TOPIC	**An active learning approach for finite state machines**
AREA	Automata Theory, Learning, Discrete Event System, Control, Robotics
SPEAKER	Mohammadmahdi Karimi, PhD student at Electrical Engineering Dept. , North Carolina A&T State University
DATE	30 October 2014, Thursday
TIME	11:00 AM to 11:30 AM
VENUE	ACIT Center, Room 342, Fort IRC Bldg., North Carolina A&T State University, 1601 East Market Street, Greensboro, NC 27411
FEES	Free

SYNOPSIS

Many systems can be considered as (or can be abstracted to) Discrete Event Systems (DES) in which the state of systems changes upon occurrence of events. A very capable tool to model DES is Automaton, which can mathematically capture the discrete states of the system, the events, transaction rules and logic of the system. In this talk we will discuss how to identify a Deterministic Finite Automaton (DFA) through a learning mechanism. Here, we will use L star learning algorithm which is an active learning mechanism that can actively learn and construct a minimum DFA for an unknown system through minimum queries which should be answered by a teacher (an expert who knows the system).

ABOUT THE SPEAKER

Mohammad Mahdi Karimi is a PhD student working in the field of Control Systems under supervisory of Dr Ali Karimoddini. He started his PhD program since Aug. 2014 at North Carolina A&T State University. His research interests include control of Multi-agent Systems, Automata Theory, Learning, Discrete Event System, Control, and Robotics.

REMARKS, IF ANY