

ITM campus

Talk 3 Chair: Dr. Natasha Lepore Aula Magna	Keynote: Dr. Sean Deoni Talk: “ <i>Environmental Influences on Early Brain Development</i> ”	8:30 am
	Radiomics-Based Differentiation of Pleomorphic Adenomas and Warthin Tumors of Salivary Glands Henry J. Areiza, Norberto Malpica, Beatriz Brea, Andrés E.Castro and Gloria M. Díaz. Instituto Tecnológico Metropolitano, Medellín, Colombia	9:30 am
Brain Imaging Chair: Dr. Sean Deoni Aula Magna	Sulci characterization to predict progression from mild cognitive impairment to Alzheimer's disease Santiago Silva, Diana Giraldo and Eduardo Romero. Universidad Nacional de Colombia, Bogotá, Colombia Long-term neuroanatomical effects of germ cell tumors after cranial radiation therapy Sinchai Tsao, Niharika Gajawelli, Arthur Olch, Kenneth Wong, Nicholas Chapman, Jeffrey Tanedo, Marvin D. Nelson, Mary Baron Nelson, and Natasha Lepore. University of Southern California, California, USA Characterizing local brain aging patterns in healthy subjects in structural magnetic resonance images Miguel Caro, Diana Giraldo and Eduardo Romero. Universidad Nacional de Colombia, Bogotá, Colombia	
Biosignals Chair: Dr. Darryl Hwang Pedro Nel Gómez auditorium	Non-Contact Breathing Rate Monitoring System using aMagnification Technique and Convolutional Networks Jorge Brieva, Hiram Ponce, and Ernesto Moya-Albor. Universidad Panamericana, Ciudad de México, México A Deblurring Model for Super-Resolution MRI Interpolated Images José Fuentes and Jorge Mauricio Ruiz V. Universidad Nacional de Colombia, Bogotá, Colombia Dynamic Low-Frequency Fluctuations of Resting Brain in Attention Deficit Hyperactivity Disorder Keveen Rodríguez Z, Aura C. Puche and John Fredy Ochoa Gómez. Universidad de Antioquia, Medellín, Colombia Hidden Markov Model-based Heartbeat Detector Using Different Transformations of ECG and ABP Signals Nelson F. Monroy and Miguel Altuve. Universidad Pontificia Bolivariana, BUCaramanga, Colombia	
	Coffee break	11:00 am
Ultrasound I Chair: Dr. Ernesto Moya-Albor Pedro Nel Gómez auditorium	A regularized quantitative ultrasound method for simultaneous calculation of backscatter and attenuation coefficients Stefano E. Romero, Andres Coila, and Roberto J. Lavarello. Pontificia Universidad Catolica del Peru, Lima, Peru A novel portable device for crawling waves sonoelastography: Experimental study Pedro A. Ancajima, Stefano E. Romero, Eduardo A. González, and Benjamin Castañeda. Pontificia Universidad Catolica del Peru, Lima, Peru Validation of high-frequency ultrasound crawling wave sonoelastography Aldo Tecse, Stefano E. Romero, Ana C. Saavedra and Benjamin Castaneda. Pontificia Universidad Catolica del Peru, Lima, Peru	11:30 am
Digital Pathology II Chair: Dr. Ángel Cruz Aula Magna	Analysis of Cutaneous Leishmaniasis Hyperspectral Images by Means of an Inverse Modeling Procedure Deivid Botina, July Galeano, Maria C. Torres, Artur Zarzycki, Johnson Garzón, Javier Murillo, Sara M. Robledo and Franck Marzani. Instituto Tecnológico Metropolitano, Medellín, Colombia Slope Chain Code Based Characterization of Trypanosoma Cruzi in Blood Smear Images Angel Carrillo, Nidiyare Hevia, Ernesto Bribiesca, Paulina Haro, Miguel Rosado, Emilio Gonzalez and J. Perez-Gonzalez. Universidad Nacional Autónoma de México, Ciudad de México, México Supervised Learning for Semantic Segmentation of Human Spermatozoa Natalia Revollo, Felix S. L. Thomsen, Claudio A. Delrieux and Rolando González. Universidad Nacional del Sur, Buenos Aires, Argentina	
	Lunch	12:30 pm
Motion and Gait Analysis Chair: Dr. Fabio Martínez Pedro Nel Gómez auditorium	Retraining Random Forest Algorithm for Lower Limb Prosthesis Tracking using an RGB–D Camera Jorge Perez, Angel Carrillo, Nidiyare Hevia and Joel C. Huegel. Universidad Nacional Autónoma de México, Ciudad de México, México Characterizing the gait dynamic by estimating Lyapunov exponents on gait kinematic trajectories in Parkinson’s Disease David Ricaurte, Gustavo Pineda and Eduardo Romero. Universidad Nacional de Colombia, Bogotá, Colombia Biomechanical influence of a cane as an assistive device for a drop foot patient Laura Suárez, Marina Gómez, Sebastián Valencia, Diana Londoño, Natali Olaya and Isabel C. Soto. Instituto Tecnológico Metropolitano, Medellín, Colombia Biomechanical evaluation of a plantar orthosis for a Linear Morphea patient Londoño S., López A, Ibarguen Y, S, Viloría C. Instituto Tecnológico Metropolitano, Medellín, Colombia Discriminating Cerebral Palsy by quantifying Ocular motion Jully González, Santiago Silva, Gustavo Pineda, and Eduardo Romero. Universidad Nacional de Colombia, Bogotá, Colombia	2:00 pm
E-health Chair: Dr. Eduardo Romero Aula Magna	Modeling of motion artifacts on PPG signals for heart-monitoring using wearable devices. Sebastián Andrés Cajas, María Alejandra Landínez and Diego Mauricio López. University of Cauca, Cauca, Colombia Organizational Behavior: Psychophysiology assessment of leadership and management in team work and conflict resolution. Jesús E. Moreno, Sergio D. Pulido, Daya Serrano Delgado, Nicolas Roldán and Juan M.Lopez. Escuela Colombiana de Ingeniería Julio Garavito. Bogotá, Colombia. Towards a machine learning-based approach to forecasting Dengue virus outbreaks in Colombian cities. A case-study: Medellín, Antioquia Alberto M. Ceballos, Daniel Maldonado, Hugo Mesa, Laura Perez, Karl Ciuderis, Guillermo Comach, Jorge E. Osorio, Juan P.Hernandez and John W. Branch. Universidad Nacional de Colombia. Medellín, Colombia.	
	Coffee break Poster Session	3:30 pm

SIPAIM Dinner