

### **FINAL PROGRAM**

#### DAY 1 - WEDNESDAY, 18th

7:00 – 8:30	Registration
8:30 – 9:45	Keynote speaker: Prof. Dr. Julian Tejada. "Reproducible computational neuroscience". Universidade Federal de Sergipe (UFS), Brazil.  Host: Prof. Dr. Vinícius Rosa Cota
9:45 – 10:15	Coffee break
	Oral presentation of accepted papers – session A (15 minutes each)
10:15 – 11:00	<ul> <li>"Kernel-spectral-clustering-driven motion segmentation: Rotating-objects first trials" Omar Oña, Jaime Riascos, Iris Marrufo, Marcelo Paez, Dagoberto Mayorca, Karina Ponce, José Salazar and Diego Hernán Peluffo-Ordoñez</li> <li>"A New Granular Approach for Multivariate Forecasting" Petrônio Silva, Carlos Severiano Jr., Marcos Alves, Miri Cohen and Frederico Gadelha Guimaraes</li> <li>"Influence of the contact network topology on the spread of tuberculosis" Eduardo Pinto, Erivelton Geraldo Nepomuceno and Andriana Campanharo</li> </ul>
	Session chair: Prof. Dr. Diego Hernán Peluffo-Ordóñez
11:00 - 12:15	Keynote speaker: Prof. Dr. Diego Hernán Peluffo-Ordóñez.  "Kernel-based approaches for time-varying data analysis within unsupervised settings". Yachay Tech, Ecuador.  Host: Prof. Dr. Diego Colombo Dias
12:15 – 14:00	LUNCH
14:00 – 15:30	<ul> <li>Oral presentation of accepted papers – session B (15 minutes each)</li> <li>"Inteligência computacional aplicada a detecção de câncer de mama"         Leomar Marques, Ricardo Magalhães, Danton Ferreira, Danilo Lima and         Jefferson Tsuchida</li> <li>"Deep Learning e Extreme Learning Machine aplicadas no diagnóstico         de problemas na coluna espinhal" Nayara Silva, Jim Jones Marciano,         Március Silva and Gilmar Filho</li> <li>"A parallel RatSlam C++ library implementation" Mauro Enrique De         Souza Muñoz, Matheus Chaves Menezes, Edison Pignaton Freitas, Sen         Cheng, Areolino De Almeida Neto, Alexandre César Muniz Oliveira and         Paulo Rogério De Almeida Ribeiro</li> </ul>



### 2<sup>ND</sup> LATIN-AMERICAN WORKSHOP ON COMPUTATIONAL NEUROSCIENCE

	<ul> <li>"Development of a Multiagent Simulator to Genetic Regulatory Networks" Nilzair Agostinho, Andrej Aderhold, Adriano Werhli and Diana Adamatti</li> <li>"Neural network classification, coherence and power spectrum analysis with stress database" Mateus Camargo Pedrino, Rafael Caracciolo Arone and Carlos Dias Maciel</li> <li>"Application of machine learning approaches to identify new anticonvulsant compounds active in the 6 Hz seizure model" Sofia Goicoechea, María Laura Sbaraglini, Sara R Chuguransky, Juan Francisco Morales, María Esperanza Ruiz, Alan Talevi and Carolina L Bellera</li> <li>Session chair: Prof. Dr. Ives Cavalcante Passos</li> </ul>
15:30 – 16:00	Coffee break
16:00 – 17:15	Keynote speaker: Prof. Dr. Ives Cavalcante. "Machine learning techniques meet health sciences". Universidade Federal do Rio Grande do Sul (UFRGS), Brazil.  Host: Prof. Dr. Dante Augusto Couto Barone
17:15 – 18:00	Opening Ceremony

### DAY 2 - THURSDAY, 19th

	Oral presentation of accepted papers – session C (15 minutes each)
8:30 – 9:45	<ul> <li>"Impactos de modelos genéricos de cabeça em estimação de fontes de eletroencefalograma" George Souza, Jonathan Queiroz, Natália Mota, Sidarta Ribeiro and Allan Barros</li> <li>"Construindo um Open Source Hardware: da ideia ao negócio – um estudo da obra de Alicia Gibb" Maikon Lorran dos Santos, Hugo Roque da Silva and Vinícius Rosa Cota</li> <li>"Analysis of cardiac hypertrophy and cerebral ischemia in rats trained with high intensity physical exercises before induced cerebral ischemia" Jonas Augusto Ramos, Laila Cristina Moreira Damázio, Karine Sthefany Serpa Amaral Dias, Flávia Carmo Horta Pinto, Ana Cristina Alves Bernabé, Bruno Mattiello Gomes, Andressa Vallotti Balieri, Yuri César Silva, Luiz Guilherme Barbosa, Bethânia Ferreira Nascimento, Renan De Araújo Costa and Amanda Augusta Santos</li> <li>"Considerations on the individualization of motor imagery Neurofeedback training" Carlos Alberto Stefano Filho, Romis Attux and Gabriela Castellano</li> <li>"Reading Span Test for Brazilian Portuguese: An eye-tracking implementation" Jaime A Riascos Salas, Arthur M. Brugger, Priscila Borges, Ana B. Arêas da Luz Fontes and Dante Barone</li> </ul>
	Session chair: Prof. Dr. Gabriela Castellano
9:45 – 10:15	Coffee break



