



## Some Journals and Book Contributions (2007 onwards)

Yuhui Yao, Yan Sun, Chris Phillips, Yue Cao, "Movement-Aware Relay Selection for Delay-Tolerant Information Dissemination in Wildlife Tracking and Monitoring", IEEE Internet of Things Journal, Volume: 5, Issue: 4, August 2018, pp 3079 - 3090. DOI: 10.1109/JIOT.2018.2831439

Jingwen Bai, Yan Sun, Chris Phillips, Yue Cao, "Towards Constructive Relay based Cooperative Routing in MANETs", IEEE Systems, July 2017, Volume: PP Issue: 99. DOI: 10.1109/JSYST.2017.2721543

Jinfu Wang, John Bigham, Chris Phillips, "A Geographical Proximity Aware Multi-Path Routing Mechanism for Resilient Networking", IEEE Communications Letters, July 2017, Volume: 21, Issue:7, pp: 1533-1536. DOI: 10.1109/LCOMM.2017.2691698

Roya Haratian, Tijana Timotijevic, Chris Phillips, "Reducing power and increasing accuracy of on-body sensing in motion capture application", IET Signal Processing, Vol. 10, Iss. 2, 2016, pp. 133–139, ISSN 1751-9675.

Qichen Wang, Chris Phillips, "Cooperative Path-Planning for Multi-Vehicle Systems", MDPI Electronics 2014, Special Issue Intelligent and Cooperative Vehicles, 3(4), pp 636-660; November 2014. DOI:10.3390/electronics3040636

Wang, J.; Chen, X.; Phillips, C.; Yan, Y.; "Energy Efficiency with QoS Control in Dynamic Optical Networks with SDN Enabled Integrated Control Plane", Elsevier Computer Networks, February 2014.

Yan Sun, Jingwen Bai, Hao Zhang, Roujia Sun, Chris Phillips, "Cognitive Radio Mobility Based Routing Protocol for CR Mobile Ad hoc Networks", IGI Global (ACM), Special issue of International Journal of Wireless Networks and Broadband Technologies (IJWNBT), Accepted for publication 2014.

Roya Haratian, Richard Twycross-Lewis, Tijana Timotijevic, and Chris Phillips, "Towards Flexibility in Sensor Placement for Motion Capture Systems: A Signal Processing Approach", IEEE Sensors Journal, vol. 14, issue 3, pp. 701-709, 2014.

Xin Chen, Chris Phillips, "An Evolutionary Based Dynamic Energy Management Framework for IP-over-DWDM Networks," Elsevier, Journal of Sustainable Computing: Informatics and Systems (SUSCOM), Volume 4, Issue 2, pp 94–105 June 2014.

Chen, X.; Phillips, C.; "An Evolutionary Based Dynamic Energy Management Framework for IP-over-DWDM Networks", Springer, "Energy Efficiency in Large Scale Distributed Systems", Lecture Notes in Computer Science 2013, pp 233-247, September 2013. ISBN 978-3-642-40517-4

X. Zhang, C. I. Phillips and R. J. Mondragon, "Topology Construction of Provider-independent Overlays to Improve Internet Resilience", IEEE Communication Letters, Volume: 16, Issue: 11, 2012. Page(s): 1876 – 1879. Digital Object Identifier: 10.1109/LCOMM.2012.092112.120338

Xian Zhang, Xiuzhong Chen and Chris Phillips, "Achieving Effective Resilience for QoS-aware Application Mapping", (Elsevier) Computer Networks, Volume 56, Issue 14, Page(s): 3179–319, Sept 2012. Digital Object Identifier: <http://dx.doi.org/10.1016/j.comnet.2012.06.015>

Xian Zhang, Chris Phillips, "Importance of Substrate Network Topology Information for achieving Effective Enhanced Resilience in Overlay Mapping", IET Electronics Letters, Vol 48 Issue 1, Page(s): 14 - 16, 2012. Xian Zhang, Chris Phillips, "A Survey on Selective Routing Topology Inference through Active Probing", IEEE Communications Surveys & Tutorials, 2011 (accepted for publication).

Hamouda YEM, Phillips C, "Metadata Based, Optimal Sensor Selection for Multi-Target Tracking in Wireless Sensor Networks", International Journal of Research and Reviews in Computer Science 2(1) 2011.

Jun Zhang, Chris Phillips, "Job-scheduling via resource availability prediction for volunteer computational grids", International Journal of Grid and Utility Computing (IJGUC) 2(1):25-32 2011.

Hamouda YEM, Phillips C, "Adaptive Sampling for Energy-Efficient Collaborative Multi-Target Tracking in Wireless Sensor Networks", IET Wireless Sensor Systems 1(1):15-25 Mar 2011.

Celia Glass, Chris Phillips and Song Dong, "Layered Connection Management for Dynamic All-Optical Networks", IET Communications, Vol. 3, No. 9, September 2009 Page(s):1520 - 1532, Digital Object Identifier 10.1049/iet-com.2008.0531.

Ali Hassan and Chris Phillips, "Particle Swarm Optimization Based DRWA for Wavelength Continuous WDM Optical Networks using a Novel Fitness Function", Artificial Intelligence Review Journal, Volume 29, Issue 3-4 (June 2008), Pages: 305 - 319. ISSN:0269-282.

