

CIARP 2016

XXI Iberoamerican Congress on Pattern Recognition
Pontificia Universidad Católica del Perú
8-11 November 2016, Lima, Peru

Final Program

(Draft version)

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PUCP



Springer



Maestría en Informática
Sección Ingeniería Informática
GRPIAA – Grupo de Reconocimiento de Patrones e Inteligencia Artificial

Overview of the program

Tuesday 8th November (Location: to confirm)

18:30 – 19:30 Reception

19:30 – 20:30 Open-air reception. Registration will be opened

Wednesday 9th November (Location: PUCP)

08:00 – 09:00 Registration

09:00 – 09:10 Opening

09:10 – 10:30 Invited Talk: Prof. Dr. Xiaohui Liu

10:30 – 11:00 Tea/Coffee Break

11:00 – 12:40 Oral Session 1 – Learning, Classification, Graphs (5 Talks)

12:40 – 14:10 Lunch Break

14:10 – 15:30 Invited Talk: Prof. Dr. George Azzopardi

15:30 – 16:00 Tea/Coffee Break

16:00 – 17:00 Oral Session 2 – Feature Extraction & Selection (3 Talks)

18:00 – 20:30 Social Event: To confirm

Thursday 10th November (Location: Auditorium)

09:00 – 10:00 Invited Talk: Prof. Dr. B.S. Manjunath

10:00 – 10:40 Paper Highlight Presentations

10:40 – 11:10 Tea/Coffee Break – Poster session

11:10 – 12:30 Oral Session 3 – Medical Image Analysis (4 Talks)

12:30 – 14:00 Lunch Break

14:00 – 15:20 Oral Session 4 – Segmentation & Grouping (4 Talks)

15:20 – 15:50 Tea/Coffee Break – Poster session

15:50 – 16:50 Oral Session 5 – Image Processing (3 Talks)

18:00 – 20:30 Social Event: To confirm

Friday 11th November (Location: Auditorium)

09:00 – 10:00 Invited Talk: Prof. Dr. Yann LeCun

10:00 – 10:40 Paper Highlight Presentations

10:40 – 11:10 Tea/Coffee Break – Poster session

11:10 – 12:10 Oral Session 6 – Tracking (3 Talks)

12:10 – 13:40 Lunch Break

13:40 – 15:00 Oral Session 7 – Computer Vision (4 Talks)

15:00 – 15:30 Tea/Coffee Break – Poster sesión

15:30 – 17:10 Oral Session 8 – Object and Pattern Recognition (5 Talks)

17:15 – 18:00 Closing and Reception

18:00 – 23:00 Gala Dinner

Oral Session 1 – Learning, Classification, Graphs (5 Talks)

11:00-11:20

Partial matching of finger vein patterns based on point sets alignment and directional information
Maria Frucci, Daniel Riccio, Gabriella Sanniti di Baja and Luca Serino

11:20-11:40

Star: A Contextual Description of Superpixels for Remote Sensing Image Classification
Tiago Moreira Hübner Cançado Santana, Jefersson Alex Dos Santos, Alexei Manso Córrea Machado and Arnaldo De Albuquerque Araújo

11:40-12:00

A New Parallel Training Algorithm for Optimum-Path Forest-based Learning
Aldo Culquicondor, Cesar Castelo-Fernandez and Joao Paulo Papa

12:00-12:20

Efficient Sparse Approximation of Support Vector Machines Solving a Kernel Lasso
Marcelo Aliquintuy, Emanuele Frandi, Ricardo Nanculef and Johan Suykens

12:20-12:40

Improving Nearest Neighbor based Multi-target Prediction through Metric Learning
Hector González, Carlos Morell and Francesc J. Ferri

Oral Session 2 – Feature Extraction & Selection (3 Talks)

16:00-16:20

Deep Learning Features for Wireless Capsule Endoscopy Analysis
Santi Seguí, Michal Drozdal, Guillem Pascual, Carolina Malagelada, Fernando Azpiroz, Petia Radeva and Jordi Vitrià

16:20-16:40

A Compact Representation of Multiscale Dissimilarity Data by Prototype Selection
Yenisel Plasencia, Yan Li, Robert P. W. Duin, Mauricio Orozco-Alzate, Marco Loog and Edel Garcia

