

Education

- 2015 – 2020 **Doctor of Science (Tech.)**, Department of Computer Science, *Aalto University*, Finland
Supervisor: Prof. Mario Di Francesco, advisor: Prof. Tarik Taleb
Title: Scalable networked systems: analysis and optimization
- 2013 – 2015 **Master of Science (Tech.) with distinction**, Department of Computer Science, *Aalto University*, Finland
- 2006 – 2010 **Bachelor of Technology**, Department of Electrical and Electronics Engineering, *National Institute of Technology Karnataka*, Surathkal, India

Experience

- Since Apr '20 **Postdoctoral researcher**, *Aalto University*, Espoo, Finland.
- Sep – Dec '19 **Research intern**, *Nokia Bell Labs*, Dublin, Ireland.
Project: Data-driven approach to improve energy efficiency of cellular base stations
Supervisor: [Diego Lugones](#)
- Jun – Sep '19 **Visiting PhD student**, *Duke University*, Durham, NC, USA.
Project: Investigation of networking challenges for augmented reality applications
Host: [Prof. Maria Gorlatova](#)
- May '18 **Visiting PhD student**, *National Chiao Tung University*, Hsinchu, Taiwan.
Two week visit to exchange ideas related to edge computing and Internet of Things
Host: [Prof. Yu-Chee Tseng](#)
- May – Sep '16 **Research intern**, *IBM Research*, Dublin, Ireland.
Project: Edge computing for vehicular applications in smart cities
Host: [Prof. Bissan Ghaddar](#)
- 2011 – 2013 **Software engineer**, *Cisco Systems India Private Limited*, Bangalore, India.
Test engineer for mobile packet core network elements
Developed deep understanding of LTE networks and telecommunications industry
- 2010 – 2011 **Associate software engineer**, *Accenture*, Bangalore, India.
Application developer in pharmaceutical and life sciences division

Publications

Journals

- [J2] G. Premsankar, B. Ghaddar, M. Slabicki, and M. Di Francesco. Optimal configuration of LoRa networks in smart cities. In: *IEEE Transactions on Industrial Informatics* (2020). DOI: [10.1109/TII.2020.2967123](https://doi.org/10.1109/TII.2020.2967123). **Impact factor: 7.377**.
- [J1] G. Premsankar, M. Di Francesco, and T. Taleb. Edge computing for the Internet of Things: A case study. In: *IEEE Internet of Things Journal* 5.2 (2018), pp. 1275–1284. DOI: [10.1109/JIOT.2018.2805263](https://doi.org/10.1109/JIOT.2018.2805263). **Impact factor: 9.515**.

Book chapter

- [B1] G. Premsankar and M. Di Francesco. Advances in Cloud Computing, Wireless

Communications and the Internet of Things. In: *Analytics for the Sharing Economy: Mathematics, Engineering and Business Perspectives*. Springer, 2020, pp. 71–94. DOI: [10.1007/978-3-030-35032-1_6](https://doi.org/10.1007/978-3-030-35032-1_6).

