Sandesh Uppoor

Career Highlights

- Currently working as Postdoctoral researcher at Orange Labs R&D, Paris.
- Member of SelfNet project team of INRIA - Alcatel-Lucent Bell Labs common lab.
- Worked in SCALUS European Union funded research (FP7) project.
- Worked in TRAFIC project during my masters. TRAFIC project was supported by the French National Research Agency.

Education

2010 - 2013 **PhD in Telecommunication**, *Institut National des Sciences Appliquées de Lyon (INSA)*.

2007 - 2009 **Master of Technology in Network Engineering**, *Manipal Institution of Technology (MIT)*, Manipal University, CGPA: 8.3/10.

2006 - 2007 **Post Graduate Diploma in Software Engineering**, *NIIT , Udupi*, India, Grade: Excellent.

2002 - 2006 **Bachelor of Engineering in Electronics and Telecommunications**, *VTU, Belgaum*, India, Grade: First Class.

Work Experience Summary

April. 2014 - Present **Post-Doc**, *Orange Labs R&D*, France,
– Exploiting large-scale telecom data to understand mobility and activity pattern of anonymous subscribers. Hadoop framework is used for storing and processing this BigData with Hive and Pig as languages..

Oct. 2010 - Nov. 2013 **PhD**, *French National Institute for Research in Computer Science and Control (INRIA)*, France,
– Understanding the mobility behaviour of wireless smart devices (particularly In-vehicle devices) and their effect on Quality of Service in both ad-hoc and cellular network perspective. Skill acquired during this experience are problem analysis, problem solving, collaboration, mentoring.

Feb - Aug 2010 **Early Stage Researcher**, *Foundation for Research and Technology Hellas (FORTH-ICS)*, Greece,
– Responsible for the development of efficient data synchronisation techniques between mobile devices using cloud computing. Skill acquired during this project are Python, XML, HTML, Protocol buffers.

Feb - Jun 2009 **Lecturer**, *MIT*, Manipal India,
– Teaching and assisting under graduate students in computer networking laboratory experiments. Evaluation, time management and leadership skills were few things which I developed.

Jun - Dec 2008 **Research Intern**, *ESIGELEC-IRSEEM*, France,
- Involved in design and experimentation of autonomous network protocols. Skills acquired with this experience are C++, NS-2, working on Linux systems.

Aug 2007 - May 2008 **Teaching Assistant**, *MIT*, Manipal India,
– Monitoring under graduate students with laboratory experiments apart from course work. This gave an in-depth knowledge on working with real network devices like cisco routers, switches, EMC^2 Storage management tools.

Technical skills and Interest

Languages Python, C, C++, Java [used for extending Hive functionality]

Experience Big Data processing with Hadoop, Hive, Pig, XML, HTML, Google Protocol buffers, SQL, AWK, Gnuplot, LaTeX

Emulators EURECOM's OpenAirInterface [OpenAirLTE]

Working Area Autonomous networks (Vehicular, Pedestrian), Network mobility, Access networks, Telecom Data analysis, Prediction models, Mobility models.

Orange Labs Prime Zone
38/40 rue du General Leclerc, 92130 Issy les Moulineaux, France
✆ mobile +33 789322576   •   ✉ suppoor@gmail.com

Book chapters

- S. Uppoor, M. Fiore, J. Harri,"Synthetic mobility traces for vehicular networking",Vehicular Networks, H. Labiod and A.-L. Beylot (Editor), pp.209-245, **John Wiley & Sons**, ISBN: 9781848214897.

- P. Manzoni, M. Fiore, S. Uppoor, F.J. Martinez Dominguez, C.T. Calafate, J.C. Cano, "Mobility Models",C. Campolo, A. Molinaro, R. Scopigno (Editors), **Springer, 2014.**

Publications

- S. Uppoor, M. Fiore, *"Characterizing pervasive vehicular access to the cellular RAN infrastructure: an urban case study"*, **IEEE Transactions on Vehicular Technology (to appear)**.

- S. Uppoor, O. Trullols-Cruces, M. Fiore, J.M. Barcelo-Ordinas *"Generation and Analysis of a Large-scale Urban Vehicular Mobility Dataset"*, **IEEE Transactions on Mobile Computing**, ISSN: 1536-1233,TMC.2013.27.

- Sandesh uppoor, Marco Fiore,*"Insights on metropolitan-scale vehicular mobility from a networking perspective"*, In ACM HotPlanet 2012, 2012, Low Wood Bay, UK.

- Sandesh uppoor, Marco Fiore,*"Large-scale Urban Vehicular Mobility for Networking Research"*, In Proc. IEEE Vehicular Networking Conference 2011, Amsterdam, The Netherlands, November 2011.

- Sandesh uppoor,Joseph Mouzna, Mounir Boussedjra, Manohara pai MM,*"Scalable Routing Technique using Road Hierarchy for Vehicular Networks"*, In Proc IEEE(France section) 9th International Conference on ITS Telecommunications, October 20-22, Lille, France, 2009.

- Sandesh uppoor,Joseph Mouzna, Mounir Boussedjra, Manohara pai MM,*"Density Aware Routing Using Road Hierarchy for Vehicular Networks"*, In Proc 5th IEEE International Conference on Service Operations, Logistics and Informatics, July 22-24, Chicago, U.S, 2009.

Short papers, Posters and Talks

[Poster & Journal] Uppoor, Sandesh and Fiore, Marco,*"**MobiCom 2011** poster: vehicular mobility in large-scale urban environments"*, October 2011, New York, USA.

[Talk & Paper] *"A large-scale urban vehicular mobility trace for network research,*
@Journees Nationales des Communications dans les Transports Terrestres, Colmar, France.
@4th COST IC1004 MC and Scientific Meeting, Lyon, France.
@14èmes Rencontres Francophones sur les Aspects Algorithmiques de Télécommunications (Algotel 2012), France, May 2012.

[Poster & Short paper] Sandesh uppoor, Michail D. Flouris, Angelos Bilas,*"Cloud-based Synchronization of Distributed File System Hierarchies"*, In Proc IEEE International Conference on Cluster Computing 2010, September 20-24, Heraklion,Greece, 2010.

[Talk & Case Study Report] *"The Effect of the MS Speed on the Traffic Performance of an Integrated Mobile WiMAX and DSRC Multimedia Networks on the Highway"*, Manipal University

Extra-Curricular Activities

[Demo] *"Scalable mobility over cellular networks"*, **Bell Labs Open Days 2012**, Bell Labs Research Center, Villarceaux France. May 2012.

[Demo] *"Network Node using GPS"* in International Conference on Advances in Information and Communication Technologies (ICICOT 07) held in Manipal on December 2007.

[Tutorial] *"Use of Network Simulator 2"* in National Level Workshops **"PING 2008","PING 2009"** organized by Manipal Institution of Technology.

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