

Important Note: Buy a **7-day Réseau Mistral Bus/Boat Pass for 9.90 Euro/person** when you arrive in Toulon; available at Relay at the Toulon train station and other stores with TABAC sign. This will help you with local transportation.

Friday August 24, 2018

Opening Ceremony: 8:45-9:00 am

Session 1: 9:00 - 10:20 am – Social, Affective and Cognition Analysis

- 9:00 – 9:20 **Tactile Facial Action Units toward Enriching Social Interactions for Individuals Who Are Blind**
Troy McDaniel, S. Devkota, R. Tadayon, Bryan Duarte, Bijan Fakhri and Sethuraman Panchanathan
- 9:20 – 9:40 **Affectional Ontology and Multimedia Dataset for Sentiment Analysis**
Rana Abaalkhail, Fatimah Alzamzami, Samah Aloufi, Rajwa Alharthi and Abdulmotaleb El Saddik
- 9:40 – 10:00 **Predict Student's Seating Distribution Based on Social Affinity**
Zhao Pei , Miaomiao Pan, Kang Liao, Miao Ma and Chengcai Leng
- 10:00 – 10:20 **Spatio-temporal eye gaze data analysis to better understand team cognition**
Nasim Hajari, Wenjing He, Irene Cheng, Anup Basu and Bin Zheng

Coffee/Snack Break: 10:20 - 10:40 am

Session 2: 10:40 - 12:00 – Keynotes 1 / Special Session on Person-centered Smart Multimedia: Serving People with Disabilities to the General Population

- 10:40 – 11:20 **Person-Centered Multimedia Computing: A New Paradigm Inspired by Assistive and Rehabilitative Applications**
Sethuraman Panchanathan (presented by Troy Mc Daniel), Arizona State University, USA
- 11:20 – 11:40 **Person-Centric Multimedia: How Research Inspirations from Designing Solutions for Individual Users Benefits the Broader Population**
Sethuraman Panchanathan, Ramin Tadayon, Hemanth Venkateswara and Troy McDaniel
- 11:40 – 12:00 **Deep Reinforcement Learning Methods for Navigational Aids**
Bijan Fakhri, Aaron Keech, Joel Schlosser, Ethan Brooks, Hemanth Venkateswara, Sethuraman Panchanathan and Zsolt Kira

Lunch Break: 12:00 - 14:00

Session 3: 14:00 - 15:20 – Haptic and Robots for Smart Multimedia Applications

- 14:00 – 14:20 **A Pneumatic Haptic Probe Replica for Tele-Robotized Ultrasonography**
Ibrahim Abdallah, Fabrice Gatwaza, Nicolas Morette, Arnaud Leleve, Cyril Novales, Laurence Nouaille, Xavier Brun and Pierre Vieyres
- 14:20 – 14:40 **Haptic Vision: Augmenting Non-Visual Travel and Accessing Environmental Information at a Distance**
Bryan Duarte, Troy McDaniel, Ramin Tadayon, Samjhana Devkota, Gracie Strasser, CeCe Ramey and Sethuraman Panchanathan
- 14:40 – 15:00 **Robotic Catheter for Endovascular Surgery using 3D Magnetic Guidance**
Amir Pournajib and Anup Basu
- 15:00 – 15:20 **Haptic Training in a Virtual Environment to Train Cognitive Functions of Medical Students: Work in Progress**
Nemanja Babic, Charles Barnouin, Benjamin De Witte, Arnaud Leleve, Richard Moreau, Minh Tu Pham and Xavier Martin

Refreshment Break: 15:20 - 15:40

Tutorial 1: 15:40 – 17:00

Haptics for Smart Multimedia:
Organizer: Dr. Troy McDaniel

Opening Reception: 19:30 - 21:30 (Etc... Restaurant, Spanish-French, Award winning chef Adel; Near Prefecture Maritime (Toulon Port)) Attendees can participate in Music Party in nearby square on their own following reception)

Saturday, August 25

Session 4: 9:00 - 10:20 am – MR, 3D, underwater image processing

9:00 – 9:20 **Towards maritime videosurveillance using 4K videos**

V. Marie, I. Bechar and F. Bouchara

9:20 – 9:40 **A heterogeneous image fusion algorithm based on LLC coding**

Bing Zhu, Weixin Gao, Xiaomeng Wu and Ruixing Yu

9:40 – 10:00 **Towards the identification of Parkinson's Disease using only T1 MR Images**

Sara Soltaninejad, Irene Cheng and Anup Basu

10:00 – 10:20 **Atlas-free method of periventricular hemorrhage detection from preterm infants' T1 MR images**

Subhayan Mukherjee, Irene Cheng and Anup Basu

Coffee/Snack Break: 10:20 - 10:40 am

Session 5: 10:40 - 12:00 – Keynote 2 / Special Session: When Smart Signal Processing meets Smart Sensing

10:40 – 11:20 **Towards Smart Signal Processing in HDR Video Pipeline**

Guan-Ming Su, Dolby Labs, USA

11:20 – 11:40 **A Regularized Nonnegative Third Order Tensor Decomposition Using a Primal-Dual Projected Gradient Algorithm: Application to 3D Fluorescence Spectroscopy**

Karima EL Qate, Mohammed El Rhabi, Abdelilah Hakim, Moreau Eric and Nadège Thirion-Moreau

11:40 – 12:00 **Adaptive Dithering using Curved Markov-Gaussian Noise in the Quantized Domain for Mapping SDR to HDR Image**

