Yasir Saleem

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EDUCATION

PhD in Computer Science
Telecom SudParis & University Paris-Saclay, France
Since September 2016

Master of Sciences (MS) in Computer Science
Sunway University, Malaysia & Lancaster University, UK
(Dual Degree Programme)
Thesis title: A Spectrum-Aware Cluster-Based Routing Scheme
for Cognitive Radio Networks: A Simulation Study
2013 – 2015 (Pass with Distinction)

Bachelor of Sciences in Information Technology (BS-IT)
National University of Sciences and Technology, Islamabad, Pakistan
2008 – 2012

RESEARCH INTERESTS

- Wireless Communications
- Cognitive Radio Networks
- Internet of Things

- Cognitive Radio Sensor Networks
- Wireless Sensor Networks
- Unmanned Aerial Vehicles

PROFESSIONAL EXPERIENCE

Research Engineer
Service Architecture Lab, Institut Mines-Telecom, Telecom SudParis, France
(http://servicearchitecture.wp.tem-tsp.eu)
October 2015 – Now

Research Assistant
Sunway University, Selangor, Malaysia (www.sunway.edu.my/university)
Project Title: Indoor Positioning and Navigation
March 2015 – October 2015

Research Assistant
MIMOS Berhad, Kuala Lumpur, Malaysia (www.mimos.my)
August 2013 – February 2015

Software Developer
KNYSYS LLC (www.knysys.com)
June 2012 – May 2013

Research Intern
Cognet Lab, NUST-SEECS, Pakistan (http://cognet.seecs.nust.edu.pk/)
July 2011- Aug 2011

ACHIEVEMENTS

- Achieved 4-Years full funded scholarship for undergraduate program from National ICT R&D Fund, Government of Pakistan
- Achieved Merit Scholarship from NUST on obtaining 3.94 GPA in 7th semester of undergraduate studies.

TECHNICAL SKILLS

Category	Tool	Expertise Level	Category	Tool	Expertise Level
Programming Languages	C/C++	Expert	Network Simulators	QualNet	Expert
	Python	Expert		NS-2	Expert
	Java	Expert	Databases	MySQL	Expert
	C#	Expert		Oracle	Intermediate
Web Development	PHP	Expert		MS SQL	Intermediate
	Web2Py	Expert	Miscellaneous	Ubuntu	Intermediate
	HTML	Expert		BASH	Expert
	CSS	Expert		AWK	Expert
	JavaScript	Expert	Mobile development	Android	Intermediate
	ASP.NET	Intermediate			
	JSP	Beginner			
	JSF	Beginner			

PUBLICATIONS

Patent:

[P1] **Yasir Saleem**, Hafizal Mohamad, Nordin Ramli and Yau Kok Lim. System and Method for Cluster Based Routing for Cognitive Mesh Networks, Filed on 22 December 2014, Application No: PI 2014703918.

Journals (Total IF= 37.81):

[J8] Ayesha Naeem, Mubashir Husain Rehmani, **Yasir Saleem**, Imran Rashid, and Noel Crespi. Network Coding in Cognitive Radio Networks: A Comprehensive Survey, *IEEE Communications Surveys & Tutorials*, Volume 19, Issue 3, Pages 1945 - 1973, 2017(ISI-Indexed, IF 2016 =17.188)

[J7] **Yasir Saleem**, Kok-Lim Alvin Yau, Hafizal Mohamad, Nordin Ramli, Mubashir Husain Rehmani and Qiang Ni. Cluster-based Routing Scheme using Reinforcement Learning for Cognitive Radio Networks, *IEEE Wireless Communications*, Volume 24, Issue 4, Pages 146 – 151, 2017 (ISI-Indexed, IF 2016 =8.972)

[J6] **Yasir Saleem**, Kok-Lim Alvin Yau, Hafizal Mohamad, Nordin Ramli and Mubashir Husain Rehmani. SMART: A Spectrum-Aware Cluster-based Routing Scheme for Distributed Cognitive Radio Networks, *Computer Networks, Elsevier*, Volume 91, Pages 196-224, 2015 (ISI-Indexed, IF 2015 =1.256)

[J5] Athar Ali Khan, Mubashir Husain Rehmani and **Yasir Saleem**. Neighbor Discovery in Traditional Wireless Networks and Cognitive Radio Networks: Basics, Taxonomy, Challenges and Future Research Directions, *Journal of Network and Computer Applications, Elsevier*, Volume 52, Pages 173-190, June 2015(ISI-Indexed, IF 2015 =2.229).

