

Mina Esmaeelpour, PhD

Address: 225 Emerson Electric Co Hall, 301 W 16th St, Rolla, MO 65409

Office: (573) 341– 4252

Email: mina.esmaeelpour@mst.edu

Education

Ph.D. Physics, Lehigh University, May 2016

M.Sc. Solid State Physics, University of Tabriz, January 2010

B.Sc. Physics, University of Tabriz, August 2007

Research Areas and Interests

- nonlinear fiber optics
- fiber lasers and amplifiers
- fiber Bragg grating and distributed fiber sensors
- multimode fiber devices
- radiation detection in nuclear medicine
- positron emission tomography (PET)
- molecular cancer Imaging
- optical imaging
- spectroscopy
- fiber optic sensing applications
- biomedical imaging instrumentation
- fiber optic motion detection

Work Experience

- Assistant Professor, **Electrical and Computer Engineering Department, Missouri University of Science and Technology**, Rolla, MO (2019 – present)
- Postdoctoral Research Fellow, **Stanford School of Medicine, Department of Radiology**, Stanford, CA (2018 – 2019)
- Research consultant, **Intelligent Fiber Optic Systems Co. (IFOS)**, Santa Clara, CA (2017 – 2018)
- Postdoctoral Research Scholar, **Stanford University, Edward L. Ginzton Laboratory, Department of Applied Physics**, Stanford, CA (2016 – 2017)
- Teaching Assistant, **Lehigh University**, Bethlehem, PA (2010 – 2015)
- Internship, **Alcatel–Lucent, Bell Laboratories**, Holmdel, NJ (2011 – 2015)
- Teaching Assistant, **University of Tabriz**, Bonab, IRAN (2007 – 2008)

Funding – Grants and Fellowships

- 2019 IEEE Nuclear Science Symposium and Medical Imaging Conference Trainee Grant Scholarship
- Stanford Cancer Imaging Training (SCIT) Fellowship, 2019 (offered)
- National Institute of Health (NIH) Ruth L. Kirschstein National Research Service Award (NRSA) Individual Postdoctoral Fellowship F32, 2019 (offered)
- Helena Anna Henzl-Gabor Young Women in Science Fund for Postdoctoral Scholars, 2018
- OFC Conference Registration Grant, Optical Society of America, 2018
- Innovation School Travel and Registration Grant, Optical Society of America, 2017
- CLEO Conference Travel Grant, Lehigh University, 2015
- Siegman International Summer School on Lasers Travel and Registration Grant, Optical Society of America, 2014
- Sherman Fairchild Fellowship, Lehigh University, Bethlehem, PA, Fall 2013 and Spring 2014
- Sherman Fairchild Fellowship, Lehigh University, Bethlehem, PA, Fall 2013 and Spring 2014
- Research Grant from Alcatel-Lucent, Bell Laboratories, Holmdel, NJ, January 2012 – August 2012
- FiO Conference Travel and Registration Grant, Optical Society of America, 2012

Awards and Honors

- Journal of Lightwave Technologies 2012 Paper Award for R. Ryf et al. "Mode-Division Multiplexing Over 96-km of Few-Mode Fiber Using Coherent 6 x 6 MIMO Processing", Journal of Lightwave Technology (2012), with more than 500 citations

- Mohiko Yoshida award, Lehigh University, Bethlehem, PA, 2012, for early achievements in graduate studies

Selected Publications

- A. Arora, **M. Esmaeelpour**, M. Bernier, and M. J. F. Digonnet, "High-resolution slow-light fiber Bragg grating temperature sensor with phase-sensitive detection" Optics Letters, (2018)
- J. Knall, **M. Esmaeelpour**, M. J. F. Digonnet, "Model of anti-Stokes cooling in a Yb-doped fiber," Proc. SPIE Vol. 10550, Optical and Electronic Cooling of Solids III (22 February 2018)
- J. Knall, **M. Esmaeelpour**, M. J. F. Digonnet, "Model of Anti-Stokes fluorescence cooling in a single-mode optical fiber", Journal of Lightwave Technologies, (accepted - 2018)
- **M. Esmaeelpour**, R.-J. Essiambre, N. K. Fontaine, R. Ryf, J. Toulouse, Y. Sun, R. Lingle, "Power Fluctuations of Inter-Modal Four Wave Mixing in Few-Mode Fibers", Journal of Lightwave Technology (2017)
- **M. Esmaeelpour**, R. Ryf, N. K. Fontaine, H. Chen, A. H. Gnauck, R.-J. Essiambre, J. Toulouse, Y. Sun, R. Lingle, "Transmission over 1050-km Few-Mode Fiber based on a Bidirectional Distributed Raman Amplification", Journal of Lightwave Technology (2016)

Selected Presentations

- **M. Esmaeelpour**, R.-J. Essiambre, N. K. Fontaine, R. Ryf, and J. Toulouse, "Measurements of Frequency Instabilities and Slow Random Evolution of Inter-Modal Four-Wave Mixing in Few-Mode Fibers", European Conference on Optical Communication (2015)
- R. Ryf, **M. Esmaeelpour**, N. K. Fontaine, H. Chen, A. H. Gnauck, R.-J. Essiambre, J. Toulouse, Y. Sun, and R. Lingle, Jr., "Distributed Raman Amplification based Transmission over 1050 km Few-Mode Fiber", European Conference on Optical Communication (2015)
- R. Ryf, N. K. Fontaine, B. Guan, B. Huang, **M. Esmaeelpour**, S. Randel, A. H. Gnauck, S. Chandrasekhar, A. Adamiecki, G. Raybon, R. W. Tkach, R. Shubochkin, Y. Sun, R. Lingle, "305-km combined wavelength and mode-multiplexed transmission over conventional graded-index multimode fibre", European Conference on Optical Communication (2014)
- R. Ryf, N. K. Fontaine, J. Dunayevsky, D. Sinefeld, M. Blau, M. Montoliu, S. Randel, Chang Liu, B. Ercan, **M. Esmaeelpour**, S. Chandrasekhar, A. H. Gnauck, S. Leon-Saval, J. Bland-Hawthorn, J. Salazar-Gil, Y. Sun, L. Grüner-Nielsen, R. Lingle, D. Marom, "Wavelength-Selective Switch for Few-Mode Fiber Transmission", European Conference on Optical Communication (2013)

Service to Profession / Professional Activities

- Member of the technical committee for the Frontiers in Optics conference (2017 – present)
- Reviewer, Optics Express (2016 – present)
- Reviewer, Optical Materials Express (2014 – present)
- Reviewer, Applied Optics (2016 – present)
- Reviewer, Photonics Research (2016 – present)
- Reviewer, IEEE Photonics Technology Letters (2017 – present)
- Reviewer, Journal of Lightwave Technology (2015 – present)
- Reviewer, Journal of the Optical Society of America B (2017 – present)
- Reviewer, Optics Letters (2018 – present)
- Reviewer, Optical Society of America Foundation (OSAF) Fellowships, 2016
- Reviewer, Special Program Grants, Optical Society of America, 2016
- Siegman International School of Lasers, Stanford University, August 2014
- Innovation School, OSA Headquarter, Washington D.C., July 2017
- Founder of Lehigh University student chapter of OSA (LUSCOSA-2012) and Lehigh University Optics and Photonics Society (LUOPS-2014). Organized and led faculty and student seminars, invited speakers from industry and held technical entrepreneurship panels
- Representative of Lehigh University Student Chapter of the Optical Society of America in Student Leadership Conference during FIO2012

Professional Memberships/Affiliations

- Early career professional member, Optical Society of America (OSA)