Pierpaolo Salvo

Curriculum Vitæ

Professional Experience

Apr 14 – Jan 16	**Postdoctoral researcher**, SAPIENZA University of Rome, ITALY.
Promoter	Department of Information, Electronic and Telecommunication Engineering (DIET), SAPIENZA University of Rome, ITALY
Focus	Routing and resource management protocols for broadband services provision in next generation networks. Feasibility study for transmission protocols in Heterogeneous Wireless Networks; design and implementation of routing protocols.
Feb 12 – Mar 14	**Researcher**, SAPIENZA University of Rome, ITALY.
Promoter	Department of Information, Electronic and Telecommunication Engineering (DIET), SAPIENZA University of Rome, ITALY
Focus	Routing and resource management protocols for broadband services provision in next generation networks. Feasibility study for transmission protocols in VANETs; tuning of software stack for simulations (ns-2, Omnet++, SUMO); design and implementation of routing protocols.
Nov 10 – Apr 14	**PhD in Information and Communication Engineering**, *Department of Information, Electronic and Telecommunication Engineering (DIET)*, SAPIENZA University of Rome, ITALY.
PhD Focus	Cognitive Radio Ad-Hoc Network (CRHAN) and Vehicular Ad-Hoc Network (VANET).
Apr 10 – Mar 11	**Researcher**, *winner of the annual scholarship for graduates of the CNIT related to the project TERI (Telecommunication Research in Italy)*.
Promoter	CNIT (National Interuniversity Consortium for Telecommunications)
Focus	Feasibility study for transmission protocols in Cognitive Radio Ad-Hoc Networks (CRHANs); automatic identification and classification of radio networks in Cognitive Radio Ad-Hoc Networks through crosslayer information; design and implementation of routing protocols in Cognitive Radio Ad-Hoc Networks (CRHANs).

Teaching

2011 – 2014	*Teaching assistant* for the class "Network Infrastructures", Master degree in Communication Engineering - Artificial Intelligence and Robotics - Computer Engineering , SAPIENZA University of Rome
2010 – 2013	*Teaching assistant* for the class "Telecommunications", Bachelor degree in Computer Engineering, SAPIENZA University of Rome
2010 – 2012	*Teaching assistant* for the class "Laboratory of Telematic Applications", Master degree in Communication Engineering - Computer Engineering , SAPIENZA University of Rome

Experience in projects

Nov 10 – Mar 12	Participant in the Telecom Italia project Infomobility and Infotainment Services using Mobile networks and WiFi, (Sapienza University & Telecom Italia)
Advisors	Prof.ssa F. Cuomo, Prof. A. Baiocchi, Ing. A. Bragagnini
Focus	Feasibility study for transmission protocols in VANETs; tuning of software stack for simulations (ns-2 and SUMO); design and implementation of routing protocols.
Dec 10 – Jun 11	Participant in the project FIRB In.Sy.Eme
Advisor	Prof. Aldo Roveri
Focus	The establishment of an integrated system to support communications and information processing during the intervention in emergency scenarios.
Nov 10 – Oct 13	Participant in the ICT Action IC0902, Cognitive Radio and Networking for Cooperative Coexistence of Heterogeneous Wireless Networks, supported by EU RTD.
Focus	The integration of the cognitive capabilities in all the layers of a communication system, with the aim to establish a European platform for cognitive radio networks.
Dec 13 – Jan 14	Participant in ItaliaLab, CONSEL - Consorzio ELIS, Rome.
Focus	ItaliaLab is a laboratory of collaborative innovation aimed at developing innovate projects in digital life field.
Jun 10 – Now	Participant in the evaluation commissions of prestigious international journals and conferences in the field of ICT.

Publications

Journals and Magazines

[1] Pierpaolo Salvo, Francesca Cuomo, Andrea Baiocchi, Izhak Rubin, Investigating VANET dissemination protocols performance under high throughput conditions, Vehicular Communications, Volume 2, Issue 4, October 2015, Pages 185-194, ISSN 2214-2096, [http://dx.doi.org/10.1016/j.vehcom.2015.07.003]

[2] Baiocchi, A.; Salvo, P.; Cuomo, F.; Rubin, I., "Understanding spurious message forwarding in VANET beacon-less dissemination protocols: an analytical approach," Vehicular Technology, IEEE Transactions on , vol.PP, no.99, pp.1,1, 2015, [doi: 10.1109/TVT.2015.2422753]

[3] Izhak Rubin, Yu-Yu Lin, Andrea Baiocchi, Francesca Cuomo, and Pierpaolo Salvo, "Rapid Dissemination of Public Safety Message Flows in Vehicular Networks", Journal of Communications, vol. 9, no. 8, pp. 616-626, 2014. [doi:10.12720/jcm.9.8.616-626]

[4] F. Cuomo, I. Rubin, A. Baiocchi, P. Salvo *Enhanced VANET broadcast throughput capacity via a dynamic backbone architecture*, Ad Hoc Networks, Vol. 21, pp. 42-59 October 2013 [doi:10.1109/TWC.2013.103013.130939]

Conference Proceeding

[1] P. Salvo, I. Turcanu, F. Cuomo, A. Baiocchi and I. Rubin, *LTE floating car data application off-loading via VANET driven clustering formation*, 2016 12th Annual Conference on Wireless On-demand Network Systems and Services (WONS), Cortina d'Ampezzo, 2016, pp. 1-8.

