كلية الهندسة
College of Engineering
QATAR UNIVERSITY جامعة قطر

EE Short Course

The Department of Electrical Engineering, cordially invites you, Faculty Members, Researchers and Graduates, to a short Course on

Convex Optimization: From Theory to Applications

By

Dr. Amr El-Keyi

Date: Monday June 17, 2013 till Thursday June 20, 2013
Time: 9:00 am - 4:00 pm
Venue: I-111
(Included 2 Coffee Breaks and a Lunch)

Abstract

This course focuses on the theory and applications of convex optimization. It aims to train the students on recognizing and solving convex optimization problems that arise in many engineering fields. It is divided into two parts; convex optimization theory, and its applications. The theory part covers the basics of convex analysis and convex optimization problems such as linear programming (LP), semidefinite programming (SDP), second order cone programming (SOCP), geometric programming (GP), and quasi-convex optimization problems, as well as duality in general convex and conic optimization problems. The second part of the course focuses on engineering applications of convex optimization, from systems and control theory to estimation, data fitting, and information theory

Topics to be Covered

1. *Convex sets*
2. *Convex functions*
3. *Convex Optimization problems*
4. *Duality*
5. *Applications of convex optimization in Communication systems*

Due to the limited space RSVP is required by emailing the local coordinator Dr. Tamer Khattab tkhattab@qu.edu.qa

Speaker's Bio:

Amr El-Keyi received the B.Sc. (with highest honors) and M.Sc. degrees in Electrical Engineering from Alexandria University in 1999 and 2002, respectively, and the Ph.D. degree in 2006 in Electrical Engineering from McMaster University, Hamilton, ON, Canada. From November 2006 till April 2008, he was a postdoctoral research fellow with the Department of Electrical and Computer Engineering at McGill University. From May 2008 till February 2009, he was an Assistant Professor at Alexandria University where he participated in teaching several undergraduate courses. In April 2009, he joined Nile University as an Assistant Professor at the School of Communication and Information Technology. His research interests include array processing, cognitive radio, channel estimation, and interference management and cooperative relaying for wireless communication systems. He has more than 40 refereed conference and journal publications in addition to 4 current funded projects.