http://www.ieee-huntsville.org/entity/aess

Probabilistic Inference and its Application to Distributed Track Management Systems

Tuesday, May 31, 2011 at 11:30 am - 1:00 pm

Speaker: Clay Stanek, Senior Software Engineer, Northrop Grumman

Probabilistic inference is arguably the hottest area in the Track Management technology space. By combining the discipline of computer science with a rigorous understanding of probability theory, one can estimate the potential for machine learning to predict human and aggregate behavior, entity classification and subtle relationships between parameters of interest. This discussion will better define the potential applications of probabilistic inference in TM and focus on classification, categorization, typing, discrimination and identification (CCTDI). This is often referred to generally as the 'Combat ID' problem. After familiarization with the problem space, we will look at the multiple types of probabilistic inference in use today and narrow our attention to one method: Bayesian Networks. We close our discussion by examining a simple Bayesian network built to demonstrate what they are by example.

RSVP not required but appreciated. Please send to Jamie Davidson at james.d.davidson@boeing.com

Everyone is invited!

Date: Tuesday, May 31, 2011
When: 11:30 am – 1pm (networking 11:30 to noon)
Place: University of Alabama in Huntsville University Center Room 126
http://www.uah.edu/sitefeature/campusmap.php Marked building #7a on the map

Grab lunch at the Charger Café in the same building or the adjacent Bevill Center and bring it into the meeting.

Directions:
The meeting will be held in Room 126 of the UAHuntsville University Center. The University Center Building is located at the north end of the campus. Please park in the visitor parking lot in the front of this building in a "Visitor" space or in an unmarked space. Note: Vehicles with a UAH decal cannot park in a "Visitor" space.

Speaker Biography:
Mr. Clay Stanek leads the Track Management software team on the Integrated Air and Missile Defense Battle Comand System (IBCS) program at Northrop Grumman here in Huntsville. Clay and his team's Track Management functionality provides distributed data fusion of measurement level sensor data for situation awareness, track evaluation, and engagement. This distributed TM capability is one of the key enablers for extended range and non line-of-sight intercept of aerial threats using fire control quality data with the most appropriate weapon to complete the mission successfully.