

# The Electrical Engineering Program

## A brief Overview

**Boon S. Ooi**

### Outline

- Program Overview
- Curriculum
- Research Highlights

# EE Faculty

Teaching Area	Faculty	Position	Research Area
<b>Electro-Physics</b>	Ian Foulds	Asst. Prof. of EE	MEMS & Microfluidics
	Muhammad Hussain	Asst. Prof. of EE	Microelectronics & nanotechnology
	Jurgen Kosel	Asst. Prof. of EE	MEMS & magnetic materials
	Khaled Salama	Asst. Prof. of EE	Sensors & Circuits
	Hakan Bagci	Asst. Prof. of EE	Computational electromagnetics
	Ghassan Jabbour	Prof. of MSE & EE	Solar cell, flexible electronics & photonics
	Andrea Fractalocchi	Asst. Prof. of EE & AMCS	Random medium & energy harvesting
	Boon Ooi	Professor of EE	Optoelectronics & lasers
	Atif Shamim	Asst. Prof. of EE	Microwave & circuits technology
<b>Systems</b>	Mohamed-Slim Alouini	Professor of EE	Communications & signal processing
	Christian Claudel	Asst. Prof. of EE & ME	Control and sensor systems
	Ganesh Sundaramoorthi	Asst. Prof. of EE & AMCS	Computer vision
	Basem Shihada	Asst. Prof. of CS (Affiliated member)	Wireless networks
	Meriem Laleg-Kirati	Asst. Prof. of AMCS (Affiliated member)	Control Systems
	Tareq AlNaffouri	Visiting Assoc. Prof. of EE	Wireless communications

# Electrical Engineering

## Electro-Physics

## Systems



**Khaled Salama**  
(PhD-Stanford)



**Ian Foulds**  
(PhD-Simon Fraser)



**Boon Ooi**  
(PhD-Glasgow)



**Hakan Bagci**  
(PhD-UIUC)



**Slim Alouini**  
(PhD-CALTEC)



**Christian Claudel**  
(PhD-UC Berkeley)



**Ganesh Sundaramoorthi**  
(PhD-Georgia Tech)



**Jurgen Kosel**  
(PhD-Vienna)



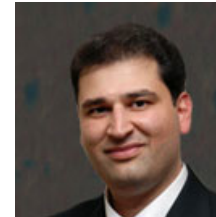
**Muhammad Hussain**  
(PhD-UT Austin)



