

SEMINAR

**Speaker: Dr. Ramzy R. Obaid**

Associate Professor,
Department of Electrical and Computer Engineering,
King Abdulaziz University

Ramzy Obaid received his Ph.D. degree in 2003 from Georgia Institute of Technology, Atlanta, GA, USA. He has been working in the field of energy for 22 years on government and industry funded projects in the United States and Saudi Arabia. He is the recipient of several local and international awards and prizes including the academic spotlight award from Georgia Tech in 2005, the WIPO Creativity Award from the World Intellectual Property Organization, Geneva, Switzerland in 2010, and the Quality Medal from the Saudi Electricity Company, SEC in 2012. Dr. Obaid is an invited keynote speaker at various international conferences and forums. He delivered keynote speeches at the IEEE international conference on Smart Grid in 2011 and 2013 in Jeddah, and at the Electric Vehicles and Battery Forum in March 2012 in Barcelona, Spain. He has taught courses on Energy as an invited scholar at several universities around the world, including Worcester College in Oxford, England in 2003, and the University of Washington, Seattle, USA in 2011. Dr. Obaid's research interests focus on renewable energy, motor diagnostics, electric vehicles, and DSM and electric power generation. He has four patents registered with the USPTO and numerous publications in these fields.

Date: Monday, March 7, 2016

Time: 1:00 PM

Venue: Engineering Building, Second floor,
Room 24C28 (ECE Seminar Room)

Title**Seasonal-Water Dams: a Great Potential for
Hydropower Generation in Saudi Arabia****Abstract**

For so many decades, hydropower generation has been one of the most attractive and effective methods of electricity generation around the world. However, when it comes to countries with low or seasonal water-flow, hydropower generation is usually deemed infeasible. Despite not having continuously running rivers; Saudi Arabia is one of the richest countries in the region in rain water with hundreds of dams holding billions of cubic meters of water behind them. Nevertheless, to date, there is not a single dam that is used for hydropower generation in the Kingdom. This work explores this missed opportunity by showing the practicality of generating electricity even from low and seasonal water dams. It presents examples of installed hydropower plants in the region and lists possible locations of candidate dams to install small hydropower plants in the Kingdom. Preliminary estimates of the available hydroelectricity generation from the recommended sites are also presented.

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