| TOPIC	Multi-Label Classification
ORGANIZERS	Student Leadership Council and Faculty of ACIT Institute and TECHLAV Center
AREA	Machine Learning
SPEAKER	Shabnam Nazmi
DATE	Friday June 9, 2017
TIME	3:00 – 4:00 P.M. (EST)
VENUE	Fort IRC 410, North Carolina A&T State University, UTSA and SIPI will be joining through video-conferencing
FEES	No Charge

SYNOPSIS

Multi-label classification (MLC) is one of the disciplines in machine learning that are widely required in text classification and semantic scene classification. In MLC problems, each example could belong to more than one class. One major family of the approaches that are employed to solve MLC problems modifies the original data set to handle its multi-label nature. For example, in one of the traditional approaches, only one of the labels assigned to the example is selected randomly or subjectively, otherwise, that example is discarded from the data set. In another approach, existing sets of labels are considered as distinct labels. The second major family of MLC methods, adapts the existing classification methods to suit the ML data. For instance, C4.5 which originally is proposed for decision tree learning, is modified to handle ML data. Additionally, several nuances of support vector machines are proposed that are able to deal with different properties of ML data classification. In my work, an embedded MLC method that employs learning classifier systems, a family of rules-based evolutionary machine learning algorithms, is discussed which also learns approximate confidence degrees as a part of its rule set. For the purpose of demonstration, the algorithm is applied to a random data set and results are provided.

ABOUT THE SPEAKER
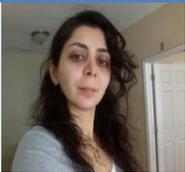
Shabnam Nazmi has received her B.Sc. from K.N.Toosi University of Technology and her M.Sc. from Sharif University of Technology in Electrical Engineering in 2009 and 2012 respectively. She is pursuing her Ph.D. at North Carolina A&T State University since Spring 2016. Machine learning and its applications in control systems, test and evaluation are amongst her research interests.