**Ghassan Jabbour**  
(PhD-Arizona)



**Andrea Fratolocchi**  
(PhD-Roma Tre)



**Basem Shihada**  
(PhD-Waterloo)



**Tareq Al Naffouri**  
(PhD-Stanford)



**Meriem Kirati**  
(PhD-INRIA)



**Atif Shamim**  
(PhD-Carleton)

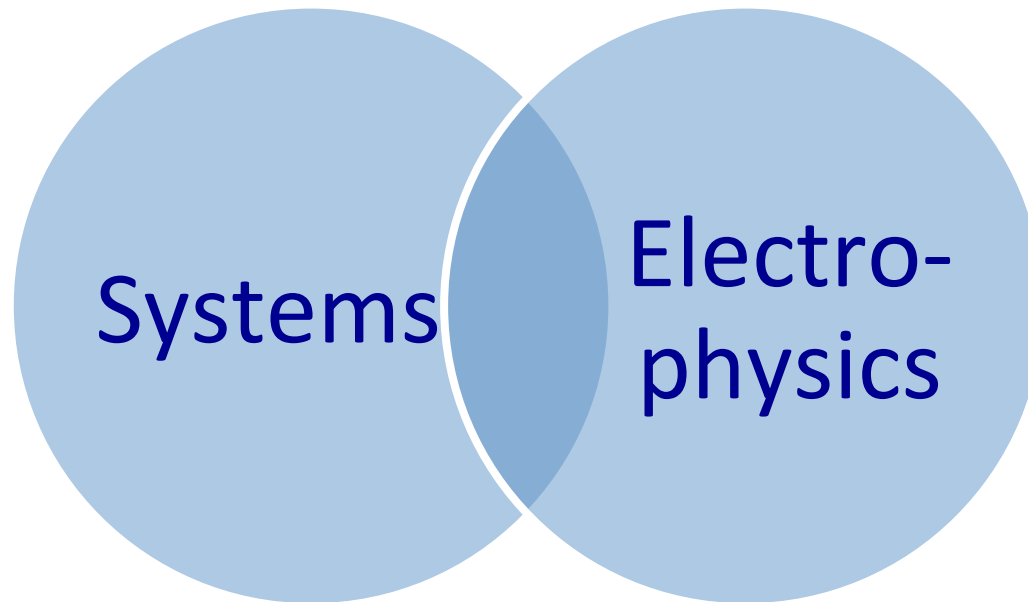
## Statistics – Fall 2012

- Faculty members: **16** (faculty:12, affiliated members:2, visiting faculty:2)
- Postdocs & Scientists: **44**
- PhD Students: **60** (incoming: 9)
- Master Students (Thesis): **8**
- Master Students: **40** (class of 2012 = 21, class of 2013 = 19)



# Curriculum

# EE Tracks



**Systems**: Communication, Signal Processing, Networking and Control

**Electro-physics**: Solid-State Electronics, Circuits, Microsystems, Photonics and EM



# Research

# Research Thrusts in EE

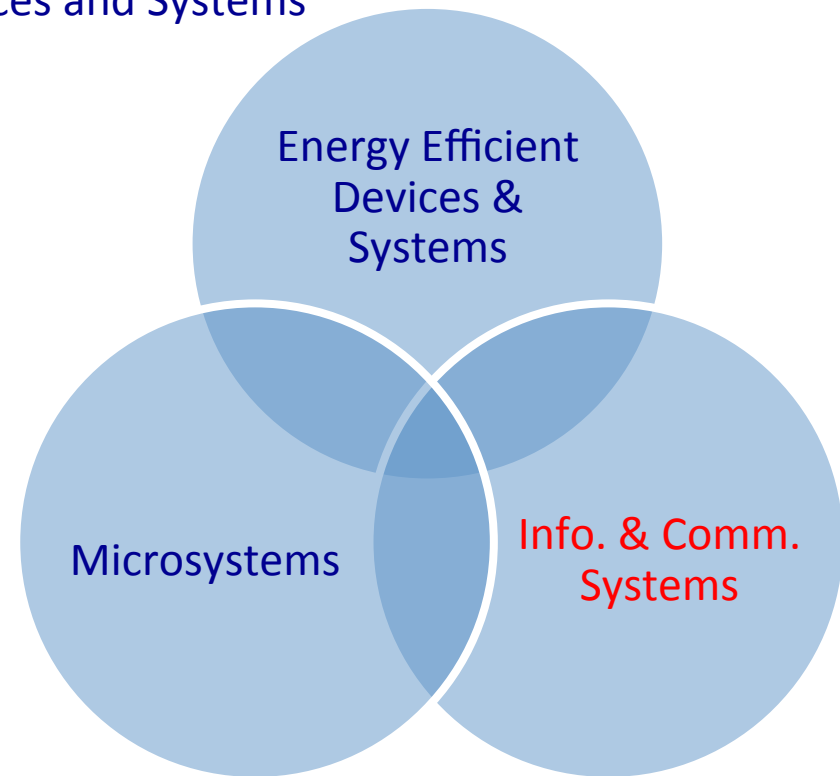
*Cross-disciplinary nature of core competency in the EE Program*

## Electro-Physics Thrust:

- Energy Efficient Electronics and Photonics Devices and Systems
  - Flexible and printable devices
  - Solar and harvesting devices
  - Solid-state lighting
  - Energy efficient electronic/optoelectronic devices
  - Nanoelectronics
- Microsystems
  - Biosensors
  - Optical coherent tomography
  - Micro-antenna
  - Implantable devices

## Systems Thrust:

- Information and communication Systems
  - Wireless sensor networks
  - Energy efficient communications
  - Cognitive radio
  - Vision systems





# Information

**Program Website:** <http://ee.kaust.edu.sa>

## **Graduate Program Coordinator**

Ms. Antonia Forshaw

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## **EE Program Chair**

Professor Boon S. Ooi

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**Thanks!**