



CBEB 2024

XXIX CONGRESSO BRASILEIRO
DE ENGENHARIA BIOMÉDICA

INTEGRANDO CIÊNCIA, TECNOLOGIA E INOVAÇÃO

para uma Prática Clínica
acessível e sustentável

02 a 06 de Setembro

Venue: Centro de Eventos da Faculdade de Direito

Campus da Universidade de São Paulo – USP
Ribeirão Preto – SP Brazil



SCIENTIFIC SCHEDULE

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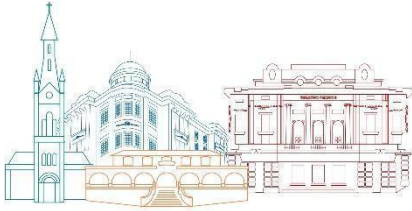


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Welcome to the Brazilian Congress of Biomedical Engineering (CBEB 2024)!

Ribeirão Preto, São Paulo, Brazil



CBEB 2024

XXIX CONGRESSO BRASILEIRO
DE ENGENHARIA BIOMÉDICA

It is a great pleasure to host the XXIX CBEB, providing participants with the opportunity to share their latest innovations in Biomedical Engineering and to cultivate valuable connections that will enhance scientific and technological advancements. The success of this congress is already evident in the number and enthusiasm of the participants. You are drawn by the future of Biomedical Engineering and its profound impact on medicine and industry. We hope you enjoy the vibrant innovation ecosystem and savor the local food and drinks during your stay in Ribeirão Preto. We also encourage you to experience the natural beauty of University of São Paulo, Campus of Ribeirão Preto, with its stunning trees. Whether you're engaging with leaders in Health Technology from academia and industry or sharing ideas across generations—from seasoned experts to students with fresh perspectives—we believe this congress will be a rich and inspiring experience for all.

Biomedical Engineering, by its very nature, is a multidisciplinary field that integrates various areas of knowledge to drive scientific, technological, and innovative advances for developing products and processes in the health sector. It also plays a crucial role in stimulating the industrial sector, particularly by training engineers with the skills, competencies, and entrepreneurial spirit needed to accelerate technology development and transfer. In this edition of CBEB, we have gathered leaders from academia, industry, and government to promote the dissemination of scientific, technological, and innovative advancements. Our goal is to strengthen teaching, research, and technological development related to Brazil's health industrial complex. Additionally, we are committed to encouraging public policies that support the development of technological innovations in the health sector and facilitate their rapid integration into the unified health system, aiming to positively impact Brazilian society as a whole.

By integrating science, technology, and innovation, we are advancing and strengthening education, scientific development, and industry within the health technology sector. During this long-awaited meeting, we encourage everyone to participate effectively through meaningful dialogues and collaborative efforts to address these challenges and drive progress in the field of Biomedical Engineering and health in Brazil.

Antonio Adilton O. Carneiro
General Chair

Monday - September 2

SHORT COURSE

Venue: Centro de Exatas da Faculdade de Filosofia Ciências e Letras de Ribeirão Preto, Bloco 4. Universidade de São Paulo-Campus Ribeirão Preto

Time: 08:00 -18:00

Time	Room 11	Room 13	Room 14	Room 15
8:00	Inteligência Artificial em Saúde Diedre Santos do Carmo (UNICAMP) Letícia Rittner (UNICAMP)	Engenharia Clínica: O Engenheiro Biomédico na Gestão Hospitalar Antonio Gibertoni Jr (Hospital Albert Einstein) Zeev Katz (ABEClín)	Infraestrutura da Qualidade para Engenharia Biomédica Rodrigo Costa-Felix (Inmetro)	Técnicas avançadas de processamento digital de imagens e suas aplicações na medicina Marcelo Andrade da Costa Vieira (EESC/USP)
12:30	Lunch Time			
1:30	Empreendedorismo e Inovação em Saúde Alex Bertoldi (Supera Parque) Eduardo Gomide (SEBRAE SP)	Separação Cegas de Fontes no contorno de Sinais Biológicos Leonardo Abdala Elias (DEB/UNICAMP) Carina Marconi Germer (DEB/UNICAMP)	Bioimpressão 3D Janaina Dernowsek Quantis and BioEdTech	Robótica em Engenharia Biomédica Carlo Rondinoni (Tagmavisions) Maria da Conceição P Fonseca (UFPA) Thatiana Ferreira (MINIPA) Victor Malheiro (GIIMUS/USP)

REGISTRATION

Venue: Centro de Eventos da Faculdade de Direito, Universidade de São Paulo – Campus Ribeirão Preto

Time: 7:00 - 18:00

OPENING CEREMONY

Venue: Theatro Pedro II, Praça XV, Ribeirão Preto

Time: 19:00 – 22:00

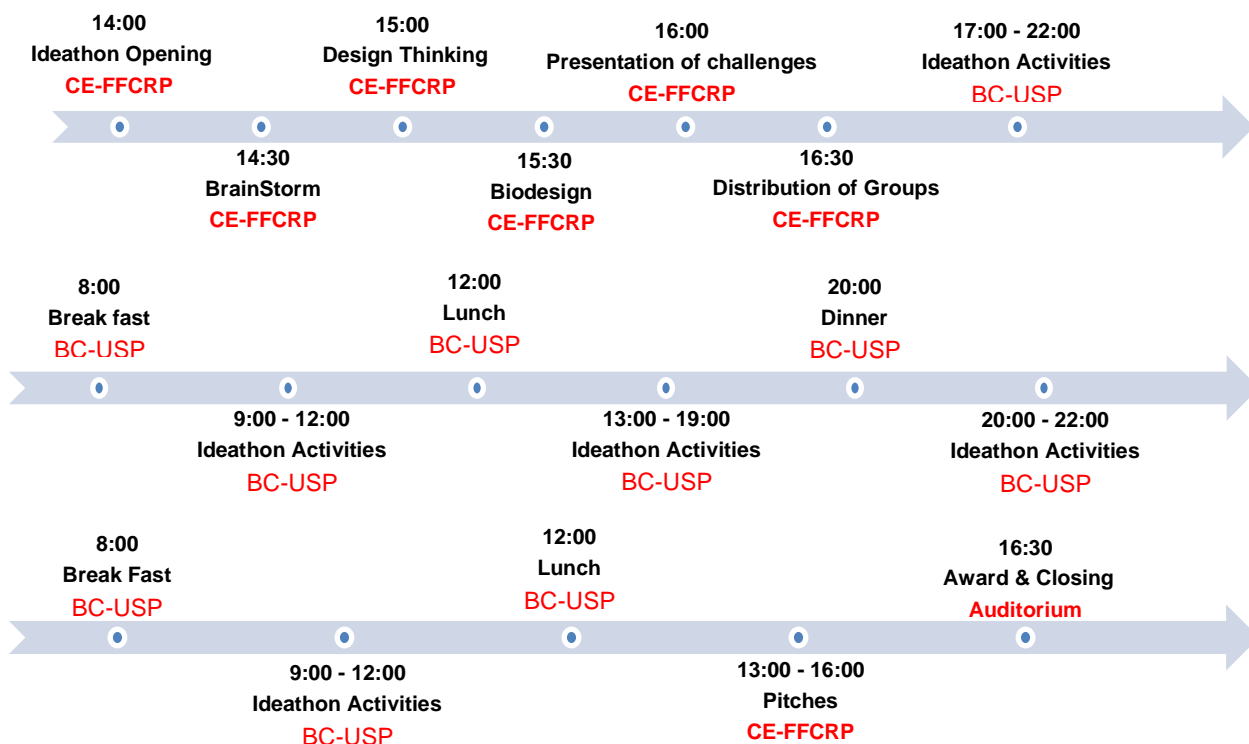
Open Lecture: O Futuro das Tecnologias em Saúde nas Cidades Inteligentes

Speaker: [Gil Giardelli](#)

IDEATHON

Wednesday – September, 4 - 6

Venue: Centro de Exatas da Faculdade de Filosofia Ciências e Letras de Ribeirão Preto-USP (CE-FFCLRP), Bloco, Room 11; Biblioteca Central da USP (BC-USP); Auditorium of Faculdade de Direito.



Wednesday – September, 4

Venue: Centro de Exatas da Faculdade de Filosofia Ciências e Letras de Ribeirão Preto, Bloco 4. Universidade de São Paulo-Campus Ribeirão Preto

14:00 – Ideathon Opening

[Antonio Adilton Carneiro](#) (President of SBEB and General Chair of CBEB)

[Daniel Takaki](#) (InovActor)

14:30 - BrainStorm de Inovação em Saúde

Speaker: [Milton Pedro Campos de Barros](#) (Supera Parque) e [Anna Lissa Campos Machado](#) (Supera Parque)

15:00 - Design Thinking: da idea a Evolução

Speaker: [Eduardo Gomide](#) (Sebrae)

16:00 - Demandas de Inovação em Saúde

Speaker: [Edwin Tamashiro](#) (NIT-HC)

16:30 - Biodesign: Experiência internacional

Speaker: [Newton Faria](#) (Cornell)

SPECIAL SESSIONS

Auditorium of Faculdade de Direito

Mindray special session with lunch Box

Wednesday – September, 3

12:30 - Tecnologias Médicas no auxílio da Transformação Digital

Speaker: Alberto Aprigio (gerente de produto)

SBEB special session with lunch Box

Thursday – September, 4

13:00 – SBEB Action: Challenges and Opportunities

Moderador: Renato Amaro Zângaro (UAM)

Painelist: [Diretoria SBEB](#)

IFMBE Education in Biomedical Engineering for

Students (Lunch session for students)

Wednesday – September, 5

This Special session will be organized by IFMBE Education & Accreditation Committee (E&A), IFMBE and Students & Recent Graduates Working Group (S&RG-WG) and the organizers of CBEB-2024.

12:30 - Open session

[Antonio Adilton Carneiro](#) (President of SBEB and General Chair of CBEB)

[Ratko Magjarevic](#) (President of IFMBE)

12:40 - Global trends in learning and skills development are needed for future BME professionals facing the challenges of IA for global job opportunities

Chair: [Ratko Magjarevic](#) (President of IFMBE)

Speaker: [Martha Zequera](#) (Prof. of Pontificia Javeriana, Bogotá Colombia)

13:00 - Exploring Biomedical Engineering Careers: Perspectives from Academia, Industry, and Health Services

Moderator: [Martha Zequera](#) (Prof. of Pontificia Javeriana, Bogotá Colombia)

Panelist: [Mariana Brandão](#) (UFSC)

[Marcelo de Lucena Lima](#) (SESAP-RN)

[Bruno Lourenço](#) (Siemens)

Circus of Physcis special session with lunch Box

Friday – September, 6

12:30 – Participação especial Circo da Física

Atores: Lanna Soares

Marcelly Alves Ramos

Rebeca Rezende

Victor Hugo Fernandes Capelossi

Social Program

Time	Monday - September 2	Wednesday - September 2	Friday - September 2
19:00	Opening Ceremony* Theatro Pedro II	Congress Dinner (Free)* Churrascaria Nativas	Congress closing party (R\$ 50,00)* Chacara Espaço Café <i>(Purchase at the event office)</i>
<i>*Necessita Confirmar Presença AQUI / Need to Confirm Attendance HERE</i>			

Awards

SBEB Best Paper Awards (R\$ 6.000,00 + Certificates)

Antonio Fernando Catelli Infantosi Award

1st place	2nd place	3rd place
R\$ 1.000,00 + Certificado	R\$ 600,00 + Certificado	R\$ 400,00 + Certificado

Cândido Pinto de Melo Award

1st place	2nd place	3rd place
R\$ 1.000,00 + Certificado	R\$ 600,00 + Certificado	R\$ 400,00 + Certificado

Sérgio Santos Mühlen Award

1st place	2nd place	3rd place
R\$ 1.000,00 + Certificado	R\$ 600,00 + Certificado	R\$ 400,00 + Certificado

Biochallenge Brazil – Assistive Technologies (R\$ 6,000.00 + Certificates)

Modalidade Visual	Modalidade Auditiva	Modalidade Motora
R\$ 2.000,00 + Certificado	R\$ 2.000,00 + Certificado	R\$ 2.000,00 + Certificado

Ideathon – Innovation Marathon (R\$ 6,000.00 + Certificates)

1st place	2nd place	3rd place
R\$ 3.000,00 + Certificado	R\$ 2.000,00 + Certificado	R\$ 1.000,00 + Certificado

Award SBEB - Boston Scientific, “Inovação Engenharia Biomédica para o SUS”

- 01 (one) All-expenses-paid trip to visit the Boston Scientific factory in Belo Horizonte (MG).
- 01 (one) Trophy with the name of the main author and all the co-authors of the work; and
- Certificates of recognition for the main author and all the co-authors of the work.

Honorable mention for the best oral and poster presentation in the thematic areas of CBEB2024

Workshop Session	Plenary Session	Panel Session	Oral Session	Invited Lecture
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Oral Session

Tuesday - September 3

Time	Auditorium	Room Carlos R S Vieira (C21)	Room Cândido P Melo (C22)	Room Antonio F Infantosi (C23)	Room Sérgio S Mühlen (C24)
8:00	Final Biochallenge Brazil Moderator: Antonio Adilton Carneiro <i>(GIIMUS/DF/FFCLRP/USP)</i> Panelists: Maria Aparecida Valença <i>(Manager of Instituto Mara Gabrilli)</i> Luma Rissatti <i>(Coordinator of Biochallenge Brazil)</i> Marco Antonio Ferreira Pellegrini Coordenador do eixo Mobilidade da SEDPcD	Biomedical Informatics Chair: Joaquim Cezar <i>(DCM/FFCLRP/USP)</i>	Clinical Diagnostic and Therapy Systems Chair: Wagner C A Pereira <i>(COPPE/UFRJ)</i>	Nanotechnology and Nanodevices Applied to Health Chair: Juliana Cancino <i>(DQ/FFCLRP/USP)</i>	Health Technology Assessment Chair: Ávila Teixeira <i>(Fiocruz)</i>
		(SO-34) Life Surgery Box: Development and Prototyping of a Multi-Modal and Synchronized Medical Image Video Recorder for Laparoscopic Surgeries Mobilon E, Bernardo R, Bastianon R, Barros LPF, Pereira RMA	Invited Lecture Enhancing Scientific Writing and Publishing: Best Practices and Emerging Trends Eduardo Goldani (Publisher Applied Sciences, Springer Nature)	(SO-347) Exploring the Influence of LED and Laser on AuNRs Photoacoustic Signal: Investigating Fundamental Aspects for Theranostic Innovations. Margatho, JM, Vicente TT, Freitas JE, Pavan T, Bernardi JC	(SO-77) Mortality among individuals with Parkinson's disease in Brazil between 2013 and 2022: an analysis of occupational exposure to pesticides Cabral AM, Paz CCSC, Santos TRT, Vieira MF, Pereira AA, Andrade AO
		(SO-188- Healthcare-associated infection prediction on hospitalized COVID-19 patients Lopes FL, Ferreira PRA, Lorena AC		(SO-506) Synthesis and characterization of chloroaluminum phthalocyanine incorporated in PLA/Gelatin Bionanocomposites for photodynamic therapy Carvalho JA, Ambrosio JAR, Marcolino LMC, Simioni AR	(SO-111) Advances in the incorporation of medical devices in the SUS: the first experience of incorporating technology developed and demanded for evaluation by a Brazilian University Toscas FS, Mayrink NNV, Santos VCC, Bonan LFS, Dias EM
		(SO-247) Aprendizagem de Máquinas com computação na Nuvem para Detecção de Arritmias Cardíacas Freire M, Martins A, Itturriet F, Machado J	(SO-18) New methods for analyzing non-linear effects in respiratory resistance: applications in healthy and obstructive patients Montenegro ML, Oliveira M, Santos Y, Ribeiro C, Lopes A, Melo P	(SO-536) Effects of incorporating silver vanadate and silver tungstate on the surface roughness and antimicrobial properties of a dental polymer Carvalho SB, Uehara LM, Ferreira I, Sahm BD, Longo E, Dos Reis AC	(SO-148) Sentiment analysis of tweets about COVID-19 vaccination in Brazil Grippi MF, Nobre FF, Raposo LM
8:45		(SO-304) Development of a Power Management Circuit applied to Implantable Biomedical Devices. Bastos AC, Gomes LGD, Soares AB, Almeida MB	(SO-28) Impacto do posicionamento de eletrodos de superfície no potencial motor evocado pela estimulação magnética transcraniana Garcia MAC, Lindolfo-Almas J, Matsuda RH, Pinto VL, Nogueira-Campos AA, Souza VH	(SO-628) Analysis of nanostructures formed by PEO on the surface of Ti for applications in biomaterials and osseointegrative materials Rita CCP, Rosa JL, Montoro SR	(SO-215) Technical comparison of wearable devices for vital signs monitoring Silva JCT, Cavalcante JAD, Silva CEBM, Moraes ALT, Silva MGNM, Medeiros VWC, Lima ME
9:00	Digital Health: Public Policy, Structure and Opportunities	Biomedical Informatics Chair: Paulo Mazzoncini de A. Marques <i>(FMRP)</i>	Clinical Diagnostic and Therapy Systems Chair: Theo Z Pavan <i>(GIIMUS/DF/FFCLRP/USP)</i>	Clinical Engineering and Hospital Engineering Chair: Zeev Katz <i>(ABECLin)</i>	Health Technology Assessment Chair: Fotini Toscas <i>(LEPIC/HCFMUSP)</i>
		(SO-312) Application of Deep Learning to Enhance Morphological Assessment of Embryos in In Vitro Fertilization Silva PHP, Leite SC, Fortini S, Milazzotto MP, Basso CG, Silva GN, Santos ML, Andrade GM, Frantz NF, Almeida FN	(SO-48) Functional jaw orthopedic device developed in clinical office for the treatment of self-reported chronic primary headaches in patients with craniofacial imbalances Bonassoli P, Barros FS, Carvalho HC, Motta FKS	Engenharia Clínica e ESG Speaker: Zeev Katz <i>(ABECLin)</i>	(SO-246) Opinions of total laryngectomized individuals on the Sound Quality Of Electrolarynx Davatz GC, Yamasaki R, Sanchez RF, Montagnoli NA

9:15	<p>Moderator: Joaquim Cezar Felipe (DCM/FFCLRP/USP)</p> <p>Panelist: Rui Teixeira Lima Junior (DESD/SEIDIG/MS)</p> <p>Paulo Lopes (Specialist on Digital Health – RNP net)</p>	(SO-479) Reconhecimento Automático de Emoções a partir de uma Arquitetura Híbrida para apoio à Personalização de Musicoterapia Torcate AS, Santana MA, Gomes JC, Santos WP	(SO-80) Prototype development for thermal threshold tracking in peripheral neuropathy identification in diabetic patients using quantitative sensory testing Scorpion JC, De Paula JLPS, Marques JLB	(SO-40) Planning and Implementation of ABNT NBR IEC 62353:2019 in a Large Hospital Nunes AFB, Barros FS, Carvalho HC	(SO-495) A bibliometric study on Parkinson's Disease based on the open access data of the Michael J. Fox Foundation Sousa LRS, Silva DH, Ribeiro CT, Milken PHBC, Nasuto SJ, Sweeney-Reed CM, Andrade AO, Pereira AA
9:30		(SO-582) Classificação de movimentos da mão utilizando redes Perceptron Multicamadas otimizadas via algoritmo de Otimização por Enxame de Partículas Yoshizumi Victor Hideki, Santos FAG, Spatti DH, Dajer ME, Silva IN	(SO-147) Dispositivo de Realidade Aumentada para Localização de Veias Brandao TH, Medeiros EL, Tavares PAN, Rodrigues VJC, Simões FD, Garcia JML, Pataca DM	(SO-174) Health Technology Procurement Process Analysis in a Public Hospital in Campinas, SP Flores LO, Almeida RT, Bassani JWM	(SO-616) Comparative analysis between low-cost bubble CPAP and conventional modalities of non-invasive ventilation in term newborns Coldebella C, Ribeiro DFC, Nakato AM, Nohama P
9:45		(SO-782) Metagenomic Analysis Of The Sponges Of The Great Amazon Reef Applied To Public Health Alves PC, Tschoeke DA	(SO-183) Análise da influência de cateteres vasculares comerciais na integridade de vesículas gasosas isoladas de Halobacterium salinarum quando usadas como agentes de contraste para ultrassom Rocha INR, Jesus FMCP, Machado JC	(SO-205) Um estudo sobre predição de manutenções corretivas de ventiladores pulmonares em um hospital de grande porte. Rocha MMM, Giesbrecht M, Bassani JWM	(SO-631) State of the Art in gait assessment of post-stroke patients using accelerometry Perez A, Malki-çedheq BCS, Maceió LPG, Souza MC, Santana PF, Rodrigues MAB
10:30	<p>Plenary Exploring The Ultrasound Of The Future – Diagnostics, Therapeutics And Theranostics In Cardiovascular, Cancer And Neurological Disease</p> <p>Chair: Antonio Adilton Carneiro (GIIMUS/DF/FFCLRP/USP)</p> <p>Speaker: Elisa Konofagou (Department of Biomedical Engineering, Columbia University, NY)</p>	<p>Technical Visits & Networking</p> <p>Supera Parque de Inovação e Tecnologia Laboratórios de Instrumentação Médica e Ultrassom Laboratório de Biomagnetismo Laboratório de FotoBiofísica Laboratório SensorMat</p> <p>(Departure from the parking lot in front of the Auditorium entrance)</p>			<p>Showcasing Brazilian Medical Innovations: Pitches and Breakthroughs</p> <p>Moderator: Willy de Goes (Supera Parque)</p> <p>Pitches:</p> <p>EDUTS CMOS Drake Gphantom Reabnet Ribertec</p>
12:30	Mindray Special session with lunch Box				
14:00	<p>The Role of Biomedical Engineering in Strengthening Hospital Management</p> <p>Moderator: Ana Paula Lemes (Fixsystem Equipare)</p>	<p>Biomedical Signal and Image Processing Chair: João Salinet (UFABC)</p> <p>(SO-14) Redução de Ruído em Implantes Cocleares baseado em Arranjo de Microfones com Preservação da Envoltória da Fala Souza LMX, Costa MH, Borges RC</p>	<p>Clinical Diagnostic and Therapy Systems Chair: Renato Zângaro (UAM)</p> <p>(SO-335) Changing elastic and acoustic properties of gelatin/agar phantoms Sanches AF, Uliana JH, Salomão KB, Pavan TZ, Carneiro AAO</p>	<p>Biomedical Robotics and Biomechanics Chair: Antonio C Shimano (FMRP/USP)</p> <p>(SO-121) Biomechanical analysis of experimental spinal cord injury treated with photobiomodulation Beloni LF</p>	<p>Biosensors, Transducers and Biomedical Instrumentation Chair: Aparecido A Carvalho (FEIS/UNESP)</p> <p>(SO-38) A sample holder to ozonation of biological fluids monitored in real-time by spectroscopic Carvalho HC, Silveira L Jr, Zangaro RA, Fernandes AB, Alves LP, Moreira LH, Lima CJ</p>

