AUTONOMOUS CONTROL & INFO TECH

TOPIC	**Driver distraction detection and mitigation using fuzzy logic control**
Organizers	Drs. Karimoddini & Homaifar; Gorji, Lacewell (PhD student)
AREA	Control, Autonomous vehicles, Machine Learning and Data mining
SPEAKER	Allan Anzagira, PhD students, ACIT Center, North Carolina A&T State University
DATE	1 April 2015, Wednesday
TIME	2:00 PM to 3:00 PM
VENUE	ACIT Center, Room 342, Fort IRC Bldg, North Carolina A&T State University, 1601 East Market Street, Greensboro, NC 27411
FEES	No Charge

SYNOPSIS

Driver distraction is the leading cause of accidents in the US resulting in about 3050 fatal crashes in 2012. Distracted driving is driving while doing other activity that takes their attention away from driving. Driver distraction is ever increasing with the development of In Vehicle Information Systems (eg. GPS) and other devices such as cell phones. There is therefore the need for the development of systems that detect and mitigate driver distraction in real time so as to avoid crashes. Most systems mainly detect driver distraction based on visual behavior or driving performance. With the development of semi-autonomous vehicles, it is possible for the vehicular controller to contribute to the overall input or take over control completely from the driver. In this work, we try to develop a fuzzy system based on visual behavior, vehicle control and vehicle state (where possible) for detecting distraction at various levels and warning the driver at very low threat levels whilst taking over control from driver at higher threat levels.

ABOUT THE SPEAKER

Allan Anzagira is a second semester PhD student at North Carolina A&T State University. He is currently a graduate research assistant at the ACIT Center working on Cognitive attention models for driver engagement in semi-autonomous and Intelligent vehicles. He received a Bachelor degree in Electrical Engineering at Kwame Nkrumah University of Science and Technology, Ghana on August 2012.