

Michael P. McGarry, Ph.D.

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University of Texas at El Paso
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Education

Arizona State University
PhD in Electrical Engineering (August 2007)
MS in Electrical Engineering (December 2004)

Polytechnic Institute of New York University
BS in Computer Engineering (May 1997)

Awards

2011-2012	UT El Paso College of Engineering Dean's Award for Teaching
Fa2011, Sp2013	UT El Paso ECE Department Teaching Award
2009	IEEE Communications Society Best Tutorial Paper Award

Sponsored Projects

National Science Foundation

PI: Michael McGarry; April 1, 2015 to March 31, 2018
ACI-1450997, "IRNC: AMI: Collaborative Research: Software-Defined and Privacy-Preserving Network Measurement Instrument and Services for Understanding Data-Driven Science Discovery"
\$175,430

Huawei Technologies

PI: Michael McGarry; May 1, 2012 to February 28, 2013
YBNW2012050, "Dynamic Bandwidth Allocation for Hybrid PON/DSL Access Networks"
\$40,000

National Science Foundation

PI: Patricia Nava, Co-PI: Michael McGarry; August 1, 2011 to July 30, 2014
CNS-1059430, "II-EN: Virgo 3 – GPU Upgrade to the UTEP Distributed Computing Lab"
\$135,000

Book Chapter

M. P. McGarry, and M. Reisslein "Multi-channel Ethernet Passive Optical Networks"
Broadband Access Networks: Technologies and Deployments, Springer, ISBN: 9780387921303

Journal Articles (h-Index = 10, ~910 total citations, student authors in bold, citation data obtained from Google Scholar)

J15: E. Gurrola, M. P. McGarry, Y. Luo, and F. Effenberger
"PON/xDSL Hybrid Access Networks",
Elsevier Optical Switching and Networking, vol. 14, Aug. 2014 (JCR Impact Factor = 0.984)

J14: X. Wei, F. Aurzada, M. P. McGarry, and M. Reisslein
"DyCaPPON: Dynamic circuit and packet passive optical network",
Elsevier Optical Switching and Networking, vol. 13, Jul. 2014 (JCR Impact Factor = 0.984)
Runner-up for 2014 Fabio Neri Best Paper Award

J13: A. Mercian, M. P. McGarry, and M. Reisslein

“Impact of report message scheduling (RMS) in 1G/10G EPON and GPON“, *Elsevier Optical Switching and Networking*, vol. 12, Apr. 2014 (**JCR Impact Factor = 0.984, cited 5 times**)

J12: R. Haddad, M. P. McGarry, and P. Seeling

“Video Bandwidth Forecasting“, *IEEE Communications Surveys and Tutorials*, vol. 15, no. 4, Fourth Quarter 2013 (**JCR Impact Factor = 8.202, cited 4 times**)

J11: A. Mercian, M. P. McGarry, and M. Reisslein

“Offline and Online Multi-Thread Polling in Long-Reach PONs: A Critical Evaluation“, *IEEE/OSA Journal of Lightwave Technology*, vol. 31, no. 12, Jun. 2013 (**JCR Impact Factor = 2.862, cited 16 times**)

J10: X. Wei, F. Aurzada, M. P. McGarry, and M. Reisslein

“EIBT: Exclusive Intervals for Bulk Transfers on EPONs“, *IEEE/OSA Journal of Lightwave Technology*, vol. 31, no. 1, Jan. 2013 (**JCR Impact Factor = 2.862, cited 8 times**)

J9: M. P. McGarry, and M. Reisslein

“Investigation of the DBA Algorithm Design Space for EPONs“, *IEEE/OSA Journal of Lightwave Technology*, vol. 30, no. 14, Jul. 2012 (**JCR Impact Factor = 2.862, cited 34 times**)

J8: R. Haddad, and M. P. McGarry

“Feed Forward Bandwidth Indication (FFBI): Cooperation for an Accurate Bandwidth Forecast“, *Elsevier Computer Communications*, vol. 35, no. 6, Mar. 2012 (**JCR Impact Factor = 1.330**)

J7: M. P. McGarry, M. Reisslein, F. Aurzada, and M. Scheutzow

“Shortest Propagation Delay (SPD) First Scheduling for EPONs with Heterogeneous Propagation Delays“, *IEEE Journal on Selected Areas in Communications*, vol. 28, no. 6, Aug. 2010 (**JCR Impact Factor = 4.932, cited 27 times**)

