

Wednesday - October 24

9:00 am – 10:00 am

Talk 1

Chair: Dr. Natasha Lepore

Keynote: Dr. Sean Deoni

10:00 am – 11:00 am

Biosignals 1

Chair: Dr. Eduardo Romero

Parkinsonian gait characterization from regional kinematic trajectories

Luis C. Guayac'an, Brayan Valenzuela, and Fabio Martinez
Universidad Industrial de Santander, Bucaramanga (UIS), Colombia.

Parkinsonian hand tremor characterization from magnified video sequences

Sergio Contreras, Isail Salazar, and Fabio Martínez.
Universidad Industrial de Santander (UIS) Bucaramanga, Colombia.

Non-contact breathing rate monitoring system based on a Hermite video magnification technique Jorge Brieve , Ernesto Moya-Albor , Orlando Rivas-Scott and Hiram Ponce.

Universidad Panamericana, Ciudad de México, México.

11:30 am – 1:00 pm

Medical Imaging 1

Chair: Dr. Darryl Hwang

Flexible Automatic Algorithm for Comet Assay Analysis

Álvaro J. Bocanegra Pérez, Daya Serrano Delgado, Sergio D. Pulido Castro, Alejandro O. Ondo Méndez. Francisco J. Londoño Hoyos , Juan M. López López.

Escuela Colombiana de Ingeniería Julio Garavito, Universidad del Rosario, Bogotá D.C., Colombia.

Automatic detection of colorectal polyps larger than 5 mm during colonoscopy procedures using Visual Descriptors

Diego Bravo, Josué Ruano, Martín Gómez, and Eduardo Romero.
Universidad Nacional de Colombia.

Extracting multiscale patterns for classification of non-small cell lung cancer in CT images

Álvaro Andrés Sandino , Charlems Alvarez Jimenez , and Eduardo Romero.
Universidad Nacional de Colombia, Bogotá, Colombia.

An automatic system for spermogram analysis based on image processing techniques and Support Vector Machines

Natalia V. Revollo, Claudio A. Delrieux , Rolando Gonzalez-José , Javier Izetta R
UNS-CONICET, Bahía Blanca, Argentina Centro Nacional Patagónico. CONICET. Puerto Madryn, Chubut. UNJu, Jujuy, Argentina.

An intelligent ecosystem to improve the information access and knowledge development about sexual and reproductive health on deaf women in Cuenca - Ecuador

C. Oyola-Flores, Y. Robles-Bykbaev, V. Robles-Bykbaev, J. Galán-Montesdeoca, P. Ingavélez-Guerra and F. Pesántez-Avilés.
Universidad Politécnica Salesiana, Cuenca, Ecuador.

IS2MoD: An interactive system based on expert systems and Kinect devices to support the motor rehabilitation and development of children with disabilities.

A. Pérez-Muñoz , P. Ingavélez-Guerra, V. Robles-Bykbaev, P. Solórzano-Guerrero , Y. Robles-Bykbaev , V. Martínez-León, M. B. Faicán-Ulloa and M. Castro-Siguenza.
Universidad Politécnica Salesiana, Cuenca, Ecuador.

Classification of Abdominal ECG Recordings for the Identification of Fetal Risk Using Random Forest and Optimal Feature Selection

Fabian Torres, Boris Escalante-Ramírez, Jorge Perez-Gonzales, Román Anselmo Mora-Gutierrez, Antonin Ponsich, Scarlet Prieto Rodriguez, Lisbeth Camargo Marin, Mario Guzmán Huerta.

Universidad Nacional Autónoma de México. Universidad Autónoma Metropolitana-Iztapalapa, Universidad Autónoma Metropolitana-Azcapotzalco, México, CDMX.

Thoughts and emotion assimilation and detonation through VR for people with ASD

Juan P. Hernandez-Mosti, Mariela Cañete Alavez, Judith Vaillard Martínez, Diego Reza Becerril, Ernesto Moya-Albor and Jorge Brieve.

Universidad Panamericana, Ciudad de México, México.