16:40-17:00

Multi-Biometric Template Protection on Smartphones: An Approach based on Binarized Statistical Features and Bloom Filters
Martin Stokkenes, Raghavendra Ramachandra, Kiran B. Raja, Marta Gomez-Barrero, Morten Sigaard and Christoph Busch

Oral Session 3 – Medical Image Analysis (4 Talks)

11:10-11:30

A hierarchical K-nearest neighbor approach for volume of tissue activated estimation
Iván De La Pava Panche, Juan Camilo Mejía Hernandez, Andrés Marino Alvarez-Meza, Mauricio Alexander Álvarez López, Álvaro Ángel Orozco Gutierrez and Oscar Alberto Henao Gallo

11:30-11:50

Tsallis Entropy Extraction for Mammographic Region Classification
Rafaela Alcântara, Perfilino Ferreira Junior and Aline Ramos

11:50-12:10

Spatial resolution enhancement in ultrasound images from multiple annotators knowledge
Julian Gil Gonzalez, Mauricio Alvarez and Alvaro-Angel Orozco-Gutierrez

12:10-12:30

Non-parametric source reconstruction via kernel temporal enhancement for EEG data
Cristian A Torres-Valencia, Andres M Alvarez-Meza, Alvaro Orozco-Gutiérrez, Mauricio Alvarez, Jose Hernandez-Muriel and Wilson Gonzalez-Vanegas

Oral Session 4 – Segmentation & Grouping (4 Talks)

14:00-14:20

Discriminative Capacity and Phonetic Information of Bottleneck Features in Speech
Ana Montalvo and José Ramón Calvo

14:20-14:40

Two Compound Random Field Texture Models
Michal Haindl and Vojtech Havlicek

14:40-15:00

Consensual Iris Segmentation Fusion
Daile Osorio Roig and Eduardo Garea Llano

15:00-15:20

Boosting spLSA for Text Classification
Julio Hurtado, Marcelo Mendoza and Ricardo Nanculef

Oral Session 5 – Image Processing (3 Talks)

15:50-16:10

Spatio-colour Asplünd's metric and Logarithmic Image Processing for Colour Images (LIPC)
Guillaume Noyel and Michel Jourlin

16:10-16:30

Non-local Exposure Fusion
Cristian Ocampo-Blandon and Yann Gousseau

16:30-16:50

Data Fusion from Multiple Stations for Estimation of PM2.5 in Specific Geographical Location
Miguel Alberto Becerra Botero, Marcela Bedoya Sánchez, Jacobo García Carvajal, Jaime A. Guzmán Luna, Diego Hernán Peluffo-Ordoñez and Catalina Tobon

Oral Session 6 – Tracking (3 Talks)

11:10-11:30

Parallel Integer Motion Estimation for High Efficiency Video Coding (HEVC) Using OpenCL
Augusto Gomez, Jhon Perea and María Trujillo

11:30-11:50

Abnormal Behavior Detection in Crowded Scenes Based on Optical Flow Connected Components.
Oscar Rojas and Clesio Tozzi

11:50-12:10

GMM Background Modeling using Divergence-based Weight Updating
Juan Diego Pulgarin-Giraldo, Andres Marino Alvarez-Meza, Hernán David Insuasti-Ceballos, Thierry Bouwmans and German Castellanos-Dominguez

Oral Session 7 – Computer Vision (4 Talks)

13:40-14:00

Automatic classification of herbal substances enhanced with an entropy criterion

Victor Mendiola-Lau, Francisco J. Silva Mata, Isneri Talavera Bustamante, Yoanna Martínez-Díaz and María De Marsico

14:00-14:20

Autonomous Scanning of Structural Elements in Buildings

Blanca Quintana, Samuel A. Prieto, Antonio Adán and Andrés S. Vázquez

14:20-14:40

Depth estimation with light field and photometric stereo data using energy minimization

Doris Antensteiner, Svorad Štolc and Reinhold Huber-Mörk

14:40-15:00

Definition and Composition of Motor Primitives using LFMs and HMMs

Diego Agudelo España, Mauricio Alvarez and Álvaro Orozco

Oral Session 8 – Object and Pattern Recognition (5 Talks)