J6: J. R. Ferguson, M. Reisslein, and M. P. McGarry

“Online Excess Bandwidth Distribution for Ethernet Passive Optical Networks“, *OSA Journal of Optical Networking*, vol. 8, no. 4, Apr. 2009 (**JCR Impact Factor = 0.941, cited 16 times**)

J5: M. P. McGarry, M. Reisslein, and M. Maier

“Ethernet Passive Optical Network Architectures and Dynamic Bandwidth Allocation Algorithms“, *IEEE Communications Surveys and Tutorials*, Third Quarter 2008 (**JCR Impact Factor = 8.202, cited 150 times**) *Won the IEEE Communications Society Best Tutorial Paper Award 2009*

J4: M. P. McGarry, M. Reisslein, C. Colbourn, M. Maier, F. Aurzada, and M. Scheutzow

“Just-in-Time Scheduling for Multichannel EPONs“, *IEEE/OSA Journal of Lightwave Technology*, vol. 26, no. 10, May 2008 (**JCR Impact Factor = 2.862, cited 94 times**)

J3: M. P. McGarry, M. Reisslein, M. Maier, and A. Keha

“Bandwidth Management for WDM EPONs“, *OSA Journal of Optical Networking*, vol. 5, no. 9, Sept. 2006 (**JCR Impact Factor = 0.941, cited 76 times**)

J2: M. P. McGarry, M. Maier, and M. Reisslein
“WDM Ethernet Passive Optical Networks“, *IEEE Communications Magazine*,
vol. 44, no. 2, Feb. 2006 (**JCR Impact Factor = 4.755, cited 195 times**)

J1: M. P. McGarry, M. Maier, and M. Reisslein
“Ethernet PONs: A Survey of Dynamic Bandwidth Allocation (DBA) Algorithms“, *IEEE Communications Magazine*, vol. 42, no. 8, Aug. 2004 (**JCR Impact Factor = 4.755, cited 215 times**)

Conference Articles (Student authors in bold)

C14: M. P. McGarry, Y. Luo, and **E. Gurrola**
“Invited Talk: FTTdp: ONU Complexity Reduction“, *Optical Fiber Communications Conference (OFC '14)*, San Francisco, California, March 9-13, 2014

C13: M. P. McGarry, Y. Luo, and **E. Gurrola**
“On the Reduction of ONU Upstream Buffering for PON/xDSL Hybrid Access Networks“, *IEEE Global Communications Conference (Globecom '13)*, Atlanta, Georgia, December 9-13, 2013

C12: **E. Gurrola**, M. P. McGarry, Y. Luo, and N. Cheng
“Downstream ONU Buffer Modeling for Fiber to the Drop Point“, *OSA Asia Communications and Photonics Conference (ACP '13)*, Beijing, China, November 12-15, 2013

C11: R. Haddad, M. P. McGarry, and Y. Luo
“Forecast Grant Sizing for Video Delivery Over Passive Optical Networks“, *IEEE International Conference on Multimedia and Expo (ICME '13)*, San Jose, California, July 15-19, 2013

C10: R. Ferzli, M. P. McGarry, and M. A. al-Alaoui
“Effect of Hand Jitter on Video Compression Algorithms for Mobile Devices“, *IEEE International Conference on Communications and Information Technology (ICCIT '13)*, Beirut, Lebanon, June 19-21, 2013

C9: M. P. McGarry, **J. Hernandez**, V. R. Syrotiuk, and R. Ferzli
“Minimizing Video Retransmission Delay and Energy Consumption With Caching Routers“, *IEEE International Conference on Multimedia and Expo (ICME '12)*, Melbourne, Australia, July 9-13, 2012

C8: M. P. McGarry, P. Seeling, R. Haddad, and **J. Hernandez**
“Accuracy of Video Frame Size Forecasting“, *IEEE International Conference on Electro/Information Technology (EIT '12)*, Indianapolis, Indiana, May 6-8, 2012

C7: M. P. McGarry, M. Reisslein, F. Aurzada and M. Scheutzow
“Impact of EPON DBA Components on Performance“, *IEEE International Conference on Computer Communication Networks (ICCCN '11)*, Maui, Hawaii, August 1-4, 2011

C6: M. P. McGarry, **R. Shakya**, M. Ohannessian, and R. Ferzli
“Optimal Caching Router Placement for Reduction in Retransmission Delay“, *IEEE International Conference on Computer Communication Networks (ICCCN '11)*, Maui, Hawaii, August 1-4, 2011

