CAIP2017

17th international Conference on Computer Analysis of Images and Patterns

DAY 1
Monday, 21st

Silver Suite

13:00-14:00	**Lunch**
14:00-15:30	**Tutorial**
15:30-16:00	**Coffee**
16:00-17:30	**Tutorial**

DAY 2
Tuesday, 22nd

Bolsa Beach

08:30-09:30	**Registration**
09:30-09:50	**Welcome, Practical Information**
09:50-10:50	**Session 1: Invited Speaker** **Title: Getting to Know your Objects** **Markus Vincze**
10:50-11:20	**Coffee**
11:20-12:20 *Chair* **Reinhard Klette**	**Session 2: Vision for Robotics (3 talks)** – A Novel Approach for Mobile Robot Localization in Topological Maps using Classification with Reject Option from Structural Co-occurrence Matrix – Robust Features for Snapshot Hyperspectral Terrain-Classification – Improved Stixel Estimation based on Transitivity Analysis in Disparity Spaces
12:20-13:20	**Lunch**
13:20-14:40 *Chair* **Rudolf Mester**	**Session 3: Motion and Tracking (4 talks)** – Mixing Hough and Color Histogram Models for Accurate Real-Time Object Tracking – DCCO: Towards Deformable Continuous Convolution Operators for Visual Tracking – Two-Letters-Key Keyboard for Predictive Touchless Typing with Head Movements – Recognizing Interactions Between People from Video Sequences

Silver Suite

14:40-15:00	**Session 4: Paper Highlight Presentations (14 posters)**
15:00-15:30	**Coffee**
15:30-16:30 *Chair* **Atsushi Imiya**	**Session 5: Segmentation (3 talks)** – Deep Projective 3D Semantic Segmentation – Detection of curved lines with B-COSFIRE filters: A case study on crack delineation – Motion-coherent Affinities for Hypergraph based Motion Segmentation
16:30-18:00	**Session 6: Poster Session I** – Robust Long-Term Aerial Video Mosaicking by Weighted Feature-based Global Motion Estimation – Multilinear Methods for Spatio-Temporal Image Recognition – On the Essence of Unsupervised Detection of Anomalous Motion in Surveillance Videos – Deep Boltzmann Machines Using Adaptive Temperatures – Twin Deep Convolutional Neural Network for Example-based Image Colorization – Optimization of Facade Segmentation Based on Layout Priors – Development of a new fractal algorithm to predict quality traits of MRI loins – A visual inspection method based on periodic feature for wheel mark defect on wafer backside – Retinal Vessel Segmentation using Matched Filter with Joint Relative Entropy – Sparse-MVRVMs Tree for Fast and Accurate Head Pose Estimation in the Wild – On the Use of the Tree Structure of Depth Levels for Comparing 3D Object Views – The Classic Wave Equation can do Shape Correspondence
19:30-22:00	**Reception Dinner with Entertainment**

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DAY 3
Wednesday, 23ʳᵈ

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08:45-09:00	**Registration**
08:30-09:30	**Session 7: Invited Speaker** **Title: Solving Perceptual Quality Issues of Streaming Video** **Alan Bovik**
09:30-10:30 *Chair* **Rebeca Marfil**	**Session 8: Image/Video Indexing and Retrieval (3 talks)** – A Hypergraph-based Reranking Model for retrieving diverse social images – Learning a Limited Text Space for Cross-Media Retrieval – Speeding-Up Graph-based Keyword Spotting by Quadtree Segmentations
10:30-11:00	**Coffee**
11:00-12:00 *Chair* **Bjarne Ersböll**	**Session 9: Shape Representation and Analysis (3 talks)** – Ellipse Detection for Visual Cyclists Analysis "In the Wild'" – Visual Landmark based Road Course Estimation with Black Box Variational Inference – Multiple Reflection Symmetry Detection via Linear-Directional Kernel Density Estimation
12:00-13:20	**Lunch**
13:20-14:40 *Chair* **Xiaoyi Jiang**	**Session 10: Biomedical Image Analysis (4 talks)** – CNN-based Background Subtraction for Long-Term in-vial FIM Imaging – Bayesian diffusion tensor estimation with spatial priors – Analysis of Multilinear Subspaces based on Geodesic Distance – Streaming Algorithm for Euler Characteristic Curves of Multidimensional Images
14:40-15:00	**Session 11: Paper Highlight Presentations (14 posters)**