[J4] **Yasir Saleem**, Mubashir Husain Rehmani and Sherali Zeadally. Integration of Cognitive Radio Technology with Unmanned Aerial Vehicles: Issues, Opportunities, and Future

Research Challenges, *Journal of Network and Computer Applications, Elsevier*, Volume 50, Pages 15-31, April 2015 (ISI-Indexed, IF 2015 =2.229).

[J3]   **Yasir Saleem**, Farrukh Salim and Mubashir Husain Rehmani. Routing and Channel Selection from Cognitive Radio Network's Perspective: A Survey, *Computers and Electrical Engineering, Elsevier*, Volume 42, Pages 117-134, February 2015 (ISI-Indexed, IF 2015 =0.817).

[J2]   Muhammad Zubair Farooqi, Salma Malik Tabassum, Mubashir Husain Rehmani and **Yasir Saleem**. A Survey on Network Coding: From Traditional Wireless Networks to Emerging Cognitive Radio Networks, *Journal of Network and Computer Applications, Elsevier*, Volume 46, Pages 166-181, November 2014 (ISI-Indexed, IF 2014 =2.229).

[J1]   **Yasir Saleem** and Mubashir Husain Rehmani. Primary radio user activity models for cognitive radio networks: A survey, *Journal of Network and Computer Applications, Elsevier*, Volume 43, Pages 1-16, August 2014 (ISI-Indexed, IF 2014 =2.229).

Conference Papers:

[C6]   **Yasir Saleem** and Noel Crespi. Mapping of Sensor and Route Coordinates for Smart Cities, In 42nd *IEEE International Conference on Computers, Software & Applications: Staying Smarter in a Smartening World (COMPSAC)*, 23-27 July 2018, Tokyo, Japan (Accepted).

[C5]   **Yasir Saleem**, Noel Crespi and Pasquale Pace. SCDIoT: Social Cross-Domain IoT enabling Application-to-Application Communications, *In 3rd edition of Towards Global Interoperability among IoT Systems (Globe-IoT) workshop in conjunction with IEEE International Conference on Cloud Engineering (IC2E)*, 17-20 April 2018, Orlando, FL, USA, Pages 346-350.

[C4]   **Yasir Saleem**, Noel Crespi, Mubashir Husain Rehmani, Rebecca Copeland, Dina Hussein and Emmanuel Bertin. Exploitation of Social IoT for Recommendation Services, In *IEEE World Forum on Internet of Things (WF-IoT)*, 12-14 Dec 2016, Reston, VA, USA, Pages 359-364. (For video presentation at IEEE TV, click HERE)

[C3]   Sian Lun Lau, Cornelius Toh and **Yasir Saleem**. Wi-Fi Fingerprint Localisation using Density-based Clustering for Public Spaces: A Case Study in a Shopping Mall, In *6th International Conference on Cloud System and Big Data Engineering (Confluence)*, 14-15 January 2016, Uttar Pradesh, India, Pages 356-360, IEEE. (**Best Paper Award**)

[C2]   **Yasir Saleem**, Kok-Lim Alvin Yau, Hafizal Mohamad, Nordin Ramli and Mubashir Husain Rehmani. Joint Channel Selection and Cluster-based Routing Scheme based on Reinforcement Learning for Cognitive Radio Networks, In *2nd International Conference on Computer, Communication, and Control Technology (I4CT)*, 21-23 April 2015, Kuching, Malaysia, Pages 21-25, IEEE.

[C1]   **Yasir Saleem**, Adnan Bashir, Ejaz Ahmed, Junaid Qadir and Adeel Baig. Spectrum-Aware Dynamic Channel Assignment in Cognitive Radio Networks, In *8th International Conference on Emerging Technologies (ICET)*, 8-9 Oct 2012, Islamabad, Pakistan, Pages 450-455, IEEE.

