

PROGRAM

2018 DUAL CONFERENCE on INNOVATION/AUTOMATION

November 3rd, 2018

ALL SESSIONS IN LONE STAR ROOM- Gilruth Center/NASA JSC,[Paper presenter's name in **BOLD**]

8:30-9:00 AM	Registration & Coffee
9:00-9:20 AM	Welcome: Zafar Taqvi , Ph.D General Co-Chair, A&R TC, AIAA Houston Section Remarks: Norman Chaffee , President CLCTS, and Svetlana Hanson , AIAA Houston

	SESSION #1 - COMPUTER VISION & IoT Chair:
9:20-9:40 AM	#1A: A Scalable Image/Video Processing FPGA Platform with Design and Verification Environment AUTHOR:: Xiaokun Yang Ph.D., UHCL
9:40-10:00 AM	#1B: Data Visualization in Augmented Reality AUTHORS:: Travis Samford & Michael J. Findler UHCL
10:00 -10:20 AM	#1C: Thread IoT Protocol AUTHOR: Jibao Unwala Ph.D., UHCL

10:20-10:40 AM	BREAK: Remarks by Christopher Sanderson, IEEE/R5 South Area Chair
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	SESSION #2A – ROBOTICS & ENERGY Chair
10:40- 11:00AM	#2A: Miniature rotating magnetic robots for medical applications AUTHOR: Julien Leclerc , Haoran Zhao and Aaron T. Becker of Robotic Swarm Control Laboratory, ECE UH
11:00 - 11:20 AM	#2B: Kinematic Redundancy Control for Baxter Robot with A 3DConnexion Space Mouse Pro Device AUTHOR: Nabil Farhat , Luong Nguyen, Thomas L. Harman, Carol Fairchild, Robotics and Control Systems Laboratory- Home of Baxter the Robot, UHCL
11:20-11:40 AM	#2C: Measurements for the immediate Future AUTHOR: Zafar Taqvi , Ph.D
11:40-12:00 PM	#2D: Quantum Optimized Exsa-Scale Computing AUTHOR: Liwen Shih Ph.D., UHCL

12:00 PM-2:00 PM	LUNCHEON / POSTERS Chair: Paul Frenger, MD, General Co-Chair
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	SESSION #3 - INNOVATION Chair:
2:00-2:20 PM	#3A: Overview of Software Architecture Erosion: Background and Measurement Approaches AUTHORS: Mark Sheppard, Clarke Iakovakis , Sharon White, Ph.D. UHCL
2:20-2:40 PM	#3B: Interactive Homework System AUTHORS: Nathaniel Wiggins , Dr. Milton Smith, Texas Tech U & San Jacinto College
2:40-3:00 PM	#3C: Towards Fault Tolerance Using Checkpoints in Mixed-criticality Real-time Systems, AUTHORS: Jian (Denny) Lin & Nanfei Sun , MIS UHCL
3:00-3:20 PM	#3D: An Introduction to Dark Matter and Dark Energy AUTHOR: Mike Maul , Ph.D. MIT

3:20-3:40 PM	#3E: Implementation of a Graphical User Interface for OpenThread platform AUTHORS: Jitendra Gopaluni , Ishaq Unwala Ph.D., UHCL
3:40-4:00 PM	#3F: Improving Energy Efficiency of Cooling Systems in Data Centers through Usage Predictions AUTHORS: Pranota P. Madupo, Sai S Shaik, and Hakduran Koc Ph.D., UHCL

4:00-4:20 PM	POSTER SESSION AWARDS Chief Judge: Abu Baker, Ph.D
4:20-4:30 PM	CLOSING REMARKS: Liwen Shih Ph.D, Zafar Taqvi Ph.D. and Paul Frenger M.D.

11:45AM-1:15 PM	<u>LUNCHEON / POSTERS</u> Coordinator: Ishaq Unwala, Ph.D
Poster#1	Topic: Mesh-IoT Based Smart and Secure Monitoring System for Wide-Range Territory AUTHORS: Archit Gajjar , Xiaokun Yang Ph.D, Liwen Shih Ph.D, UHCL
Poste#2	Topic: Intelligent In-vehicle Safety and Security Monitoring System AUTHORS: Xiaodi Fu , Jiang Lu Ph.D., Hui Wang, UHCL
Poste#3	Topic: Wearable Technology AUTHORS: Stephanie Lopez , Richard Castaneda, Advisor: Nathaniel Wiggins, San Jose State University
Poste#4	Topic: Classification of fMRI Data Using Hilbert-Curve Ordering and Neural Networks AUTHORS: Jessica De Leon , Unal “Zak” Sakoglu Ph.D., UHCL
Poste#5	Topic: Elucidating the male reproductive requirement of PRSS54: the search for a reversible non-hormonal male contraceptive AUTHORS: Richard J. Holcomb ^{1,2} , Caitlin A. Huddleston ^{1,2} , Matthew Robertson ³ , Anthony A. Grichuk ^{1,2} , Austin G. Seal ^{1,2} , Kaori Nozawa ² , Cristian Coarfa ⁴ , Martin M. Matzuk ² , Thomas X. Garcia ^{1,2} , UHCL & BCM
Poste#6	Topic: The use of optical clearing with multiphoton microscopy for large scale quantification of astrocyte reactivity: application to experimental malaria infection AUTHORS: Olivia Solomon ^{*1,2} , Lorenzo Ochoa ^{*1,4} , Kyle Wilson, PhD ³ , Paula Villareal ¹ , Robin Stephens, PhD. ³ , Gracie Vargas, Ph.D. ^{1,4} , UTMB
Poste#7	Topic: Quantum Linear Least Square Regression Solver AUTHORS: Sai Sasank Anaparthi & Liwen Shih Ph.D., UHCL
Poste#8	Topic: ??? AUTHORS: Nidhi Ishvarbhai Patel & Liwen Shih Ph.D., UHCL
Poste#9	Topic: Vision-Based Active Tracking Control for Autonomous Vehicles AUTHORS Bharadwaj Attluru , Prof. Carol Fairchild, UHCL
Poste#10	Topic: Identification of Lung Opacities on Chest Radiographs Using Supervised Deep Learning Techniques AUTHORS: Russell Cody Pannell , Omer Ozdemir, Michael J Sanchez, (Mentor: Unal “Zak” Sakoglu Ph.D.), UHCL

Dual Conference is organized by Clear Lake Council of Technical Societies with support from IEEE, AIAA UHCL. Registration required to attend. For Online Registration go to (Deadline Wednesday Oct 31st) <https://sites.google.com/site/clctsortg/duel-conference-registration-and-program> .