

# 2011 Outstanding Student of the Year



Mohamad Abdul-Hak (left) receives a US DOT Award. Bestowing the award is (right) Gregory D. Winfree, Deputy Administrator of the Research and Innovative Technology Administration.



Mohamad Abdul-Hak presents his doctoral research related to a MIOH UTC project at the Intelligent Transportation Society of Michigan Quarterly Meeting, hosted by MIOH UTC at the University of Detroit Mercy in Spring 2012.



Mohamad Abdul-Hak receiving a US DOT Student of the Year award at a ceremony in Washington D.C. is congratulated by Dr. Utpal Dutta, UDM, and his mother, Nawal Abdul-Hak.

The Michigan Ohio University Transportation Center (MIOH UTC) Outstanding Student of the Year Award is presented each year to one student who has made a significant contribution to a MIOH UTC funded project, performed well academically, demonstrated professionalism and leadership as well as participated in university and community service activities.

Evidence of “significant contribution” is based upon faculty nomination and evaluation of submitted written reports. Academic performance is based upon courses attempted and grades attained. Professionalism, leadership and service is evidenced in the form of presentations at professional society meetings and symposia, and leadership in student professional activities including K-12 outreach.

## Mohamad Abdul-Hak



Mohamad Abdul-Hak is a doctoral student in the Electrical & Computer Engineering Department at the University of Detroit Mercy (UDM). Mohamad received his bachelors and masters degrees with honors in Electrical & Computer Engineering from Wayne State University and the University of Michigan respectively.

Under the leadership of Dr. Nizar Al-Holou, Chairperson of UDM’s Electrical & Computer Engineering Department, Mohamad Abdul-Hak contributed extensively to two MIOH UTC funded research projects. The first one was “A New Approach to Enhance and Evaluate the Performance of Vehicle-Infrastructure

Integration and ITS Communication Systems” and the second was “A Multi-Dimensional Model for Vehicle Impact on Traffic Safety, Congestion, and Environment.” As a result of this research, the student team of which he was a member won the Intelligent Transportation Society of Michigan’s 2011 Silver Award for their paper, “ITS-based Eco-Routing for Car Navigation Systems.”

Presently Mohamad’s research efforts are to develop a “Predictive Intelligent Energy Management System.” This system provides the on-board navigation unit of an electric vehicle with real-time traffic information which is then used to optimize the route selection based on reduced energy consumption and emissions, resulting in improved air quality. His doctoral dissertation working title is: “Predictive Intelligent Energy Management System to Enhance the Performance of Electric and Plug-in Hybrid Vehicles”.

In addition to his academic pursuits, Mohamad is an advisory committee member for both Wayne County Community College and Underwriters Laboratories Inc, as well as, a student member of the Society of Automotive Engineers and the Institute for Electrical and Electronic Engineers. Mohamad has two patents pending relative to transmission oil pressure/flow in hybrid electric vehicles. Further, he has been active in community service as a volunteer at Star International Academy.

In recognition of Mohamad’s significant contributions to MIOH UTC projects and his exemplary academic performance, the Michigan Ohio University Transportation Center is pleased to select Mohamad Abdul-Hak as its 2011 Outstanding Student of the Year.

### Michigan Ohio University Transportation Center

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