Book Chapters:

[BC1]   Yasir Saleem, Farrukh Salim and Mubashir Husain Rehmani. Resource Management in Mobile Sink based Wireless Sensor Networks through Cloud Computing, Resource Management in Mobile Computing Environments, *Springer*, Pages 439-459, 2014.

[BC2]   Yasir Saleem, Farrukh Salim and Mubashir Husain Rehmani. Integration of Cognitive

Radio Sensor Networks and Cloud Computing: A Recent Trend, Cognitive Radio Sensor Networks: Applications, Architectures, and Challenges, *IGI Global*, Pages 288-312, 2014.

[BC3] Yasir Saleem and Farrukh Salim. Transport Layer for Cognitive Radio Sensor Networks, Cognitive Radio Sensor Networks: Applications, Architectures, and Challenges, *IGI Global*, Pages 231-257, 2014.

[BC4] Yasir Saleem and Mubashir Husain Rehmani. Cognitive Radio Sensor Networks, Encyclopedia of Information Science and Technology, 3rd Edition, *IGI Global*, Pages 6152-6159, 2014.

[BC5] Mubashir Husain Rehmani and Yasir Saleem. Network Simulator NS-2, Encyclopedia of Information Science and Technology, 3rd Edition, *IGI Global*, Pages 6249-6258, 2014.

[BC6] Athar Ali Khan, Mubashir Husain Rehmani and Yasir Saleem. Neighbor Discovery for Cognitive Radio Networks, Cognitive networks: applications and deployments, *CRC Press - Taylor & Francis Group*, 2014.

[BC7] Muhammad Zubair Farooqi, Salma Malik Tabassum, Mubashir Husain Rehmani and Yasir Saleem. Network Coding: An optimized solution for cognitive radio networks, Cognitive networks: applications and deployments, *CRC Press - Taylor & Francis Group*, 2014.

[BC8] Yasir Saleem and Mubashir Husain Rehmani, PR Activity Model for Multimedia Communication in NS-2, Multimedia Over Cognitive Radio Networks: Algorithms, Protocols, and Experiments, *CRC Press Taylor and Francis Group*, 2014.

[BC9] Yasir Saleem, Farrukh Salim, Mubashir Husain Rehmani and Bushra Rashid. Routing through Efficient Channel Assignment in Cognitive Radio Networks, Software Defined and Cognitive Radio Technologies for Dynamic Spectrum Access and Management, *IGI Global*, 2014.

PROJECTS

4) **Title:** Wise-IoT (Worldwide Interoperability for SEmantics IoT) (EU H2020)
   Period: Since June 2016
   Organization: Telecom SudParis, France
   Designation: Research Engineer & PhD Candidate
   Tools Used: Netbeans, Java, Tomcat, MySql, Postman
   My Role: Developed an IoT Recommender for smart parking (in Santander, Spain) and smart skiing (in Chamrousse, France) use cases. In smart parking use case, IoT Recommender provides a nearest parking spot and least crowded route from user's current location to the chosen parking spot by analyzing the traffic sensors deployed at Santander, Spain. In smart skiing use case, IoT Recommender provides ski routes which passes through slopes and ski lifts by modifying GraphHopper open source routing engine to implement routing for ski slopes and lifts.
   Description: http://www.wise-iot.eu
   While the Internet of Things is addressing a multiplicity of still-emerging standards and Alliance specifications with efforts to structure them into reference architectures, the Wise-IoT project gathers lead contributors from Europe and Korea to on-going major global IoT standardisation activities with the objective to strengthen and expand emerging IoT standards and reference implementation using feedback from user-centric and context-aware pilots.

Six testbeds from Europe and South Korea will be federated to implement smart city, leisure and healthcare pilots demonstrating GIoTS based applications roaming capabilities across continents. An iterative development approach is being implemented to allow requirement and architecture adjustments as well as alignment and contributions back to on-going standardisation activities through submissions in technical committees and interoperability events support. A strong plan for dissemination has been set-up and will have its peak during the trials to be run at PyeongChang Olympic and Paralympic Games.