14:15	<p>Panelists: Antonio Adilton Carneiro <i>(President of SBEB)</i></p> <p>Ricardo Maranhão <i>(President of ABEClin)</i></p>	<p>(SO-119) Classification of Skin Lesions Using an Ensemble of Deep Convolutional Neural Network Models Silva Neto JPC, Lima LP, Binatti FC, Costa MGF, Pennini SN, Costa Filho CFF</p>	<p>(SO-339) Utilização da biomicroscopia ultrassônica endoluminal no acompanhamento do desenvolvimento de tumores de colôn em camundongos Silva VHN</p>	<p>(SO-233) Victor-Purpura distance-based neuromorphic classifier of naturalistic textures Costa ACPR, Mello JN, Macedo YP, Siqueira-Jr ALD, Soares AB</p>	<p>(SO-145) Material characterization by ultrasound using two bidimensional array transducers operating in the transmission/reception mode Natume M, Camillo J, Maia J, Assef A, Costa E</p>
14:30	<p>Clinical Engineering Residency and Internship Program in Uruguay as Meeting Point of Hospitals, Industry and University</p>	<p>(SO-182) Automatic Disease Detection in OCT Images Using a Reduced-Size Deep Learning Model Ramos V, Vieira I, Andreao R, Cancellieri JP, Valbon B, Zago G</p>	<p>(SO-340) Uroflowmetry: Analysis through the detrusor fiber shortening speed Pires M</p>	<p>(SO-346) Hardware Development of a Knee-Ankle Powered Prosthesis for Transfemoral Amputees and Its Use in Different Ambulation Modes Ulhoa PHF, Buzatto PHB, Fiorezi GG, Kock A, Bastos-Filho TF, Andrade RM</p>	<p>(SO-297) Flow behavior in a pediatric ventricular assist device using particle image velocimetry with LED illumination Chan AK, Mazetto M, Cestari IA</p>
14:45	<p>Chair: Ricardo Maranhão (ABCLin)</p> <p>Speaker: Franco Simini <i>(University of Montevideo, Uruguay)</i></p>	<p>(SO-185) Detection of Mayer waves in non-regularly sampled data using Lomb-Scargle periodograms Ragazzi VHSS, Felix LB, Hare HB, John Ringwood V</p>	<p>(SO-388) Development of a novel Brazilian micro computed tomography (micro-CT) scanner with photon counting detectors Rodrigues MH, Alves AFF, Rocha LP, Medeiros EL, Tavares PAN, Angeli BCC, Garcia JML, PDM</p>	<p>(SO-358) Influence Ff Delta/Alpha EEG ratios on the specific reaction time of Taekwondo athletes: a pilot study Moreira PVS, Rodrigues BN, Cagy M, Carmo AS, Menegaldo LL</p>	<p>(SO-337) Simulation of Unintentional Air Leak on a Bench for the Study of Devices for Sleep Apnea Therapy Simão TCS, Ribeiro GCM, Giannella Neto A, Tavares FCJA</p>
15:00	<p>Health Innovation Ecosystem in Brazil</p> <p>Moderator: Flávia O. Prado Vicentin (AUSPIN)</p> <p>Panelists: Rodrigo Souza Leite <i>(Ministério da Saúde)</i> Planos estratégicos para o fortalecimento do ecossistema de inovação em saúde no Brasil</p> <p>Eduardo Garbes Cicconi <i>(Manager of Supera Parque) - Mapeamento das Health Techs no Brasil</i></p>	<p>Biomedical Signal and Image Processing Chair: Leticia Rittner (DCA/FEEC/UNICAMP)</p> <p>(SO-193) Prototype development for tissue simulation for the elaboration of a mammographic simulator device Pinheiro MSD, Borges VF, Brito JM, Carneiro PA, Carneiro PC, Patrocínio AC</p> <p>(SO-196) TraiRANN: evaluating data reduction methods for neural network training in medical applications Uchida MAS, Eleuterio IAR, Costa MVL, Arboleda RC, Traina C Jr, Traina AJM</p> <p>(SO-208) Quantitative approach to assessing tracheal stenosis in rabbits based on an open-source image processing software Soares VF, Silva HC, Lima FF, Cardoso PFG, Minamoto H, Moriya HT, Legendre DF</p>	<p>Clinical Diagnostic and Therapy Systems Chair: Juliana Fernandes Pavoni (DF/FFCLRP/USP)</p> <p>(SO-389) Detection of abnormal computed tomography images to aid the diagnosis of coronary artery disease through convolutional neural network Alves AFF, Buiati F, Baltazar G, Sousa JPAIC, Silva J, Ren TI, Bertolo P, Daniel Pataca</p> <p>(SO-561) Antioxidant potential of bixin by reactive oxygen species quenching seen by fluorescence microscopy Taba VL, Cunha MERP, Madruga GS, Arruda DC, Severino D, Baptista MS, Fernandes AU</p> <p>(SO-678) A mobile application approach to help analyzing eyelid movements from videos Bonesso GA, Godoy CMG, Osaki MH, Osaki TH, Coelho RC</p>	<p>Biomedical Robotics and Biomechanics Chair: Antonio C Shimano (FMRP/USP)</p> <p>(SO-421) Validation of Apple AR-Kit as a markerless human motion capture system for applications in Physiotherapy Froese L, Moreira G, Rinaldin C, Forbeck CR, Robassa B, Loureiro AP, Manfira E</p> <p>(SO-609) Personal protective equipment (PPE) for motorcyclists: parametric design and additive manufacturing fabrication. Galice G, Silva AL, Araujo LMC, Nascimento E, Marães VRFS, Barcelos MND Jr</p> <p>(SO-615) Association of sEMG neuromuscular control with lower limb joint coordination at different stretch-shortening cycle on standard maximum vertical jump Rodrigues C, Correia M, Abrantes J, Rodrigues M, Nadal J</p>	<p>Biosensors, Transducers and Biomedical Instrumentation Chair: João Carlos Machado (COPPE/UFRJ)</p> <p>(SO-356) Wireless IoT Based Agility Testing Device Sousa PAA, Zaganski FD, Mendes JJA Jr, Stevan SL Jr</p> <p>(SO-435) Verification of braking capacity assessment equipment on a healthy population Silva AA, Bressam G, Mantovan JP, Hara MS, Schneider B Jr</p> <p>(SO-436) Synchronous Acquisition for Ultrasound and Devices Related to Musculoskeletal System Oliveira J, Boumer TC, Souza MA, Assef AA, Maia JM</p>
15:15					
15:30					

15:45		(SO-214) Enhancing ASD diagnosis with low-density EEG and machine learning Silva ASO, Fonseca FS, Muniz MVS, Melo AMN, Machado WG, Santana MA, Gomes JC, Santos WP	(SO-728) Photodynamic antimicrobial therapy in the treatment of canine otitis Martins D, Souza CP, Justo F, Navarro RS, Baptista A, Nunez S	(SO-660) Efeito dos ligamentos e musculo do assoalho pélvico no prolapso uterino Oliveira VAS, Goncalves ABS, Kappaun NRC, Bastos FS	(SO-449) Valve Control for Critical Care Mechanical Ventilator Sigolo B, Lins V, Nadal J, Pinto F, Pino A
16:30	The Impact of AI on Healthcare Reengineering Moderator: Paulo Mazzoncini de Azevedo Marques (FMRP) Panelists: Ivan Torres Pisa (EPM/UNIFESP) Marco Antonio Gutierrez (InCor/HCFMRP)			Innovation in Diagnostic and Therapy Chair: Joaquim Miguel Maia (UTFPR)	Advanced Biomedical Instrumentation Chair: George Cunha Cardoso (DF/FFCLRP/USP)
				Integrating Magnetism, Optics, and Ultrasound for Advanced Medical Diagnostics and Therapeutics Theo Zeferino Pavan (GIIMUS/DF/FFCLRP/USP)	(SO- 521) Advancing Modular MRI Coil Technology: Design and Implementation of an 8-channel Low-Noise Preamplifier Box for High-Resolution Imaging at 9.4 Tesla Daniel Papoti (IF/UFSCar)
				Ultrasound for real-time tissue temperature monitoring Wagner Coelho A. Pereira (COPPE/UFRJ)	A Critical Analysis of Sunglass Standards Regarding Ultraviolet Radiation Protection. Liliane Ventura(EESC/USP)

Oral Session

Wednesday - September 4

Time	Auditorium	Room Carlos R S Vieira (C21)	Room Cândido P Melo (C22)	Room Antonio F Infantosi (C23)	Room Sérgio S Mühlen (C24)
8:00	Medical Device Assessment: Pathways to Integration in the Unified Health System Moderator: Murilo Contó (Gerente de Políticas em Saúde - Boston Scientific)	Biomedical Signal and Image Processing Chair: Homero Schiabel (EESC/USP)	Biomaterials, Tissue Engineering and Artificial Organs Chair: Thiago D Stocco (ICT, Universidade Brazil)	Assistive Technologies and Rehabilitation Chair: Adriano O Andrade (UFU)	Biosensors, Transducers and Biomedical Instrumentation Chair: Joaquim M Maia (UFTPR)
		(SO-218) Hard sample analysis of breast ultrasound dataset for tumour classification Motta PC, Pereira WCA	(SO-8) Porous Analysis: uma nova ferramenta para a estimativa de porosidade em scaffolds Gomes ABS, Pino AV, Souza MN	(SO-204) Progressive Lower-Limb Rehabilitation using brain-computer interfaces based on literature insights for Post-Stroke and Post-SCI patients Cely AXG, Dantas AFOA, Espírito Santo CC, Rodriguez DD, Bastos-Filho TF	(SO-452) Biological dispersion in tissue under different handling conditions: Electrical Impedance Spectroscopy with ex vivo Liver Dal Pont RR, Andrade DLLS, Guedert R, Ramos CTS, Suzuki DOH
8:15	Panelists: Ávila Teixeira (Fiocruz) Fotini Toscas (LEPIC/HCFMUSP)	(SO-223) Solution of Helmholtz-Hodge Decomposition with Krylov Subspace Iterative Solvers Santiago AG, Franchini KG, Paladino T, Benetti C	(SO-201) Use of mesenchymal stem cells in a dog with bone marrow hypoplasia: case report. Bernardes P, Santos W, Lopes D, Alves L, Moreira L	(SO-256) Human-machine interaction in dual-task application using a self-paced treadmill and serious video games Moreno B, Zimerer C, Salamanca M, Mello R, Frizzera A	(SO-455) Photobiomodulation by Infrared LEDs in a milking machine: Preliminary in vivo study Valongo VV, Fagnani R, Muniz CASD, Carvalho HC, Azevedo LL, Lima CJ, Mendes ALS, Alves LP, Zangaro RA, Moreira LH

8:30		(SO-248) Patient-adaptive Objective Response Detection using Reinforcement Learning Caldeira AG, Felix LB	(SO-271) Development and antimicrobial validation of nanostructured silver vanadate gel for endodontic infections Silva GLP, Ferreira I, Carvalho JM, Schiavon MA, dos Reis AC	(SO-259) Effect of autonomy on affective responses to serious treadmill walking game feedback-controlled Macedo B, Zimerer C, Moreno B, Mello R, Frizzera A	(SO-489) Rapid Bioimpedance Assessment: Investigation on ex vivo Liver under Pulsed Electric Fields Glatz R, Andrade DLLS, Ramos CTS, Santos PP, Pintarelli GB, Suzuki DOH
8:45		(SO-272) Evaluation of deep learning methods applied in classification of EEG data with a dataset augmentation proposal Figueiredo MFO, Martins MSR, Barros FS, Goncalves CG	(SO-326) Evaluation of polymer matrices capable of activation by photo processes for biomedical applications Gusmao LA, Silva TF, Queiroz MS, Castillo EM, Ponton A, Tedesco AC	(SO-265) Development of a PID controller applied to the neuromuscular electrical stimulation (NMES) of paralyzed muscles Sacramento IB, Rossi FQ	(SO-493) A Low-Cost LoRa-Based Wireless System for Real-Time Long-range sEMG Monitoring Stella CS, Conte GF, Carmo GA, Silveira ALF, Hill JAG, Campos DP, Bertotti FL
9:00	Experience of Universities in Development and Evaluation Aiming at Incorporation into the Unified Health System	Biomedical Signal and Image Processing Chair: Matheus C Moraes (UNIFESP/SJC-SP)	Biomaterials, Tissue Engineering and Artificial Organs Chair: Ana Paula Macedo (FORP/USP)	Assistive Technologies and Rehabilitation Chair: Maria Claudia F Castro (FEI-SP)	Biosensors, Transducers and Biomedical Instrumentation Chair: Liliane V Schiabel (EESC/USP)
		(SO-291) A Novel Approach based on Radiomic and Convolutional Features for Breast Cancer Detection in Histological Images Furio OX, Felipe JC	(SO-408) Vero Cell Spheroid: a Model for Cytotoxicity Assay Guazzelli FE, Almeida OM, Silva NA, Rezende LR, Lombello CB	(SO-294) Integrating a biomechanical model with a serious game based on virtual reality for upper limb prosthesis control training Camargo L, Cavalcante R, Cyrino G, Lamounier E, Soares A	(SO-514) Graphic interface for resistive liquid crystal displays for use in photobiomodulator devices Nascimento LX, Cardoso ES Jr, Macedo SM, Silva RJG, Hernandez PMP, Rocha TO, Xavier RT, Corazza AV, Carvalho AA, Sanches MAA
9:15	Moderator: Fotini Toscas (LEPIC/HCFMUSP)	(SO-426) Photo response non-uniformity correction for digital mammography systems Brandão RF, Borges LR, Caron RF, Maidment ADA, Vieira MAC	(SO-409) Characterization and comparison of the effects of bioactive ceramics for bone and skin regeneration Vaniel JA, Maurmann N, Siqueira R, Pranke PHL	(SO-395) Towards the development of a mobile robot based system to aid the neurorehabilitation of Post-Stroke patients Abissamra PF, Santana G, Nascimento JM, Leao TF, Aguiar PM	(SO-676) Desenvolvimento de um protótipo de PET pré-clínico: Estruturas de condicionamento térmico e reconstrução de imagens Bordon FS, Raed MD, Bonifácio DAB, Moraes ER
9:30	Panelists: Vanderlei Salvador Bagnato (USP/IFSC) Ana Cristina Eboli (CEB/UNICAMP)	(SO-446) 1D Convolutional Neural Network based model for sEMG Surgical Instrument Signaling Classification Abreu BE, Dias T, Inafuco A, Boas L, Junior J	(SO-427) Polycaprolactone/ gelatin electrospun scaffolds coated with tilapia-skin collagen for use in tissue engineering Dahlem MLF, Silveira RP, Kern AL, Vaniel JA, Maurmann N, Lima EM Jr, Rodrigues FAR, Silva RP, Paier CRK, Pranke P	(SO-429) Linear programming applied to the material optimization for constructing a pediatric electric wheelchair built with PVC pipes Lopes FL, Salles Neto LL, Kunkel ME	(SO-528) Assessment of the Potential of Magnetocardiography Optically Pumped Magnetometers in Adults and Fetuses Souza DM, Tardelli G [2,1], Wakai R, Baffa Filho O
9:45	Nicolas Veras (Coordenador de Incorporação Tecnológica do LAIS/UFRN)	(SO-461) Analysis of heart rate variability in type II diabetics: comparison of manual and a novel automatic assessment Araujo ADS, Dibai DB, Diniz MRF, Mendes AA Jr, Silva AB, Moriya HT, Lima FF	(SO-549) Development of nanofibrous hydrogel associated with β-calcium triphosphate and methylene blue for bone grafting and decontamination Rodrigues FM, Malmonge SM, Da Ana PA	(SO-510) Enhanced load-bearing capacity in transmetacarpal amputation: development of a flex sensor-based thumb prosthesis through additive manufacturing Escalante NTA, Galarza RJG, Tacza YV, Mamani JMZ, Rios RJC, Anton PV, Shah D, Kunkel ME	(SO-531) Wearable device prototype for monitoring and detecting physiological variables during epileptic seizures in children Castaneda MAH, Anzola EWC, Lopez FRJ

10:30	<p>Plenary Microscale living materials for bottom-up engineering of perfusable microvascular 3D networks</p> <p>Chair: Sonia Malmonge (UFABC)</p> <p>Speaker: Cristina C Barrias (i3S/INEB, University of Porto)</p>	<p>Technical Visits & Networking</p> <p>Supera Parque de Inovação e Tecnologia Laboratórios de Instrumentação Médica e Ultrassom Laboratório de Biomagnetismo Laboratório de FotoBiofísica Laboratório SensorMat</p> <p>(Departure from the parking lot in front of the Auditorium entrance)</p>			<p>Innovation and Health Ecosystem in Ribeirão Preto: A Model of Connection Between Academia, Industry, and Government</p> <p>Moderador: Victor G Jorge (Diretor de Inovação e Desenvolvimento da PMRP)</p> <p>Panelists: Sandro Scarpelini (Presidente do SUPERA Parque)</p> <p>André Ignacio (Diretor do CIESP)</p>
12:30	<p>SBEB Special session with lunch Box</p>				
14:00	<p>Biomedical Signal and Image Processing Chair: José Wilson M Bassani (CEB/UNICAMP)</p> <p>Biomedical Signal and Image Processing Chair: José Wilson M Bassani (CEB/UNICAMP)</p> <p>(SO-468) Extraction of Patterns of Mechanical Ventilation Waveforms Using Unsupervised Neural Network: A Preliminary Study Almeida RG, Ribeiro GCM, Giannella-Neto A, Carvalho ARS, Camilo LM, Nadal J</p> <p>(SO-471) Uso de imagens de ressonância magnética no suporte ao diagnóstico de câncer cerebral aplicando aprendizado profundo. Faria E, Passos P, Junior R, Silva T, Miosso C, Nascimento F</p> <p>(SO-473) Análise e Comparação do Desempenho de Filtros Notch numa Aplicação de Sinais de Eletromiografia Santos MVA, Souza AO, Fonseca MCP, Miziara IM</p> <p>(SO-474) Analysis of quality principles in digital mammography exposure factors Oliveira Neto CS, Feitoza NB, Patrocínio AC, Carneiro PC</p>	<p>Bioengineering Chair: Antonio Mauricio F L M Sá (PEB/UFRJ)</p> <p>Bioengineering Chair: Antonio Mauricio F L M Sá (PEB/UFRJ)</p> <p>(SO-177) Comportamento térmico das mãos de pacientes com Glomerulonefrite em Hemodiálise por fístula arteriovenosa Miranda MKV, Símplicio IOB, Bezerra JS, Ferreira MS, Alves LP</p> <p>(SO-295) Panoramic Cardiac Optical Mapping for Studying Cardiac Arrhythmias: Validation of A Graphic User Interface Tool Silva V, Neves T, Quadros A, Paredes JGS, Sandoval I, Uzelac I, Salinet J</p> <p>(SO-385) Evaluation of thermal imaging and mechanomyography for the diagnosis of fibromyalgia: a pilot study Eduardo FMC, Santos EL, Der Strasse WA, Nohama P</p> <p>(SO-401) Resposta da Membrana de Cardiomiócitos à Estimulação Elétrica com Diferentes Formas de Onda: Aplicação do Modelo RC Fernandes LDSL, Santana AR, Bassani JWM [2,1], Bassani RA</p> <p>Bioengineering Chair: João Salinet (UFABC)</p>	<p>Assistive Technologies and Rehabilitation Chair: Teodiano F Bastos (UFES)</p> <p>Assistive Technologies and Rehabilitation Chair: Teodiano F Bastos (UFES)</p> <p>(SO-554) Design of a portable knee orthosis for biomechanical torque measurement in rehabilitation protocols Freire JPCD, Zanardi EV, Baptista RS</p> <p>(SO-618) Active hand orthosis for mirror therapy of hemiplegic users Santos RFF, Nogueira Neto GN, Nohama P</p> <p>(SO-627) Integrating a smart walker and a 3D human motion tracking system for mixed reality immersion enhancement: a pilot study Loureiro MP, Machado FSV, Bezerra ML, Vieira IB, Mello RC, Frizzera Neto A</p> <p>(SO-661) Modelagem e desenvolvimento de próteses caninas através de tecnologias 3D Braga AVS, Bastos FS, Ribeiro MR, Santos RW</p> <p>Assistive Technologies and Rehabilitation</p>	<p>Biosensors, Transducers and Biomedical Instrumentation Chair: Daniel Papoti (IF/UFSCar)</p> <p>(SO-538) Detecting Respiratory Events in Physical Simulations of Obstructive Sleep Apnea Giannella Neto A, Ribeiro GCM, Pino AV, Tavares FCJA, Nadal J</p> <p>(SO-544) Ressonador Ultrassônico para Medições de Absorção e Relaxação Acústica em Líquidos Santos JL Jr, Vieira SL</p> <p>(SO-579) Power Amplifier Topologies for Functional Electrical Stimulation: A comparison between Howland Current Source and Wilson Current Mirror Matos RA, Castro MCF</p> <p>(SO-586) Evaluation of Temperature Variation as a Function of Distance Using Infrared Thermography Silva ACR, Omena TP, Raymundo SF, Taka EN, Pereira LF, Ferreira BL, Santos MFH, Pereira WCA</p> <p>Biosensors, Transducers and Biomedical Instrumentation Chair: Livia Helena M S Melo (UEL)</p>	
14:15	<p>MODERATOR: Luciano Bachmann (DF/FFCLRP/USP)</p> <p>PANELISTS: Rinaldo Roberto de Jesus Guirro (FMRP/ Coordinator of CAPES Program "Educação Física")</p> <p>Hypolito Jose Kalinowski (UFF-RJ, Coordinator of CAPES Program "Engenharias IV")</p>				
14:30					
14:45					
15:00	<p>Biomedical Engineering - Roles & Career</p>				