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15:00-16:30	**Session 12: Poster Session II** – A New Scoring Method for Directional Dominance in Images – A Multilayer Backpropagation Saliency Detection Algorithm Based on Depth Mining – Laplacian Deformation with Symmetry Constraints for Reconstruction of Defective Skulls – A New Image Contrast Enhancement Algorithm using Exposure Fusion Framework – Quaternionic Flower Pollination Algorithm – Automated Cell Nuclei Segmentation in Pleural Effusion Cytology Using Active Appearance Model – Parkinson's Disease Identification using Restricted Boltzmann Machines – Attention-Based Two-Phase Model for Video Action Detection – Learning Discriminative Representation for Skeletal Action Recognition – Progressive Probabilistic Graph Matching with Local Consistency Regularization – Automatic Detection of Utility Poles using the Bag of Visual Words method for different Feature Extractors – Deep Objective Image Quality Assessment – Enhancing Textbook Study Experiences with Pictorial Bar-codes and Augmented Reality – Stacked Progressive Auto-encoders for Clothing-invariant Gait Recvognition
15:30-16:00	**Coffee**
17:00-22:00	**Conference Dinner + Excursion**

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22-24 August, 2017

◉ **Ystad, Sweden**

DAY 4
Thursday, 24th

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Time	Session
08:30-09:30	**Session 13: Invited Speaker** **Title: Machine Learning Meets Image Analysis: From looking inside ourselves to gazing at the stars** **Christian Igel**
09:30-10:30 *Chair* **Pedro Real**	**Session 14: Biometrics (3 talks)** – An Improved Scheme of Local Directional Pattern for Texture Analysis with an Application to Facial Expressions – A Missing Singular Point Resistant Fingerprint Classification Technique, Based on Directional Patterns – Indexing of Single and Multi-instance Iris Data Based on LSH-Forest and Rotation Invariant Representation
10:30-11:00	**Coffee**
11:00-12:20 *Chair* **Jörgen Ahlberg**	**Session 15: Machine Learning (4 talks)** – Clustering-Based, Fully Automated Mixed-Bag Jigsaw Puzzle Solving – A Violence Detection Approach Based on Spatio-Temporal Hypergraph Transition – Blur Parameter Identification Through Optimum-Path Forest – Real-Time Human Pose Estimation via Cascaded Neural Networks Embedded with Multi-task Learning
12:20-13:20	**Lunch**
13:20-14:00 *Chair* **Chokri Ben Amar**	**Session 16: Image Restoration I (2 talks)** – Multi-View Separation of Background and Reflection by Coupled Low-Rank Decomposition – Fast and easy blind deblurring using an inverse filter and PROBE
14:00-14:20	**Session 17: Paper Highlight Presentations (15 posters)**
14:20-15:50	**Session 18: Poster Session III** – Feature Selection on Affine Moment Invariants in Relation to Known Dependencies – GMM Supervectors for Limited Training Data in Hyperspectral Remote Sensing Image Classification

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Time	Session
14:20-15:50	– A New Shadow Removal Method using Color-Lines – Improving Semantic Segmentation with Generalized Models of Local Context – An Image-matching Method using Template Updating based on Statistical Prediction of Visual Noise – Robust Accurate Extrinsic Calibration of Static Non-overlapping Cameras – An Integrated Multi-scale Model for Breast Cancer Histopathological Image Classification with Joint Colour-Texture Features – Multi-label poster classification into genres using different problem transformation methods – Hybrid Cascade Model for Face Detection in the Wild Based on Normalized Pixel Difference and a Deep Convolutional Neural Network – Labeling color 2D digital images in theoretical near logarithmic time – What is the best depth-map compression for Depth Image Based Rendering? – Nonlinear mapping based on spectral angle preserving principle for hyperspectral image analysis – Object triggered egocentric video summarization – 3D motion consistency analysis for segmentation in 2D video projection
15:00-15:30	**Coffee**
15:50-16:50 *Chair* **Chokri Ben Amar**	**Session 19: Image Restoration II (3 talks)** – Space-variant Gabor decomposition for filtering 3D medical images – Learning Based Single Image Super Resolution using Discrete Wavelet Transform – Directional Total Variation Based Image Deconvolution with Unknown Boundaries
16:50-17:00	**Closing**

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DAY 5
Friday, 25th

* Preliminary (subject to change)

Time	
9:15-17:00 *	**Workshop REACTS**