUMO User Conference 2017*. Berlin, Germany: DLR, May 2017, pp. 51–62

7. C. Krupitzer, M. Breitbach, J. Saal, C. Becker, M. Segata, and R. Lo Cigno, "Ro-CoSys: A Framework for Coordination of Mobile IoT Devices," in *1st International Workshop on Mobile and Pervasive Internet of Things (PerIoT 2017)*. Big Island, HI: IEEE, March 2017, pp. 485–490
8. M. Segata and R. Lo Cigno, "On the Feasibility of Collision Detection in Full-Duplex 802.11 Radio," in *13th IEEE/IFIP Conference on Wireless On demand Network Systems and Services (WONS 2017)*. Jackson Hole, WY: IEEE, February 2017, pp. 9–16
9. M. Segata, D. Goss, and R. Lo Cigno, "Distributed EDCA Bursting: Improving Cluster-based Communication in IVC," in *17th ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc 2016)*, *1st International Workshop on Internet of Vehicles and Vehicles of Internet (IoV-Vol 2016)*. Paderborn, Germany: ACM, July 2016, pp. 13–18
10. M. Segata, R. Lo Cigno, H.-M. Tsai, and F. Dressler, "On Platooning Control using IEEE 802.11p in Conjunction with Visible Light Communications," in *12th IEEE/IFIP Conference on Wireless On demand Network Systems and Services (WONS 2016)*. Cortina d'Ampezzo, Italy: IEEE, January 2016, pp. 124–127
11. M. Segata, F. Dressler, and R. Lo Cigno, "Jerk Beaconing: A Dynamic Approach to Platooning," in *7th IEEE Vehicular Networking Conference (VNC 2015)*. Kyoto, Japan: IEEE, December 2015, pp. 135–142
12. S. Santini, A. Salvi, A. S. Valente, A. Pescapè, M. Segata, and R. Lo Cigno, "A Consensus-based Approach for Platooning with Inter-Vehicular Communications," in *34th IEEE Conference on Computer Communications (INFOCOM 2015)*. Hong Kong: IEEE, April 2015, pp. 1158–1166
13. M. Segata, B. Bloessl, C. Sommer, and F. Dressler, "Towards Energy Efficient Smart Phone Applications: Energy Models for Offloading Tasks into the Cloud," in *IEEE International Conference on Communications (ICC 2014)*. Sydney, Australia: IEEE, June 2014, pp. 2394–2399
14. M. Segata, B. Bloessl, S. Joerer, F. Dressler, and R. Lo Cigno, "Supporting Platooning Maneuvers through IVC: An Initial Protocol Analysis for the Join Maneuver," in *11th IEEE/IFIP Conference on Wireless On demand Network Systems and Services (WONS 2014)*. Obergurgl, Austria: IEEE, April 2014, pp. 130–137
15. S. Joerer, B. Bloessl, M. Segata, C. Sommer, R. Lo Cigno, and F. Dressler, "Fairness Kills Safety: A Comparative Study for Intersection Assistance Applications," in *25th IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2014)*. Washington, D.C.: IEEE, September 2014, pp. 1442–1447
16. M. Segata, B. Bloessl, S. Joerer, C. Sommer, M. Gerla, R. Lo Cigno, and F. Dressler, "Towards Inter-Vehicle Communication Strategies for Platooning Support," in *7th IFIP/IEEE International Workshop on Communication Technologies for Vehicles (Nets4Cars 2014-Fall)*. Saint-Petersburg, Russia: IEEE, October 2014, pp. 1–6
17. M. Segata, S. Joerer, B. Bloessl, C. Sommer, F. Dressler, and R. Lo Cigno, "PLEXE: A Platooning Extension for Veins," in *6th IEEE Vehicular Networking Conference (VNC 2014)*. Paderborn, Germany: IEEE, December 2014, pp. 53–60
18. C. Sommer, S. Joerer, M. Segata, O. K. Tonguz, R. Lo Cigno, and F. Dressler, "How Shadowing Hurts Vehicular Communications and How Dynamic Beaconing Can Help," in *32nd IEEE Conference on Computer Communications (INFOCOM 2013), Mini-Conference*. Turin, Italy: IEEE, April 2013, pp. 110–114
19. B. Bloessl, M. Segata, C. Sommer, and F. Dressler, "An IEEE 802.11a/g/p OFDM Receiver for GNU Radio," in *ACM SIGCOMM 2013, 2nd ACM SIGCOMM Workshop of Software Radio Implementation Forum (SRIF 2013)*. Hong Kong, China: ACM, August 2013, pp. 9–16
20. —, "Towards an Open Source IEEE 802.11p Stack: A Full SDR-based Transceiver in GNURadio," in *5th IEEE Vehicular Networking Conference (VNC 2013)*. Boston, MA: IEEE, December 2013, pp. 143–149
21. M. Segata, B. Bloessl, S. Joerer, C. Sommer, R. Lo Cigno, and F. Dressler, "Vehicle Shadowing Distribution Depends on Vehicle Type: Results of an Experimental Study," in *5th IEEE Vehicular Networking Conference (VNC 2013)*. Boston, MA: IEEE, December 2013, pp. 242–245

Thesis

- 22.** B. Bloessl, M. Segata, C. Sommer, and F. Dressler, "A GNURadio Based Receiver Toolkit for IEEE 802.11a/g/p," in *19th ACM International Conference on Mobile Computing and Networking (MobiCom 2013), 5th Wireless of the Students, by the Students, for the Students Workshop (S3 2013), Demo Session*. Miami, FL: ACM, October 2013
- 23.** —, "Decoding IEEE 802.11a/g/p OFDM in Software using GNU Radio," in *19th ACM International Conference on Mobile Computing and Networking (MobiCom 2013), Demo Session*. Miami, FL: ACM, October 2013, pp. 159–161
- 24.** M. Segata and R. Lo Cigno, "Simulation of 802.11 PHY/MAC: The quest for accuracy and efficiency," in *9th IEEE/IFIP Conference on Wireless On demand Network Systems and Services (WONS 2012)*. Courmayeur, Italy: IEEE, January 2012
- 25.** M. Segata, F. Dressler, R. Lo Cigno, and M. Gerla, "A Simulation Tool for Automated Platooning in Mixed Highway Scenarios," *ACM SIGMOBILE Mobile Computing and Communications Review*, vol. 16, no. 4, pp. 46–49, October 2012
- 26.** S. Joerer, M. Segata, B. Bloessl, R. Lo Cigno, C. Sommer, and F. Dressler, "To Crash or Not to Crash: Estimating its Likelihood and Potentials of Beacon-based IVC Systems," in *4th IEEE Vehicular Networking Conference (VNC 2012)*. Seoul, Korea: IEEE, November 2012, pp. 25–32
- 28.** M. Segata and R. Lo Cigno, "Emergency Braking: a Study of Network and Application Performance," in *8th ACM International Workshop on Vehicular Internetworking (VANET 2011)*. Las Vegas, NV: ACM, September 2011, pp. 1–10

1. M. Segata, "Safe and Efficient Communication Protocols for Platooning Control," PhD Thesis (Dissertation), University of Innsbruck, February 2016

I authorise the use of my personal data in compliance with the Italian Legislative Decree number 196/2003.

The information contained in this document are made pursuant to and for the purposes of articles 46 and 47 of Presidential Decree 455/2000.

Povo, 22/06/2018

Michele Segata