# WATER SECURITY IN THE MIDDLE EAST:

A Multi-Disciplinary Dialogue

Tuesday, March 31, 2015

Garden Key Room 221 | UCF Student Union

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# **AGENDA**

AGENDA	
9:30-10:00 10:00-10:50	Registration Opening Keynote Michael Carroll- Executive Director the Hollings Center for International Dialogue- "Drops in the Bucket: Conclusions and Challenges of the Middle East Water Problem."
10:50-11:40	Panel 1
	Ni-Bin Chang- Department of Civil, Environmental, and Construction Engineering, University of Central Florid Orlando, FL "Preventing the Desalination Plant from Fouling & Multi-intake Design in a Coastal Bay via Using Satellite Images Data Mining."
	Steven Duranceau, Ph.D., P.EDirector Environmental Systems Engineering Institute, University of Central Florida, Orlando, FL, "Drinking Water Security."
	Rebecca Kaiser, University of Central Florida, Orlando FL, "Strategic National Security Policy Issues."
11:40-11:55	Break
11:55- 12:45	Panel 2
	Hakan Ozoglu, Director of the Middle East Studies Program, University of Central Florida, Orlando, FL
	Dona Stewart - Visiting Assistant Professor in the Department of Environmental Science, Policy and Geography University of South Florida, St. Petersburg, Florida "Climate Change and Negotiated Agreements in the Middle East."

**Peter Jacques**, Associate Professor of Political Science "Securitizing Water in the Middle East" and **Spencer Milller**, University of Central Florida, Orlando, FL

12:45-1:30 Closing Keynote Hassan Arafat, PhD- Institute Center for Water and Environment (iWater), Department of Chemical and Environmental Engineering, Masdar Institute of Science and Technology, Abu Dhabi, United Arab Emirates- "Meeting the Challenges of Water Security in Arid regions: Is desalination the solution?"

# **SPEAKERS**

#### Michael Carroll

Michael Carroll joined the Hollings Center in August 2013. Prior to becoming Executive Director, he served as the inaugural Assistant Director for the Institute for the Study of Muslim Societies and Civilizations at Boston University (SMSC). At BU, he oversaw development and growth of the Institute's outreach, exchange and curricular programs. In addition to those duties, he served as the Executive Director of the American Institute of Afghanistan Studies (AIAS) and the American Institute for Yemeni Studies (AIYS), both of which are overseas research centers committed to fostering greater understanding through academic research and collaborative exchanges. Mr. Carroll received his bachelor's in Honors History from the University of Michigan and his M.Ed. in Policy, Planning and Administration from Boston University. His research interests include Middle East relations and Higher Education reform.

## Ni-Bin Chang

Ni-Bin Chang is the Director of the Stormwater Management Academy and Professor of Environmental Systems Engineering at the University of Central Florida (UCF). In addition, he is a Fellow of the International Society of Optics and Photonics (SPIE), Fellow of the American Society of Civil Engineers (ASCE), Fellow of the American Association for the Advancement of Science (AAAS), and Member of the European Academy of Sciences (EAS). Prof. Chang has made an outstanding contribution to the core area of "Environmental Sustainability, Water Resources Management, and Systems Analysis" with various socio-technical approaches. His research and teaching interests are in environmental systems analysis in general, and integrated sensing, monitoring and modelling for sustainability in particular. His recent work has focuses on drinking water, stormwater and wastewater infrastructure management.

## Steven J. Duranceau

Dr. Steven J. Duranceau is an Associate Professor of Environmental Engineering and Director of the Environmental Systems Engineering Institute at the University of Central Florida (UCF) in Orlando, Florida. Dr. Duranceau's research focuses on mass transfer in advanced drinking water treatment processes with specific focus on desalination, disinfection, sulfide chemistry and process operation-related topics. He is also interested in distribution system water quality and corrosion control research. Dr. Duranceau is an Associate Editor of Desalination and Water Treatment. He was the principal engineer-in-charge of the U.S. Navy's water system vulnerability assessment on Guam, Marianas Islands, and has participated in several water security-related projects in Florida and California over the years. He is a past-president of the American Membrane Technology Association, and is a licensed professional engineer in Florida.

