

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

# Robust Statistics for Signal Processing

Prof. Abdelhak Zoubir  
Darmstadt University of Technology, Germany

**Monday, 24 November 2014, 12 – 1 pm**

**Conference room 310**

*Light lunch will be served*

Robust statistics continue to gain importance due to an increase of impulsive measurement environments and outliers in practical engineering systems. Classical estimation or detection theory does not apply in such situations and robust statistical methods are sought for. The talk aims at discussing the most recent advances in robust statistics and at showing their power to solving signal processing problems. First, we highlight the motivation for using robust statistics in real-life situations and how robust statistics can be expected to remedy problems in such practical systems. We then introduce some definitions of robustness and discuss some robust estimators. The theoretical treatment is supported by applications in various areas of signal and antenna array processing.



Abdelhak M. Zoubir is a Fellow of the IEEE and IEEE Distinguished Lecturer (Class 2010- 2011). He received his Dr.-Ing. from Ruhr-Universität Bochum, Germany in 1992. He was with Queensland University of Technology, Australia from 1992-1998 where he was Associate Professor. In 1999, he joined Curtin University of Technology, Australia as a Professor of Telecommunications. In 2003, he moved to Technische Universität Darmstadt, Germany as Professor of Signal Processing and Head of the Signal Processing Group, and is now the Head of the Department of Electrical Engineering and Information Technology. His research interest lies in statistical methods for signal processing with emphasis on bootstrap techniques, robust detection and estimation and array processing applied to telecommunications, radar, sonar, automotive monitoring and safety, and biomedicine. He published over 300 journal and conference papers on these areas. Professor Zoubir served as General Chair and Technical Chair of numerous international IEEE conferences, most recently he was the Technical Co-Chair of ICASSP-14 held in Florence, Italy. Dr. Zoubir also served.

## FOR MORE INFORMATION:

Noha Ezzat  
noha.ezzat@qatar.tamu.edu  
+974.4423.0152