2:00 am – 3:30 pm

Talk 2

Chair: Dr. Jorge Brieve

Keynote: Dr. Alfonso Gastelum

4:00 pm – 6:00 pm

Brain Imaging 1

Chair: Dr. Sean Deoni

Fine tuning VBM for mouse brain analysis: model adjustment using atrophy simulation

Delfina Braggio, Jimena Barbeito-Andrés, Paula Gonzalez, and Ignacio Larrabide.
UNCPBA, CONICET, UNAJ, Hospital El Cruce, Argentina.

Voxelwise Meta-Analysis of Brain Structural Associations with Genome-Wide Polygenic Risk for Alzheimer's Disease

Linda Ding, Alyssa H. Zhu, Arvin Saremi, Joshua I. Faskowitz , Asta Håberg, Paul M. Thompson, Neda Jahanshad.
Keck School of Medicine of USC, CA, USA. Norwegian University of Science and Technology (NTNU), Trondheim University Hospital, Norway.

Robust Automatic Corpus Callosum Analysis Toolkit: Mapping callosal development across heterogeneous multisite data

Alyssa H. ZhU, Arvin Saremi, Armand Amini, Ricardo Pires, Paul M. Thompson, Neda Jahanshad.
Keck School of Medicine of USC, CA, USC Viterbi School of Engineering, Los Angeles, CA.

Inpatient Multimodal Medical Image Registration of Brain CT-MRI 3D - an approach based on metaheuristics

Pedro P. Cespedes , Gabriel A. Gimenez , Lorenzo Lopez, Jose L. Vazquez, Horacio Legal-Ayala, and Diego Pinto-Roa.
National University of Asuncion, Paraguay.

Ranking Diffusion Tensor Measures of Brain Aging & Alzheimer's Disease

Artemis Zavaliangos-Petropulu, Talia M. Nir, Sophia I. Thomopoulos, Neda Jahanshad, Robert I. Reid, Matthew A. Bernstein, Bret Borowski, Clifford R. Jack, Jr., Michael W. Weiner, Paul M. Thompson.

Keck School of Medicine, University of Southern California, Marina del Rey, CA, USA. University of California San Francisco School of Medicine, San Francisco, CA, USA.

ENIGMA Pediatric mTBI: Preliminary Results from MetaAnalysis of Diffusion MRI

Emily L. Dennis, Karen Caeyenberghs, Talin Babikian, Alexander Olsen, Christopher C. Giza, Robert F. Asarnow, Harvey Levin, Peter Kochunov, Neda Jahanshad, Paul M. Thompson, David Tate, Elisabeth Wilde.

Keck School of Medicine of USC, Marina del Rey, CA, USA. Australian Catholic University, Melbourne, Australia. University of Science and Technology, Trondheim, Norway. UCLA, Los Angeles, CA, USA. University of Maryland School of Medicine, Baltimore, MD. University of Missouri-St. Louis, St. Louis, USA. University of Utah, USA.

University of Southern California, Marina del Rey, CA, USA.

A comparative analysis of sensitivity of convolutional neural networks for histopathology image classification in breast cancer

Fabian Cano, Anant Madabhushi, and Angel Cruz-Roa.
Universidad de los Llanos, Villavicencio (Meta), Colombia. Case Western Reserve University, Cleveland, USA.

A method to detect glands in histological gastric cancer images

Sunny Alfonso, Germán Corredor, Ricardo Moncayo, Paula Toro, and Eduardo Romero.
Universidad Nacional de Colombia, Bogotá, Colombia.

Supervised Online Matrix Factorization for Histopathological Multimodal Retrieval

Victor H. Contreras, Juan S. Lara, Oscar J. Perdomo, and Fabio A. González
Universidad Nacional de Colombia, Bogotá, Colombia.

A Visualization, Navigation, and Annotation System for Dermatopathology Training

Paula Toro, Germán Corredor, Eduardo Romero, and Viviana Arias.

Universidad Nacional De Colombia, Bogotá D.C, Colombia.

Digital Pathology

Chair: Dr. Eduardo Romero