#### Rebecca Kaiser

Rebecca Kaiser is completing her second year as a full time student in the new PhD program in Security Studies, in the Political Science department at University of Central Florida. Mrs. Kaiser's field of research includes human security issues, including water, energy, and food, civil conflict, Central Asia and Middle Eastern regional studies, and other sources of political unrest. Mrs. Kaiser's educational background includes a Master of Science equivalent in National Security and Strategic Studies, from Naval War College, Newport, Rhode Island; a Master of Science in Business Management, Troy University, New Orleans, Louisiana; a Master of Arts in, Education – Varying Exceptionalities, from University of South Florida, Tampa, Florida; a Bachelor of Arts in Elementary and Early Education, University of Florida, Gainesville, Florida; and a Project Management (PMI) Associate, George Washington University, Washington, DC. Mrs. Kaiser is retired from the United States Navy.

## Hakan Ozoglu

Dr. Hakan Özoglu, is a Professor of History and Director of Middle Eastern Studies University of Central (UCF). His previous research focuses on Kurdish Nationalism in the Ottoman Empire- including his book entitled "Kurdish Notables and the Ottoman State." Özoglu's main aim in this project was to understand the process of identity formation and emergence of nationalism. His research interests include the power struggle in modern Turkish Republic after World War I and US involvement of the Middle East through Turkey after the Great War. Currently he is working on a book manuscript on "Admiral Mark Lambert Bristol's Tenure in Turkey." His interviews and essays have appeared in many international media outlets including, New York Times, Orlando Sentinel, Chicago Tribune and WTTW PBS Chicago.

#### Dona Stewart

Dr. Stewart is a visiting assistant professor in the Department of Environmental Science, Policy and Geography at the University of South Florida St. Petersburg. She previously held the positions of professor of Geosciences and director of the Middle East Institute at Georgia State University. She holds a doctorate in Geography and

Dr. Stewart's research focuses on political and cultural aspects of human-environment interaction and their relationship to security. She currently has two interconnected research areas grounded in a human security approach: the role of socio-economic issues, including environmental issues, as drivers of conflict in the Middle East and North Africa and the policy responses of US state governments, especially Florida, to the challenges of climate change.

## Peter Jacques

Peter J. Jacques is Associate Professor of Political Science at the University of Central Florida where he teaches environmental security, sustainability, and global environmental politics. Dr. Jacques is also the Director of the Political Ecology Lab, where he trains undergraduate students in environmental research. He is the Managing Executive Editor for the flagship journal of Association of Environmental Studies and Sciences (AESS), the Journal of Environmental Studies and Sciences, and his latest book is called, Sustainability: The Basics, published by Routledge in 2014.

# Spencer Miller

Spencer Miller received his B.A. in Political Science from the Harriet L. Wilkes Honors College of Florida Atlantic University in 2009, and this spring will earn an M.A. in Political Science, focusing on International Relations, from the University of Central Florida. His undergraduate thesis, "Presidential Term Limits: If You Want to Run Again, Try a Marathon," was a normative analysis of presidential term limits in the United States, and his M.A. thesis, "How Much is that War in the Window? An Investigation into the Costs of War," is an empirical analysis of the effects of war on a state's economy. His research interests include international relations, security studies, geography, and domestic politics.

#### Hassan Arafat

After obtaining his PhD from the University of Cincinnati in 2000, Dr. Arafat worked (2000-2003) at Argonne National Laboratory (ANL) (Illinois, USA) as a researcher and project manager for the United States Department of Energy (DOE). His research at ANL focused on separation processes development for nuclear waste treatment at the DOE sites in the United States. Between 2003 and 2010, Dr. Arafat served as a faculty member at the Chemical Engineering Department at An-Najah University (Nablus, Palestine) and as the director of the "Water Technologies Research Unit" in that department. In 2010, he joined Massachusetts Institute of Technology (MIT) as a visiting scholar for six months, after which he moved to Abu Dhabi (UAE) where he is now employed as an Associate Professor in the Water and Environmental Engineering Program at Masdar Institute of Science and Technology (MIST). The focus of Dr. Arafat's current research is on sustainable desalination processes and innovative membrane technologies. During his career so far, Dr. Arafat received 14 research grants, totaling USD \$8.25Million. Dr. Arafat also received three international research fellowships; two German DAAD Fellowships in 1995 and 2007 and the Open Society institute/Soros Foundation Fellowship (NY, USA) in 2009. He co-authored more than 100 peer-reviewed journal publications, conference papers, and official technical reports (published by the US-DOE).

