



PAHCE 2011 organizational support by UFRJ. Hosted by Biomedical Engineering Program/COPPE and Center for Health Sciences.
PAHCE 2011 suporte organizacional da UFRJ. Realizado pelo Programa de Engenharia Biomédica/COPPE e Centro de Ciências da Saúde.

Linking health care needs and technology across the continent

Pan American Health Care Exchanges (PAHCE)

Conference, workshops, and exhibits

Cooperation/Linkages



www.pahce.org

Welcome
PAHCE - 2011

Location: Center for Health Sciences, Hélio Fraga Auditorium, University City, Fundão Island
March 28 - April 1, 2011
Rio de Janeiro, Brazil



Christ Redeemer - Photo: Ricardo Zerrener and Copacabana - Photo: Pedro Kirilos



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Program

ISBN 970-94677-0-0 (2006), ISBN 970-94677-2-7 (2007), ISBN 978-1-60585-006-1 (2008), ISBN (2009) (978-1-4244-3669-9) AMA PRA Category 1 Credit(s)[™]; CMA Certification in CME ; PAHCE 2009: ISBN 978-1-4244-3669-9; Library of Congress: 2008911781; IEEE Catalog Number: CFP0918G; Proceedings (Print) (Prod #: CFP0918G-PRT ISBN: 9781424436682). Digital Library. PAHCE 2010: Conference CD-ROM Version: ISBN: 978-1-4244-6293-3; IEEE Catalog Number: CFP1018G-CDR. Print Version: ISBN: 978-1-4244-6292-6; IEEE Catalog Number: CFP1018G-PRT. PAHCE 2011: Conference CD Version: ISBN: 978-1-61284-917-1; IEEE Catalog Number: CFP1118G-CDR. Print Version: ISBN: 978-1-61284-916-4; IEEE Catalog Number: CFP1118G-PRT.

PROGRAM SUMMARY (for program details see below)

PAHCE 2011: Conference CD Version: ISBN: 978-1-61284-917-1; IEEE Catalog Number: CFP1118G-CDR. Print Version: ISBN: 978-1-61284-916-4; IEEE Catalog Number: CFP1118G-PRT.

PROGRAM - details

PAHCE 2011: Conference CD Version: ISBN: 978-1-61284-917-1; IEEE Catalog Number: CFP1118G-CDR. Print Version: ISBN: 978-1-61284-916-4; IEEE Catalog Number: CFP1118G-PRT.

Linking health care needs and technology across the continents
An independent forum for patient care and technology support.

THE PAHCE

An independent forum for emerging medical technologies and innovations in procedures and techniques, equipment and appliances, which brings health care industries together with medical personnel, engineering and technical professionals, and those engaged in medical information technologies in the academia, hospital and clinical settings, and related sectors.

Endorsed by: IFMBE (International Federation for Medical and Biological Engineering)

In cooperation with international and national organizations - see main menu for a complete list of involved organizations.

PAHCE 2011 technically cosponsored by IEEE Rio de Janeiro Section; IEEE Brasilia Section; Morelos/Mexico EMB Chapter; and IEEE LA EMB Chapter PAHCE 2011 organizational support by UFRJ. Hosted by Centro de Ciencias da Saúde.

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PAHCE 2011 CONFERENCE ORGANIZATION**

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Sofia Espinoza, MSc., PAHCE 2011 Administrative Coordinator

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Workshop chairs and organizers: Alexandre Ferreli de Souza, M.Sc. ; Celso Suckow da Fonseca, Elyr Teixeira de Almeida Alves Eng MSc., Fernando Cesar Coelli, D.Sc.; Ing. Guillermo Avendano, Rodrigo P.B. Costa-Félix D.Sc.,

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Welcome

Welcome to the Pan American Health Care Exchanges Conference, PAHCE 2011, a meeting designed to create opportunities for cooperation, linkages and mutual enrichment especially among researchers and professionals of health care delivery and related technologies.

The PAHCE 2011 meeting takes place in the Rio de Janeiro, a city very well known for its natural beauty and rich culture. Founded in 1565 by Estácio de Sá, it was the capital of Brazil from 1763 to 1960 and also served as the center of the Portuguese empire during the Napoleonic war period (1808). It experienced economic cycles based on sugarcane, gold and coffee. Now, Rio is one of the most desired tourist destinations since the sixties and is the place where the next Soccer World Cup (2014) and Olympic Games (2016) will take place.

The program will include activities in three official languages (English, Spanish, and Portuguese). However, we have recommended that the presented material be in English so everybody will become aware of the latest research and developments independently where they take place. We hope you all will enjoy PAHCE 2011 activities, spend some time in getting to know each other and that it will open the doors to professional collaborations and linkages.

Wagner Coelho
Dr. Wagner Coelho A. Pereira
PAHCE 2011 President



Bienvenido

Bienvenido a la Conferencia "Pan American Health Care Exchanges PAHCE 2011", un evento destinado a crear oportunidades de cooperación, contacto y enriquecimiento mutuo, especialmente entre investigadores y profesionales del área de la Salud y sus Tecnologías asociadas.