	<p>Opportunities in the Medical Devices Industry</p> <p>Chair: Murilo Contó (Gerente de Políticas em Saúde)</p> <p>Speaker: Mariana Pereira (Talent Acquisition Lead - Boston Scientific)</p>	<p>development with nanotechnology solutions</p> <p>Moderator: Antonio Adilton Carneiro (GIIMUS/DF/FFCLRP/USP)</p> <p>Panelists: Koiti Araki (Coordenador SisNANO-USP, IQ/USP) Maria Vitória Bentley (Vice-Coordenadora, FCFRP/USP)</p>		<p>Chair: Fernando H Magalhães (EACH/USP)</p>	
15:15			<p>(SO-412) Impact of slow breathing on children's cognition and stress levels Gonçalves P, Bronzatti RGC, Casali KR, Bruni LS, Oliveira CMB, Cunha TS</p> <p>(SO-472) Sistema de Controle Automático de Fluxo e Troca de Soluções para Experimentos de Registro Eletrofisiológico Pires AC, Rodrigues AM, Scorza FA, Bahi CAS, Almeida ACG</p>	<p>(SO-705) Validation of an inertial tracking system for real-time body motion studies Souza TBC, Gomes LGD, Lombardi J, Almeida MB, Soares AB</p> <p>(SO-719) Low-level laser therapy a non-invasive solution for rheumatoid arthritis Santos I, Alves A, Simões T, Pinheiro R</p>	<p>(SO-665) Web Platform for ECG with High Resolution Acquisition and Processing Cunha NA, Inocencio AVM, Florentino GI, Marques JMC, Rodrigues MAB, Rodrigues CM</p> <p>(SO-742) Broad Spectrum Measurement System for Quantifying Multiple Pathologies via Web Barcelar MLT, Cunha NA, Pereira CGB, Lessa PS, Dutra RAF, Rodrigues MAB</p>
15:30	<p>Pulsed Field Ablation Technology – The new kid on the block in AF therapy</p> <p>Chair: Murilo Contó (Gerente de Políticas em Saúde)</p>	<p>Thermal nanomedicine: can it play a role in immunotherapy?</p> <p>Chair: Theo Zeferino Pavan (GIIMUS/DF/FFCLRP/USP)</p> <p>Speaker: Andris Bakuzis (IF/UFG)</p>	<p>(SO-754) Atrioventricular node ablation in isolated rabbit heart: a proof of concept Salinet J, Paredes J, Silva V, Neves T, Quadros A, Pachá JC</p>	<p>(SO-722) Enhancing e-rehabilitation systems through one/few-shot learning in action recognition Amorim LS, Siqueira EVS, Guedes PO, Brooman DW, Gama AEF, Figueiredo LS, Teichrieb V</p>	<p>(SO-800) Study of the sensitivity in the signal acquisition of low-cost microphones for use in speech therapy diagnosis Anzola EWC, Moreno MAM</p>
15:45	<p>Speaker: Anna Cecília Pereira (Eng^a Biomédica e Especialista em Health Economics)</p>		<p>(SO-772) Exercício Físico e Atividades Epileptiformes em Ratos Wistar: Um Estudo Eletrofisiológico Furtado AL, Mendonca FN, Rodrigues AM, Scorza FA, Scorza CA, Almeida ACG</p>	<p>(SO-768) Additive manufacturing in personalized medicine: enhancing the development of custom biomodels through 3D scanning and digital rigging Basso B, Ortega L, Ganga T, Rorato E, Lima M, Neves M, Kunkel ME</p>	<p>(SO-336) Progress Towards a Portable System for Body Surface Potential Mapping Prado LRB, Mazzetto M, Silva VP, Salinet J, Cestari IA</p>
16:30	<p>EMBRAPII Units in Medical Instrumentation: Accelerating Technological Development in Healthcare in Brazil</p> <p>Moderador: Koiti Araki (IQ-USP)</p>	<p>Applications and Perspectives of Nanotechnology in Healthcare</p> <p>Moderator: Renata Lopez (FCFRP/USP)</p> <p>Panelists: Juliana Cancino (DQ/FFCLRP/USP) Eder Guidelli (DF/FFCLRP/USP) Glauber Tomaz da Silva (IF/UFAL)</p>	<p>Recent advances in Brain Computer Interfaces and their wider implications</p> <p>Chair: Adriano O. Andrade (UFU)</p> <p>Speaker: Slawomir Nasuto (University of Reading)</p>	<p>Certification of Electromedical Equipment</p> <p>Moderator: Cristina Quemelo (Anvisa)</p>	<p>Women Scientists in Biomedical Engineering</p> <p>Moderator: Sônia Malmonge (UFABC)</p>
17:00	<p>Panelists: Eduardo Jorge Valadares Oliveira (NUTES/UEB) Natalia Mayumi Inada (EMBRAPII/IFSC/USP)</p>		<p>Advancements in Biological Feedback Measurement and Analysis for Enhanced Rehabilitation.</p> <p>Chair: Adriano O. Andrade (UFU)</p> <p>Speaker: Vytautas Abromavičius (VILNIUS TECH, Lituânia)</p>	<p>Panelists: Juliano Accioly Tesser (Anvisa) - Instruções normativas da Anvisa (portaria 283/2024) Rodrigo Costa-Felix (Inmetro) – Certificação de equipamentos eletromédicos (Portaria 384/2020)</p>	<p>Panelists: Letícia Rittner (UNICAMP) Maria Claudia Castro (FEI-SP) Maria da Conceição P Fonseca (UFPA)</p>

Oral Session

Thursday - September 5

Time	Auditorium	Room Carlos R S Vieira (C21)	Room Cândido P Melo (C22)	Room Antonio F Infantosi (C23)	Room Sérgio S Mühlen (C24)
09:00	The Role of IFMBE in Hospital Health Technology Assessment Chair: Murilo Contó (Gerente de Políticas em Saúde)	Biomedical Signal and Image Processing Chair: Cícero F F Costa Filho (UFAM)	Biomaterials, Tissue Engineering and Artificial Organs Chair: Jonas de Carvalho (EESC/USP)	Computational Modeling and Simulation Chair: Leonardo Abdala Elias (DEB/UNICAMP)	Neuroengineering Chair: Renan C Molioli (IMD/UFRN)
		(SO-476) Breast Cancer Classification based on Ultrasound Images using Deep Learning Networks with Transfer Learning Pereira T, MCJ, Baptista RS	(SO-601) Comparative analysis of tracheal 3D printed biomodel fabricated with polylactic acid and thermoplastic polyurethane lida WKS, Ganga T, Aoki FG, Kunkel ME	Invited Lecture The digital twins of your heart Rodrigo Weber dos Santos (UFJF)	Invited Lecture Safety and efficacy of repetitive stimulation of the prefrontal cortex using transcranial focused ultrasound: A non-inferiority randomized controlled trial protocol Bernardo Viana (FM/UFMG)
(SO-485) Mean heart rate as indicator of extubation failure in critically ill patients during post-extubation: exploring the MIMIC-III Dataset Matsuoka F, Araújo FC, Moriya HT, Lima FF	(SO-658) Evaluation of the Compression Resistance of Tracheal Prosthesis Walls Mendes NS, Barnabe VF, Fernandes LB, Motta FB, Umezawa MK, Uemoto VR, Moriya HT, Legendre DF				
09:15	Speaker: Ratko Magjericiv (President of IFMBE)	(SO-497) Data segmentation using principal component analysis of pulmonary perfusion assessed by electrical impedance tomography Ribeiro AS	(SO-663) Development of a Shape Memory Nitinol Tracheal Stent for Veterinary Medicine Barnabe V, Mendes N, Motta F, Uemoto V, Umezawa M, Nascimento M, Bock E, Moriya H, Legendre D	(SO-15) Effects of acceleration feedback and predictive dynamics of proprioceptors in a mathematical model of postural control Nogueira MG, Kohn AF	(SO-191) Evaluation of engagement and mental fatigue in heavy machinery operators in a simulated mining environment through electroencephalography Souza N, Muller ACQS
09:30	Innovation in Biomedical Engineering: Pathways to Entrepreneurship Chair: Fernando Sales (UFPE)	(SO-500) Multimodal Neural Network for Atrial Fibrillation Classification from Single-Lead ECG Recordings Laranjeira R, Dias F, Ribeiro E, Gutierrez M, Cordeiro T	(SO-723) Cytoprotective effect of Gustavia augusta L. organic extracts on Vero cells Rezende LR, Oliveira PHM, Nascimento MHM, Lombello RA, Lombello CB	(SO113) Optimization of neuromusculoskeletal model parameters using OpenSim Moco and experimental electromyography data: application to knee flexion-extension movement Mosconi D, Moreno Y, Moreira M, Siqueira A	(SO-307) Functional validation of a tactile feedback system for upper limb prostheses users based on electrodermal stimulation Silva VHB, Almada LL, Soares AB
09:45	Speaker: Reinaldo Manzini (Superintendente Unimed FESP)	Technical Visits & Networking Supera Parque de Inovação e Tecnologia Laboratórios de Instrumentação Médica e Ultrassom Laboratório de Biomagnetismo Laboratório de FotoBiofísica Laboratório SensorMat			Da Academia para a Indústria: Senai e Sebrae como facilitadores de startups e promotores de transferência de tecnologia em saúde Moderator: Patrícia Prete! (UpLab Senai-Ribeirão)
10:30	Plenary Recent advances in nanomedicine: sensors, implants, artificial intelligence, saving the environment, human studies, and more!				

	<p>Chair: Thiago D Stocco (ICT, Universidade Brazil)</p> <p>Speaker: Thomas J. Webster (Department of Chemical Engineering, Northeastern University)</p>	<p>(Departure from the parking lot in front of the Auditorium entrance)</p>		<p>Panelists: Paulo Eduardo Arruda (Gerente Sebrae)</p> <p>Jorge Luiz Athayde (Supervisor de Projetos e Tecnologia Senai-RP)</p>	
12:30	IFMBE Education in Biomedical Engineering for Students				
14:00	<p>Models of Open Innovation in health /Modelos de Inovação Aberta em Saúde</p> <p>Moderador: Newton Faria (Cornell University)</p> <p>Panelists: Guilherme Sanchez (Hospital do Amor) - Modelo de Inovação Aberta da Arena Barretos</p> <p>Ivisen Lourenço (Vital Unimed)- Modelo de Inovação Aberta da Federação Unimed do estado de São Paulo</p>	<p>Biomedical Signal and Image Processing</p> <p>Chair:Wagner Coelho De Albuquerque Pereira (COPPE/UFRJ)</p> <p>(SO-508) Metaheuristic feature selection in voice-based Parkinson's disease classification</p> <p>Garcez PG, Ciarelli PM, Salles EOT</p>	<p>Biofabrication & Organs on a Chip: Microfluidic devices as alternative methods to using animals</p> <p>Moderator: Ana Paula Rosifini Alves (President of SLABO)</p> <p>Painelists: Juliana Kelmy Barbosa Daquano (Diretora do CTI Renato Archer)</p> <p>Jéssica Dornelas (Nano Onco 3D)</p>	<p>Computational Modeling and Simulation</p> <p>Chair: Luiz Otávio Murta Jr. (DCM/FFCLRP/USP)</p> <p>(SO-113) Effect of neuronal heterogeneity and synaptic plasticity on neural activity in a detailed model of cortical microcircuit</p> <p>Shimoura RO, Roque AC</p>	<p>Neuroengineering</p> <p>Chair: Carlos Ernesto Garrido Salmon (DF/DFCLRP/USP)</p>
14:15		<p>(SO-525) A Comparative analysis of classification, feature selection, and feature extraction methods for depression detection using voice signals</p> <p>Prata M, Nose-Filho K</p>		<p>(SO-250) Uso de métodos multigrid em GPUs para acelerar simulações da mecânica cardíaca</p> <p>Costa JDM, Santos RW, Rocha BM, Campos JO</p>	<p>Invited Lecture</p> <p>Neural Adaptation Dynamics in Object Recognition</p> <p>André Peres (University of Coimbra ,PT)</p>
14:30		<p>(SO-527) Classificação de vozes saudáveis e patológicas por meio da combinação de características</p> <p>Silva IF, Lima FS, Regis CDM, Correia SEN, Costa SLNC, Lima TLV</p>		<p>(SO-264) Numerical simulation of left atrium hemodynamics under ventricular diastolic dysfunction progression along atrial fibrillation: analysis of blood stasis</p> <p>Silva JL Jr, Torro JGB, Amaral RL</p>	<p>(SO-423) The aphasic brain-machine interface: overcoming the limitations of current technology with neurophysiology and phonetics knowledge</p> <p>Yonamine S, Pereira LA, Silva LMB, Alves ERA, Lopes AJS, Mendes GAV</p>
14:45		<p>(SO-541) Sistema de processamento de sinais de ultrassom em plataforma de eletrônica reconfigurável para pesquisas</p> <p>Ruzyk MJS, Assef AA, Maia JM</p>		<p>(SO-283) Multimaterial classification for Dual-Energy CBCT: Phantom study by simulations</p> <p>Milian FM, Dominguez DS, Iglesias SM, Oliveira FBS, Ambrosio PE, Honda MO</p>	<p>(SO-571) Disparos Persistentes em Interneurônios do Giro Dentado - Simulações computacionais</p> <p>Lima SM, Rodrigues AM, Scorza FA, Scorza CA, Almeida ACG</p>
15:00	<p>Strategies for promoting research to strengthen the health industry</p> <p>Moderator: Oswaldo Baffa Filho (DF/FFCLRP/USP)</p>	<p>Biomedical Signal and Image Processing</p> <p>Chair: Anderson Gabriel Santiago (UFABC)</p> <p>(SO-595) Deep learning with probabilistic models for segmenting lung lobes on computed tomography images with severe abnormalities</p> <p>Ribeiro JA, Carmo DS, Reis F, Rittner L</p>	<p>Advanced Biofabrication & Organs on a Chip</p> <p>Chair: Ana Paula Macedo (FORP/USP)</p> <p>(SO-315) Influence of the addition of Nb2O5-NPs synthesized by green synthesis in PLA/PCL polymeric blends.</p> <p>Speaker: Lourdes M. M Favarin</p>	<p>Computational Modeling and Simulation</p> <p>Chair: Antônio Carlos Roque da Silva Filho (DF/FFCLRP/USP)</p> <p>(SO-418) Simulação computacional da atividade eletromecânica cardíaca de paciente com cardiomiopatia dilatada</p> <p>Campos JO, Schmal TR, Santos RW, Rocha BM</p>	<p>Neuroengineering</p> <p>Chair: Carina Marconi Germer (DEEB/FEEC/UNICAMP)</p> <p>(SO-596) System for evaluating brain response to two electrical stimuli with arbitrary waveform</p> <p>Molina-Vidal DA, Mello VM, Cevallos-Larrea PF, Tierra-Criollo CJ</p>

15:15	<p>Panelists: Rodolfo Jardim de Azevedo (Coordenador Geral de tecnologias, FAPESP)</p> <p>Handerson Leite (FAPESB)</p>	<p>(SO-597) Automatic reduction of a femoral head fracture in a 3D biomodel using the RANSAC algorithm Carneiro VU, Aoki FG</p>	<p>(SO-416) Engineering a biomechanical stimulation device to replicate knee cartilage environment in an in vitro microfluidics chip. Speaker: Thiago D Stocco</p>	<p>(SO-539) Study on the effect of changing myofilament sensitivity to Ca2+ during twitches evoked using the Morotti model of cardiomyocyte electrophysiology Camargo M, Silva G, Bassani J, Bassani R, Sato D, Silva R</p>	<p>(SO-666) Investigating the neural correlates of speed and reward in multiple brain areas Melo MEB, Pepe PR, Fontenele AJ, Haeusler EH, Vasconcelos NAP</p>
15:30		<p>(SO-633) Convolutional neural networks for diabetic retinopathy fundus image classification using transfer learning Moura CV, Castro MCA, Alves AEP, Motta PC, Assis DF, Silva BRS, Cortez PC</p>	<p>(SO-325) Scaffolds tubulares híbridos para enxertos vasculares: Combinação de técnicas de spinning e impressão 3D Speaker: Gabriela M Costa</p>	<p>(SO-573) Toward a Framework for Studies of Physiological Control Systems Applied to Ventricular Assist Devices Matos RA Jr, Cordeiro TD, Sobrinho A</p>	<p>(SO-743) Towards an intervention utilizing functional electrical stimulation and visual neurofeedback in virtual reality for hand function rehabilitation in individuals with tetraplegia: a pilot study Oliveira AFC, Costa AB, Mendez CDG, Albuquerque TS, Costa LJ, Atencio AC, Espírito Santo C, Dantas AFOA, Rodriguez DD</p>
15:45		<p>(SO-637) Analysis of the Potential Use of the SINDy Algorithm in the Evaluation of Arterial Mechanics. Gomes JCC, Aoki FG</p>	<p>(SO-23) Eletrofição Coaxial de Fibras Poliméricas de PLA/PVA para Diferenciação Celular Speaker: Isabela C. Favareto</p>	<p>(SO-575) Geração semi-automática de geometrias computacionais biventriculares personalizadas por paciente Namorato FL, Soares TJ, Viol RD, Schmal TR, Santos RW, Campos JO</p>	<p>(SO-777) Remotely supervised transcranial direct current stimulation for the treatment of neurogenic bladder in spinal cord injury: case series Paiva MC, Costa JTM, Serafini ERS, Santos AS, Mourão FG, Silva UM, Rodrigues VS, Campos AGD, Lima MTS, Fiorin FS, Lisboa LL, Rodriguez DD, Espírito Santo CC</p>
16:30	<p>Implementation of Unique Device Identification (UDI) system and Software as Medical Device (SaMD) Regulation (Anvisa) Moderador: Débora Ferreira (Boston Scientific)</p>	<p>O Marco Legal da Inovação & Startups, LC 182/21. Chair: Flavia O Prado Vincentin (Coordenador AUSPIN) Speaker: Alexandre Bonilha (Advogado, especialista em Inovação)</p>	<p>The Entrepreneurial Scientist: Challenges and Opportunities Chair: Matheus C Moraes (UNIFESP/SJC-SP)</p>	<p>The Challenges of Biomedical Engineering in Brazil: A View from the Regulators Moderator: Marcelo de Lucena Lima (SESAP-RN)</p>	
17:00	<p>Panelists: Vivian Cardoso de Moraes Oliveira (Anvisa) Francisco Iran Cartaxo Barbosa (Anvisa)</p>	<p>Venture Capital to transform science into worldwide competitive startups Chair: Flavia O Prado Vincentin (Coordenador AUSPIN) Speaker: Fran Salvatelli (GRIDX)</p>	<p>Speaker: Amaury José Rezende (FEA-RP/USP)</p>	<p>Panelists: Fernando Junqueira (AEAARP) Joana Flavia Soares Borges (CREA/CONFEA)</p>	

Oral Session

Friday - September 6

Time	Auditorium	Room Carlos R S Vieira (C21)	Room Cândido P Melo (C22)	Room Antonio F Infantosi (C23)	Room Sérgio S Mühlen (C24)
8:00	Global Education in Biomedical Engineering	Biomedical Signal and Image Processing Chair: Luiz Otávio Murta Jr. (DCM/FFCLRP/USP)	Special Topics Chair : Márcio Nogueira de Souza (COPPE/UFRJ)	Computational Modeling and Simulation Chair: Paulo Pedro Kenedi (CEFET)	Metrology, Testing and Certification in Biomedical Engineering Chair: Henrique Takachi Moriya (EPUSP)
		(SO 656) Quantifying Coordinative Variability between knee-ankle joints during gait of young, elderly fallers and non-fallers using the Generalized Wavelet Coherence Analysis. Villa GAG, Elias LA, Vieira MF	(SO-81) Complicated diabetic foot in the south region of Brazil: a descriptive study using DATASUS Database Ferreira SKS, Scorpion JC, Paula JLPS, Marques JLB	(SO-587) Jamming Parkinsonian Activity in Basal Ganglia Circuits, Transition to Potassium-Mediated Neuronal Multistability Florence G, Kurths J	(SO-37) Procedimentos metodológicos para realização de controle de qualidade em monitores de laudo: requisitos sanitários e recomendações internacionais Pontes DL, Real JV, Malthez ALMC
8:15	Moderator: Elisangela Ferreti Manfra (PUC-PR)	(SO- 683) Breast lesion classification through segmentation of the upper half of lesions obtained from ultrasound images Guimarães LA, Motta PC, Pereira WCA	(SO-252) Biomedical Engineering Career in the Brazilian Job Market: A Comparison Between 2021 and 2024 Benetti C, Santiago AG, Rodas ACD	(SO-470) Could human balance be represented by continuous feedback PID or intermittent feedback control models? Gonzalez DRG, Imbiriba LA, Jandre FC	(SO-137) Prototype for checking scattered light blocking of sunglasses frame Guedes P, Andrade AP, Teixeira P, Ventura L
8:30	Panelists: Martha Zequera (Bogotá, Colombia) Paulo Carvalho (Coimbra) Adriano de Oliveira Andrade (UFU)	(SO-684) Proposal for a Respiratory Signal Estimation Topology through PPG and ECG: A Deep Neural Networks Application Approach de Paula JLPS, Scorpion JC, Marques JLB, Giassi P Jr	(SO-511) Desenvolvimento da Etapa Eletrônica de um Kit Didático para Prática de Eletroforese Vaz MM, Olioze MM, Machado MB	(SO-682) Identification of a polynomial version of the Hodgkin-Huxley model using a data-driven approach Carvalho MAS, Santos RW, Rocha BM	(SO-300) Implementation of a nomenclature for intensive-care mechanical ventilators: spotlighting the GMDN classification system Fais CQA, Moriya HT
8:45		(SO-696) Temporal and frequency analysis of laryngeal tremors present in fiberoptic endoscopic evaluation of swallowing using artificial intelligence: A pilot study Araújo FLKL, Santos VG, Silva ERM, Cotrina AA, Magalhaes HVJr, Ferreira LMBM, Reis AMCS, Dantas AFOA, Espírito Santo CC	(SO-279) Development of a Visible Light Tomograph for Teaching Computed Tomography Concepts in Undergraduate Medical Physics Classrooms Stein IKF, Sims JA, Murakami B	(SO-703) Evaluating Pharmacokinetic Models of Iodized Contrast Using Physics-Informed Neural Networks Souza T, Amorim R, Rispoli V	(SO-463) Contribution of different sunglasses frames to the protection against ultraviolet radiation: a suggestion of adaptation for the current standards Andrade AP, Silva PTX, Ventura L
9:00	The Structure of Undergraduate Biomedical Engineering Education in Brazil Chair: Fernando Sales (UFPE) Speakers: Elisangela Ferreti Manfra (PUC-PR) Sônia Malmonge (UFABC) Welbert Pereira (Albert Einstein)	Biomedical Signal and Image Processing Chair: Marcus Fraga Vieira (UFG)	Special Topics Chair: Percy Nohama (UTFPR/PUCPR)	Computational Modeling and Simulation Chair: João Lameu da Silva Junior (UFABC)	Metrology, Testing and Certification in Biomedical Engineering Chair: Rodrigo Costa-Felix (INMETRO)
		(SO-700) HRV ANALYST, an Edged Computer to ECG Signal Processing and Emergency Alert for Home Health Care Systems Chagas GF, Bossan MC, Nadal J	(SO-524) Update on electro-encephalographic, neural and cognitive characteristics in elderly people and adults with autism Oliveira JMT, Davatz G, Stoppiglia L, Rose J	(SO-713) Surrogate models to assess the induction of arrhythmias during virtual programmed ventricular stimulation Almeida DK, Werneck YB, Soares TJ, Pereira JPB, Santos FJM, Franco TD, Oliveira RS, Schmal TR, Souza TGS, Campos JO, Santos RW	(SO-593) Electrical Safety of Medical Equipment in the Post-Market Context: a Practical Approach in Cardiac Defibrillators Based on ABNT NBR IEC62353:2019 Standard Silva Filho E, Rosa DAO, Nunes MR, Nascimento DM, Zanuzzio PM, Moriya HT