15:30-15:50

A Similarity Indicator for differentiating Kinematic Performance between Qualified Tennis Players

Juan Diego Pulgarin-Giraldo, Andres Marino Alvarez-Meza, Luis Gerardo Melo-Betancourt, Santiago Ramos-Bermudez and German Castellanos-Dominguez

15:50-16:10

Face Composite Sketch Recognition By BoVW-Based Discriminative Representations

Yenisel Plasencia, Heydi Mendez-Vazquez and Rainer Larin-Fonseca

16:10-16:30

Computing Arithmetic Operations on Sequences of Handwritten Digits

Andrés Pérez, Angélica Quevedo and Juan C. Caicedo

16:30-16:50

Fine-tuning based deep convolutional networks for lepidopterous genus recognition

Juan Carvajal, Dennis Romero and Angel Sappa

16:50-17:10

How Deep can we Rely on Emotion Recognition

Ana Laranjeira, Bernardete Ribeiro, Xavier Frazão and André Pimentel

Poster presentation Thursday 10th November

P-004

Direction-based segmentation of retinal blood vessels

Maria Frucci, Daniel Riccio, Luca Serino and Gabriella Sanniti di Baja.

P-008

Identifying *Aedes aegypti* mosquitoes by sensors and one-class classifiers

Vinicius Souza.

P-011

Highly Transparent and Secure Scheme for Concealing Text within Audio

Diego Renza, Camilo Lemus and Dora M. Ballesteros L..

P-021

An Automatic Tortoise Specimen Recognition

Matej Sedlacek, Michal Haindl and Dominika Formanova.

P-025

New Application of 3D VFH Descriptors in Archaeological Categorization: A Case Study

Jose Santamaria.

P-027

Novel Method for Early Dementia Detection based on Cepstral Analysis of Speech Signal

Osmany Cruz, Carlos A Ferrer, Luis A Hernandez, Anja Lowit and Eduardo Gonzalez-Moreira.

P-030

Sport Video Genre Classification in Mixed Video Quality Dataset

Guilherme Magalhaes, Ing Ren Tsang and George D. C. Cavalcanti.

P-031

V1-Like feature and sparse principal component analysis for face verification

Mario Junior, Ing Ren Tsang and George D. C. Cavalcanti.

P-032

Automatic Fruit and Vegetable Recognition based on CENTRIST and Color Representation

Jadisha Comejo and Helio Pedrini.

P-035

Scale Sensitivity of Textural Features

Michal Haindl and Pavel Vacha.

P-036

Noise-Added Texture Analysis

Tuan Pham.

P-041

Breast Density Classification with Convolutional Neural Networks

Pablo Fonseca, Benjamin Castaneda, Ricardo Valenzuela and Jacques Wainer

P-042

Community Feature Selection for Anomaly Detection in Attributed Graphs

Mario Alfonso Prado-Romero and Andrés Gago-Alonso.

P-043

Lung Nodule Classification Based on Deep Convolutional Neural Networks

Julio Bobadilla and Helio Pedrini.

P-048

A kernel-based approach for deep brain stimulation parameter estimation

Viviana Gómez Orozco, Mauricio Alvarez, Oscar Alberto Henao Gallo, Andrés Marino Álvarez Meza, Álvaro Ángel Orozco Gutiérrez, Jhon Fredy Cuellar Fierro and Hernán Felipe García Arias.

P-055

Distributed and parallel algorithm for computing betweenness centrality

Mirlayne Campuzano and Adrian Fonseca.

P-060

Algorithm for Computing Goldman Fuzzy Reducts

Jesus Ariel Carrasco-Ochoa, Manuel Lazo-Cortés and José Fco. Martínez-Trinidad. An

P-061

Metric learning in the dissimilarity space to improve low-resolution face recognition

Mairelys Hernández-Durán, Yenisel Plasencia and Heydi Mendez-Vazquez.

P-062

Video Temporal Segmentation based on Color Histograms and Cross-Correlation

Anderson Santos and Helio Pedrini.

