

*The Electrical and Computer Engineering Program presents  
ECEN Seminar Series*

# **P2P: Perception to Pixels and Its Application in Quality Assessment, Seismic Interpretation, Automation, and Semi-Autonomous Vehicles**

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**Thursday, 24<sup>th</sup> March, 2016**

**1 – 2 PM**

**Lecture Hall 144**

In this talk, I will present our recent work on mapping pixels to perceived attributes by the human visual system. In this context, I will use the Image quality Assessment (IQA) as an application. I further discuss our most recent work on how uncertainty plays an important role in image and video processing and I use saliency detection in videos as an application to highlight the importance of uncertainty. Then, I show the results of our recent work on creating semi-autonomous vehicles for the auto industry in the US. Finally, I share with the audience our work on automating the interpretation process of large subsurface volumes, primarily for upstream technologies.

Towards the end of my talk, I will highlight some of the major activities Georgia Tech has in the MENA region.



Prof. AlRegib is currently a professor in the School of Electrical and Computer Engineering at the Georgia Institute of Technology. He is the Director of the Multimedia and Sensors Lab (MSL) at Georgia Tech. In 2012, he was named the Director of Georgia Tech's Center for Energy and Geo Processing (CeGP). He also serves as the Director of Georgia Tech's Initiatives and Programs in MENA. He has authored and co-authored more than 150 articles in international journals and conference proceedings. He has been issued five U.S. patents, two US patent applications, and several invention disclosures. He is a Senior Member of IEEE. Prof. AlRegib received the ECE Outstanding Graduate Teaching Award in 2001 and both the CSIP Research and the CSIP Service Awards in 2003. In 2008, he received the ECE Outstanding Junior Faculty Member Award. Prof. AlRegib serves as an Area Chair, ICME 2016, the Tutorial Chair, ICIP 2016. He is a voted member of the IEEE SPS Technical Committees on Multimedia Signal Processing (MMSP) and Image, Video, and Multidimensional Signal Processing (IVMSP). He is a member of the editorial board of the Wireless Networks Journal (WiNET), 2009-present, the IEEE Transaction on Circuits and Systems for Video Technology (CSVT), 2014-present, and the Elsevier Journal Signal Processing: Image Communications, 2015-present. He served as the chair of the Special Sessions Program at ICIP'06, the area editor for Columns and Forums in the IEEE Signal Processing Magazine (SPM), 2009–12, the associate editor for IEEE SPM, 2007-09, the Tutorials co-chair in ICIP'09, a guest editor for IEEE J-STSP, 2012, a track chair in ICME'11, the co-chair of the IEEE MMTC Interest Group on 3D Rendering, Processing, and Communications, 2010-12, the chair of the Speech and Video Processing Track at Asilomar 2012, and the Technical Program co-Chair of IEEE GlobalSIP, 2014. His research group, of more than 20 students and researchers, is working on projects related to image and video processing and communications, seismic imaging, perception in visual data processing, healthcare intelligence, and video analysis.

**FOR MORE INFORMATION:**

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