



## CEIES Short Course

### **Speaker:** Dr. Eng. Zeeshan Hameed Khan

Assistant Professor

Head of Control and Robotics Research Group (CARR)

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**Dr. Khan** has more than 10 years of industrial/academic experience and is currently working as an Assistant Professor and Head of Control and Robotics Research Group (CARR) at Riphah International University (RIU), Islamabad, Pakistan. He obtained his M.S and PhD in Control Systems, from INPG, Grenoble, France in 2007 and 2010 respectively. He was awarded MS/PhD scholarship by Higher Education Commission (HEC), Pakistan under Pak-France cooperation Program. Dr. Khan received best young reporter award in ICT 2008, Lyon (FR) and Best paper award in ICWMC 2009, Cannes (FR). Dr. Khan's research focus on navigation and control of autonomous systems, Fault detection and Fault tolerant control, biomedical control systems, robust and resilient control of industrial systems. He has edited one Springer title "Computational intelligence for decision support in CPS" and authored several book chapters, conference and journal papers. He is a member of IEEE.

Session	Day	Date	Time
First	Tuesday	1/9/2015	10:30 - 12:00
Second	Tuesday	1/9/2015	13:00 - 14:30

**Venue:** Engineering Building, Third floor,  
Dean of Engineering Meeting Room

### **Title**

**System Identification for Engineers**

### **Abstract**

System identification is the art and science of building mathematical models of dynamic systems from observed input-output data. It can be seen as the interface between the real world of applications and the mathematical world of control theory and model abstractions. Model based control design is a popular area in engineering. It has applications in electrical, mechanical, biomedical as well as aerospace/aeronautical engineering. The model based design requires accurate model of sensors and actuators for controller tuning. Thus, using the input/output data, an engineer can use automated tools to derive a model. The workshop discusses the basic flight control design methodology and addresses the importance of identification of all dynamic systems in the closed loop.

**Requirements:** Participants are advised to come with their laptops with Matlab installed with System identification toolbox to get maximum benefits of the workshop.

**ALL ARE CORDIALLY INVITED**