9:15		(SO-710) Improving Generalization Capability of a UNETR Model for Skull-Stripping Using Silver Standard Masks Vicente BC, Rittner L	(SO-641) Photoplethysmography-Based Detection of Acute Signals of Intoxication by Alcohol and other Abuse Drugs in Drivers: Part I - Viability Study Merege F, Rocha AF, Baptista GC, Miranda GC, Vitena G, Silva MVJ, Ferrari E Jr, Miosso CJ	(SO-731) Computational modeling of sources of cardiac arrhythmia to determine their effect on generating arrhythmias: ischemia, diffuse fibrosis, and long QT syndrome Pereira JPB, Lima LMR, Barbosa MU, Couto GM, Oliveira RS, Campos JO, Santos RW	(SO-623) Vibration and Drilling Study Associated with the Reuse of Dental Implant Drills Costa UAS, Marinheiro RF, Braz GA, Batista ITS
9:30		(SO-751) Acquisition geometry vs radiation dose in digital breast tomosynthesis: design considerations for optimizing the reconstruction quality through denoising Costa AC, Brandão RF, Borges LR, Barufaldi B, Maidment ADA, Bakic PR, Tingberg A, Foi A, Vieira MAC	(SO-645) Análise da distribuição da ativação do músculo deltoide em tarefas isométricas de abdução e flexão de ombro utilizando eletromiografia de alta densidade Portilho JGM, Daghero M, Cabral HV, Matta TT, Oliveira LF	(SO-736) Intramedullary Nail - Impact of Material Stiffness on Bone Osteogenic Response Silva Neto JRO, Kenedi PP, Vignoli LL	(SO-636) Evaluation of Electrosurgical Units in the Context of Post-Market Rosa DAO, Silva Filho E, Nunes MR, Nascimento DM, Zanuzzio PM, Moriya HT
9:45		(SO-791) Identification of Myocardial Infarction using an MLP Network and the Phase Space of ECG and VCG Signals Thiago E, Duarte R, Gomes G, Oliveira V, Antonio P, Danilo C	(SO-659) Evaluating patient size-dependent factors for a better dose deor in pediatric computed tomography exams Monteiro V, Legnani A, Freitas M, Schelin H, Real J, Pereira D, Gagetti F, Maltez A	(SO-781) Bibliometric Analysis Using Bibliometrix and VOSviewer Applications in Biomedical Engineering Salvaterra F, Cerqueira L, Nadal J	(SO-690) Post-Market recurrent testing of electrical safety and performance in external cardiac pacemakers Nunes MR, Lima FF, Silva Filho E, Rosa DA, Zanuzzio PM, Nascimento PM, Moriya HT
10:30	<p>Plenary Perspective and Prospective of Biomedical Engineers and Healthcare Innovation</p> <p>Chair: Antonio Adilton Carneiro (GIIMUS/DF/FFCLRP/USP)</p> <p>Speaker: Newton Faria (Meinig School of Biomedical Engineering, Cornell University)</p>	<p>Technical Visits & Networking</p> <p>Supera Parque de Inovação e Tecnologia Laboratórios de Instrumentação Médica e Ultrassom Laboratório de Biomagnetismo Laboratório de FotoBiofísica Laboratório SensorMat</p> <p>(Departure from the parking lot in front of the Auditorium entrance)</p>			<p>Ways to strengthen links between academia and the health industry</p> <p>Moderator: Carlos Eduardo Ferraz (Boston Scientific)</p> <p>Panelists: Paulo Fraccaro (ABIMO) Glécia Virgolino da Silva Luz (UNB & Consultora MS)</p>
12:30	Circus of Physics special session with Lunch Box				
14:00	<p>Monolithic Silicon Carbide Intracortical Neural Interfaces for Long-Term Human Implantation</p> <p>Chair: Renan Muioli (IMD-UFRN)</p> <p>Speaker: Stephen E. Saddow (University of South Florida /USA)</p>	<p>Awards session</p> <p>Antonio Fernando Catelli Infantosi - Award</p> <p>Coordinator: Wagner Coelho de Albuquerque Pereira (COPPE/UFRJ)</p>	<p>Awards session</p> <p>Cândido Pinto de Melo – Award</p> <p>Coordinator: Eduardo Tavares Costa (DEB/UNICAMP)</p>	<p>Awards session</p> <p>Sérgio Santos Mühlen - Award</p> <p>Coordinator: Adriano de Oliveira Andrade (UFU)</p>	
14:30	Open Source Neuronavigation System for Transcranial Magnetic				

	<p>Stimulation</p> <p>Chair: Renan Muioli (IMD-UFRN)</p> <p>Speaker: Oswaldo Baffa Filho (DF/FFCLRP/USP)</p>				
15:00	<p>NeuroSE: Can we improve SE using Biomedical Engineering?</p> <p>Chair: Alcimar Barbosa (UFU)</p> <p>Speaker: Paulo Carvalho (University of Coimbra)</p>				
15:30	<p>Plasticity in the brain after a traumatic brachial plexus injury in adults</p> <p>Chair: Alcimar Barbosa (UFU)</p> <p>Speaker: Claudia D. Vargas (UFRJ)</p>				

Tuesday - September 3 - Posters (11:30 - 12:30; 17:30 - 18:30)

<p>Health Technology Assessment (11:30 -12:30) Chair: Fotini Toscas (LEPIC/HCFMUSP)</p>
1-(SP-124) Spiral analysis in Parkinson's disease: a bibliometric analysis. P. H. B. C. Milken, L. R. S. Sousa, C. C. S. C. Paz, S. J. Nasuto, C. M. Sweeney-Reed, A. O. Andrade
2-(SP-132) Effects of tecartherapy on abdominal adiposity: two case study. A.M. Ida, E.B. Neves, W. L. Ripka, A.M.W. Stadnik
3-(SP-186) Avaliação do impacto de um programa de treinamento de força em crianças com diabetes tipo controlado pelo sistema de infusão contínua de insulina. T.V. Kochake, L. Ulbricht, V. A. Lima, N. Leite, S.N. França, L.P.G. Mascarenhas, W.L. Ripka
4-(SP-211) Estudo comparativo da mudança das aberrações de alta ordem após capsulotomia laser Nd:YAG em pacientes com opacificação grau mínimo de cápsula posterior. O.J. Silva, V.R. Almeida
5-(SP-235) Desenvolvimento de um aplicativo para decretação de obsolescência dos equipamentos médico-hospitalares. A.L.M Oliveira, T.V. Cardoso
6-(SP-327) Evaluation of the influence of low-frequency ultrasound on lipid profile after treatment of localized adiposity. C.R.O. Katsuragi, R.S. Navarro, A. Baptista
7-(SP-424) Continuous hemodialysis versus intermittent hemodialysis: a rapid review focused on efficiency. L.R.F. Ribeiro, B.H.B. Angelo, K.S. Nascimento, L.R. Nascimento, N.V.N. Silva, R.S.M. Lins, I.V.P. Porto, N.G. Cavalcanti, E.M.N.F. Barbosa, G.S. Paiva
<p>Health Technology Assessment (17:30 - 18:30) Chair: Nicolas V R Veras (LAIS/UFRN)</p>
8-(SP-530) Orientações ao idoso sobre cuidados no domicílio durante o processo de alta hospitalar: uma revisão integrativa da literatura. A. Aguilera, F. S. Barros
9-(SP-547) Influência da tonalidade da pele nas medidas de oximetria. K.B. Barros, J.S. Pinheiro, M.S. Sampaio, L.B. Cruz Jr, A. Basile-Filho, R.R.J Guirio and L. Bachmann
10-(SP-552) Avanços no diagnóstico hematológico: evolução e aprimoramento do parâmetro RDW. C. I. F. Araújo, E. Oroski, F. S. Barros, R. A. de Faria
11-(SP-773) Evaluation of the use of the high-cost pharmacological technology tenecteplase in pre-hospital myocardial infarction care in Parana. G. A. F. de Freitas, M. A. Souza, J. C. P. Coninck, L. Ulbricht
12-(SP-798) Systematic review: hospital-acquired infections and the financial costs involved in patient care. R.P. Lawall, L.L. Menegaldo2, R.M. Ichinose3, D.A. Tschoeke
13-(SP-801) Evaluation of the effects of auriculotherapy and laser auriculotherapy in the treatment of changes in smell after COVID-19. A. Oliveira, A. Baptista, A.R.L. Silva, S.C. Nunez, D.S.F. Magalhães, A.F.F. Barros, R.S. Navarro
<p>Biomaterials, Tissue Engineering and Artificial Organs (11:30-12:30) Chair: Lígia Antunes P Pinelli (UNESP)</p>
14-(SP-122) Phantoms de imitação humana: procedimento de realização e caracterização elétrica. M.E.T. Sousa, I.B.T. da Silva, H.D.rade e A.L.P.S. Campos
15-(SP-143) A novel strontium-flavonoid complex with osteogenic potential for bone tissue engineering applications. G.P. Chaves Filho, I. F. B. Pimenta, E. G. B. Silva, P. Ciancaglini, A. P. Ramos
16-(SP-209) Bioabsorbable stent for aortic coarctation: A computational and experimental approach. D. C. Oliveira, R. C. Carbonari S. M. Malmonge
17-(SP-226) Bioprinted scaffold for diabetic wound regeneration. H. L. Piva, M. S. Queiroz, F. S. Matsuo, H. S. Borges, M. K. O. Osako, A. C. Tedesco
18-(SP-234) Automation of solution blow spinning system for heart valve scaffold fabrication. N. Souza, M.M.O. Simbara S. M. Malmonge
19-(SP-240) Changes caused by different solutions at resins for denture bases. C.A.F. Oliveira, M.N.C. Silva, M.P.L.L. Chantre,A.P. Macedo, V.O. Pagnano
20-(SP-257) Development of a breast simulator object for testing in image processing and quality control. P. F. Bessa, M. S. D. Pinheiro, P. C. Carneiro, A. C. Patrocínio
21-(SP-258) Incorporation of semiconductors in dental acrylic resins and the influence on mechanical properties and antimicrobial action. M.C.F. Heck, I. Ferreira, B.D. Sahn, A.B.V.

Teixeira, E. Longo, A.C. dos Reis
22-(SP-262) Síntese, caracterização e avaliação antimicrobiana de vanadato de prata nanoestruturado. D. Costa, I. Ferreira, J. M. C. Silva, M. A. Schiavon, A. C. Dos Reis
23-(SP-305) Rugosidade de superfície e adesão microbiana de biofilme misto sobre resinas para impressão 3D de próteses totais. B.C. Poker, B.M. Tinelli, A.P. Macedo, V.C. Oliveira, M. Gonçalves, C.H. Silva-Lovato
<p>Biomaterials, Tissue Engineering and Artificial Organs (17:30 - 18:30) Chair: Alessandro Márcio H da Silva (UB)</p>
24-(SP-319) Photosensitive fluorapatite suspensions for 3D printing by Digital Light Processing: Preliminary studies and potential applications. L.A. Bassetti, A.C.B. Pires, E.B. Ferreira, L.A.P. Pinelli
25-(SP-320) Use of recycled zirconia in the formulation of a photosensitive suspension for 3D printing using the Digital Light Processing method.. L.A.P. Pinelli, A.C.B.Pires, L.A. Bassetti, E.B.Ferreira, A.C. Reis
26-(SP-333) Effects of disinfectant solutions on resin for 3D printing compared to heat-activated acrylic resin for prosthesis bases. M.P.L.L. Chantre,C.A.F. Oliveira, M.N.C. Silva, V.O. Pagnano A.P. Macedo
27-(SP-352) Preparation of hydrogels containing type II collagen and carrageenans and their potencial use for cartilage regeneration. I. C. Dias, P. Ciancaglini, A. P. Ramos
28-(SP-380) Uso de erva mate como template para síntese verde de hidroxiapatita. M. V. P. Prior, M. M. Cezar, C. A. Dalcin, D. A. Bertuol, L. F. Rodrigues Jr
29-(SP-390) Scaffold produced with polycaprolactone (PCL) and a bioceramic through the electrospinning technique to assist in bone regeneration. A.L. Kern, R.P. Silveira, N. Maurmann, M.L.F. Dahlem, R. Siqueira, L.M. Notargiacomo, C.A. Ferreira, P. Franke,
30-(SP-393) Study of bovine milk incorporation to gelatin scaffold to induce skin healing process. C.K. Neves, L.R. Rezende, C. Ribeiro C.B. Lombello
31-(SP-411) Chondrosarcoma spheroid constructs: tridimensional in vitro model for cytotoxicity test. O.M. Almeida, F.E. Guazzelli, N.A. Silva, M.H.M. Nascimento C.B. Lombello
32-(SP-430) Sorção e solubilidade de resinas de impressão 3D para confecção de placas oclusais. S. R. Araújo-Cruz, A. A. Simionato , B. N. Freitas, A. C. L. Faria, A. P. Macedo
33-(SP-458) Mineralization of osteoblasts in the presence of type II collagen hydrogels with curcumin and curcumin A. I. F. A. Sousa, A. L. R. Cisterna, J. G. Cominal, A. E. M. Crotti, P. Ciancaglini, A. P. Ramos
<p>Biosensors, Transducers and Biomedical Instrumentation (11:30 - 12:30) Chair: Amauri A Assef (UFTPR)</p>
34-(SP-11) Control system optimization for pressure transferring hospital bed. B. Scardua, T. Lucero, L. Rissatti, P. P. Silva, W. Saldanha
35-(SP-30) Analytical design of Multicapillary Pneumotachographs. G.C. Motta-Ribeiro, F.C. Jandre
36-(SP-31) Characterization of cellulose acetate as a foundation for the development of a conductive polymer and its application in biosensors. G. Neves, B. Bachour, M. Batistuti, M. Mulato
37-(SP-57) Monitor em tempo real do volume urinário para pacientes em unidades de terapia intensiva. P. V. M. S. Filho, P. P. de Assumpção, M. da Silva Filho
38-(SP-117) Sensor flexível resistivo para robótica macia utilizando Velostat. A. L. Marques, A. B. Soares, R. S. Carrijo, L. F. Braulio, S. J. Jacyntho
39-(SP-123) Proposta de um novo arranjo de antenas Patch de microfita para aplicações biomédicas em 2,45 GHz. A.L.P.S. Campos, B.M. Pinheiro, A.S. Cruz, J.P.Q. Santos, R.V.A. Lira, G. Albuquerque, R.A.M. Valentim
40-(SP-162) Development of a Dengue aptasensor using thin films. B. Bachour Jr, B. C. R. P. A. M. Vaz, H. J. N. P. D. Mello, E. J. Guidelli, M. Mulato
41-(SP-163) Study of G-Quadruplex Aptamer - protein interaction through impedimetric and capacitive techniques for biosensor development. L. Pe. C. Costa, M. R. B. Sawazaki, B. Bachour Jr, M. Mulato

Tuesday - September 3 - Posters (11:30 - 12:30; 17:30 - 18:30)

<p>Biosensors, Transducers and Biomedical Instrumentation (17:30 - 18:30) Chair: Silvio Leao Vieira (UFG)</p> <p>42-(SP-167) Implantable device for arterial pressure monitoring. R.E.F. Rocha, M. Mulato</p> <p>43-(SP-168) Wearable technology in orthodontics: monitoring adherence to removable appliances. R.E.F. Rocha, F.L. Romano, M. Mulato</p> <p>44-(SP-194) Geração de sinais de ECG utilizando PWM com microcontrolador Arduino UNO. J.C. Gomes Junior</p> <p>45-(SP-195) Estudo numérico e experimental sobre o impacto do design das pontas de transdutores do tipo Langevin na entrega transdérmica de fármacos por ultrassom. G. S. Cardoso, J. H. Lopes, Y. A. Martins, R. V. Lopez, A. O. Carneiro e T. Z. Pavan</p> <p>46-(SP-237) Dose response of a MEA device in an orthovoltage x-ray beam. K.M.A. Silva, P. Nicolucci, A. Pasquarelli, O. Baffa Filho</p> <p>47-(SP-285) Development and evaluation of a low-cost Galvanic Skin Response circuit. P. Machoski, A. Inafuco, T. Dias, J. Junior</p> <p>48-(SP-302) Sensoriamento tátil baseado em sensores piezorresistivos utilizando modelo de izhikevich. V. T. Costa, S. C. Barros, A. Nakagawa-Silva, A. L. D. Siqueira Jr, A. B. Soares</p> <p>49-(SP-310) Development of a volumetric transducer for MRI of animal models in a 7 Tesla preclinical scanner. B. T. Perez, B. M. Campos, A. M. Paschoal, D. Papoti</p> <p>50-(SP-313) Transcranial direct current stimulation in patients with Parkinson's associated with motor training. F. D. de Almeida, M. Sales, S. Campos, R. Pedreiro, A. C. Brizzi, O. P. Neto</p>
<p>Bioengineering (11:30 -12:30) Chair: Adriano O Andrade (UFU)</p> <p>51-(SP-227) Electrocardiographic imaging performance from rabbit hearts signals. A. Quadros, T. Neves, V. Silva, J. Paredes, I. Sandoval, S. Eghdamian, S. Ullah, J. Pachon, I. Uzelac, J. Salinet</p> <p>52-(SP-289) Sistema para neuroestimulação e medição da força de contração muscular em insetos. V.S. Ribeiro, R.A. Bassani, J.W.M. Bassani</p> <p>53-(SP-316) Análise da relação do fototipo e maleabilidade da pele.. J.S. Pinheiro, K. B. Barros, L. Bachmann, A.B. Filho, E. C. O. Guirro, R.R.J. Guirro</p> <p>54-(SP-331) Development and validation of an epicardial electrical mapping system in animal models. G. Weber, S. Ullah, T. Neves, A. Quadros, J. Siles, V. Silva, I. Sandoval, J.C Pachon, I. Uzelac, J. Salinet</p> <p>55-(SP-344) An experimental rabbit Torso-Tank for ECGI validation. G. Victor Costa, S. Eghdamian, A. Quadros, T. Neves, V. Silva, I. Sandoval, J. Paredes, I. Uzelac J.Salinet</p> <p>56-(SP-355) Ação da terapia fotodinâmica na viabilidade e superfície de células cancerígenas de mama (MCF-7). M. I. B. Santos, C. Pacheco-Soares</p> <p>57-(SP-362) Non-invasive high-density mapping elucidates different behaviours on cardiac rhythms characteristics. T.C. Neves, A. Quadros, J.S. Paredes, V. Silva, I. Sandoval, J.C. Pachon, I. Uzelac, J. Salinet</p>
<p>Bioengineering (17:30 -18:30) Chair: Antonio Mauricio F L M Sá (PEB/UFRJ)</p> <p>58-(SP-480) Estimativa do débito cardíaco do inseto Tenebrio molitor (Linnaeus 1758) tratado com etanol. N.C.B. Calderón. F.H.K. Inazumi, R.A. Bassani, e J.W.M Bassani,</p> <p>59-(SP-555) Ação da terapia fotodinâmica na atividade nuclear e mitocondrial junto a interação com macrófagos nas linhagens MCF-7 e MCF-10a.. M. I. B. Santos, C. Pacheco-Soares</p> <p>60-(SP-564) Toward cell microculture using acoustofluidics technology. K. S. C. Borbely, F. O. S. D'Amato, K. S. Q. da Silva, D. W. S. França, A. L. Silva, A. U. Borbely, G. T. Silva</p> <p>61-(SP-612) Combined analysis of Photobiomodulation Therapy, Ultrasound and Manual Therapies in the treatment of Lateral Epicondylitis – integrative review. R.L. Vieira, R.S. Navarro, T.D. Stocco, A.M.H. Silva</p> <p>62-(SP-617) Comparison between methods for analyzing body composition for mice: Lee Index and Time Domain-Nuclear Magnetic Resonance. I. V. S. Melhado, L. M. Fernandes, M. A. Oliveira, V. F. Alves, M. R. Ribeiro, W. Tavares de Lima, J. Donato Jr, A. E. Lino-Alvarado, H. T. Moriya</p> <p>63-(SP-673) Inhibitory effect of alkanolamines for bioresistance of cutting fluids associated with occupational diseases. P.M.</p>

