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**Professor**

**Graduate Program Coordinator**

**Phillip M. Drayer Department of Electrical Engineering**

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## **PROFESSIONAL EXPERIENCE**

Professor, August 2014 - Present  
Phillip M. Drayer Department of Electrical Engineering  
Lamar University  
Beaumont, Texas 77710 USA

Associate Professor, July 2007 - June 2014  
Phillip M. Drayer Department of Electrical Engineering  
Lamar University  
Beaumont, Texas 77710 USA

Assistant Professor, June 2002 - June 2007  
Phillip M. Drayer Department of Electrical Engineering  
Lamar University  
Beaumont, Texas 77710 USA

## **AREAS OF EXPERTISES AND RESEARCH INTERESTS**

Computer Networks and Security  
Cyber-Physical Systems and Cybersecurity  
Satellite/Space Networks and Deep-Space Communications  
Delay-/Disruption-Tolerant Networks (DTN)  
Intermittent-Connectivity Networks  
Wireless and Ad Hoc Networks

## **HIGHEST DEGREE EARNED**

**Ph.D. in Electrical/Computer Engineering** August 2001  
New Mexico State University, Las Cruces, New Mexico, USA  
Advisor: Dr. Stephen Horan (Currently a Principal Investigator at NASA Langley Research Center)

## **HIGHLIGHT OF PROFESSIONAL ACTIVITIES**

- (1) Associate Editor, *IEEE Transactions on Aerospace & Electronics Systems*, 2018-Present
- (2) Associate Editor, *IEEE Aerospace & Electronics Systems Magazine*, January 2012-Present
- (3) Member, The Teaching Board of PhD Program in Science and Technology for Electronic and Telecommunication (STIET), University of Genova, Italy, 2018-Present
- (4) Named as **Best Associate Editor** of *IEEE Aerospace & Electronics Systems Magazine*, 2015
- (5) Associate Editor, *Wiley InterScience's Wireless Communications and Mobile Computing Journal*, Aug.

2006-2010  
(6) Guest Editor,

- (<http://onlinelibrary.wiley.com/doi/10.1002/dac.853/abstract>)
- (10) G. Giambene, B. Yeo, and **R. Wang** Special issue on Cross-Layer Design for QoS Support in Wireless and Hybrid Networks Special issue on Cross-Layer Design for QoS Support in Wireless and Hybrid Networks of *Journal of Communications Software and Systems (JCOMSS)*, vol. 3, No. 3, September 2007, pp. 145-147.
  - (11) B. Sun, Y. Xiao, and **R. Wang** Fraudulent usage in wireless networks *IEEE Transactions on Vehicular Technology*, vol. 56, No.6, Nov. 2007, pp. 3912 - 3923.  
([http://ieeexplore.ieee.org/xpl/freeabs\\_all.jsp?arnumber=4356991](http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=4356991))
  - (12) **R. Wang**, B. Gutha, and Paradesh Kumar Rapet Window-based and rate-based transmission control mechanisms over space- *IEEE Transactions on Aerospace and Electronic Systems*, vol. 44, No. 1, January 2008, pp. 157-170.  
(<http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=04516996>)
  - (13) **R. Wang** A comparative investigation of acknowledgment mechanisms for data transport *IEEE Wireless Communications*, vol.15, No. 1, February 2008, pp. 82-91.  
(<http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=4454708&isnumber=4454693>)
  - (14) **R. Wang** - *IEEE Transactions on Aerospace and Electronic Systems*, vol. 45, No. 2, April 2009, pp. 790-798.  
(<http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5089562&isnumber=5089526>)
  - (15) **R. Wang**, T. Taleb *IEEE Communications Surveys and Tutorials*, vol. 11, No. 2, Second Quarter 2009, pp. 21-32. (Nominated for 2009 IEEE Communications Society Best Tutorial Paper)  
(<http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5039581>)
  - (16) **R. Wang**, B. Shrestha, X. Wu, T. Wang, A. Ayyagari, E. Tade, S. Horan, Reliable CCSDS File Delivery Protocol *IEEE Transactions on Aerospace and Electronic Systems*, vol. 46, No. 1, January 2010, pp. 147-169.  
(<http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5417153>)
  - (17) **R. Wang** -based operation

*IEEE Transactions on Aerospace and Electronic Systems*, vol. 49, No. 3, July 2013, pp.1677-1691.  
(<http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6558012>)

(25) J. Hu, **R. Wang**, Q. Zhang, Z. Wei,

*IEEE Systems Journal*, vol. 7, No. 4, December 2013, pp. 658-668.

