



FRANK H. DOTTERWEICH
COLLEGE OF ENGINEERING

5th International Conference on Recent Trends in Image Processing & Pattern Recognition (RTIP2R)

Texas A&M University – Kingsville
MSUB Room 219 (Room 203 for 2nd Parallel Track)
December 01 - 02, 2022

... in collaboration with Applied AI research lab, University of South Dakota

Conference website: <https://rtip2r-conference.org/2022>

Conference proceedings: <https://link.springer.com/book/9783031236006>

Time zone: Central Standard Time (CST)

Zoom link: <https://tamuk-edu.zoom.us/j/96384194643>

Program Schedule

Day 1 – December 1, 2022		
Inaugural Session		
11:15 am – 11:20 am	Invocation and Welcome by Ayush Goyal	
11:20 am – 11:30 am	Welcome Address by KC Santosh	
11:30 am – 11:45 am	Address by the Chief Patron Dean Heidi Taboada	
11:45 am – 12:00 pm	Address by the Associate Dean (Graduate Affairs) Mahesh Hosur	
12:00 pm – 12:15 pm	Address by Interim Department Chair (EECS) Lifford McLauchlan	
12:15 pm – 1:15 pm	Keynote Address by Justin Smith (Sr. Director of Advanced Analytics, St. Luke's Health System)	
1:15 pm – 2:15 pm	Lunch Break	
Afternoon Session		
	Parallel Track 1 – Healthcare: Medical Imaging and Informatics. Session Chair: Dr. Hani Girgis.	Parallel Track 2 – Computer Vision and Pattern Recognition. Session Chair: Dr. David Hicks.
2:15 pm – 2:30 pm	Afia Farjana, et al. Federated Learning on Lung Sound Analysis	Tejal Rane and Abhishek Bhatt. A Deep Learning-based Regression Scheme for Angle Estimation in Image Dataset
2:30 pm – 2:45 pm	Rafia Alice, et al. 2D Respiratory Sound Analysis to Detect Lung Abnormalities	Sayani Sarkar, et al. The Classification of Native and Invasive

		Species in North America: A Transfer Learning and Random Forest Pipeline
2:45 pm – 3:00 pm	Joshua Henderson, et al. Analyzing Chest X-Ray to Detect the Evidence of Lung Abnormality due to Infectious Disease	Fernando J. Ramírez-Coronel, et al. Shrimp Shape Analysis by a Chord Length Function Based Methodology
3:00 pm – 3:15 pm	Greeshma M. S., et al. Chest X-ray Image Super-resolution via Deep Contrast Consistent Feature Network	Ahana Bandyopadhyay, et al. Supervised Neural Networks for Fruit Identification
3:15 pm – 3:30 pm	Ruchika Chavhan, et al. Semi-supervised Multi-domain Learning for Medical Image Classification	
3:30 pm – 3:45 pm	Refreshments Break	
	Parallel Track 1 – Healthcare: Medical Imaging and Informatics (continued). Session Chair: Dr. Hani Girgis.	Parallel Track 2 – Computer Vision and Pattern Recognition (continued). Session Chair: Dr. David Hicks.
3:45 pm – 4:00 pm	Shamima Khatoon, et al. Image Processing and Pattern Recognition of Micropores of Polysulfone Membrane for the Bio-separation of Viruses from Whole Blood	Ashima Yadav and Rahul Nijhawan, Automated Deep Learning Based Approach for Albinism Detection
4:00 pm – 4:15 pm	Sushma Chaugule and V. S. Malemath. An Extreme Learning Machine-based AutoEncoder (ELM-AE) for Denoising Knee X-ray Images and Grading Knee Osteoarthritis Severity	Md. Fazlay Rabbi, et al. Autism Spectrum Disorder Detection using Transfer Learning with VGG 19, Inception V3 and DenseNet 201
4:15 pm – 4:30 pm	Refreshments Break	

	Parallel Track 1 – Healthcare: Medical Imaging and Informatics (continued). Session Chair: Dr. Hani Girgis.	Parallel Track 1 – Healthcare: Medical Imaging and Informatics (continued). Session Chair: Dr. Maleq Khan.
4:30 pm – 4:45 pm	Mahesh Kumar A S, et al. Performance Analysis of CNN and Quantized CNN Model for Rheumatoid Arthritis Identification using Thermal Image	Alice Othmani, et al. Significant CC400 Functional Brain Parcellations Based LeNet5 Convolutional Neural Network for Autism Spectrum Disorder Detection
4:45 pm – 5:00 pm	Anuja Deshpande. A Novel Approach to Enhance Effectiveness of Image Segmentation Techniques on Extremely Noisy Medical Images	Ahana Bandyopadhyay, et al. Alzheimer's Disease Detection using Ensemble Learning and Artificial Neural Networks
5:00 pm – 5:15 pm	Sivaramakrishnan Rajaraman, et al. Data Characterization for Reliable AI in Medicine	