<p>Rodrigues, G.M.A de Abreu, L.G. dos Santos, E. J. N. de, rade, M.L. Castilho</p>
<p>Biomedical Signal and Image Processing (11:30 -12:30) Chair: Eduardo T Costa (DEB/UNICAMP)</p> <p>64-(SP-27) Improvement of mammographic images using transforms wavelet and neural networks. M.C. Barbosa, S.M. Iglesias, P.E. Ambrósio</p> <p>65-(SP-52) Integrated Rapid Test with Artificial Intelligence for Total Bilirubin Quantification in Blood Samples. R. Benedetti, F. S. Barros, H. C. Carvalho</p> <p>66-(SP-98) Detecting arrhythmias in electrocardiogram signals using data augmentation techniques. A. S. do Canto, C. C. M. Antunes, S. M. Coelho, F. A. P. Januário, M. G. F. Costa, C. F. F. Costa Filho</p> <p>67-(SP-99) Avaliação de perfis populacionais com ênfase na dose de radiação em um serviço de mamografia digital usando dados do cabeçalho DICOM. F.T. Araújo, J.C.P.D. de Carvalho, L.S.D. Oliveira, L.B. Verçosa e H. Schiabel</p> <p>68-(SP-126) Redes neurais baseadas em grafos para classificação de pacientes esquizofrênicos. D. R. Candeia, P. M. Ciarelli</p> <p>69-(SP-128) Assessment of a CADx module for breast nodule classification in digital mammography. F.J.F. Cardoso, H. Schiabel</p> <p>70-(SP-136) Machine learning-based subject-independent emotion classification using ECG data: addressing physiological variability for robust outcomes. A. F. Claret, K. R. Casali, T. S. Cunha, M. C. Moraes</p>
<p>Biomedical Signal and Image Processing (11:30 -12:30) Chair: Homero Schiabel (EESC/USP)</p> <p>71-(SP-138) Uma abordagem comparativa de técnicas de análise vocal para detecção de patologias por meio de Redes Neurais Artificiais. V. F. Cardoso, E. Cataldo, L. F. Mendonza</p> <p>72-(SP-144) Máscaras tempo-frequência para redução de ruído em implantes cocleares com estimação da envoltória por retificação e filtragem passa-baixas. P. H. Gubert, B. C. Bispo, e M. H. Costa,</p> <p>73-(SP-146) Pneumothorax detection during ventilation monitoring with electrical impedance tomography with and without the use of an anatomical atlas. E.D.L.B. Camargo, C.H.H. Possa, R.P. Costa, A.P. Cardoso, J.O. Castro</p> <p>74-(SP-150) Filtros ótimos para estimação da envoltória da fala em implantes cocleares. P. H. Gubert, B. C. Bispo, e M. H. Costa,</p> <p>75-(SP-156) Comparative analysis of intensity-based methods for Optical Coherence Tomography Angiography. K.C. Rodrigues, L. dos Santos, M.M. Amaral</p> <p>76-(SP-169) Machine learning applied to brain texture networks for characterization of Alzheimer's disease. R. V. Da Silveira, T. N. C. Magalhães, M. L. F. Balthazar, G. Castellano,</p> <p>77-(SP-176) Frentes de fase en ondas cortantes y su aplicación al estudio de propiedades viscoelásticas en phantoms. D. A. C. Burbano, M. Prado, J. Uliana, A. A. Carnero, T. Z. Pavan</p> <p>78-(SP-180) Image processing as first stage for δ-endotoxins counting. G. Costa, G. S. Marques, G. C. Costa, M. M. Martins, J. Q. Uchoa, L. V. Paiva, R. R. da Silva</p>
<p>Biomedical Signal and Image Processing (17:30 -18:30) Chair: Joaquim C Felipe (DCM/FFCLRP/USP)</p> <p>79-(SP-189) Criação de um sistema de gerenciamento para acesso livre a uma base de imagens de phantom de mama. R. Romaquela, H. Schiabel</p> <p>80-(SP-192) Uso de imagens de Ressonância Magnética Funcional em estado de repouso para lateralização de funções executivas: estudo de caso. A. L. Elias, A. C. Santos, C. E. G. Salmon, A. C. Sakamoto, U. T. Costa</p> <p>81-(SP-197) Prognostic implications of Lung impairment evaluation in quantitative CT imaging of COVID-19. D.M. Seraphim, R.A.C. Guassu, T.H.C. Bega, J.N. Menino, D.R. de Pina</p> <p>82-(SP-202) Radiomic analysis of Chest imaging: Haralick textures features for COVID-19 and Pneumonia discrimination. L. B. Silva, I. Miranda, P. C. Carneiro, A. C. Patrocínio</p> <p>83-(SP-203) Assessment of the influence of batch size on ResNet-50 processing applied to histopathological datasets. G.C.</p>

Tuesday - September 3 - Posters (11:30 - 12:30; 17:30 - 18:30)

Santos, A.L.D. Araújo, T.C.R. Nakamura, S.S. Sousa-Neto, D. Giraldo-Roldán, M.A. Lopes, P.A. Vargas, L.P. Kowalski, A.R. Santos-Silva, M.C. Moraes
84-(SP-206) Personalized segmentation of the 3D surface of the heart in an experimental model of atrial fibrillation. G. H. F. laemori, I. S. R. Oliveira, V. Silva, K. T. Chaim, T. C. Neves, A. D. S. Quadros, J. G. S. Paredes, R. H. da Luz, J. L. Salinet Jr
Biomedical Signal and Image Processing (17:30 -18:30) Chair: Matheus C Moraes (UNIFESP/SJC-SP)
85-(SP-207) Analysis of the viability of replacing Ag/AgCl Electrodes with Dry Electrodes for gesture classification from sEMG. A. T. P. Inafuco, D. P. Campos, J. J. A. M. Junior
86-(SP-213) CCI and EME Contrast Metrics Assessment for Pneumonia and COVID-19 X-Ray Images: A Comparative Analysis. A. C. F. Brenha, P. C. Carneiro, A. C. Patrocínio
87-(SP-216) Evaluation of a Passive Upper-Limb Exoskeleton's electromyographic response in dynamic industrial operations. D. P. Campos, M. C. J. Wosch, J. P. Moreto Lourenção, T. T. Moreira, H. B. Toso, J. J. A. Mendes Junior
88-(SP-219) Quantifying temporal changes in SARS-CoV-2 impact pre- and post-treatment: correlating with laboratory findings. R.A.C. Guassu, D.M. Seraphim, D. B.S. Pantano J.P.P.Borges, D.R. de Pina
89-(SP-220) Real-Time electromyography signal acquisition and processing system applied in FES interface. J. P. Moreto Lourenção, J. J. A. Mendes Junior, E. Krueger, D. P. Campos
90-(SP-222) Evaluating the performance of the weighted adaptive filtering in different simulated scenarios for Eyeblink Artefact Attenuation in BCI applications. A. Fontes, M. Cagy
91-(SP-225) Desenvolvimento de uma metodologia matemática para remoção spectral de contaminantes em cortes histológicos.. E. S Almeida. L. Bachmann, D.L. Peres, D.F.T. Silva, G. Germano, DM Zezell, T.M Pereira
92-(SP-242) Análise de ruído entre imagens mamográficas processadas e Rawdata usando filtros e Métricas Quantitativas. L. F. S. Silva, A. C. Patrocínio, P. C. Carneiro
93-(SP-249) Valence ratings of Lemmas generated by a large language model simulating multiple human responses. B.M. Silva, J.V. Assumpção-Silva, W. Ricardo-Teixeira, H. Brener, M. Joffily, G.C. Motta-Ribeiro, F.C. Jandre
Clinical Diagnostic and Therapy Systems (11:30 - 12:30) Chair: Pedro Lopes de Melo (UERJ)
94-(SP-16) Efeitos do laser associado com pressão negativa, pressão positiva e ultrassom sobre a Lombalgia. B.G. Gomes, L.H. Cruz. D.C. Souza, D.C. Silva, N.F. Silveira, G.H. Gonçalves, F.R. Paolillo
95-(SP-20) Multiscale sample entropy analysis in the evaluation of respiratory changes due to chronic obstructive pulmonary disease. C. O. Ribeiro, N. F. Dantas, A. J. Lopes, P. L. Melo,
96-(SP-42) Aprendizado de máquina para a predição da Insuficiência Cardíaca Crônica. V. O. Guedes, A. M. A. Souza, G. C. Barros, Sa, N. C. A. Lima
97-(SP-79) Prediction of hypothyroidism based on explainable artificial intelligence. C. M. V. Cavalcante, P. H. A. Bezerra, R. C. B Rego
98-(SP-130) Análise das propriedades fotoacústicas, ultrassônicas e mecânicas do tecido hepático após ablação térmica com o uso de nanopartículas magnéticas. J. E. Freire, D. A. Collazos-Burbano, N. Zufelato, L. B. Cruz Junior, J. H. Uliana, L. Bachmann, A. A. Carneiro, T. Z. Pavan
Clinical Diagnostic and Therapy Systems (17:30 - 18:30) Chair: Marco Antonio C Garcia (UJF)
99-(SP-133) Hemodynamic and respiratory effects of Bag Squeezing in children with respiratory failure. L. Q. Martins, L. R. A. Macedo, S. L. L. S. Bacci, L. M. T. Freitas, O. C. Mantese, L. B. Araujo, A. O.,rade, C. R. Lopes
100-(SP-142) AntibiHórus: development of semi-automated antibiogram reader. V. T. Teixeira, P. R. S. Sanches, D. P. Silva Jr, B. R. Tondin, A. A. Susin, A. Fr. Muller, P. O. Barth, X. C. Pinzas, A. L. Barth
101-(SP-153) Análise de sangue total de homens e mulheres com doença renal crônica, antes e após hemodiálise, por

Espectroscopia Raman. C.R. Silva, A.B. Fernandes, H.C. Carvalho, L. Silveira Jr.,
102-(SP-190) Effect of the compound (PhSe) ₂ on dual-species biofilm of <i>Candida albicans</i> and <i>Candida krusei</i> . G. S. Calvi, Q. L. Carretoni ¹ , G. N. J. Cartaxo ¹ , A. L. M. Silva ¹ , M. S. Costa ¹
103-(SP-221) Evaluation of the analytical quality of a portable Raman Spectrometer for use in clinical analysis. H. E. Giana, L. Silveira Jr., L. O. Souza
Assistive Technologies and Rehabilitation (11:30 - 12:30) Chair: Ederson Cichaczewski (UNINTER)
104-(SP-47) Development of a proprioceptive stimulation device to gait in transfemoral amputees. D.S.U Tamashiro, D.B Coelho, L.R. Battistella
105-(SP-58) Novo desenho de sustentador para reabilitação de pescoço na Síndrome da Cabeça Caída. M. C. Rocha de Jesus, C. A. Lópes Flores, M. da Silva Filho
106-(SP-59) Módulo com feedback para orientação espacial de deficientes visuais no ambiente residencial. L. M. Abdou, C. A. L. Flores, M. da Silva Filho
107-(SP-72) Módulo exercitador da musculatura de controle do tronco para acometidos pelo Acidente Vascular Encefálico. P. C. Campos, R. M. B. Mocbel, M. da Silva Filho
108-(SP-86) Electromyography analysis to distinguish hypertonia in upper limbs. A.R. Rezende, C.M Alves, I.A. Marques, L.A.P.S. De Souza, E.L.M. Naves
109-(SP-139) Tonic Stretch Reflex Threshold Method (TRST) incorporated into the Spasticity Evaluation System- SpES for evaluating spasticity in individual after stroke: a validation pilot study. C.A.M. Valentini de Queiroz, G.J. Luvizutto, E.L.M. Naves
110-(SP-151) Evaluation of flow of experience in people with Parkinson's disease during interaction with a serious game. L. C. Mendes, E.Moura Neto, J. R. M. Nardo, C. M. Alves, I A Marques, Y Morère, A, O, Andrade
111-(SP-152) Power Spectral Density analysis of accelerometer signals to evaluate rigidity in Parkinson's disease. C. M. Alves, A. R. Rezende, I. A. Marques, L. C. Mendes, Y. Morere, A. O. Andrade, E. L. M.Naves
112-(SP-171) Rehabilitation impact through serious games on reducing shoulder kinesiophobia: A case study. D. S. Rocha, E. A. Silva, M. B. Silva, E. L. M. Naves
Assistive Technologies and Rehabilitation (17:30 - 18:30) Chair: Manoel Da Silva Filho (UFPA)
113-(SP-172) Analysis of the effect of serious games as an intervention in upper limb rehabilitation and cognitive function - a case study. E. A. Silva, D. S. Rocha, M. B. Silva, E. L. M. Naves
114-(SP-184) Dispositivo de Interface Humano-Computador baseado em gestos faciais para indivíduos tetraplégicos.. G.D. da Silva, M.G. Nogueira, M.H.P. Silva, M. da Silva Filho
115-(SP-251) Assessment of manual dexterity performance in patients with Parkinson's Disease. A. O. B. Suassuna, L. S. A. Menezes, L. T. Moura, A. L. S. Viana, V. Costa, E. Morya, A. O. Andrade
116-(SP-280) Desenvolvimento e avaliação preliminar de um dispositivo vibro-tátil para a transmissão de mensagens e sinais para atletas surdos e cegos na prática da modalidade esportiva do Karatê. L.C Cantieri, A.R Cantieri, R. F. Rohrich, J.C. Bassan
117-(SP-296) System for remote acquisition of accelerometry to aid in motor rehabilitation. M.B.C. Silva, C.G.B. Pereira, J.M.C. Marques, G.I. Florentino, J.B. Lima, V. Bona, M.A.B. Rodrigues, C.M. Rodrigues
118-(SP-334) Moniz Game Funchal: collaborative design adaptation of a serious musical game for the autonomous region of madeira.. Y. F. Moniz, S. R. M. S. Boschi, H. B. Campos, L. A. Moura, A. P. Silva, S. C. Martini, T. A. Scardovelli, T. Gonzalez, L. D. A. Ferreira
119-(SP-349) Near-infrared photobiomodulation in patients with post-COVID-19 pulmonary fibrosis: 6 Minute Walk Test. F. S. Silva, P.C Pereira, Antonio Balbin Villaverde, R.A. Zângaro
120-(SP-357) Feasibility of low-cost alternatives to estimate hip and knee angles of adapted cycling movement. A. Peres, M. Garcia, R. Baptista
121-(SP-363) Biofeedback na reabilitação do membro superior após o AVC: Revisão de Literatura. L. C. K. de Sa, H. C. Carvalho, D. P. Campos

Wednesday - September 4 - Posters (11:30 - 12:30; 17:30 - 18:30)

Biomaterials, Tissue Engineering and Artificial Organs (11:30-12:30) Chair: Ana Paula Macedo (FORP/USP)	20-(SP-548) Desenvolvimento e caracterização de um sistema de ultrassom pulso-eco microcontrolado. R. R. M. Franco, J. C. da Silva, S. L. Vieira
1-(SP-504) Broccoli leaf decellularization: natural biomaterial for tissue engineering. C.A. Gomes, L. R. Rezende, R.A. Lombello, C.B. Lombello	21-(SP-584) Evaluation of ultrasound transmission data using clinical transducers. L. M. da Costa, N. Assugeni Neto, J. H. Uliana, T. Z. Pavan, A. A. O. Carneiro
Clinical Engineering and Hospital Engineering (11:30 -12:30) Chair: Zeev Katz (ABECLIN)	Clinical Engineering and Hospital Engineering (11:30 -12:30) Chair: Zeev Katz (ABECLIN)
2-(SP-516) 3D bioprinting of a patient-specific prototype of a glenoid labrum: a preliminary study. F. T. Silva, M. P. Fontes, T. D. Stocco	22-(SP-29) Aplicação da filosofia Lean em uma clínica odontológica do SUS. F.C. Quadros H.R. Leite
3-(SP-529) Multifunctionality of Ti Surface: synthesis and characterization of Hybrid Phospholipid Films containing Carbonated Hydroxyapatite and Silver Nanoparticles. C.R.O. Maciel, S.M. Piccolo, V.C. Oliveira, A.P. Ramos, C. Nascimento	23-(SP-299) Air treatment in healthcare facilities: regulatory incompatibility between RDC 50 and NBR 7256. I.C.S. Gomes, F.S. Barros, H.C. Carvalho
4-(SP-558) Influence of hydroxyapatite treatment on the physicochemical and mechanical properties of Ti alloys. J. Sacilotto, J.D.C. Tardelli, M.L.C. Valente, C. Bolfarini, A.C. Reis	24-(SP-324) A model for sizing technical team of the clinical engineering service for healthcare facilities. L.R.F. Ribeiro, B.F.S. Lima, M.K.S. Andrade
5-(SP-569) In vitro evaluation of cytotoxicity of Lantana trifolia plant extract. B.Y.H. Lazarini, R.A. Lombello, C.B. Lombello, M.H.M. Nascimento	25-(SP-364) The Covid-19 protective masks and skin manifestations: A review and observational study. G.L. Silva, C.B. Lombello
6-(SP-604) Impressão 3D de scaffolds de Biosilicato/alginato de sódio pré-reticulados com íons divalentes. A. R. Silva Jr, K. N. Ferreira, G. H. M. Gomes, M. T. Souza, S. M. Malmonge, M.A. Sabino J. K., M. B. Daguano	26-(SP-370) Smart Lean Regulation: An integrated proposal for managing medical equipment in healthcare environment. E.C. Pulquerio, Y.K.M. Borges, A.E. dos Santos, W.P. Loddi
Biomaterials, Tissue Engineering and Artificial Organs (17:30-18:30) Chair: Alessandro Márcio H da Silva (UB)	27-(SP-444) Proposal checklist for neonatal aeromedical transportation - medical electrical equipment issues. N. A. Mendes, S. B. Frieda, H. C. Carvalho
7-(SP-611) Investigation of Niobium Carbide Particles in Bacterial Pathogenesis: potential size and dispersion implications. A.M.H. da Silva, A.C.C. Ribeiro, L.E. Simonato, D. S. Magalhães, A. Baptista, R.S. Navarro, D.I. Kozusny-Andreani, W. Melo, P.H.D. Ferreira, A.F. Farah, C.A. Fortulan	Clinical Engineering and Hospital Engineering (17:30 -18:30) Chair: Leonardo R F Ribeiro (EBSERH)
8-(SP-640) Análise das alterações Morfológicas e Bioquímicas da Membrana Amniótica Humana após processamento em um sistema hidrodinâmico desenvolvido com água ozonizada. F.D.R.P. Santos, M.G.S. Belfort, T.R.O. Heinzemann, B.A. Kawata, C.J. de Lima, A.B. Fernandes	28-(SP-580) Evaluation of transducers for therapeutic ultrasound equipment - using thermocromic test phantom. Torturela G., A. M. C. Lopes, R. M. V. R. de Almeida, W. C. A. Pereira
9-(SP-681) Importance of cytogenetics in cell therapy. J.S. Katayose, C.B. Lombello	29-(SP-634) Análise comparativa de softwares de gerenciamento de equipamentos médico hospitalares em estudo de conformidade com a RDC 509/2021. L. A. R. S. Vieira, J. A. Macedo, A. G. Bortoli, R. R. Ribeiro
10-(SP-775) Evaluating 3D-printed resin for occlusal splints: UV aging, color stability, brightness, and translucency. B.S.H. Tonin, C.A.F. de Oliveira, ACL Faria, R. G. Palma-Dibb, A.P. Macedo	30-(SP-643) Processos de desativação e descarte de dispositivos médicos. G.T.M Lourenço, L. R Holsbach, A.E.S.R, Cunha, A.P.L.J Santos
11-(SP-789) Sinus technique lift using hydroxyapatite and Beta-Tricalcium Phosphate with bone marrow aspirate: clinical case report. MF Rodrigues, ABF Moretti, CJ de Lima	31-(SP-688) Strategic planning and risk management applied to the Maintenance of medical equipment at the USP University Hospital. D. M. do Nascimento, S. G. M. Santiago, H. T. Moriya, P. M. Zanuzzio
Biosensors, Transducers and Biomedical Instrumentation (11:30-12:30) Chair: Eder R Moraes (DF/FFCLRP/USP)	32-(SP-711) Uma avaliação de segurança nas instalações elétricas de salas de cirurgia. J. B. Cozitski, F. S. Barros, H.C. Carvalho, R. A. de Faria
12-(SP-351) Modeling and analysis of a stand-alone B-mode ultrasound 3D breast scanning prototype. N. Assugeni Neto, L. M. da Costa, J. H. Uliana, T.Z. Pavan, A.A. O. Carneiro	Biomedical Informatics (11:30 - 12:30) Chair: Wellington P dos Santos (UFPE)
13-(SP-369) Algoritmos - fundamentação e aplicações clínicas. A. F. A. Alflen, H. C. Carvalho	33-(SP-17) Computational Analysis of the Effect of Stimulus Duration on an Isolated Murine Heart. L. A. Sa, J. A. Costa Jr, L. M. Silveira-Filho, P. X. Oliveira
14-(SP-462) ECG monitoring system for detection of cardiac arrhythmias. A. R. T. Lima, N. A. Cunha, J. G. S. Veras, E. A. B. Santos, P. S. Lessa, M.-C. B. C. Silva, M. A. B. Rodrigues	34-(SP-50) Uso da lógica fuzzy como abordagem da avaliação de risco na sífilis. A. C. C. Goulart, J. E. Araujo Filho
15-(SP-467) Development of a GRID irradiation setup for in vitro studies. M. S. Godoi, P. Nicolucci	35-(SP-253) An immersive Virtual Reality 3D DICOM Viewer: a development experience. M.G. Silva, S.L.N. Prado, L.A.B. Cruz, A.G.V. Bitencourt, F.J.F. Coimbra
16-(SP-486) Selection and characterization of DNA aptamer for Galectin-1 impedimetric biosensor. M. B. Sawazaki, M. Baruffi, M. Mulato	36-(SP-282) Dispersão Genômica da Variante Ômicron no Estado do Espírito Santo Utilizando Ferramentas de Bioinformática Evolutivas e Filogenéticas. J.S. Ardisson, R. Tomezani, A.M. Corredor-Vargas, T.F Bastos-Filho
Biosensors, Transducers and Biomedical Instrumentation (17:30-18:30) Chair: Eder R Moraes (DF/FFCLRP/USP)	37-(SP-322) Aprendizado de máquina aplicado ao controle de interfaces Cérebro-Máquina baseado na Imagética Motora. G. Florence, P.S. Burgue, I.K.P. Albuquerque, K.O. Belo, C.P.C. Oliveira, J.C. Gomes, M.A. Santana, C.L. Lima, W.P. Santos
17-(SP-492) Dispositivo para determinar a frequência de oscilação produzida durante fisioterapia respiratória. A. Marin, L. B. Paes, R. D. Raimundo, M. F. R. Urban	38-(SP-323) Análise de bases de dados públicas para biomarcadores de diagnóstico precoce da doença de Parkinson. N. Rossini, M. G. C. C. Calado, A. F. L. Kassa, E. Cichaczewski
18-(SP-515) Development of a portable spectrometer for salivary cortisol assessment. J. C. C. Gomes, M. D. Contini, Y. S. Ramos, F. B. Vilela, L. R. B. do Prado, F. E. C. Costa, E. R. C. Dester	39-(SP-374) Computational method for screening febrile people at sanitary barrier. K. H. D. Rocha, J. Simão, R. B. Nunes, P. R. Muniz
19-(SP-545) Investigation of a noseband sensor to measure jaw movements in ruminants. G. F. Conte, C. S. Stella, G. A. Carmo, D. P. Campos	Biomedical Informatics (17:30 - 18:30) Chair: Alessandra A Macedo (DCM/USP)

Wednesday - September 4 - Posters (11:30 - 12:30; 17:30 - 18:30)