(<http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6423201>)

- (39) **R. Wang**, M. Qiu, K. Zhao, and Y. Qian Optimal RTO Timer for Best Transmission Efficiency of DTN Protocol in Deep-Space Vehicle Communications *IEEE Transactions on Vehicular Technology*, vol. 66, No. 3, March 2017, pp. 2536-2550.  
(<http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7478130>)
- (40) A. Sabbagh,

- (53) Y. Zhou, S. Burleigh, **R. Wang**, and K. Zhao, A Study of Cross-Layer BP/LTP Data Block Size in Space Vehicle Communications over Lossy and Highly Asymmetric Channels *IEEE Transactions on Vehicular Technology* (under review).

Peer-reviewed Conference Papers Published (incomplete list)

- (54) S. Horan and **R. Wang** -FP and TCP/IP FTP over a Simulated  
*Proceedings of International Telemetry Conference*, Vol.35, October 1999.
- (55) S. Horan and **R. Wang**  
*Proceedings of 14th AIAA Conference on Small Satellites*, August 2000.
- (56) S. Horan and **R. Wang** -  
*Proceedings of IEEE Conference on Aerospace and Electronic Systems*, March 2001.
- (57) **R. Wang** -Space Links  
*Proceedings of IEEE GLOBECOM 2004*, Dallas, TX, 2004.
- (58) **R. Wang** -TP over LEO/GEO-Stationary Space L  
*Proceedings of IEEE 13<sup>th</sup> International Conference on Computer Communications and Networks (ICCCN)*, Chicago, IL, 2004.
- (59) **R. Wang** The Impact of TCP/IP header compression on performance over  
*Proceedings of IEEE Wireless Communication and Network Conference (WCNC)*, Atlanta, GA, 2004.
- (60) **R. Wang** Behavior of Vegas congestion control over satellite  
*Proceedings of IEEE Wireless Communication and Network Conference (WCNC)*, Atlanta, GA, 2004.
- (61) **R. Wang** In  
*Proceedings of IEEE 60<sup>th</sup> Vehicular Technology Conference (VTC)*, Los Angeles, CA, 2004.
- (62) **R. Wang**  
Geo-stationary satellite links In *Proceedings of IEEE 60<sup>th</sup> Vehicular Technology Conference (VTC)*, Los Angeles, CA, 2004.
- (63) **R. Wang** *Proceedings of IEEE 60<sup>th</sup> Vehicular Technology Conference (VTC)*, Los Angeles, CA, 2004.
- (64) **R. Wang**, V. Bandekodige and M. Banerjee  
Throughput Performance of TCP and its Extensions in Space In *Proceedings of IEEE 60<sup>th</sup> Vehicular Technology Conference (VTC)*, Los Angeles, CA, 2004.
- (65) **R. Wang**  
scheme over GEO- *Proc. of IEEE Wireless Communication and Network Conference (WCNC)*, New Orleans, March 2005.
- (66) **R. Wang** *Proc. of IEEE International Conference on Communications (ICC)*, Seoul, Korea, May 2005.
- (67) **R. Wang**, S. Horan, B. Gutha -based and window-  
based transmission mechanisms over simulated space- *Proc. of IEEE GLOBECOM 2005*, St. Louis, MS.
- (68) **R. Wang** 1 Standards (SCPS) over ACTS  
*Proc. of IEEE GLOBECOM 2005*, St. Louis, MS.
- (69) **R. Wang**  
mechanism for asymmetric space- *IEEE GLOBECOM 2006*, San Francisco, CA, November 2006.
- (70) B. Sun, X. Jing, Y. Xiao, and **R. Wang**  
*IEEE GLOBECOM 2006*, San Francisco, CA, November 2006.
- (71) B. Sun, Z. Chen, **R. Wang**, F. Yu, and V.C.M. Leung, "Towards Adaptive Anomaly Detection in Cellular Mobile Networks", *IEEE Consumer Communications and Networking Conference (CCNC) 2006*, pp. 666-670.
- (72) **R. Wang**  
a *IEEE GLOBECOM 2006*, San Francisco, CA, November 2006.
- (73) **R. Wang** -TP over lossy GEO-space  
*IEEE GLOBECOM 2006*, San Francisco, CA, November 2006.
- (74) Y. Xiao, B. Sun, H. Chen, S. Guizani, and **R. Wang**