P-066

Extended LBP Operator to Characterize Event-Address Representation Connectivity

Pablo Negri.

Poster presentation Friday 11th November

P-068

Similarity measure for cell membrane fusion proteins identification

Daniela Megrian, Pablo Aguilar and Federico Lecumberry.

P-070

Trading off Distance Metrics vs Accuracy in Incremental Learning Algorithms

Noel Lopes and Bernardete Ribeiro.

P-073

Identifying Colombian Bird Species from Audio Recordings

Jorge E. Camargo, Juan C. Caicedo and Angie K. Reyes.

P-075

Bayesian Optimization for Fitting 3D Morphable Models of Brain Structures

Hernán Felipe García Arias, Mauricio Alexander Álvarez López and Álvaro Ángel Orozco Gutiérrez.

P-079

Subsampling The Concurrent Adaboost Algorithm: An Efficient Approach For Large Datasets

Héctor Allende-Cid, Diego Acuña and Hector Allende.

P-082

Interactive data visualization using dimensionality reduction and similarity-based representations

Paul David Rosero-Motalvo, Paul Díaz-Zuñiga, Diego Fernando Peña-Unigarro, José Alejandro Salazar-Castro, Juan Carlos Alvarado-Pérez, Andrés Javier Anaya-Isaza, Roberto Therón and Diego Hernán Peluffo-Ordoñez.

P-083

Multi-labeler classification using kernel representations and mixture of classifiers
David Esteban Imbajoa-Ruiz, Ivan Gustin, Mauricio Bolaños-Ledezma, Andrés Arciniegas-Mejía, Fredy Guasmayan, María J. Bravo - Montenegro, Andrés Eduardo Castro Ospina and Diego Hernán Peluffo-Ordoñez.

P-084

Detection of follicles in ultrasound videos of bovine ovaries
Alvaro Gómez, Guillermo Carbajal, Magdalena Fuentes and Carolina Viñoles.

P-085

Decision Level Fusion for Audio-Visual Speech Recognition in Noisy conditions
Gonzalo Sad, Lucas Daniel Terissi and Juan Carlos Gomez.

P-089

An Approximate Support Vector Machines Solver With Budget Control
Carles R. Riera Molina and Oriol Pujol.

P-095

Clustering algorithms application in gene expression data from patients with Osteogenesis Imperfecta: A comparison between Affinity Propagation, Self-organizing Maps and K-means
Diogo Pereira Silva De Novais, Paulo Eduardo Ambrósio and Carla Martins Kaneto.

P-096

Automatic Classification of Non-Informative Frames in Colonoscopy Videos using Texture Analysis
Ballesteros Cristian, María Trujillo, Claudia Mazo and Deisy Chaves.

P-098

Efficient Training over Long Short-Term Memory Networks for Wind Speed Forecasting
Erick López, Carlos Valle, Héctor Allende and Esteban Gil.

P-099

Classifying Estimated Stereo Correspondences based on Delaunay Triangulation
Cristina Bustos, Elizabeth Vargas and Maria Trujillo.

P-101

Multivariate functional network connectivity for disorders of consciousness
Jorge Rudas, Darwin Martínez, Athena Demertzi, Carol Di Perri, Lizette Heine, Luaba Tshibanda, Andrea Soddu, Steven Laureys and Francisco Gomez.

P-111

Detection Robust to Intensity Inhomogeneity: A 7T MRI Case Study
Fábio Augusto Menocci Cappabianco, Lucas Santana Lellis, Paulo Andre Vechiatto de Miranda, Jaime Shinsuke Ide and Lilianne Mujica-Parodi. Edge

P-116

Selection of representative subset as a pattern of full object set
Javier Tejada, Mikhail Alexandrov, Gabriella Skitalinskaya and Dmitry Stefanovskiy.

P-121

Analysis of the geometry and electric properties of brain tissue in simulation models for deep brain stimulation
Hernan Vargas, Alvaro Orozco and Mauricio Alvarez.

P-124

Sparse Linear Models applied to Power Quality Disturbance Classification.
Andrés Felipe López Lopera, Mauricio Alexander Álvarez López and Álvaro Á. Orozco.