40-(SP-375) ATR-FTIR and genetic polymorphism analysis: potential tools in the diagnosis and identification of predisposition to DM2. I.S. Silva, R.V. Diniz, M.S. de Oliveira, L. de Lima, S.K. Sibelino, L.J. Raniero, R.A. Canevari	A. J. Fontes-Pereira, A. M. C. Lopes, W. C. A. Pereira
41-(SP-394) Desenvolvimento de uma ferramenta Web para consulta eficiente de Enfermagem em Puericultura. K. E. Mota, L. T. L. Simas, M. R. C. T. Marchiori, R. M. Loureiro, S. A. G. Vieira, L. F. Rodrigues Jr	Nanotechnology and Nanodevices Applied to Health (11:30 - 12:30) Chair: Theo Z Pavan(GIIMUS/DF/FFCLRP/USP)
42-(SP-399) How to implement OMOP-CDM in a multicenter trial?. M. T. Abrahão, D. F. C. Patrão, C. F. Araujo, A. G. Rabelo, M. L. Freitas, U. A. P. Flato, C. A. M. Truys, E. Amaro Jr, A. J. Pereira	60-(SP-93) Microbiological evaluation of the incorporation of nanostructured silver vanadate decorated with silver nanoparticles in dentifrice. V.T. Marinho, G.G. Silva, J.M. Carvalho-Silva, M.L.C. Valente, A.L. Botelho, V.C. Oliveira, M.A. Schiavon, A.C. Reis
43-(SP-410) Towards actigraphy data reconstruction: exploring machine learning methods. R. S. da Silva, M. F. Herculano, G. L. B. Germano, L. L. G. Gitaí, T. G. de Andrade, T. D. Cordeiro	61-(SP-127) Plasmonic bismuth nanoparticles: a new therapeutic nanoplatform in radiotherapy against cancer. H. P. Labaki, E. J. Guidelli, D. J. Dorta
44-(SP-451) Jogo sério virtual para análise do comportamento motor de crianças com Transtorno do Espectro Autista a partir de objetos emocionais. C.C. Lima, S.H. da Silva, S.T. Faceroli, A.A. Nogueira Campos, S.D. Vecchio, T.R. Oliveira, M.C.B.P. Rodrigues	62-(SP-140) Europium-doped LiCaAlF ₆ scintillating nanoparticles for applications in ionizing radiation dosimetry. G. Chicango, E. Guidelli
45-(SP-457) Preliminary results of D Slicer localization to Portuguese and Spanish for the Latin American Biomedical Engineering Community. S. Pujol, P. Veiga, V. Gomez-Valdes, L. Silva, D. Goncalves, J. Janeiro, V. Montano-Serrano, E. Hernandez-Laredo, M. Rios-Hernandez, A. Lasso, S. Pieper, A. Vilchis-Gonzalez, L. Murta	63-(SP-200) Physico-chemical validation of silver vanadate antimicrobial gel. S. B. de Carvalho, L.M. Uehara, J.M.C. Silva, A.B.V Teixeira, M.A. Schiavon, A.C. Reis
46-(SP-483) Aplicação de Tiny Machine Learning na classificação de feridas. L.G. Silva, J.B.D. Rio, L. Valentim, A. Floriano, J.R. Merlin, E.M Sgarbi, R. C. Moreira, D.F.G. Trindade	Nanotechnology and Nanodevices Applied to Health (17:30 - 18:30) Chair: Juliana C Bernardi (DQ/FFCLRP/USP)
47-(SP-509) Convolutional neural networks in Chest X-Ray image classification: COVID-19, Interstitial Lung Diseases, and Tuberculosis. M.K. Santos, P.M. Azevedo-Marques, L.L. de Lima, M. Koenigkam-Santos	64-(SP-212) Conversão de energia dos movimentos mecânicos corporais em energia elétrica. Farias, P.S., Carneiro, A.A.O., Uliana, J., Bordonal, R.R.
Metrology, Testing and Certification in Biom Engineering (11:30 - 12:30) Chair: Henrique Takachi Moriya (EPUSP)	65-(SP-245) Quantum dots applied in healthcare. M. V. Araujo Vieira, G. S. Pereira, F. M. Araujo Moreira
48-(SP-33) Desenvolvimento de Equipamentos Médicos no Brasil: desafios e etapas – Estudo de caso do desenvolvimento de um ventilador pulmonar. A.F.S. D'Antona, R.S. Santos, A.O. Bastos	66-(SP-365) Caracterização de Nanopartículas Magnéticas como contraste de imagem por ultrassom. M. Nakakubo, N. Zufelato, A. Sanches, K. Salomão, P. Periyathamb, T. Pavan, A. Carneiro
49-(SP-268) Spectrometry error analysis in pigmented skin phantoms. J. C. S. Oliveira, K. B. Barros, M. S. Sampaio, L. Bachmann, L. B. Cruz Junior	67-(SP-387) Enhancement of blue emission in SrF ₂ :Eu@SrF ₂ core-shell nanoscintillators for theranostic application. J. M. Teixeira, E. J. Guidelli
50-(SP-311) Estudo da influência da descarga de desfibriladores no sistema de proteção de cabos de ECG. D.P. Oliveira, L.R.B. Prado, F.V. Carvalho, G.V.B. Magalhães	Biomedical Signal and Image Processing (11:30 - 12:30) Chair: Homero Schiabel (EESC/USP)
51-(SP-359) Behind the lens: exploring UV reflection. J. Fonseca, P. Teixeira, L. Ventura	68-(SP-260) Medical insights into Pulmonary Pathologies from Interpretability of Classifiers. A. Y. A. Okubor, G. F. G. de Toledo, I. C. B. Pereira, M. V. L. de Souza, J. A. Sims
52-(SP-477) UV radiation protection measurement system based on sunglasses frames. P. T. X. Silva, L. Ventura, A. P. De Andrade, P. Guedes	69-(SP-263) A novel DICOM medical labeling web tool for MRI segmentation. P. L. A. Landim, E. A. F. Feitosa, B. R. S. Silva, P. C. Cortez, P. Braga Neto, V. H. C. De Albuquerque
53-(SP-563) Proposta de otimização de fluxo de trabalho para a assistência técnica de equipamentos eletromédicos: estudo de caso. M. C. R. Viegas, A. E. Santos, W. P. Loddi	70-(SP-266) Previsão de Doenças Cardíacas com Algoritmos de Machine Learning: uma comparação entre Regressão Logística e Random Forest. B. L. M. Assumpção, J. P. H. Lima
Metrology, Testing and Certification in Biom. Engineering (17:30 - 18:30) Chair: Rodrigo Costa-Felix (INMETRO)	71-(SP-267) Project of a low-cost digital pupillometer ran by software tools for data analysis based on deep learning for image segmentation. M. F. O. Figueiredo, C. Gonçalves, D. G. C. Barros, G. R. Unfried, M. Y. S. Cruz, S. P. Borba, P. A. Samways Sergio Okida
54-(SP-599) Desenvolvimento de aplicativo móvel para a gestão da manutenção em equipamentos laboratoriais. M. A. Sponton, H. C. Carvalho	72-(SP-269) Recognition of Brazilian Sign Language through Surface Electromyography using Deep Learning Models. M. T. Carneiro, L. C. Faxina, T. S. Dias, D. P. Campos, J. J. A. Mendes Junior
55-(SP-603) Monitoramento da validade dos resultados para medição de corrente de fuga em equipamentos eletromédicos. E. Berruezo, T. Accurso Muniz, J. H. Angelo, S.G.M Santiago, F. G. Torres	Biomedical Signal and Image Processing (11:30 - 12:30) Chair: Juliana F Pavoni (DF/FFCLRP/USP)
56-(SP-630) Comparison of normative parameters in post-market surgical lighting. T. Accurso, J.H. Angelo, S.G.M. Santiago, D. M. do Nascimento, J. A. da Silva, E. C. P. da Silva, A. Lopes, H. T. Moriya, P. M. Zanuzzio, A.F.G. Ferreira Júnior	73-(SP-274) Diferenciação da Fibrose em Biópsias Hepáticas a partir de parâmetros estatísticos de diferentes espaços de cor. A. O. Lima, P. V. T. Vidigal, D. B. Melges
57-(SP-651) Sistema de Dosimetria por Ressonância de Spin Eletrônico em controle da qualidade em Radioterapia e Irradiação de Sangue. P. C. Travagin, O. Baffa Filho, P. Nicolucci	74-(SP-284) Multi Head Attention Layer for sEMG gesture classification: a pilot study involving the influence of data augmentation. A. T. P. Inafuco, F. M. Priotto, J. J. A. Mendes Junior
58-(SP-715) Optimization of methodology by rotational central composite design for measurement of trimeric glycoprotein of rabies virus. E. Perez, A.R. Cantieri, A. P. G. Palka	75-(SP-286) Thermal gradients at the verification of pressure injuries. V.G. Nasimoto, P.J.S. Voziniak, J.C.P. Coninck, E.F.R. Romanelli, L. Ulbricht
59-(SP-796) Thermic analysis of trigger point dosage: comparison of two therapeutic ultrasound devices. L. R. de Andrade, T. G. B. Lousada, T. P. Omena, J. G. Silva, F. S. Jorge,	76-(SP-293) Application of Deep Learning for automatic detection of lung nodules in chest computed tomography images. E. J. Rivero-Zavala, L. L. Lima, P. M. Azevedo-Marques,
	77-(SP-309) Comparison between Traditional RNNs and RNNs with Attention Mechanism for Sign Language Recognition based on Data Gloves. T. S. Dias, A. T. Inafuco, J.J.A. Mendes Junior, S.F. Pichorim
	78-(SP-318) Quantitative Capillary Refill Time Repeatability: dependence on method and color space. R. Bachour, V. F. Lima, G. C. Cardoso
	79-(SP-321) Estimating Blood Pressure from PPG Signals Using

Wednesday - September 4 - Posters (11:30 - 12:30; 17:30 - 18:30)

a Dual Calibration Siamese Network Approach. D. A. C. Cardenas, F. M. Dias, M. A. F. Toledo, F. A. C. Oliveira, E. Ribeiro, R. A. Moreno, J. E. Krieger, M. A. Gutierrez
Biomedical Signal and Image Processing (17:30 - 18:30) Chair: Ricardo Scarpato Navarro (UB)
80-(SP-338) Quantitative analysis of morphological changes in conducting airways. Y.R. Cocati, V.U. Carneiro, F.G. Aoki
81-(SP-341) Detailing a methodology for obtaining the Trachea's Cross-Sectional Area. V. F. Soares, H. C. da Silva, F. F. de Lima, P. F. G. Cardoso, H. Minamoto, H. T. Moriya, D. F. Legendre
83-(SP-342) Assessment of deep learning models in electrocardiographic ST-T changes detection. J. Gomez, L. Cerqueira, J. Nadal
83-(SP-350) Patterns in drawings of Parkinson's disease Vs healthy individuals using marker-less object tracking with machine learning. J. R. M. Nardo, C. T. Ribeiro, C. M. Alves, D. H. Silva, E. Moura Neto, L. C. Mendes, A. A. Pereira, A. O. Andrade
84-(SP-360) Estudo prático-teórico de tratamento de sinal EMG com o Uso de Machine Learning. A. S. Silva, M. V. P. Prior, K. E. Mota, M. O. Martins, L. F. Rodrigues Jr
85-(SP-368) Testing the Impact of Frequency Band and Time Frame Sizes on the Classification of Motor Imagery Tasks using EEG. C. V. Matias, R. G. Mantovani, D. P. Campos
86-(SP-373) A comprehensive evaluation of publicly available QRS detection algorithms for ECG Analysis. M. P. Folli, R. V. Andreao, G.T. Zago
Biomedical Signal and Image Processing (17:30 - 18:30) Chair: Wagner C de A Pereira (COPPE /UFRJ)
87-(SP-376) Development of an Algorithm for Dynamic Pupil Diameter Evaluation over Time in Neuropathy Assessment. C. A. Antunes, J. L. P. S. Paula, D. C. S. Bandeira, J. L. B. Marques
88-(SP-379) Evaluation methods for detecting wrist extension intention in surface electromyography. R. O. Badega, D. P. Campos
89-(SP-384) A Digital Image Processing-based Tool to Assist Medicine Blisters Fractioning. M. Lima, J. Falcão, J. M. Teixeira, M. R. Silva Jr
90-(SP-405) Detecção e segmentação automática de câncer de pulmão de células não pequenas em imagens de tomografia computadorizada utilizando redes de aprendizagem profunda. M. A. D. Lima, C. F. M. Vasconcelos, R. M. Ichinose, A. M. F. M. de Sá
91-(SP-407) Arrhythmia Classification using Deep Learning. C. N. Silva, M. C. F. Castro
Clinical Diagnostic and Therapy Systems (11:30 - 12:30) Chair: Renato Zângaro (UAM)
92-(SP-238) Establishment of Local Diagnostic Reference Levels for Interventional Radiology Procedures in a Major Hospital in Brazil: A Step Towards National Standardization. R.A.C. Guassu, D.M. Seraphim, Y. V. de Souza, D.R. de Pina
93-(SP-261) Raman Spectroscopy in the Diagnosis of Leishmaniasis in blood serum of dogs: Pilot Study. M. P. Porto, L. Keidel, R. C. Menezes, L. Silveira Jr, L. H. Moreira
94-(SP-303) Methodology for evaluating the quality of computed tomography reconstruction software. A.M. Martins, J. S. Dominguez, J. P. F. Guimarães, A. A. L. Bezerra, C. B. de Jesus, E. T. V. Orellana, F.M. Millian
95-(SP-317) Confiabilidade intra e interexaminadores da termografia infravermelha em atletas profissionais de futebol. L. C. Caseiro Filho, M. R. N. Santos, G. C. Rotoly, E. C. O. Guirro, R. R. J. Guirro
96-(SP-330) The effect of obese patients on the occupational doses in interventional radiology. T.G. Zandoná, M. F. Silva, V. L. O. Evangelista, A.P. Perini, W.S. Santos, L.P. Neves
Clinical Diagnostic and Therapy Systems (17:30 - 18:30) Chair: Ana Maria Marques da Silva (FM/USP)
97-(SP-348) Doses for companion in pediatric procedures. T. G. Zandoná, F. Q. Fuzato, V. L. O. Evangelista, W. S. Santos, L. P. Neves, A. P. Perini
98-(SP-354) Brain Tumor Classification: A CNN and attention-Based CNN comparison. U.K.M.A. Silva, A.R.G. Castro

99-(SP-367) Raman spectroscopy applied to the biomolecular characterization of rat skin. W.L. Lima, L.G. Nóbrega, T.P. Amadeu, L. Silveira Jr., N.M. Mangueira
100-(SP-381) Caracterização viscoelástica de phantoms feitos de copolímero em óleo para elastografia por ondas de cisalhamento. M.E.C.S. Prado, D.A. Collazos-Burbano, J.H. Uliana, J. Brum, M.W. Urban, A.A.O. Carneiro, T.Z. Pavan
101-(SP-404) Scalp ozone therapy: is the hair fiber safe from oxidative damage?. P.A.L.I. Marrafa, B.A. Kawata, B. S. Jacinto, F.R. Passador, H. C. Carvalho, A.B. Fernandes, C.J. de Lima
Assistive Technologies and Rehabilitation (11:30 - 12:30) Chair: Adriano de Oliveira Andrade (UFU)
102-(SP-383) A review on cognitive training platforms for elderly patients with Alzheimer's Disease. C.S. Oliveira, A. R. Tavares, P. Almeida, L.M. Nunes, V.L. Santos, S.C. Martini, R.R. da Silva, M.A.S. Bissaco
103-(SP-392) Desenvolvimento de um protótipo de estimulação elétrica para tratamento de pacientes com Síndrome da Taquicardia Postural Ortostática. M. C. S. S. Surjus, I. G. Andrade, M. Oliveira, G. L. Silva
104-(SP-397) Wearable Animal. L.T. Cappello, M.H.T. Gonçalves, F.B. Vilela
105-(SP-433) Development of a Sensorized Game Therapy Platform to Aid in Balance Rehabilitation for Amputee Patients. S.T. Faceroli, L.M.S. Miranda, P.F. Coelho, F.M. Malafaia, R.R.C. Pinto, S. D. Vecchio, T.R. Oliveira, M.C.B.P. Rodrigues
106-(SP-448) Ezzz Ride Armor: A Technological Approach to Personalized Orthotic Development. E.K. Rorato, T. Ganga, A. Coutinho, M. E. Kunkel
Assistive Technologies and Rehabilitation (17:30 - 18:30) Chair: Teodiano F. Bastos (UFES)
107-(SP-459) Fabricação de dispositivo de adequação para redistribuição de pressão em pacientes de UTI. M.E.F. Toigo, C.A. Costa
108-(SP-464) Development of an electrostimulator with gait detection circuit. V.A. Andrade, S. Del Vecchio, M.C.B.P. Rodrigues, T.R. Oliveira, S.T. Faceroli
109-(SP-488) Myoelectric Thumb Prosthesis for Fine Motor Tasks in a Transmetacarpal Amputation Case: Interdisciplinary Approach of Health and Biomechanical Engineering. A.P.Q. Gómez, A.M.C. Quispe, Y.V. Tacza, J.M. Z. Mamani, R.J.C. Rios, P. Vela-Anton, D. Shah, T.A. Ganga, M.E. Kunkel
110-(SP-490) Utilizing CNC machine for manufacturing anatomical and personalized backrests in flexible foam blocks for postural adjustment and stabilization of people with Disabilities Wheelchair Users. E. S. Cardoso Jr, P. M. P. Hernandez, R. J. G. Silva, M. R. Marinho, A. A. Carvalho, M. A. A. Sanches
111-(SP-499) Development of a Low-Power Infrared Laser and LED Matrix Photobiomodulation Device. S.M. Macedo, E.S.C. Júnior, P.M. Portilla, L.X. do Nascimento, R.J.G. Silva, M.R. Marinho, F.Y. Obana, A.V. Corazza, A.A. de Carvalho, M.A.A. Sanches
Special Topics (11:30 - 12:30) Chair: Anderson Gabriel Santiago (UFABC)
112-(SP-63) Epidemiological characteristics of elderly users of the Elderly Reference Center. A.C.B. Brizzi L.H. Moreira,
113-(SP-106) Mathematical modeling to estimate Perfusion in Pressure Injuries. P.J.S. Voziniak, J.C.P. Coninck, E.F.R. Romaneli, L. Ulbricht
114-(SP-134) Care information system - e-SUS APS: implementation architecture. E.A.R. Jose, A. P. Romani, H. Tanaka
115-(SP-224) Predicting blood glucose levels in type II diabetes: a pilot study using continuous monitoring and long short-term memory models. M.H.V. Mourão, L. dos Santos, M.M. Amaral
116-(SP-230) Impacto da água ozonizada na redução de ATP nas superfícies da estação de trabalho multiprofissional de um UTI: uma análise pré e pós limpeza e desinfecção. I. O. B. Simplio, M. K. V. Miranda, J. S. Bezerra, M. S. Ferreira, L. P. Alves
Special Topics (17:30 - 18:30) Chair: George C. Cardoso (DF/FFCLRP/USP)

Wednesday - September 4 - Posters (11:30 - 12:30; 17:30 - 18:30)

117-(SP-308) Técnicas de balanceamento em modelos de Redes Neurais Artificiais para predição de eventos raros de mortalidade infantil. A.B. Mendes , R.M.V.R.A Almeida,N.K.O. Almeida
118-(SP-345) Development of ECG Signal Simulation Program for Education of Health Professionals. J.C. Gomes Junior,B.X. De Moura
119-(SP-372) Instabrain®: Integrated Radiology, Anatomy and

Cytology Application for Higher Education. T.R. Alonso, L.M. Armesto, A. Baptista, R.S. Navarro,D.S.F. Magalhães
120-(SP-382) Generating 3D models of knee menisci from medical imaging for multi-view autostereoscopic 3D display visualization. M.P. Justino, D.S.F. Magalhães,T.D. Stocco
121- (SP-465) Estado da arte da aplicação de realidade virtual na oftalmologia. W. Prado, I. S. Diniz

Thursday - September 5 - Posters (11:30 - 12:30; 17:30 - 18:30)

Biosensors, Transducers and Biom. Instrumentation (11:30 - 12:30) Chair: Henrique Cunha Carvalho (UFTPR)

1-(SP-585) Implementação da técnica de magnetoacustografia para localização da sonda enteral no trato gastrointestinal. M.A. Campos, L.G. Verdeli , F.R.E. Gimenes, J.H. Uliana , T.Z. Pavan,A.A.O. Carneiro
2-(SP-590) Comparative Analysis between Thermography and Thermocouple Thermometry in a Multilayer Model System Irradiated by Therapeutic Ultrasound. L. F. Pereira, A. M. C. Lopes, E. N. Taka, W. C. A. Pereira
3-(SP-622) Machine Learning Applied to Bacteria Identification Using an Electronic Tongue Based on Electrical Impedance Spectroscopy. L.S. Gavioli, A, C. Soares,J.C. Felipe
4-(SP-625) Desenvolvimento de células ultrassônicas para estudo da mortalidade de larvas de mexilhão-dourado. L. M. Santos, F. F. Silva, J. P. Leão-Neto, J. Henrique Lopes
5-(SP-647) In vitro and In vivo Behaviour of Magnetic Hydrophilic Matrices Tablets Accessed by Alternate Current Biosusceptometry. J. M. Barboza, G. S. Rodrigues, M. P. P. Silva, V. M. Brandão, G. A. Soares, J. R. A. Miranda

Biosensors, Transducers and Biom. Instrumentation (17:30 - 18:30) Chair: João Carlos Machado (COPPE/UFRJ)

6-(SP-671) Visual feedback system of an Isometric Dynamometer for assessment of manual force. J. Coelho, P. Paschoal, F. Motta, V. Uemoto, V. Barnabe, N. Mendes, M. Umezawa, W. Tropico, V. Soares, H. Moriya, D. Legendre
7-(SP-674) Desenvolvimento do protótipo de um dispositivo embarcado para aquisição de piscadas em seres humanos. G. S. Melo, V. S. Sousa, J. Baron, R. F. Kozan
8-(SP-685) Wearable proposal for Wistar rats: application and assessment. R. G. Pina, M. R. Figueiredo, R. C. Ferreira, I. C. V. Oliveira, C. L. Marques, S. K. P. Costa, H. T. Moriya, R. M. Felgueira
9-(SP-694) Fonte de corrente com ajuste de ganho em frequência para bioimpedância elétrica. G. Pinheiro, E. D. L. B. Camargo
10-(SP-805) Construction of portable and low-cost hypoxia-generating devices for healthcare applications. M. Papoti, F. B. M. Gobatto, Á. A. Trapé, C. A. Gobatto

Biomedical Informatics (11:30 - 12:30) Chair: Luiz Otávio Jr (DCM/FFCLRP)