[2] S. Iadicicco, S. Infante, P. Salvo, A. Baiocchi and F. Cuomo, *Multi-originator data dissemination in VANETs*, 2016 12th Annual Conference on Wireless On-demand Network Systems and Services (WONS), Cortina d'Ampezzo, 2016, pp. 1-8.

[3] Ion Turcanu, Pierpaolo Salvo, Andrea Baiocchi, and Francesca Cuomo, *DIS-COVER: A Unified Protocol for Data Dissemination and Collection in VANETs*. In Proceedings of the 12th ACM Symposium on Performance Evaluation of Wireless Ad Hoc, Sensor, & Ubiquitous Networks (PE-WASUN '15) 2015. ACM, New York, NY, USA, 25-32. [doi=http://dx.doi.org/10.1145/2810379.2810388]

[4] Salvo, Pierpaolo; Cuomo, Francesca; Baiocchi, Andrea; Rubin, Izhak, *Probabilistic relay selection in timer-based dissemination protocols for VANETs*, Communications (ICC), 2014 IEEE International Conference on , vol., no., pp.2725,2730, 10-14 June 2014 [doi: 10.1109/ICC.2014.6883736]

[5] Rubin, I; Yu-Yu Lin; Baiocchi, A; Cuomo, F.; Salvo, P., *Micro base station aided vehicular ad hoc networking*, Computing, Networking and Communications (ICNC), 2014 International Conference on , vol., no., pp.231,235, 3-6 Feb. 2014 [doi: 10.1109/ICCNC.2014.6785337]

[6] Rubin, Izhak; Lin, Yu-Yu; Baiocchi, Andrea; Cuomo, Francesca; Salvo, Pierpaolo, *Vehicular backbone networking protocol for highway broadcasting using directional antennas*, Globecom Workshops (GC Wkshps), 2013 IEEE , vol., no., pp.4414,4419, 9-13 Dec. 2013 [doi: 10.1109/GLOCOMW.2013.6855646]

[7] Rubin, I; Baiocchi, A; Cuomo, F.; Salvo, P., *Vehicular Backbone Network Approach to Vehicular Military Ad Hoc Networks*, Military Communications Conference, MILCOM 2013 - 2013 IEEE , vol., no., pp.901,909, 18-20 Nov. 2013 [doi: 10.1109/MILCOM.2013.157]

[8] Salvo, P.; De Felice, M.; Baiocchi, A; Cuomo, F.; Rubin, I, *Timer-Based Distributed Dissemination Protocols for VANETs and Their Interaction with MAC Layer*, Vehicular Technology Conference (VTC Spring), 2013 IEEE 77th , vol., no., pp.1,6, 2-5 June 2013 [doi: 10.1109/VTCSpring.2013.6692788]

[9] Salvo, P.; De Felice, M.; Cuomo, F.; Baiocchi, A, *Infotainment traffic flow dissemination in an urban VANET*, Global Communications Conference (GLOBE-COM), 2012 IEEE , vol., no., pp.67,72, 3-7 Dec. 2012 [doi: 10.1109/GLO-COM.2012.6503092]

[10] Salvo, P.; Cuomo, F.; Baiocchi, A; Bragagnini, A, *Road Side Unit coverage extension for data dissemination in VANETs*, Wireless On-demand Network Systems and Services (WONS), 2012 9th Annual Conference on , vol., no., pp.47,50, 9-11 Jan. 2012 [doi: 10.1109/WONS.2012.6152235]

[11] Abbagnale, A; Cuomo, F.; Salvo, P., *Comparison of utility functions for routing in cognitive wireless ad-hoc networks*, Ad Hoc Networking Workshop (Med-Hoc-Net), 2011 The 10th IFIP Annual Mediterranean , vol., no., pp.127,130, 12-15 June 2011 [doi: 10.1109/Med-Hoc-Net.2011.5970478]

[12] Salvo, P.; Cuomo, F.; Abbagnale, A, *Hidden Primary User Awareness in Cognitive Radio Routing: The SBBO Protocol*, Global Telecommunications Conference (GLOBECOM 2010), 2010 IEEE , vol., no., pp.1,5, 6-10 Dec. 2010 [doi: 10.1109/GLOCOM.2010.5683120]

Workshop Partecipation

[1] Rubin, I; Baiocchi, A; Cuomo, F.; Salvo, P., *GPS aided inter-vehicular wireless networking*, Information Theory and Applications Workshop (ITA), 2013 , vol., no., pp.1,9, 10-15 Feb. 2013 [doi: 10.1109/ITA.2013.6502973]

[2] P. Salvo, F. Cuomo, A. Baiocchi, *Infotainment applications support in VANET*, Italian Networking Workshop 2012, Courmayeur, Italy, January 2012.

[3] Pierpaolo Salvo, Francesca Cuomo, Anna Abbagnale, *COGTop: a tool for analyzing performance of different routing paths established on cognitive ad-hoc networks*, IC0902 2010, November 23-25, Bologna, Italy

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