

# SEMINAR



**Speaker:** Prof. Abdulrahman Hasan Bajodah  
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**Abdulrahman Hasan Bajodah** is a faculty member of the Aeronautical Engineering Department and a member of the Center of Excellence in Intelligent Engineering System (CEIES), KAU. He acquired his BSc. from the Aeronautical Engineering Department, KAU in 1992, Masters and PhD. from the school of Aerospace Engineering at Georgia Tech in 1997 and 2003. His teaching and research interest include Flight Dynamics and Control and analytical dynamics.

**Date:** Monday, September 7, 2015  
**Time:** 1:00 PM  
**Venue:** Engineering Building, Third floor,  
Dean of Engineering Meeting Room

## Title

**Quadrotor Control using Generalized Dynamic  
Inversion and Terminal Sliding Mode**

## Abstract

A two loop structured control system design for Quadrotor's position and attitude control is presented. A novel control methodology based on Generalized Dynamic Inversion is applied for the outer loop that comprises the un-actuated dynamics. Nonlinear Terminal Sliding Mode Control is implemented for the inner loop which comprises the fully actuated subsystem, ensuring finite time convergence.

**ALL ARE CORDIALLY INVITED**