- IEEE GLOBECOM 2006*, San Francisco, CA, November 2006.
- (75) B. Sun, Y. Xiao, **R. Wang** ss  
*IEEE GLOBECOM 2006*, San Francisco, CA, November 2006.
- (76) **R. Wang**  
 Protocol (CFDP) in Deferred NAK Mode over GEO- In *Proc. of IEEE International Conference on Communications (ICC)* 2007.
- (77) **R. Wang** -based and Delay-Tolerant  
 Protocols over LEO- *Proc. of IEEE International Conference on Communications (ICC)* 2007.
- (78) **R. Wang** -based  
 and Store-and-Forward Transmission Mechanisms over Error-  
*Proc. of IEEE International Conference on Communications (ICC)* 2007.
- (79) **R. Wang**  
*Proc. of IEEE International Conference on Communications (ICC)* 2007.
- (80) **R. Wang**  
 NAK Mode over Point-to-Point LEO- *Proc. of IEEE Wireless Communication and Network Conference (WCNC)* 2007.
- (81) **R. Wang**, N. Arya, A. Ayya, and Q. Zhan -TP over  
*Proc. of IEEE Wireless Communication and Network Conference (WCNC)* 2007.
- (82) **R. Wang** -based and Delay-  
 Tolerant Transmission Mechanisms over GEO- In *Proc. of IEEE Wireless Communication and Network Conference (WCNC)* 2007.
- (83) Y. Han, X. Wang, Y. Xu, and **R. Wang** -FeW: the Second Order Enhancement for TCP over Mul  
*IEEE GLOBECOM 2007*, Washington D.C., November 2007.
- (84) X. Wang, C. Zhuo, Y. Xu, and **R. Wang**  
*IEEE GLOBECOM 2007*, Washington D.C., November 2007.
- (85) **R. Wang**  
*Proceedings of IEEE International Conference on Communications (ICC)*, May 2008.
- (86) **R. Wang**  
 Delay Impact on Rate-based and Window-based Transmission Mechanisms over Space-  
*Proceedings of IEEE International Conference on Communications (ICC)*, May 2008.
- (87) T. Taleb, Z. M. Fadlullah, T. Takahashi, **R. Wang**, Y. Nemoto, and N. Kato Tailoring ELB for multi-  
In *Proc. of IEEE International Conference on Communications (ICC)*, May 2009.
- (88) **R. Wang**  
 protocols for long- *Proc. of IEEE GLOBECOM 2009*, Nov.-Dec., 2009.
- (89) **R. Wang** er Transmission Protocol (LTP) for  
*Proc. of IEEE GLOBECOM 2009*, Nov.-Dec., 2009.
- (90) **R. Wang** -based DTN over Cislunar  
*Proc. of IEEE GLOBECOM 2010*, Nov.-Dec., 2010.
- (91) **R. Wang**  
 (LTP)-based DTN for long- *Proc. of IEEE GLOBECOM 2010*, Nov.-Dec., 2010.
- (92) **R. Wang**,  
 Network (ION) for Long- *Proc. of IEEE International Conference on Communications (ICC)*, June 2011.
- (93) Y. Wang, L. Zhou, and **R. Wang** Cognitive Radiobased on Tracing Localization  
In *Proc. of IEEE International Conference on Communications (ICC)*, June 2011.
- (94) Yonggang Lu, Li Liao, and **R. Wang** a Hypothetical  
*Proc. of the 7<sup>th</sup> International Symposium on Multispectral Image Processing & Pattern Recognition*, Guilin, China, November 2011.
- (95) **R. Wang**, Anand Reshamwala, Qinyu Zhang, Zhensheng Zhang, Qing Guo and Ming-Chuan Yang The  
In *Proc.*





(14) A. Reshamwala, MSEE, December 2009



- (1) **Best Associate Editor**, *IEEE Aerospace & Electronics Systems Magazine*, 2015
- (2) Lamar University Presidential Faculty Fellowships, 2015.
- (3) Nominee for IEEE Communications Society Best Tutorial Paper, 2009.
- (4) University Merit Award, Lamar University, 2007.