



The Institute of Electrical and Electronics Engineers  
(IEEE)



Galveston Bay Section Monthly Meeting

**December 15th 2016 (Thursday) Luncheon Meeting**

**TOPIC: “Da Vinci – Data Analytics in Various Intelligent Human-centered Systems”**

**SPEAKER:** Dr. Ting Zhang, Assistant Professor at University of Houston - Downtown

**PRESENTATION:** The presentation is about data analytics in various intelligent human-centered systems. These systems can be big in size for astronomical detection, and can be very small in size, which can be worn by human beings as wearable devices. Ting’s research in computer science started from the joining of LIGO, designing data analytics algorithms for the search of gravitational waves in giant systems. The computation was carried out by super computers. After creating various machine learning algorithms for the research of the origin of the universe, Ting designed several intelligent human-centered systems for healthcare. The systems are wearable devices. The computation was carried out by microprocessors. These systems include, the SmartShoe system for the rehabilitation of Cerebral Palsy and Anorexia Nervosa, the SmartSock system for daily activity monitoring, and the SmartGlove system for the rehabilitation of stroke patients. Ting’s presentation will be about the state of the art computing technologies’ contribution to these systems. The name of the presentation is related with the name of ‘Da Vinci’, a gentleman who devoted his whole life with great passion to the exploration of the beauty of art, engineering and science.

**SPEAKER:** Ting Zhang got her PhD degree in Electrical Engineering in the University of Alabama, in May 2016. Her PhD. thesis is ‘iWear – Intelligent Wearable Sensor Systems for Disability Rehabilitation’. She got the Master degree in Computer Science in University of Texas at Brownsville. She got the Bachelor degree in Computer Science and Technology in Tianjin University. Ting has seven- year experience in data analysis and smart devices. She is the inventor of several smart wearable systems, including the smart shoes system, and smart socks system. These systems were used for disability rehabilitation, including rehabilitation of stroke patients, and rehabilitation of children with cerebral palsy. Her work in related area is recorded in 20 international conference and journal publications.

**Gilruth Recreation Center NASA-JSC, Discovery Room (downstairs)**

Free parking. No security processing required. Easy drive in off Space Center Blvd. See website below for map.

Interested non-IEEE engineers, technicians, scientists, IEEE Members and guests alike are welcome!

**11:30 AM - Light Lunch with reservation (\$10.00 donation)**

**12:00 PM – 1:00 PM - Program and Q&A**

**Please RSVP Before Noon on Tuesday, Dec 13th, 2016**

**Number of lunches is limited. Please reserve early**

Reservations for **lunch** or to attend this meeting should be made by email to:

[z.taqvi@ieee.org](mailto:z.taqvi@ieee.org)

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