C5: **J. McAlarney**, **R. Haddad**, and M. P. McGarry
“Modeling Network Protocol Overhead for Video“, *IEEE European Modelling Symposium (EMS '10)*, Pisa, Italy, November 17-19, 2010

C4: M. P. McGarry, **R. Haddad**, and **J. McAlarney**

“A New Approach to Video Bandwidth Prediction”, *IEEE International Conference on Ultra Modern Telecommunications (ICUMT '09)*, St. Petersburg, Russia, October 12-14, 2009

C3: **J. R. Ferguson**, M. P. McGarry, and M. Reisslein

“When Are Online and Offline Excess Bandwidth Distribution Useful in EPONs?”, *ICST Third International Conference on Access Networks (AccessNets '08)*, Las Vegas, NV, October 15-17, 2008

C2: M. P. McGarry, M. Reisslein, C. Colbourn, and M. Maier

“Just-in-Time Online Scheduling for WDM EPONs“, *IEEE International Conference on Communications (ICC '07)*, Glasgow, Scotland, June 24-27, 2007

C1: M. P. McGarry, M. Reisslein and V. R. Syrotiuk

“Access Control in Heterogeneous Multichannel Wireless Networks“, *ICST First International Conference on Integrated Internet Ad hoc and Sensor Networks (Intersense '06)*, Nice, France, May 29-31, 2006

Patents and Patent Applications

“Systems and Methods for Allocating Bonding Engines in Network Communications”, *US 8,837,508*

“Bandwidth Distribution Based on Prior Granting Cycles”, *App: US 2014/0241723 A1*

“Transmission Prioritization Based on Polling Time”, *App: US 2014/0241724 A1*

Experience

University of Texas at El Paso (August 2010-Present)

Assistant Professor (Tenure Track)

- Directing a communication networks research laboratory.
- Teaching courses in *communication networks*, *computer architecture*, *operating systems*, and *cloud computing*; between **4.8/5** and **4.9/5** average teaching evaluations each semester.
- Students graduated:
 - **Esau Ruiz MS May 2015**
 - **Elliott Gurrola MS December 2013** (PhD candidate at UTEP)
 - **Jesus Hernandez MS May 2012** (Software Engineer at MSD Ignition)

University of Akron (August 2008-August 2010)

Assistant Professor (Tenure Track)

- Directed a communication networks research laboratory.
- Taught courses in *communication networks*, and *computer architecture*; **3.8/4** teaching evaluation for Fall 2008, **3.86/4** for Spring 2009, **4.43/5** for Fall 2009, and **4.8/5** for Spring 2010.
- Students graduated (continued to advise after I left U Akron):
 - **Rosish Shakya MS May 2011** (Software Engineer at CCI)
 - **Rami Haddad PhD Aug. 2011 (Tenure-track Faculty at Georgia Southern U.)**

Arizona State University (August 2007-August 2008)

Adjunct Professor

- Led an Ethernet Passive Optical Network dynamic bandwidth allocation research program within my former PhD advisor's lab.
- Students co-advised with Martin Reisslein:
 - **Amit Aneja MS May 2007** (Engineer at Intel)
 - **Jason Ferguson MS Dec. 2008** (Engineer at ADTRAN)

Service

Editor for:

Elsevier Optical Switching and Networking *Special Issue on PON Supported Networking*

Associate Editor for:

Elsevier Optical Switching and Networking (2014-Present)

IEEE Communications Surveys and Tutorials (2010-Present)

Technical Committee for:

Elsevier Computer Communications (2014-Present)

Session Chair for:

Multimedia Networking session at ICCCN 2011

Technical Program Committee (TPC) Member for:

IEEE Globecom 2010 through 2015; IEEE Infocom 2011 through 2014

IEEE International Conference on Communications (ICC) 2010, 2016

IEEE International Conference on Computer Communications and Networks (ICCCN) 2011

Peer-reviewer for various IEEE journals

References

Dr. Martin Reisslein	Prof. (ASU)	email: reisslein@asu.edu	phone: (480) 965-8593
Dr. Violet Syrotiuk	Assoc. Prof. (ASU)	email: syrotiuk@asu.edu	phone: (480) 965-7034
Dr. Patrick Seeling	Assoc. Prof. (CMich)	email: patrick.seeling@cmich.edu	phone: (989) 774-3774
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