



TOPIC	An active learning approach for deterministic finite state machines
ORGANIZERS	Faculty of the TECHLAV
AREA	Automata Theory, Discrete Event System, Fault Diagnosis
SPEAKER	Mohammadmahdi Karimi, PhD student at Electrical Engineering Dept. , North Carolina A&T State University
DATE	8 July 2015, Wednesday
TIME	11:00 AM to 12 PM (EST)
VENUE	IRC 410, North Carolina A&T State University, UTSA and SIPI are joining through video-conferencing
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 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 an expert who knows the system (teacher).

ABOUT THE SPEAKER



Mohammad Mahdi Karimi is a first year PhD student researching in the field of Control Systems. He started his PhD program since Aug. 2014 at North Carolina A&T State University and currently is part of ACCESS Lab research team working in the field of Discrete Event Systems and Robotics.

Previously he was part of APAC research group in KNTU university, working on industrial soft-sensor design and system identification in 2013.

His area of interest include robotics, Automata Theory, Discrete Event System, and Fault Diagnosis.

E-mail: mmkarimi@aggies.ncat.edu