Subhayan Mukherjee, Guan-Ming Su and Irene Cheng

Lunch Break: 12:00 - 13:40

Session 6: 13:40 – 14:50 – Special Session on Visual Behavior Analysis: Methods and Applications

13:40 – 14:10 **3D visual behavior analysis of human hand and animals from depth cameras**

Li Cheng (Invited Talk)

14:10 – 14:30 **A Flexible Method for Time-of-Flight Camera Calibration Using Random Forest**

Chi Xu and Li Cheng

14:30 – 14:50 **A Survey on Vision-Based Hand Gesture Recognition**

Taiqian Wang, Yande Li, Hu Junfeng, Aamir Khan, Li Liu, C. Li, A. Hashmi and M. Ran

Session 7: 14:50 - 16:10 – Video Analysis

14:50 – 15:10 **Research on path planning method of unmanned vehicle under urban road environment**

Yu Ruixing, Zhu Bing, Cao Meng, Zhao Xiao and Wang Jiawen

15:10 – 15:30 **Detecting Attention in Pivotal Response Treatment Video Probes**

Corey DC Heath, Hemanth Venkateswara, Troy McDaniel and Sethuraman Panchanathan

15:30 – 15:50 **Person Authentication by Air-writing Using 3D Sensor and Time Order Stroke Context**

Lee-Wen Chiu, Jun-Wei Hsieh, Chin-Rong Lai, Hui-Fen Chiang, Shyi-Chy Cheng and Kuo-Chin Fan

15:50 – 16:10 **Synthetic Vision Assisted Real-time Runway Detection for Infrared Aerial Images**

Changjiang Liu, Irene Cheng and Anup Basu

Refreshment Break: 16:10 - 16:30

Tutorial 2: 16:30 – 17:30

Domain Adaptation for Computer Vision:

Organizers: Dr. Hemanth Venkateswara

Banquet: 19:30 - 22:00 (l'Adresse Restaurant, French, Plage du Mourillon, Take Bus 3 (towards Mourillon) to Fort St. Louis stop, restaurant is across the street from the bus stop)

Sunday, August 26

Session 8: 9 - 10:20 am – Learning I

- 9:00 – 9:20 **Detection-based Online Multi-Target Tracking via Adaptive Subspace Learning**
Jyoti Nigam, Krishan Sharma and Renu M Rameshan
- 9:20 – 9:40 **A Deep Learning Approach to Predict Crowd Behavior Based on Emotion**
Elizabeth B Varghese and Sabu M Thampi
- 9:40 – 10:00 **Object Tracking in Hyperspectral Videos with Convolutional Features and Kernelized Correlation Filter**
Kun Qian, Jun Zhou, Fengchao Xiong, Huixin Zhou and Juan Du
- 10:00 – 10:20 **Learning 3DMM Deformation Coefficients for Rendering Realistic Expression Images**
Claudio Ferrari, Stefano Berretti, Pietro Pala and Alberto Del Bimbo

Coffee/Snack Break: 10:20 - 10:40 am

Session 9: 10:40 - 12:00 – Learning II

- 10:40 – 11:00 **Semi-Supervised Adversarial Image-to-Image Translation**
Jose Eusebio, Hemanth Venkateswara and Sethuraman Panchanathan
- 11:00 – 11:20 **A Step Beyond Generative Multi-Adversarial Networks**
Aman Singh
- 11:20 – 11:40 **Adversarial training for dual-stage image denoising enhanced with feature matching**
Xinyao Sun, Navaneeth Kamballur Kottayil, Subhayan Mukherjee and Irene Cheng
- 11:40 – 12:00 **IVUS-Net: An Intravascular Ultrasound Segmentation Network**
Ji Yang, Lin Tong, Mehdi Faraji and Anup Basu

Lunch Break: 12:00 - 14:00

Session 10: 14:00 - 14:50 – Low-level Vision

- 14:00 – 14:12 **A Simplified Active Calibration algorithm for Focal Length Estimation**
Mehdi Faraji and Anup Basu
- 14:12 – 14:24 **Automatic Computation of Fundamental Matrix Based on Voting**
XinSheng Li and Xuedong Yuan
- 14:24 – 14:36 **Adapting texture compression to Perceptual Quality Metric for Textured 3D models**
Navaneeth Kamballur Kottayil, Irene Cheng, Kumaradevan Punithakumar and Anup Basu
- 14:36 – 14:48 **A Novel Data Clustering Method Based on Smooth Non-Negative Matrix Factorization**
Chengcai Leng, Hai Zhang and Guorong Cai

Session 11: 14:50 - 15:40 – Miscellaneous

- 14:50 – 15:02 **Subjective Quality of Spatially Asymmetric Omnidirectional Stereoscopic Video for Streaming Adaptation**
Igor D.D. Curcio, Deepa Naik, Henri Toukoma and Alireza Zare
- 15:02 – 15:14 **A Model-Based Approach for Arrhythmia Detection and Classification**
Hongzu Li and Pierre Boulanger
- 15:14 – 15:26 **EREL Selection using Morphological Relation**
Yuying Li and Mehdi Faraji
- 15:26 – 15:38 **EREL-Net: A Remedy for Industrial Bottle Defect Detection**
Nikunj Kumar Patel, Subhayan Mukherjee and Lihang Ying

Closing Reception: 16:00 - 17:00 (Holiday Inn, Conference Hotel)