11-(SP-537) Enhanced heart rate estimation using multimodal sensors via Deep Learning Data Fusion. E. L. Chuma , M. Bang, J. Alfredsson, Y. Iano, O. SaotomeH. Tanaka
12-(SP-592) Inteligência Artificial na Melhoria do Diagnóstico da Dengue: Um Estudo Utilizando Dados de Prontuário. C.C. da Silva, A.C.G. da Silva, C.L. de Lima, C.A.V. Cavalcante, F.T. Borges, G.E.Z. Acosta, H.R.L. de Melo, J.A. Bertotti Jr, K.A. Sancho, M.S. Neves, M.F.S. de Mendonça, G.M.M. Moreno, M.A. de Santana, J.C. Gomes, W.P. dos Santos
13-(SP-598) Machine Learning to Automate Classification of Diabetic Foot Ulcer (DFU) Photographic Records According to the University of Texas Classification. L.M. Syllos, T. Alves-Espindola, S. S. R. Fleury-Rosa, M. L. Brettas-Carneiro
14-(SP-699) Gaussian Bayesian Algorithm Analysis and Principal Component Analysis for Parkinson's Disease Classification. W. R. Sousa, J. P. Oliveira, D. S. Silva, D. H Carmo, R. W. R. Souza, V. H. C. de Albuquerque

15-(SP-717) Data analysis and machine learning techniques for predicting characteristic movement patterns of Parkinson's disease. R.O. Tierno, W.S. Martins, F.F. Vasconcelos, F.H.M. Oliveira
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Biomedical Informatics (17:30 - 18:30) Chair: Euclides L Chuma (UNICAMP)

16-(SP-732) Cluster de índices extremos de precipitação a partir de correlação entre notificações de caso de dengue no Nordeste do Brasil entre 2000 e 2022. P.V.C Santos, A.R.C. Gurgel, K.C. Lima
17-(SP-745) Development of an application with instructions for use for hospital medical equipment - Help Clinic. J. C. Coelho Junior, M. D. Menezes, A. F. Farah, A. E. Santos, M. C. G. Duarte
18-(SP-758) Integração e harmonização de datasets abertos sobre oscilação postural humana. J.J. Granito, R.N. Watanabe, M. Duarte
19-(SP-763) Comparison of microbial antibiotic and metal resistance profiles in sediments from Guanabara Bay (RJ) and Lake Airo (AM) Brazil. N.S.C. Santos, N.S. CruzD.A. Tschoeke
20-(SP-790) Comparison of abundance and diversity of antibiotic resistance and microbial diversity in the guandu river. G. Belchior, C. Thompson, F. Thompson, D.A. Tschoeke

Computational Modeling and Simulation (11:30 - 12:30) Chair: Cristhiane Gonçalves (UTFPR)

21-(SP-49) Influence of the Thickness of Biological Tissue Layers on Therapeutic Dose: Simulation Model. C. R. Silva, L.E. Maggi, S. F. Raymundo , W.C.A. Pereira
22-(SP-95) Um Modelo para Ventilação Pulmonar, Transporte de Gases e Autorregulação do Sistema Respiratório. M.V. TempleW.S. Nishitani
23-(SP-110) Bio-inspired Optimization Applied to Synthetic ECG Models for Generating Cardiac Arrhythmias. R. Laranjeira, E. Vasconcellos, A. Sobrinho, E. A. Barboza, T. D. Cordeiro, A. M. Lima
24-(SP-116) Numerical analysis of Heart Rhythm using nonlinear oscillator coupling. G. O. M. Silva, M. A. Ribeiro, F. S. Barros, A. A. Assef, J. M. Balthazar, C. Gonçalves
25-(SP-149) Registration and simulation of the antiarrhythmic effects of Naringin By use of the software Pharmalab. G.G. Silva, M.M. Grillo, M.L.A. Camargo, D.G. Goroso, J.L. Puglisi, R.R. Silva,
26-(SP-161) Effects of ventricular diastolic dysfunction on the hemodynamics of the left atrium with atrial fibrillation: numerical study of thrombogenesis indicators.. J. Torro, R.L. Amaral, J. Lameu
27-(SP-181) Modeling arbovirus outbreak forecasting based on case concentration and climatic factors using an echo state neural network. A. C. G. da Silva, C. L. de Lima, C. P. N. Silva, D. W. Lapa, F. E. da Silva, J. M. V. Fonseca, J. M. B. de Albuquerque, M. M. S. Andrade, C. C. da Silva, G. M. M. Moreno, J. C. Gomes, M. A. de Santana, F. T. Borges, K. A. Sancho, M. F. S. de Mendonça, H. R. L. de Melo, C. A. V. Cavalcante, G. E. Z. Acosta, J. A. B. Junior, M. S. Neves, M. Mané, R. V. Rosa, W. P. dos Santos

Computational Modeling and Simulation (17:30 - 18:30) Chair: Leonardo Abdala Elias (DEB/UNICAMP)

28-(SP-243) MonoWeb: interface Web para um Simulador de Eletrofisiologia Cardíaca. L. M. R. de Lima, R. R. Ribeiro, R. S. Oliveira, R.W. Dos Santos, J. O. Campos

Thursday - September 5 - Posters (11:30 - 12:30; 17:30 - 18:30)

29-(SP-287) Finite element analysis in lumbar vertebrae after pedicular subtraction. M. O. Oppermann, L. X. Cardoso, A. S. A. Silva, R. G. G. Amorim, E. A. Correa,
 30-(SP-417) Application of Preisach model in pulmonary hysteresis. M. A. P. Borges, D. F. Jesus, P. C. C. Santos, W. A. A. Rocha, R. Asano Jr, L. A. L. Almeida
 31-(SP-420) Evaluation of maternal-fetal radiation doses in interventional cardiology: use of Monte Carlo Simulation and computational anthropomorphic phantom. D.S. Souza, L. P. Neves, A. P. Perini, W. S. Santos,
 32-(SP-442) Inibição GABAérgica sobre células musgosas e atividades epileptiformes-simulações computacionais. K.J. Silva, A.C.G. Almeida, F.A. Scorza, C.A. Scorza, A.M. Rodrigues
 33-(SP-443) Post-stroke spasticity: insights from neuromusculoskeletal modeling. V.A. Silva, M.I.V. Orselli, E.F. Manfra

Nanotechnology and Nanodevices Applied to Health (11:30 - 12:30) Chair: Andriis Bakuzis (IF/UFG)

34-(SP-447) Avaliação de nanocarreador à base Albumina e Ferrita de Manganês como possível agente teranóstico para Magnetohipertermia e Magnetoacustografia. N. Zufelato, J. H. Uliana, A.F. Sanches, D. A. Collazos-Burbano, Marina Yuki Nakakubo, M. S. Carrião, T. Z. Pavan, A. A. Oliveira Carneiro
 35-(SP-454) Desenvolvimento de nanodispositivos cintiladores para aplicação em terapia fotodinâmica combinada à radioterapia. J. V. V. Lessa, E. J. Guidelli
 36-(SP-591) Biosusceptometria de Corrente Alternada para a avaliação do processo de internalização celular de nanopartículas magnéticas em células da linhagem CaCo2.. T. F. Santos, L. P. Buranello, V. M. Brandao, L. B. G. Panossi, J. R. A. Miranda, G. A. Soares
 37-(SP-600) Improving radiotherapy efficacy with Ag@Anthracene and Au@Anthracene hybrid nanoparticles. M. M. Isikawa, E. J. Guidelli
 38-(SP-606) Efeito de biovidro bioativo nanoestruturado com íon prata, no reparo de defeito em calvária de ratas. P. C. Pio, M. R. Costa, L. B. P. Rodrigues, J. C. Tsukide, O. Seabra, B. E. Paulo, C. C. M. Reis, S. A. L. Pereira, R. M., Etchebehere, J. R. Machado, A. C. A. Silva, M. V. Silva, C. J. F. Oliveira, V. Rodrigues Jr, R. C. Rosa

Nanotechnology and Nanodevices Applied to Health (17:30 - 18:30) Chair: Eder Guidelli (DF/FFCLRP/USP)

39-(SP-608) Prussian Blue Magnetic Nanoparticles for Magnetomotive ultrasound and Photoacoustic imaging application. P. Periyathambi, M. Isikawa, D. A. C. Burbano, J. E. Freire, N. Zufelato, K. Salomao, T. Pavan, A. A. Carneiro
 40-(SP-668) Síntese de Nanopartícula de Pectina para encapsulamento de fármaco anti-diabético. M.K. Santos, L.S. Hiratsuka ; A. Santos, D.B. Tada
 41-(SP-698) Probing the detection limit of C-Reactive Protein in acoustofluidics immunoagglutination analysis. A. B. R. Ferreira, G. T. Silva
 42-(SP-759) Incorporação de complexos de Ferro-Fenantrolina em nanopartículas metálicas para aplicação em terapia fotodinâmica de câncer. A.C. Araújo, D.B. Tada, H.C. Braga
 43-(SP-765) Quality by design for engineering of a prednisone-based emulsion as a promising treatment to modulate the inflammatory process. N. Rezende, G. L. Lourenço, L. A. Gusmão, A. C. Tedesco

Neuroengineering (11:30 - 12:30) Chair: Anibal Cotrina Atencio (UFES)

44-(SP-51) Integrated platform for planning and simulation of focused ultrasound beam for neurostimulation. M. B. L. Valença, V. H. E. Malheiro, R. C. Nogueira, A. A. O. Carneiro
 45-(SP-155) Hemoencephalography reveals activity of the prefrontal cortex during motor coordination tasks in individuals with Parkinson's disease. E. Moura Neto, A. M. Cabral, C. M. Alves, G. J. Luvizutto, J. R. M. Nardo, L. C. Mendes, A. O. Andrade
 46-(SP-210) Desenvolvimento de neuroestimulador de baixo custo adaptável a regimes de estimulação periódico, estocástico e caótico para otimização da supressão de crises epiléticas em modelos experimentais. H. N. P. Pinheiro, N. L. Janisset, R. Lantyer, S. Lopes-Azevedo, T. M. Pereira, T. S. C. Uchiyama, A.

G. Casali, J. F. F. Abreu, F. G. Porto
 47-(SP-275) Evaluation of machine learning methods for SSVEP-based BCIs. J.G. Maranhão, T.B.S. Costa, P. A. da Ana
 48-(SP-332) Event-related analysis of the cortical response induced by electrocutaneous stimulation of the finger. J. N. Mello, M. R. Garcia, L. L. M. Aguiar, A. B. Soares

Neuroengineering (17:30 - 18:30) Chair: Antonio M Rodrigues (COPPE/UFRJ)

49-(SP-396) Tractography-based robotic transcranial magnetic stimulation: analysing the dependence between motor evoked potentials and tracts. T. C. Marchetti, R. H. Matsuda, L. S. Betioli, O. Baffa Filho
 50-(SP-437) Characterization of the spinal shock and acute period in traumatic spinal cord injury by compression. I.A. Rocha, A.L.S. Viana, A. G. D. Campos, A. O. D. Suassuna, N.N.M. Santana, F.S. Fiorin, C.C.E. Santo
 51-(SP-440) Desenvolvimento de um sistema de retorno háptico para controle postural de pessoas com lesão medular: Integração com interface cérebro-máquina. V.H.Rodrigues, H.F. da Silva, H. V. P. Martins, E. Krueger, M.B.M. França
 52-(SP-466) Desenvolvimento de metodologias de processamento digital de imagens para segmentação automática de objetos aplicada ao estudo de comportamento animal. G.G. Maciel, T. A. Monteiro, G. O. da S. Filho, A.M. Pacheco, A. Radiske, M. C. Gonzalez

Biomedical Signal and Image Processing (11:30 - 12:30) Chair: Joaquim C Felipe (DCM/FFCLRP/USP)

53-(SP-413) Evaluation of inertial sensors for Sign Language Recognition in embedded application based on Edge Impulse platform. L. S. V. Bôas, G. G. Silva, L. d. L. C. Faxina, A. T. P. Inafuco, T. S. Dias, J. J. A. Mendes Junior
 54-(SP-438) SCAPy: Contagem de Adipócitos por Processamento Digital de Imagens. V. L. C. Gilnek, C. R. M. Mauricio, C. Boscaroli, F. F. F. Peres
 55-(SP-439) Recognition of Obstructive Sleep Apnea through a single channel ECG Signal Analysis. R. Castilho, M. C. F. Castro
 56-(SP-441) Artificial neural network-based method for EEG frequency patterns recognition. G. J. Alves, D. R. R. Freitas, A. V. M. Inocencio, J. V. S. Alves, R. E. Araujo, M. A. B. Rodrigues
 57-(SP-450) Segmentation and identification of breast nodules in ultrasound images. W. A. Souza¹, P. E. Ambrosio², S. M. Iglesias³
 58-(SP-453) Harmonization of two high-density EMG datasets. N. B. Moura, R. N. Watanabe
 59-(SP-469) Estimativa de taxa de proliferação de células de câncer de mama em patologia digital utilizando Ki67. E. Ostroski, S. O. Ioshii, T. K. D. Ostroski, G. C. M. De Moraes, Y. F. A. F. S. De Souza, D.G. Peres, F. K. Schneider
 60-(SP-481) Study on the K-means and threshold methods for image segmentation: application in melanoma tumor recognition. B. B. Ribeiro, V. Wasques

Biomedical Signal and Image Processing (11:30 - 12:30) Chair: Matheus C Moraes ((UNIFESP/SJC-SP)

61-(SP-482) Algoritmos de Otimização Binários aplicados à seleção de hiperparâmetros do Perceptron Multicamadas para identificação de Edema de Reinke. R. Pignelli, M. F. Castoldi, M. E. Dajer, D.H. Spatti, P. R. Scalassara
 62-(SP-501) Analysis of the efficiency of an upper limb exoskeleton in mitigating ergonomic risks in work with raised arms during polishing activity in the aeronautical industry. C. Steudel, J. J. A. Mendes Junior, D. P. Campos
 63-(SP-522) Colorimetry of skin Phantom with digital camera. M.S. Sampaio, K.B. Barros, R.M.Q Lob^{ao}, L.B. Cruz Junior, L. Bachmann
 64-(SP-526) Explainable artificial intelligence for Chronic Kidney Disease diagnosis. F.F. Lopes, M.C.F. Castro
 65-(SP-553) Comparison of rotation of vectorcardiograms from Frank and Kors transformation matrix. A. N. Barros, G. B. Araújo Filho, R. A. Hortegal, R. S. Meneghelo, R. H. L. Cancellier, H. T. Moriya, G. Y. Fuzinato
 66-(SP-567) Studying the statistical behavior of a deep neural network during age and gender classification task based on dental panoramic images.. D. R. Pultrini, L. O. Murta
 67-(SP-574) Serious games for the elderly: an fMRI functional connectivity assessment. V. A. Oya, R. F. Casseb, F. Ota, J. Vicentini, S. Hirata, L. M. Li, G. Castellano,

Thursday - September 5 - Posters (11:30 - 12:30; 17:30 - 18:30)

Biomedical Signal and Image Processing (17:30 -18:30) Chair: João Salinet (UFABC)	Biomedical Robotics and Biomechanics (17:30 - 18:30) Chair: Elisangela Ferretti Manfra (PUC-PR)
68-(SP-605) Assessing age-associated influences on paramagnetic and diamagnetic susceptibility maps from postmortem human brains. J. H. M. Azevedo, A. Avanzine, F. S. Otsuka, M. C. G. Otaduy, C. E. G. Salmon	88-(SP-277) Comparação da Amplitude da Impedância Elétrica da Pele e Ângulo de Fase em indivíduos com e sem dor lombar crônica. M. F. Magalhaes, J. S. Pinheiro, R. R. J. Guirro
69-(SP-607) Optic disc and optic cup image segmentation for Glaucoma detection. D.F. Assis, P.C. Cortez, P.C. Motta, B.R.S. Silva, A.G. Moreira	89-(SP-301) Desenvolvimento de um sistema de tração para prótese de mão robótica. C.L. Oliveira, J. J. A. Mendes Junior, D.P. Campos
70-(SP-613) Microcalcification detection with morphological operations and watershed segmentation. B. A. M. Goes, P. C. Carneiro, A. C. Patrocínio	90-(SP-366) Variabilidade do movimento de mulheres com e sem dor femoropatelar durante tarefa funcional de agachamento unipodal. B.S. Ferreira, M.C. Waiteman, T.M.S.B da Silva, M.A.S. Prado, R.V. Briani, F.M. de Azevedo
71-(SP-632) Enhancing kidney CT Scans: harnessing image processing tools to mitigate iodine-based contrast agent concentration. I. Garcia, R. Coelho, C. M. Gurjao	91-(SP-377) Influência da exacerbação da dor sobre a variabilidade do movimento de pessoas com dor femoropatelar. T.M.S.B. da Silva, M.C. Waiteman, B. S. Ferreira, J.S. Parra, R.V. Briani, F.M. de Azevedo, F.H. Magalhães
72-(SP-639) Estimation of gestational age in fetal brain images using image processing. L.N. Oliveira, F. S. da Silva, C.D. Vilar, H. B. Soares	92-(SP-475) BalancePro: novo Software de reconhecimento de imagem para análise de equilíbrio. M. Tenorio, S. Schreider, J. Menezes, T. Bastos, E. Caldeira, C. Santo, A. Dantas
73-(SP-642) Ambiente de visualização, análise e reconstrução de imagens tomográficas. A. A. S. Zucherato, M. D. Raed, E. R. Moraes	Clinical Diagnostic and Therapy Systems (11:30 -12:30) Chair: David A. C-Burbano (GIIMUS/USP)
74-(SP-644) Current perception threshold in patients with Parkinson's disease. D. M. S. Liquori, K. S. Carlos, A. L. Z. Rosso, C. J. Tierra-Criollo	93-(SP-415) Determination of the composition of protein, lactose and lipids present in commercial whey proteins using Raman spectroscopy. T.R. Rebelo, L.G. Nóbrega L. Silveira Jr.
Biomedical Signal and Image Processing (17:30 -18:30) Chair: Antonio Carlos Shimano (FMRP/USP)	94-(SP-518) Características internas de um equipamento de ultrassom modo-B portátil utilizado para avaliar ecointensidade. T.C. Boumer, J. Oliveira, J. M. Maia, M. A. Souza, A.R.S. Gomes, E.F. Manfra
75-(SP-653) A classification approach for Diabetic Retinopathy: binary and multiclass. G. V. de Oliveira, J. B. C. de Oliveira, C. V. G. Moura, P. C. Motta, D. F. de Assis, B. R. S. Silva, P. C. Cortez	95-(SP-542) Toward enhanced clinical diagnosis: automation of hematological tests using Raspberry Pi. T.A. Gouvêa, M.H. Domingos, L.T. Lima, L. S. Rebouças, F. L. Lopes
76-(SP-654) Uso de derivações bipolares de canais de EEG para reduzir o efeito de ruídos correlacionados em detectores multivariados de resposta evocada. P.F.F. Rocha, E.M.A.M. Mendes, L.B. Felix	96-(SP-560) Production and characterization of phantoms with acoustic properties of human skin. S.F. Raymundo, B.L. Ferreira, C.R. Silva, A.C.R. Silva, W.C.A. Pereira
77-(SP-662) Estabelecimento de um protocolo para análise cinemática bidimensional dos membros superiores. L. G. R. Sarmento, I. M. Miziara, M. C. P. Fonseca, Pinheiro, K. V. A. S. Gomes, D. C. O. Dias, K. P. B. Araújo, Y. O. Costa	97-(SP-588) Dispositivo para fotobiomodulação tóraco-abdominal como adjuvante no tratamento da Sepse. M. V. Pires, C. J. Lima
78-(SP-679) Comparative mechanical study from supramalleolar osteotomy on a virtual model. L. P. Acosta, R. Olleac, D. G. Goroso, F. D. Farfan	Clinical Diagnostic and Therapy Systems (17:30-18:30) Chair: Patricia Nicolucci (FFCLRP/USP)
79-(SP-680) Avaliação de classificadores no reconhecimento de emoções através da voz. L. M. Silva, S. E. N. Correia, S. L. N. C. Costa	98-(SP-626) Análise do uso da Radioterapia Moderna na técnica de Ablação Ovariana. L.S. Mioto, J.F. Pavoni
80-(SP-727) Deep learning models for automatic morphological evaluation of endothelial cells. M.E. Nicot, W. D. Font, J. J. Luna, L. F. Gomes	99-(SP-629) Raman spectroscopy for qualitative analysis of Metformin HCl tablets through blister package. T.R.O. Heinzelmann, M. C. O. Carvalho, L.C.S. Santos, L.L. Azevedo, C. J. Lima, A. B. Fernandes, L. Silveira Jr.,
81-(SP-730) Multifunctional FPGA-based system using Pulse Amplitude Modulation (PAM) technique for Medical Ultrasound Research. P.L.S. de Moura, J.M. Maia, A.A. Assef	100-(SP-670) Assessment of the effect of antimicrobial photodynamic therapy on multidrug resistant Acinetobacter baumannii Strain Biofilm - an in vitro study. I. R. Brambilla, L. M. C. Marcolino, J. G. Pinto, J. Ferreira-Strixino
82-(SP-739) Detection and classification of spinal pathologies in x-ray scans using the YOLOv8 network. F. R. F. Oliveira, L. A. Pinto, F. G. Pereira, A. B. F. Antunes, R. P. Lopes	101-(SP-677) Deep ensemble model for lung nodule classification in computed tomography scans. N. Mariotto, A. F. F. Alves
Biomedical Robotics and Biomechanics (11:30 - 12:30) Chair: Guilherme N N Neto (PUC-PR)	102-(SP-724) Eficácia da terapia intravascular à laser no tratamento da dor lombar crônica não específica (DLCNE). M. G. S. Belfort, C. J. Lima, F. D. R. P. Santos, J. G. Santos, A. B. F. Moretti
83-(SP-21) Respiratory Oscillometry in Scoliosis: changes in resistive and reactive properties with increasing deformity degree. C.M.S. Sousa, C. O. Ribeiro, L.E. Carelli, A. L. C. Pessoa, P.L. Melo,	103-(SP-803) Fetal dose in a 24-week pregnant woman from [18F]FDG PET imaging with voiding model. C.M. Dartora, N. G. Cavedini, A. M. Marques da Silva
84-(SP-22) Oscillatory mechanics in individuals with post-tuberculosis lung disease: biomechanics and diagnostic use. B.T. Caldas, A.J. Lopes, P.L. Melo	Assistive Technologies and Rehabilitation (11:30 - 12:30) Chair: Ederson Cichaczewski (UNINTER)
85-(SP-159) Potential use of correlation dimension for analyzing postural sway in stance position. M. F. Vieira, R. S. Gomide, A. O. Andrade	104-(SP-517) Integration of image recognition techniques applied to the identification of braille characters on a portable interface. C.V. Reche, C. A. Ferri
86-(SP-232) A variabilidade do torque de extensores de joelho está correlacionada com a cinemática e a qualidade do movimento avaliada clinicamente durante o Teste de Descida de Degrau?. G.C. Francischetti, M.C. Waiteman, S. V. Negrin, F.M. Azevedo, R.V. Briani, A.F.B. Botta	105-(SP-581) Motor learning of people with Autism Spectrum Disorder during a computer task using a webcam and a touchscreen. I.A.P. de Moraes, J.P. Martinez, C.A.O. Alberissi, T.D. da Silva, L.V. de Araújo C.B.M. Monteiro, F.H. Magalhães,
87-(SP-276) Assessing surgical instrument usability with a testbench based on motion capture and robotic arm: a pilot study. M. Daghero, S. Borrelli, T. M. Vieira, M. Terzini,	106-(SP-649) Análise de dispositivos BSN (Biomechanical Sensor Node) para mensuração e análise do movimento humano. A.C. Marques, G. H. Yamamoto, W.D. Parreira, D.R.C. Dias, A.T. Akabane, A.F. Brandão,
	107-(SP-706) Prototype of a low-cost electronic cane aimed at visually impaired or deafblind people. S. O. Lino, R. S. Santana Filho, G. A. G. Orpheu, G. L. Silva