El programa incluye actividades en las tres lenguas oficiales (inglés, español y portugués). No obstante, hemos recomendado que el material de las presentaciones, y al menos en los Abstracts, sea en inglés, así que todos van a poder enterarse de los últimos avances de las investigaciones, independientemente del lugar donde ellos ocurran. Esperamos que todos disfruten de las actividades del PAHCE 2011, se conozcan unos a los otros y que se abran puertas para nuevas relaciones y colaboraciones profesionales.

El encuentro PAHCE 2011 tendrá lugar en Rio de Janeiro, ciudad muy conocida por sus bellezas naturales y su rica cultura. Fundada en el 1565 por Estácio de Sá, ha sido capital de Brasil, de

1763 a 1960 y también centro del Imperio Portugués, durante el periodo de guerras Napoleónicas (1808). Ha pasado por ciclos económicos basados en la caña de azúcar, oro y café. Actualmente, Rio es uno de los más deseados destinos turísticos, desde los años sesenta, y es el lugar donde se celebrarán: la próxima Copa del Mundo de Fútbol (2014) y las Olimpiadas (2016).

Wagner Coelho

Dr. Wagner Coelho A. Pereira
PAHCE 2011 President



Bem-vindo

Bem-vindo à Conferência Pan American Health Care Exchanges PAHCE 2011, um evento destinado a criar oportunidade de cooperação, contacto e enriquecimento mutuo especialmente entre pesquisadores e profissionais da área de saúde e de tecnologias associadas.

O programa inclui atividades nas três línguas oficiais (Inglês, Espanhol e Português). Contudo, recomendamos que o material das apresentações seja em inglês, assim todos poderão se inteirar dos últimos avanços em pesquisa, independente do local onde eles ocorram. Esperamos que todos desfrutem das atividades do PAHCE 2011, conheçam-se uns aos outros e que se abram portas para relações e colaborações profissionais.

O encontro PAHCE 2011 ocorrerá no Rio de Janeiro, cidade muito conhecida por suas belezas naturais e rica cultura. Fundada em 1565 por Estácio de Sá, foi capital do Brasil, de 1763 a 1960 e também centro do Império Português, durante o período das guerras Napoleônicas (1808). Passou por ciclos econômicos baseados em cana-de-açúcar, ouro e café. Atualmente, o Rio é uma dos mais desejados destinos turísticos, desde os anos sessenta e é o lugar onde ocorrerão a próxima Copa do Mundo de Futebol (2014) e as Olimpíadas (2016).

Wagner Coelho

Dr. Wagner Coelho A. Pereira
PAHCE 2011 President



**Program timetable
Workshops schedule**

3/28/11 Monday

Professional workshops

Accident cases occurred in health service units: maintenance management and training influences. (W1M - P) Coordinators: Alexandre Ferreli de Souza, M.Sc. IEEE EMBS Senior Member; Fernando Cesar Coelli, D.Sc.; Celso Suckow da Fonseca Center for Technological Education (CEFET), Rio de Janeiro. 9:00 - 11:00 .

Challenges and software solutions in clinical engineering (W2M - P). Coordinator: Eng MSc. Elyr Teixeira de Almeida Alves, INOVECARE Comp www.inovecare.com 11:15 -13:00 PM.

Metrology as a link between patient and health care technology (W3M - E) Coordinator: Rodrigo P.B. Costa-Félix (rpfelix@inmetro.gov.br); Laboratory of Ultrasound; Brazilian National Institute for Metrology, Standardization, and Industrial Quality. (See note 1 and 2 below in Tuesday schedule)
Independent networking/social

3/29/11 Tuesday

Professional workshops

Neuroscience and learning: Learning and brain development - neuroanatomy, related locations and functions Part I. (W4T - S) 10:00 -12:00 PM, Coordinator: Ing. Guillermo Avendano.

Neuroscience and learning: The three functional blocks of the brain, learning disorders, psychophysiology and neuroscience. Biomedical Technology. Part II (W5T - S) 14:00 PM -16:00 PM. Coordinator: Ing. Guillermo Avendano.

Note 1: The workshops free for registered conference participants only, however preregistration is required. Send email to Erika Sales <erikasale@gmail.com> before 3/26, Friday noon. Others register for W1 (<http://www.pahce.org/P7RegistEN.htm>). The registered conference participants and the registered workshop(s) participants email your workshop selection (W1M; W2M; W3M; W4T, W5T)

Note2: Workshops only participants who register for two workshops may participate in the 3rd workshop free of additional charge.

Independent networking/social

3/30/11 Wednesday

Technical visits, independent networking city tours, and other functions.

10:00 - 14:00 Technical visits and tours.