Huifang Kong and Chris Phillips, "Improved Dynamic Lightpath Provisioning for Large Wavelength-Division Multiplexed Backbones", IEEE Journal of Lightwave Technology, Vol 25 No 7, July 2007, Page(s):1693 – 1701, Digital Object Identifier 10.1109/JLT.2007.899179

Chapter 2 "A Review of High Performance Simulation Tools and Modeling Concepts" in the book entitled: "Recent Advances in Modeling and Simulation Tools for Communication Networks and Services", Edited by Nejat Ince and Arnold Bragg, Springer; 1st Edition, 2007, ISBN-13: 978-0387739076.

## **Presentations, Tutorials and Refereeing**

I have given presentations at a number of conferences, including the opening keynote speech, "MPLS: challenges and opportunities", MPLS Workshop, Girona, March, 2004, an invited paper at the 6<sup>th</sup> IEE Conference on Telecommunications, a tutorial on novel concurrent simulation techniques at Bradford University and guest lectures at HHI, Berlin and Royal Holloway, the topic being MPLS Networks. Another tutorial was for Nortel staff, examining the impact of protection events on IP Network applications. I have also delivered a Spanish government sponsored doctorate-level course to students at the University of Girona funded by a Spanish Government doctorate-training programme.

I have refereed papers for journals such as: ETRI, IEE Proc Comms, IEE Electronic Letters and IFIP; other refereeing includes EPSRC bid proposals and various IEE/IEEE conferences.

## **Conference Organisation**

TPC member on the following conferences:

- IEEE ITTCA04, ITTCA06, ITTCA08 – (Damascus, Syria).
- MPLS Networks Workshop 2004, 2005, 2006 (Girona, Spain)
- IEEE ICSNC 2006, (Tahiti, French Polynesia)

I have also been a Session Chair for ITTCA08, Session Chair for ITTCA06, IEEE CCNC'04 January 2004, 4th Workshop in G/MPLS Networks and PGNet 2002.

## **PhD Students Graduated**

Yuhui Yao - PhD Completed 2018 (Efficient Multi-Hop Communications for Software-Defined Wireless Networks) \*Co-supervised with Dr Yan Sun

Jingwen Bai - PhD Completed 2016 (Constructive Relay based Cooperative Routing in Mobile Ad hoc Networks) \*Co-supervised with Dr Yan Sun

Jinfu Wang - PhD Completed 2015 (Management of Temporally and Spatially Correlated Failures in Federated Message Oriented Middleware for Resilient and QoS-Aware Messaging Services)

Yue Jia - PhD Completed 2014 (Resilient and Efficient Delivery over Message Oriented Middleware)

Xin Chen - PhD Completed 2014 (Energy Efficient Wired Networking)

Roya Haratian - PhD Completed 2014 (Towards Flexibility in Body Area Sensing Systems: A Signal Processing Approach) co-supervised by Dr Tijana Timotijevic

Xian Zhang - PhD Completed 2011 (Resilient Overlay for Mission Critical Applications)

Yousef Hamouda, "Biologically-Inspired Self-Organising Communication Networks", February 2011.

Ali Hassan, "Particle Swarm Optimization for Routing and Wavelength Assignment in Next Generation WDM Networks", April 2010

Jun Zhang, "Flexible Distributed Computing with Volunteered Resources",

Yiran Gao, "Inter-Provider Dynamic VPNs", June 2009.

Costas Neophytou, "Dynamic Tree Switching for MPLS Networks", April 2007.

Huifang Kong, "Pro-active Reservation Mechanisms for Next Generation Optical Networks", March 2006.

Karen Shoop, "Agent Based Resource Management in IP Networks", December 2005.

Rehan Zaidi, "Real Time Trading Mechanisms for Automated Markets", December 2004.

Ivan Djordjevic, "Architecture for Dynamic and Secure Group Working", June 2004.

Song Dong, "Resilience Provisioning Mechanisms of IP Centric Optical Networks", November 2003.

Felicia Holness, "Congestion Control Mechanisms within MPLS Networks", February 2001.

(I am currently supervising four PhD students. Research topics are Resilient Overlays, Body Area Sensor Networks, Energy Efficient Wired Networking, and Network Coding for WSNs).

### **PhD Examiner**

I have been a PhD examiner for about 20 candidates at the following universities: University College London, Technical University of Denmark, Kings College London, University of Surrey, City University, University of Stirling, University of Strathclyde, Dublin City University, University of Ulster, and the University of Oslo.

### **Skills**

- Comprehensive knowledge of communication protocols such as ATM, TCP/IP (including TCP Reno and Tahoe), SDH/SONET, PDH, PPP, including leading-edge research into MPLS and Internet restoration mechanisms
- Understanding of Internet applications and protocols including: SMTP Email, HTTP, FTP, VOIP, OSPF, BGP-4
- Familiar with *VHDL* and *Verilog* hardware description languages
- 12 months experience using the commercial *Opnet Modeler* package for TCP/IP network simulations – I have managed QMUL's OPNET University Program participation since 2000.
- Competent with a variety of programming languages