Day 2 – December 2, 2022

Morning Session

10:00 am – 11:00 am	Keynote Talk by Tracy Hammond (Director, Institute for Engineering Education and Innovation, Texas A&M University)	
11:00 am – 12:00 pm	Industry Workshop by Louisa Kessi (ORPALIS, PSPDFKit)	
	Parallel Track 2 – Computer Vision and Pattern Recognition. Session Chair: Dr. David Hicks.	Parallel Track 3 – Internet of Things and Security. Session Chair: Dr. Mais Nijim.
12:00 pm – 12:15 pm	Hubert Cecotti and Girish Tiwale. Motor Imagery Classification Combining Riemannian Geometry and Artificial Neural Networks	Abu Sayeed, et al. A Hybrid Campus Security System Combined of Face, Number-plate, and Voice Recognition
	Parallel Track 2 – Computer Vision and Pattern Recognition (continued). Session Chair: Dr. David Hicks.	Parallel Track 4 – Signal Processing and Machine Learning. Session Chair: Dr. Avdesh Mishra.
12:15 pm – 12:30 pm	Pranav Singh Chib, et al. A Computational Study on Calibrated VGG19 for Multimodal Learning and Representation in Surveillance	Hubert Cecotti and Steve Jaimes. Single-trial Detection of Event-related Potentials with Artificial Examples Based on Coloring Transformation
	Parallel Track 3 – Internet of Things and Security. Session Chair: Dr. Mais Nijim.	Parallel Track 4 – Signal Processing and Machine Learning (continued). Session Chair: Dr. Avdesh Mishra.

12:30 pm – 12:45 pm	Prodipta Promit Mukherjee, et al. Towards a Digital Twin Integrated DLT and IoT-based Automated Healthcare Ecosystem	Saurabh Gajbhiye, et al. Data Poisoning Attack by Label Flipping on SplitFed Learning
	Parallel Track 3 – Internet of Things and Security (continued). Session Chair: Dr. Mais Nijim.	Parallel Track 2 – Computer Vision and Pattern Recognition. Session Chair: Dr. David Hicks.
12:45 pm – 1:00 pm	Shivani Gaba, et al. Federated Learning Based Secured Computational Offloading in Cyber-physical IoST Systems	Ayushi Patel and Priyanka Singh. Targeted Clean-Label Poisoning Attacks on Federated Learning
1:00 pm – 1:15 pm	Md. Akkas Ali, et al. IoT and Blockchain Oriented Gender Determination of Bangladeshi Populations	
1:15 pm – 2:15 pm	Lunch Break	
Afternoon Session		
	Parallel Track 2 – Computer Vision and Pattern Recognition. Session Chair: Dr. David Hicks.	Parallel Track 3 – Internet of Things and Security. Session Chair: Dr. Mais Nijim.
2:15 pm – 2:30 pm	Rupali S Patil, et al. Building Marathi SentiWordNet	Abishi Chowdhury, et al. Enabling Edge Devices using Federated Learning and Big Data for Proactive Decisions
	Parallel Track 4 – Signal Processing and Machine Learning. Session Chair: Dr. Avdesh Mishra.	

2:30 pm – 2:45 pm	Arnab Banerjee, et al. A Deep Learning-powered Voice-enabled Math Tutor for Kids	
2:45 pm – 3:00 pm	Srishti Jhunthra et al. Identifying the relationship Between Hypothesis and Premise	
3:00 pm – 3:15 pm	Refreshments Break	
3:15 pm – 4:15 pm	Keynote Speech by Patrick Wang (Fellow IAPR, ISIBM, WASE IETI Distinguished Fellow)	
4:15 pm – 4:45 pm	Refreshments Break	
4:45 pm - 5:15 pm	Invited Talk by Ruby Mehrubeoglu (Program Coordinator, Engineering Technology, Texas A&M University - Corpus Christi)	
5:15 pm – 5:30 pm	Farewell and Vote of Thanks	