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	Oral presentation of accepted papers – session D (15 minutes each)
10:15 – 11:00	<ul> <li>"The muscle-machine interface after stroke in improvement of hand extension: Case report" Jessika Fiusa, Gabrielly Yonamine, Giovanna Fumagali, Gabriela Moraes, Percy Nohama and Eddy Krueger</li> <li>"Motor Learning and Machine Learning: predicting the amount of sessions to learn the tracing task" Eduardo Dorneles Ferreira Souza, Moisés Rocha Santos, Lucas Cléopas Costa Silva, Alexandre César Muniz Oliveira, Areolino De Almeida Neto and Paulo Rogério De Almeida Ribeiro</li> <li>"Method for the Improvement of Knee Kinematics Accuracy based on Kinect and Sensors: Preliminary Results" Dagoberto Mayorca Torres, Julio César Caicedo-Eraso and Diego Hernán Peluffo-Ordoñez</li> </ul>
	Session chair: P <mark>rof. Dr. Jim T</mark> orresen
11:00 - 12:15	Keynote speaker: Prof. Dr. Gabriela Castellano. "Investigation of brain changes associated to cognitive and rehabilitation training". Brazilian Research Institute for Neuroscience and Neurotechnology, Universidade Estadual de Campinas (BRAINN/UNICAMP), Brazil)
	Host: Prof. Dr. Diego Colombo Dias
12:15 – 14:00	LUNCH
14:00 - 15:15	Keynote speaker: Prof. Dr. Jim Torresen. "Sensing Human State with Application in Older People Care and Mental Health Treatment". University of Oslo, Norway.  Host: Prof. Dr. Dante Augusto Couto Barone
15:15 – 16:15	Poster session with extended coffee break
16:15 – 16:45	Oral presentation of accepted papers – session E (15 minutes each)  • "Electrographic spectral signatures of animals submitted to pentylenotetrazole-induced seizures and treated with bilateral asynchronous non-periodic stimulation" Wenderson Silva, Renato Maciel and Vinícius Cota  • "Towards a roadmap for machine learning and EEG-based brain computer interface" Taline Nobrega, Severino Netto, Rommel Araujo, Allan Martins and Edgard Morya  Session chair: Prof. Dr. Michela Chiappalone
	Keynote speaker: Prof. Dr. Michela Chiappalone. "Closed-loop
16:45 – 18:00	neuroprosthetics for brain repair: from in vitro to in vivo studies and beyond". Istituto Italiano di Tecnologia, Italy.  Host: Prof. Dr. Vinícius Rosa Cota



### DAY 3 - FRIDAY, 20th

	Oral presentation of accepted papers – session F (15 minutes each)
8:30 – 9:45	<ul> <li>"Influence of Emotional Stimuli on Human Pupillary Behavior"         [Portuguese] Wilson Pires, Rafael Orsi and Carlos Thomaz</li> <li>"Eye-tracking data analysis during cognitive task" [Portuguese] Rafael Orsi, Davi Fabbro and Carlos Thomaz</li> <li>"Manual and automated hippocampal segmentation in Temporal Lobe Epilepsy using MRI" Thamyres Figueredo Silva, Pedro Paulo Nunes Pereira, José Maurício Siqueira, Aila de Guadalupe Amaro Reis Fonseca and Luciana Estefani Drumond de Carvalho</li> <li>"Graph Model Evolution During Epileptic Seizures: linear model approach" Talysson Manoel de Oliveira Santos, Victor Hugo Batista Tsukahara, Jasiara Carla de Oliveira Coelho, Vinicius Rosa Cota and Carlos Dias Maciel</li> <li>"Epileptiform spike detection in electroencephalographic recordings of epilepsy animal models using variable threshold" Sofia Maria Amorim Rodrigues, Jasiara Carla de Oliveira and Vinícius Rosa Cota</li> <li>Session chair: Prof. Dr. Vinícius Rosa Cota</li> </ul>
9:45 – 10:15	Coffee break
10:15 – 11:00	<ul> <li>Oral presentation of accepted papers – session G (15 minutes each)</li> <li>"Classification of Epileptic Signals Through Independent Components and Support Vector Machines" Felipe Barbosa, Allan Barros and Jonathan Queiroz</li> <li>"EEG Classification of Epileptic Patients Based on Signal Morphology" Davi Nascimento, Jonathan Queiroz, Luis Claudio Silva, Gean Carlos Sousa and Allan Kardec Barros</li> <li>"On the validity of using probing stimuli for seizure prediction in the Epileptor model" Vinícius Carvalho, Márcio Moraes and Eduardo Mendes</li> <li>Session chair: Prof. Dr. Márcio Flávio Dutra Moraes</li> </ul>
11:00 - 12:15	Keynote speaker: Prof. Dr. Márcio Flávio Dutra Moraes.  "Hijacking brain oscillations: A system's view on Epilepsy".  Núcleo de Neurociências, Universidade Federal de Minas Gerais (NNC/UFMG), Brazil.  Host: Prof. Dr. Vinícius Rosa Cota
12:15 – 14:00	LUNCH
14:00 – 15:30	"Modelagem de Sistemas Audiométricos Usando Técnicas de Computação Flexível" Erick Caetano, Denise Resende, Samir Martins, Erivelton Nepomuceno and Leonardo Felix     "Auditory Nerve Modeling Applied to Auditory Response Detectors" Vinicius Martins Almeida and Leonardo Bonato Felix



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