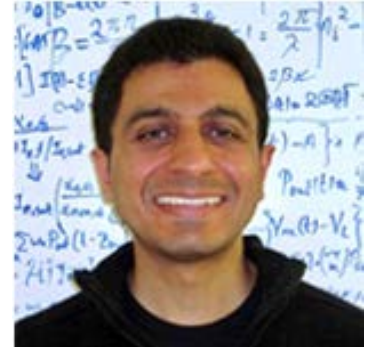


cfaed Colloquium Keynote

DATE: 27 September 2019
TIME: 10:10 am
LOCATION: TU Dresden, Barkhausen-Bau (BAR), Heinz-Schönfeld-Hörsaal BAR I90, Georg-Schumann-Str. 13, 01187 Dresden

SPEAKER: **Prof. Bhavin Shastri**
Engineering & Applied Physics (EAP), Queen's University, Canada

TITLE: ***"Neuromorphic Silicon Photonics: Light-based Neural Networks"***



Abstract:

Neuromorphic photonics (i.e. neuron-isomorphic) combines photonic device physics with distributed processing models, resulting in a new class of ultrafast information processors. We will give an overview of neuromorphic photonic systems and their application machine learning and optimization problems (time permitting).

Bio:

Bhavin J. Shastri is an Assistant Professor of Engineering Physics at Queen's University, Canada. He earned the Honours B.Eng. (with distinction), M.Eng., and Ph.D. degrees in electrical engineering (photonics) from McGill University, Canada, in 2005, 2007, and 2012, respectively. He was an NSERC and Banting Postdoctoral Fellow (2012-2016) and an Associate Research Scholar (2016-2018) at Princeton University. With research interests in silicon photonics, photonic integrated circuits, neuromorphic computing, and machine learning, he has published more than 120 journal and conference publications and 3 book chapters. He is a co-author of the book, Neuromorphic Photonics (Taylor & Francis, CRC Press, 2017).

Dr. Shastri is a Senior Member of the IEEE, recipient of the 2014 Banting Postdoctoral Fellowship from the Government of Canada, the 2012 D. W. Ambridge Prize for the top graduating Ph.D. student, an IEEE Photonics Society 2011 Graduate Student Fellowship, a 2011 NSERC Postdoctoral Fellowship, a 2011 SPIE Scholarship in Optics and Photonics, a 2008 NSERC Alexander Graham Bell Canada Graduate Scholarship, including the Best Student Paper Awards at the 2014 IEEE Photonics Conference, 2010 IEEE Midwest Symposium on Circuits and Systems, the 2004 IEEE Computer Society Lance Stafford Larson Outstanding Student Award, and the 2003 IEEE Canada Life Member Award.