Conferences

- [C6] G. Premsankar, B. Ghaddar, M. Di Francesco, and R. Verago. Efficient placement of edge computing devices for vehicular applications in smart cities. In: *NOMS 2018-2018 IEEE/IFIP Network Operations and Management Symposium*. IEEE. 2018, pp. 1–9. DOI: [10.1109/NOMS.2018.8406256](https://doi.org/10.1109/NOMS.2018.8406256). **Best student paper award**.
- [C5] S. K. Mohanty, G. Premsankar, and M. Di Francesco. An Evaluation of Open Source Serverless Computing Frameworks. In: *CloudCom*. 2018, pp. 115–120. DOI: [10.1109/CloudCom2018.2018.00033](https://doi.org/10.1109/CloudCom2018.2018.00033).
- [C4] M. Slabicki, G. Premsankar, and M. Di Francesco. Adaptive configuration of LoRa networks for dense IoT deployments. In: *NOMS 2018-2018 IEEE/IFIP Network Operations and Management Symposium*. IEEE. 2018, pp. 1–9. DOI: [10.1109/NOMS.2018.8406255](https://doi.org/10.1109/NOMS.2018.8406255).
- [C3] S. Bayhan, G. Premsankar, M. Di Francesco, and J. Kangasharju. Mobile content offloading in database-assisted white space networks. In: *International Conference on Cognitive Radio Oriented Wireless Networks*. Springer. 2016, pp. 129–141. DOI: [10.1007/978-3-319-40352-6_11](https://doi.org/10.1007/978-3-319-40352-6_11).
- [C2] G. Premsankar, K. Ahokas, and S. Luukkainen. Design and implementation of a distributed mobility management entity on OpenStack. In: *2015 IEEE 7th International Conference on Cloud Computing Technology and Science (CloudCom)*. IEEE. 2015, pp. 487–490. DOI: [10.1109/CloudCom.2015.54](https://doi.org/10.1109/CloudCom.2015.54). Short paper.
- [C1] J. Costa-Requena, J. L. Santos, V. F. Guasch, K. Ahokas, G. Premsankar, S. Luukkainen, O. L. Pérez, M. U. Itzazelaia, I. Ahmad, M. Liyanage, et al. SDN and NFV integration in generalized mobile network architecture. In: *2015 European conference on networks and communications (EuCNC)*. IEEE. 2015, pp. 154–158. DOI: [10.1109/EuCNC.2015.7194059](https://doi.org/10.1109/EuCNC.2015.7194059).

Awards and Honours

- Aug ‘19 Travel grant for NeTS Early Career Workshop, National Science Foundation, VA, USA
- Spring ‘19 Aalto Foundation travel grant for research visit to Duke University
- Apr ‘18 Best student paper award, IEEE/IFIP NOMS 2018
- Apr ‘18 Student travel grant, IEEE/IFIP NOMS 2018, Apr 23-27, 2018, Taipei, Taiwan
- Nov ‘15 Student travel grant, IEEE CloudCom, Nov 30-Dec 3, 2015, Vancouver, Canada
- 2013 – 2015 Aalto University Category B Scholarship for Master’s study programme
- 2012, 2013 Two Cisco Achievement Program awards for excellent work
- 2010, 2011 Quarterly awards for “Excellence as a Business Operator” at Accenture
- 2006 – 2010 Scholarship for Bachelor’s study programme, Scholarship Programme for Diaspora Children (Ministry of Overseas Indian Affairs, Government of India)

Teaching

Teaching assistant

- Fall '18, '19 CS-E4100: [Mobile Cloud Computing](#)
Designed exercise material for backend development on Google Cloud, defined project specifications, handled resource allocation on Google Cloud Platform for student projects, evaluated student project demonstrations
- Spring 2017 CS-E4002: [The Internet of Things: Selected Themes](#)
Defined project specifications, evaluated student project demonstrations
- Fall '14, '16 CS-E4005 [Methods and Tools for Network Systems](#)
Led weekly laboratory sessions, evaluated students' weekly exercise submissions

Master's thesis advisor

- 2020 Currently advising 2 M.Sc. thesis students
- 2018 – 2019 Advised 4 M.Sc. thesis students

Software skills

Programming: Python, C, C++, UNIX shell scripting
Software: CPLEX, MATLAB, OpenStack, Git, OMNeT++
OS: Linux, MacOS

Academic service

Program committee

Computer Systems Engineering (CSE) track committee member for Grace Hopper Conference for Women in Computing 2019

Shadow PC member for EuroSys 2018

Reviewer

Journals: IEEE Transactions on Mobile Computing, IEEE Transactions on Communications, IEEE Transactions on Wireless Communications, Elsevier Pervasive and Mobile Computing, Springer Wireless Networks

Conferences: IEEE WoWMoM (2019, 2020), IEEE Sarnoff 2019, IEEE SMARTCOMP 2017, IEEE PerCom 2016

Additional activities

- 2019 – now Website redesign co-chair, board member, [N2Women](#)
- Ongoing Contributor and maintainer of open source simulator, [Framework for LoRa \(FLoRa\)](#) for end-to-end simulations of LoRa networks
- Ongoing Active volunteer in [codebar](#), [Women for Women Workshops](#) and [Django Girls, Helsinki](#) with the goal to improve representation of underrepresented groups in technology