3) **Title:**   Indoor positioning and navigation
   Period: March 2015 - October 2015
   Organization: Sunway University, Malaysia
   Designation: Research Assistant
   Tools Used: Android, Java, Android Studio
   Description: Today, indoor positioning, along with indoor navigation, is currently no longer impossible. Nevertheless, it is still an interesting and growing research area. The objective was to explore various techniques that enable unsupervised approach to learn and build patterns, commonly known as fingerprints, that may lead to usable, or better still precise indoor positioning. After successfully positioning a person in an indoor environment, indoor navigation was performed.

2) **Title:**   Direct Admit System for Hospital (DASH) (Web2Py web application)
   Period: November 2012 – May 2013
   Organization: KNYSYS LLC
   Designation: Software Developer
   Tools Used: Web2Py, Python, HTML, CSS, JavaScript, ExtJS, PostgreSQL

   Description: www.dashadmit.com is a healthcare tool that streamlines and significantly improves the hospital direct admission process. The goal is to swiftly admit patients from an out-patient setting into a hospital. DASH was designed to speed up the patient admission process and avoid wasting valuable time and money. To achieve this goal, DASH empowers healthcare givers and associated staff of the DASH-enabled hospital.

1) **Title:**   Think Realtime (ASP.NET web application)
   Period: August 2012 – October 2012
   Organization: KNYSYS LLC
   Designation: Software Developer
   Tools Used: ASP.NET, C#, HTML, CSS, JavaScript, JQuery, MS SQL server
   Description: www.thinkrealtime.com is involved in advertising, high-frequency stock trading and machine learning. It provides its clients an infinitely scalable, fully automated system that optimizes the purchase of Real-time Bidding (RTB) enabled banner inventory exclusively on the Google Display Network, thus maximizing online display advertising effectiveness.

PROFESSIONAL ACTIVITIES

Technical Program Committee (TPC):

- IEEE NetSoft 2018 - Smart network Technologies and Edge computing for the Tactile Internet (STET) Workshop, Montreal, Canada

- [3rd International Conference on Fog and Mobile Edge Computing (FMEC 2018), Barcelona, Spain](#)
- [2nd International Conference on Fog and Mobile Edge Computing (FMEC 2017), Valencia, Spain](#)
- [1st International Conference on Fog and Mobile Edge Computing (FMEC 2016), Augsburg, Germany](#)
- [IEEE Mediterranean Electrotechnical Conference (MELECON 2016), Limassol, Cyprus](#)

Reviewer:

Journals:
- [IEEE Transactions on Wireless Communications](#)
- [IEEE Communications Magazine](#)
- [IEEE Wireless Communications](#)
- [IEEE Internet of Things Journal](#)
- [Pervasive and Mobile Computing, Elsevier](#)
- [Future Generation Computer Systems](#)
- [Ad Hoc Networks](#)
- [Computer Networks](#)
- [IEEE Communications Letters](#)
- [Journal of Network and Computer Applications](#)
- [Artificial Intelligence Review](#)
- [IEEE Access](#)
- [Wireless Networks](#)
- [IET Communications](#)
- [International Journal of Communication Systems, Wiley](#)
- [Optimization Letters](#)
- [Computers & Electrical Engineering](#)
- [OPTIK, International Journal for Light and Electron Optics](#)
- [IET Wireless Sensor Systems](#)
- [Ad Hoc & Sensor Wireless Networks](#)
- [International Journal of Communication Networks and Information Security (IJCNIS)](#)

International Conferences:
- [21st Conference on Innovation in Clouds, Internet and Networks (ICIN) 2018](#)
- [IEEE 13th Malaysia International Conference on Communications (MICC) 2017](#)
- [International Symposium on Networks, Computers and Communications (ISNCC) 2017](#)
- [IEEE 12th Malaysia International Conference on Communications (MICC) 2015](#)
- [International Wireless Communications & Mobile Computing (IWCMC) 2015](#)
- [IEEE Global Communication Conference (Globecom) 2014](#)
- [IEEE International Conference on Communications (ICC) 2013](#)