Thursday - September 5 - Posters (11:30 - 12:30; 17:30 - 18:30)

108-(SP-712) Artificial Intelligence resources in promoting healthy aging. T. Silva, A. Scarvada, C. Balbino
Assistive Technologies and Rehabilitation (17:30 - 18:30) Chair: Maria Claudia F de Castro (FEI-SP)
109-(SP-716) Bicycle crank assistive propulsion technology: mechanical design, instrumentation and control. O.L. Silva, T. V. Queiroz, P.H.G. Libório, M.F. Teixeira Jr, F.S. da Silva, J.V.S. Andrade, M. Nascimento, M.T. Ronqui, F. Leonardi
110-(SP-726) Avaliação comparativa de um carrinho motorizado adaptado com controle PWM e modelo de referência no âmbito do Projeto Adapt. R. de O. Dias, B.B. Saraiva, P. S. C. Chagas, A. C. E. Facchin, R. R. A. da Silva, R. J. R. Oliveira, V. A. de Lima, I. C. S. Brighenti, F. A. Figueiras
111-(SP-729) A biomechanical movement analysis dataset and development of an open catalog for electronic rehabilitation. E.V.S. Siqueira, L.S. Amorim, T.B.G Lafayette, J.M. Teixeira, P.J.L. Silva, F.L.S. Nunes, F.F.F. Peres, V. Teichrieb, A.E.F da Gama
112-(SP-740) Rede neural aplicada ao controle de prótese didática de membro superior. S. R. Araujo, S. Del Vecchio, S. T. Faceroli, T. R. Oliveira, M. C. B.P. Rodrigues
113-(SP-766) Análise do uso das Batidas Binaurais associadas à música em pessoas com ansiedade. P. F. Lima, E. S. P. R. Roque, A. R. Batista, E. Cichaczewski
Special Topics (11:30 - 12:30) Chair: Márcio N de Souza (COPPE/UF RJ)

114-(SP-273) Análise envoltória de dados na avaliação do desempenho do sistema de saúde das capitais brasileiras na pandemia Covid-19. A.C. Gonçalves, R.M.V.R. Almeida
115-(SP-512) Improving patient care through electronic records: a look at EHR implementation in a high-complexity hospital. A. L. Carvalho, C. R. Tim, L. Assis, L. Santos
116-(SP-551) Assessment of noise pollution at thend Air Instruction Squadron of the Brazilian Air Force Academy. J. C. A. Domingues, J. F. S. Costa Jr
117-(SP-594) Controle neural das unidades motoras do músculo bíceps femoral durante tarefas isométricas de flexão de joelho e extensão de quadril. J.C. Albarello, H.V. Cabral, L.F. Oliveira
Special Topics (17:30 - 18:30) Chair: Percy Nohama (UTFPR/PUCPR)
118-(SP-602) Disinfection of PLA instruments for biomedical applications: investigating the viability of ozonated water. M.C.O. Carvalho, T.R.O. Heinzelman, L.C.S. Santos, L.L. Azevedo, A.B. Fernandes, C.J de Lima,
119-(SP-692) Development of laboratory activities for teaching ultrasound concepts in an undergraduate Medical Physics classroom. I.K.F Stein, J.A. Sims
120-(SP-721) Caracterização do reagente Titulométrico Hanna® HI3815 na dosagem de cloretos em papel filtro para o teste do suor. D.S. Spozito, M.V.S.S. Rondom, M. F. Servidoni, E.T. Costa, F.U. Vieira Jr,
121-(SP-792) Cápsula polimérica para esterilização de vestes em emergências biológicas utilizando ozônio gasoso. F. P. Cantador, C. E. F. Magnani, G. H. Couto, S. R. Vaz, R. A. de Faria

Friday - September 6 - Posters (11:30 - 12:30; 17:30 - 18:30)

Biosensors, Transducers and Biom. Instrumentation (11:30 - 12:30) Chair: George C Cardoso (DF/FFCLRP/USP)
1-(SP-701) Study of coupling fluids to improve signal-to-noise ratio in robotic breast ultrasound transducer. B. A. Basseto, L. M. da Costa, N. Assugeni Neto, T. Z Pavan, A. A. O. Carneiro
2-(SP-714) Development of a low-cost and wearable accelerometer-based system for motion monitoring. C. S. Stella, F. L. Bertotti, A. L. F. Silveira
3-(SP-757) Avaliação e imagem da biodistribuição de nanopartículas magnéticas em um modelo de cirrose hepática via Biosusceptometria de Corrente Alternada. J. G. B. Araújo Neto, V. M. Brandão, V. A. Mattos, J. P. P. Borges, N. T. D'Agostini, D. O. Páron, J. R. A. Miranda, G. A. Soares
4-(SP-762) A influência do omeprazol nos processos de dissolução de comprimidos magnéticos pH dependentes avaliados por farmacomagnetografia. J. P. P. Borges, G. S. Rodrigues, J. G. B. Araújo Neto, D. O. Paron, J. R. Miranda, G. A. Soares
5-(SP-769) Development of a quality control protocol of radiofrequency coils in pre-clinical magnetic resonance scanners.. J.M. Aguiar, D. Szczupak, K.T. Chaim,, D.Papoti
Biosensors, Transducers and Biom. Instrumentation (11:30 - 12:30) Chair: Aparecido A Carvalho (FEIS/UNESP)
6-(SP-774) Sistema embarcado para de medição de bioimpedância abdominal. I. Diniz, W. Prado, B. M. Pereira
7-(SP-776) Wireless communication module for pushrim force measurement in power assisted wheelchair. I.C.L. Coqueiro, F. Leonardi, O.L. Silva
8-(SP-780) Protótipo didático de uma caixa automatizada para transporte de órgãos. G. R. Castro, S. R. Araújo, L. C. Oliveira, T. R. Oliveira
9-(SP-794) Avaliação da farmacomagnetografia do efeito prócinético na absorção de metronidazol. N. T. D. Agostini, L.H. Gustavo, J. G. B. Araújo Neto, V. A. Mattos, J. R. A. Miranda, G. A. Soares
10-(SP-804) Desenvolvimento e aplicação de uma ponteira de corte ósseo utilizando o sistema ultrassônico Sonatus. I. C. R. Sousa, M. V. M. Anchieta, J. H. Lopes

Computational Modeling and Simulation (11:30 - 12:30) Chair: Fernando H Magalhães (EACH/USP)
11-(SP-484) Spatio-temporal prediction of arbovirus cases using a reservoir computing algorithm. A. C. G. da Silva, C. L. de Lima, C. P. N. Silva, D. W. Lapa, F. E. da Silva, J. M. V. Fonseca, J. M. B. de Albuquerque, M. M. S. Andrade, C. C. da Silva, G. M. M. Moreno, J. C. Gomes, M. A. de Santana, F. T. Borges, K. A. Sancho, M. F. S. de Mendonça, H. R. L. de Melo, C. A. V. Cavalcante, G. E. Z. Acosta, J. A. B. Junior, M. S. Neves, M. Mané, R. V. Rosa, W. P. dos Santos
12-(SP-498) Use of allometric scales for numerical study of coronary arteries hemodynamics. O.N.C. Gregorio, J. Lameu
13-(SP-503) Creating digital twins for cardiac electrophysiology in patients with non-ischemic dilated cardiomyopathy. T. J. Soares, T. D. Franco, F. J. M. Santos, T. R. Schmal, T. G. S. Souza, R. S. Oliveira, J. O. Campos, R. W. dos Santos
14-(SP-519) Evidence map of computational simulation tools for vascular accesses in dialysis processes. K. A. Rosario, S. L. Stebel, G. B. Borba
15-(SP-619) Assessing attenuation coefficient and heating through therapeutic ultrasound on tissue layers phantoms. C. R. Silva, L.E. Maggi, W.C.A. Pereira
16-(SP-650) Análise do impacto do tratamento antiviral no modelo da dinâmica populacional da infecção por Dengue. K.F.S. Carvalho, M.C.R. Vilac, a, W.F. Rodrigues, J.N. Silva, E.T.A. Silva, C.D.M. Regis
17-(SP-687) Modelagem geométrica de guias cirúrgicas para osteotomia periacetabular em busca de adaptabilidade, precisão e eficiência mecânica. E. S. Rodrigues, F. S. Bastos, B. G. S. Souza, E. B. Las Casas
Computational Modeling and Simulation (11:30 - 12:30) Chair: João Lameu da Silva Junior (UFABC)
18-(SP-691) Análise do vírus da Dengue em diferentes estágios da gravidez. W.F. Rodrigues, K.F.S. Carvalho, J.N. Silva, M.C.R. Vilaça, E.T.A. Silva, C.D.M. Regis
19-(SP-693) Nonlinear ventilatory mechanics models for assessing a pulmonary injury index in dogs: preliminary results. M.L.C. Bueno, J.H.N. Soares, F.C. Jandre
20-(SP-695) Geometria de malha poligonal para simulação Monte Carlo visando cálculo de dose em Radioterapia. R.O.

Friday - September 6 - Posters (11:30 - 12:30; 17:30 - 18:30)

Scatena, J.E. Batista, L.O. Murta

21-(SP-704) Exploration of energy expenditure cost functions in modeling the pendulum test with Scone® Software. R.L. da Silva, J.W. Withers, M. I. V. Orselli³, E.F. Manffra

22-(SP-707) Analysis of Artificial Neural Networks and their application in Pharmacokinetics: a narrative review. T. Souza, L. Abreu, R. Abreu, G. Luz

23-(SP-738) Dose distribution in radiation therapy for ocular conjunctival lymphoma. V. Oliveira, P. Nicolucci

24-(SP-770) Exploring the impact of viscoelasticity on mechanical performance in porcine knee ligaments through static load analysis. B. M. Silveiraand, P. P. Kenedi

Neuroengineering

(11:30 - 12:30) Chair: Alcimar Barbosa Soares (UFU)

25-(SP-543) Evaluating the impact of the use of Cerebrospinal Stimulation, Motor Imagery, Virtual Reality and Pedaling on Beta and Mu Band Modulation in post-stroke and healthy subjects. S. Mehrpour, A. M. Cabral, M. M. Ferreira, F. B. Cabral, I. F. Jensen, A. O. Andrade, T. F. Bastos Filho,

26-(SP-578) Quality assessment of high-density surface myoelectric recordings from a new wearable electrophysiological signal acquisition and processing system for human-machine interfaces. R. G. Molinari, F. R. Santos, L. A. Elias

27-(SP-638) The use of machine learning and tractography in hotspot identification for transcranial magnetic stimulation. L. S. Betioli, R. H. Matsuda, T. C. Marchetti, C. Rondinoni, R. Tinós, O. Baffa Filho

28-(SP-675) Visual receptive field responses in multiple brain areas. N. S. Melo, G. G. Gadelha, L. L. Santiago, T. I. Ren, F. J. R. Sales, N. A. P. Vasconcelos

29-(SP-718) Desenvolvimento e validação clínica de procedimento para realização de Potenciais Evocados Visuais Multifocais através da Tecnologia TempoCerto. I. S. S. Telles, A. M. Conceição, M. Cagy, P. R. Galhanone, D. Abramov, D. S. Silva, A. M. F. L. Miranda de Sa

Neuroengineering

(11:30 - 12:30) Chair: Claudia Vargas (UFRJ)

30-(SP-734) Software for 2D kinematic analysis of angular parameters in healthy rats during real-time locomotor training.. E.R.M. Silva, C.C. do Espírito Santo, A.F.O.A. Dantas

31-(SP-744) Using Riemannian processing to represent manifolds in EEG. S.Y. Yamauti, A.K.A. Soares, G.O.S. Filho, A.B. Costa, T.S. Albuquerque, G.A.M. Vasiljevic

32-(SP-752) Evaluation of selective attention with auditory steady-state response using AM2 tones. J.M. Castillo-Guerrero, D.A. Molina-Vidal, P.F. Cevallos-Larrea, C.J. Tierra-Criollo

33-(SP-755) Adverse effects caused by tDCS during treadmill gait training in individuals with Parkinson's disease: A longitudinal study. L. V. Silva, I. M. Oliveira, C. Lang, L. P. L. Dantas, L. M. M. Santiago, A. R. R. Lindquist, C. C. Espírito Santo

34-(SP-784) Exploring the association between α -synuclein, astrocytes, and macrophages density in a compression model of spinal cord injury in rats. A. L. S. Viana, I. A. Rocha, A. O. B. Suassuna, A. G. D. Campos, N. N. M. Santana, F. S. Fiorin, C. C. Espírito Santo

Biomedical Signal and Image Processing

(11:30 - 12:30) Chair: João Carlos Machado (COPPE/UFRJ)

35-(SP-746) Improving MRI-Based diagnosis of Sacroiliitis Using swin transformer networks. T. M. Martins, M. A. Lima, P. M. A. Marques, N. S. B. Miyoshi

36-(SP-750) Towards a contactless feature extraction for speech imagery recognition: an exploratory ear-EEG study. L. M. B. Silva, A. C. Atencio, D. Delisle-Rodriguez

37-(SP-756) Desempenho de dois protocolos de colocação de eletrodos para registro de potenciais motores evocados pela Estimulação Magnética Transcraniana no Músculo Biceps Braquial: um estudo piloto utilizando eletromiografia multicanal. A.C.B. Valente, L.S. Betioli, R.H. Matsuda, V.L. Pinto, M.A.C. Garcia

38-(SP-761) Gesture classification using Mechanomyographic signals and Multi-Layer Perceptron. L. Santos, G. Nogueira, M. Kugler, P. Nohama

39-(SP-767) YOLO-based ankle ligament segmentation from Magnetic Resonance Imaging. F. C. de Sousa, D. S. Silva, Bruno R. S. Silva, R. S. Astolfi, M. L. Zonari, P. C. Cortez, V. H. C. de Albuquerque

Biomedical Signal and Image Processing

(11:30 - 12:30) Chair: Rosana Bassani (DEB/UNICAMP)

40-(SP-778) Automatic anterior talofibular ligament injuries classification using Ankle MRI. A. E. P. Alves, C. V. G. Moura, F. C. de Sousa, D. S. Silva, B. R. S. Silva, I. S. Guedes, R. S. Astolfi, P. C. Cortez, V. H. C. de Albuquerque

41-(SP-793) Classification of diabetic retinopathy with different combinations of levels using Xception architecture. V. O. Soares, P. A. A. Silva, E. T. A. Silva, L. V. Batista, C. D. M. Regis

42-(SP-797) Identification of different types of Ischemic Stroke. E. T. A. da Silva, B. J. S. Nogueira, V. O. Soares, P. A. A. Silva, C. D. M. Regis

43-(SP-799) Challenges in remote sensing using visible light for blood pressure measurements. E. L. Dias, G. C. Cardoso

44-(SP-802) Evaluation of diagnostic value of post-processing techniques for Vascular Imaging in Computed Tomography. K.S. Peglow, L.F. S. Toschi, M. L. Vezzosi, A.M. Marques da Silva

Biomedical Robotics and Biomechanics

(11:30 - 12:30) Chair: Luciano L Menegaldo (PEB/UFRJ)

45-(SP-487) Estimativa da força muscular do músculo gastrocnêmio do rato com estimulação elétrica bifásica: comparação entre medidas diretas por célula de carga, modelo EMG-driven otimizado e bioimpedância. L. L. Menegaldo, A. B. Coutinho, M. N. Souza

46-(SP-572) Does dorsiflexion static stretching influence muscle and tendon stiffness on maximum voluntary contraction?. M.C.A. Brandão, L.F. Oliveira

47-(SP-610) Avaliação da influência biomecânica de equipamento de segurança para motociclistas em simulações de caminhada. J. B. Bonfim Filho, M. N. D. Barcelos Jr, R. S. Baptista

48-(SP-621) Variações de rigidez do músculo multifido, após uma sessão de alongamento estático. D.C. Palmieri, M.C.A. Brandão, V.B.O. Meireles, L.F. Oliveira

49-(SP-646) Distribuição da ativação muscular da cabeça longa do bíceps braquial no exercício de flexão de cotovelo com diferentes posições do ombro.. A.O. Silva, Hélio V. Cabral, T.T. Mattaand L.F. Oliveira

Biomedical Robotics and Biomechanics

(11:30 - 12:30) Chair: Olavo Luppi da Silva (UFABC)

50-(SP-725) Temporal dependence of the mechanical and electrical properties of skeletal muscle assessed through surface wave elastography and high-density electromyography. G.A. Grinspan,, L. F. De Oliveira, M.C. Brandao, N. Benech

51-(SP-733) Avaliação biomecânica do tornozelo durante a marcha de crianças usando tênis minimalista e tênis convencional. A.M.V. Silva, A.P. Xavier, J.R.M. Junior, P.F.M. da Silva, A.M.S. Muniz, L.L. Menegaldo

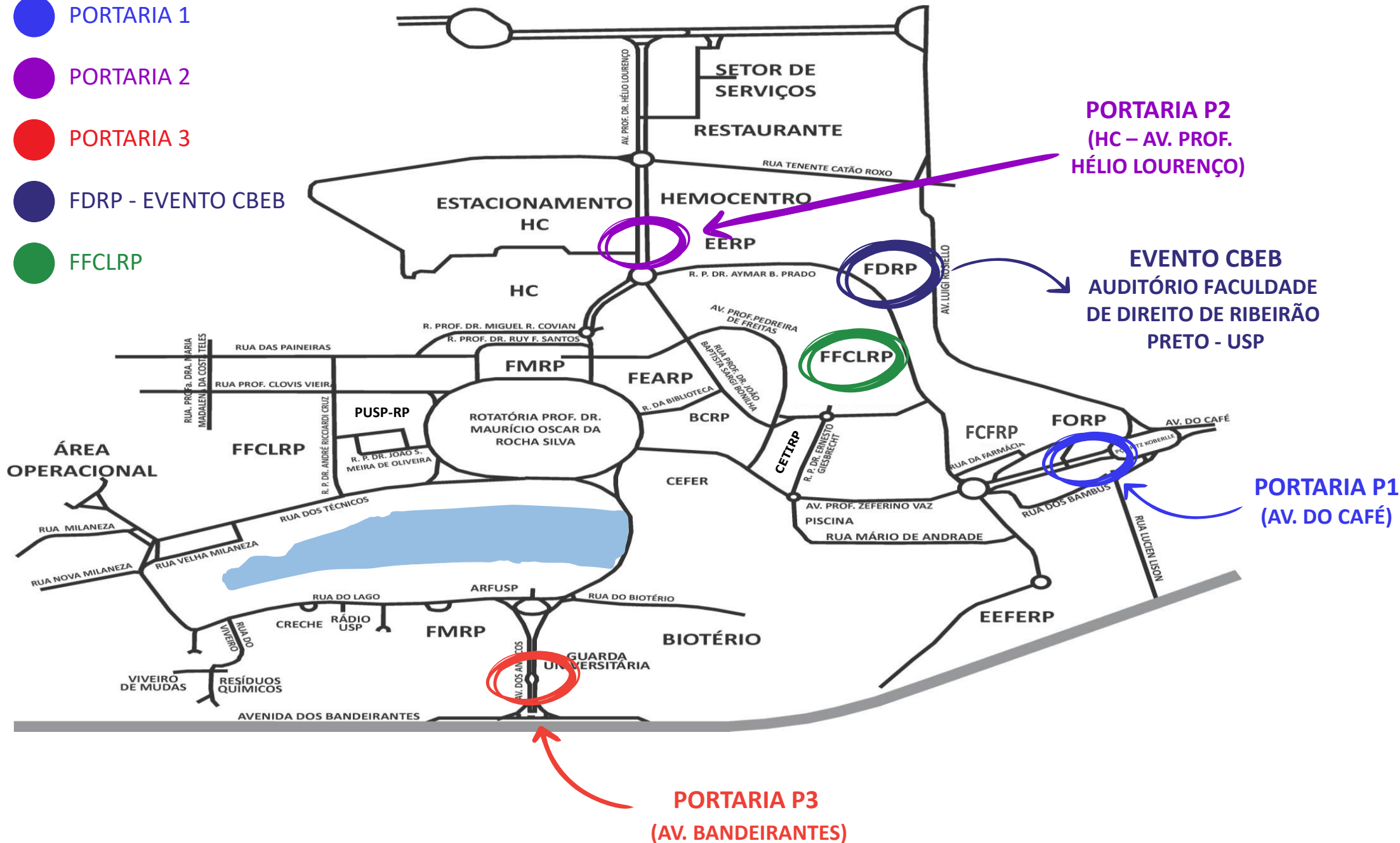
52-(SP-747) Differences of center of pressure and leg muscle EMG activity in standing with an passive exoskeleton for lower limbs. M. G. Nogueira, A. Forner-Cordero

53-(SP-771) Joint angle IMU and ESP-NOW-based system for outdoor monitoring. L. F. Machado, I. S. F. Portugal, P. Nohama, G. N. Nogueira Neto

54-(SP-779) Characterization of a Robotic Ultrasound System by repositioning, contact force and image quality. V.H.E. Malheiro, R.H. Matsuda, O. Baffa Filho, T.Z. Pavan, A.A.O. Carneiro

MAPA CAMPUS RIBEIRÃO PRETO – UNIVERSIDADE DE SÃO PAULO

- PORTARIA 1
- PORTARIA 2
- PORTARIA 3
- FDRP - EVENTO CBEB
- FFCLRP



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