The Center of Health Sciences// Centro de Ciências da Saúde

The Radiology Department // Departamento de Radiologia (TS1)

Clinical Research Unit// Unidade de Pesquisas (TS2)

Clinicas National Laboratory of Embryo stem-cells Laboratory// Laboratorio Nacional de Celulas-tronco Embrionarias (LANCE). (TS3)

Laboratory of Cell and Molecular Tagging// Laboratório de Marcação de Células e Moléculas - LMCM (TS4)

No cost to registered conference participants. Preregistration required. Limited to the first 30 persons per visit/tour. Sign up by sending an email to: to Erika Sales <erikasale@gmail.com> before 3/28, Monday noon.

Professional networking city tour - Rio, 3:30 PM - 5:30PM Independent and optional/self-reliant - information will be provided to registered conference participants.

Independent networking/social

3/31/11 Thursday

(See Online Registration at <http://www.pahce.org/P7RegistEN.htm>)

Location: Center for Health Science, block K, Hélio Fraga Auditorium, University City, Fundão Island, Rio de Janeiro, RJ, Brazil. // Centro de Ciências da Saúde, bloco K, Auditório Hélio Fraga, Cidade Universitária, Ilha do Fundão, Rio de Janeiro, RJ, Brasil.

8:15 Registration opens

09:00-11:30 (S01) Physical Properties of Biological Tissues by Ultrasonic Techniques. Detection & Imaging//Propriedades Física de Tecidos Biológico por Técnicas de Ultrassom. Detecção e Imagem (Special feature session organized by Dr. A. Ramos) Room / Sala 01; ID 211EBE, ID 153EBE, ID 207EBE, 120EBE, 137EBp, ID 165EAp, ID 200EBp

09:00-11:30 (S02) Rehabilitation and Biomechanics // Reabilitação e Biomecânica. Room/ Sala 02; ID 117SBs, ID 122EBs, ID 125SBs, ID 127EBs, ID 150 EBs, ID 177SBs.

09:00-11:30(S03) Biomedical Engineering: Brazilian perspective // Engenharia Biomédica: Perspectiva Brasileira (Special feature session organized by Dra. Lourdes Brasil) Room / Sala 03; ID 171PAp, ID 174PBp, ID 135PAp, ID 169PAp, ID 144PAp, ID 195PAp.

12:00-2:00 Organizational remarks and lunch break

14:00-15:00 (S04) Poster presentations (Posters set up 9:00 AM - 9:15 AM) Auditorium Hall / Entrada Auditório

ID 101EB, ID 102EA, ID 106PB, ID 111EA, ID 123EA, ID 128SB, ID 129EB, ID 130EB, ID 131SB, ID 132EB, ID 140EB, ID 142EB, ID 145EB, ID 148EB, ID 152EB, ID 155SB, ID 154EA, ID 156EB, ID 157PA, ID 159PA, ID 161PA.

15:00-16:50 (S05) Physical Properties of Biological Tissues by Ultrasonic Techniques. Detection & Imaging - Part II // Propriedades Física de Tecidos Biológico por Técnicas de Ultrassom. Detecção e Imagem - Parte II (Special feature session organized by Dr. A. Ramos) Room / Sala 01;

ID 197EBp, ID 210EBp, ID 219EBE, ID 228EBE, ID 172EBs, ID 138EBs, ID 141EBs.

15:00-17:10 (S06) Rehabilitation and Biomechanics - PartII // Reabilitação e Biomecânica - Parte II. Room / Sala 02;
ID 158SAs, ID 180SBs, ID 181SBs, ID 226SBs, ID 214PAp, ID 212PBs.

15:00-16:50 (S07) Biomedical Engineering: Brazilian perspective Part II // Engenharia Biomédica: Perspectiva Brasileira (Special feature session organized by Dra. Lourdes Brasil) - Parte II. Room / Sala 03;
ID 198PAp, ID 199PAp, ID 204PAp, ID 151PBp, ID 133PAp, ID 193EBp.

17:10-17:50 (S08) Feature presentation: Electrosurgery: Truths, Myths and Advances in Haemostatic Systems // Eletrocirurgia: Verdades e Mitos e os Avanços nos Sistemas de Hemostasia (P); José Alberto Burlá, COVIDIEN
Independent social/networking



4/01/11 Friday

(See Online Registration at <http://www.pahce.org/P7RegistEN.htm>)

Location: Center for Health Science, block K, Hélio Fraga Auditorium, University City, Fundão Island, Rio de Janeiro, RJ, Brazil. // Centro de Ciências da Saúde, bloco K, Auditório Hélio Fraga, Cidade Universitária, Ilha do Fundão, Rio de Janeiro, RJ, Brasil.

8:15 Registration opens

09:00-11:30 (S09) New R&I trends in Ultrasonic and Electronics Systems for Cardiovascular Diagnosis // Novas Tendências em P&D para Sistemas Ultrassônicos e Eletrônicos em Diagnóstico Cardiovascular (*Special feature session organized by Dr. A. Ramos*). Room / Sala 01;

ID 205EB, ID 206SB, ID 216SBs, ID 147SBs, ID 220SBs, ID 146SBs, ID 235EAp.

9:00-11:10 (S10) Biomedical Signal and Image Processing // Processamento de Sinais e Imagens Biomédicas. Room / Sala 02;

ID 103EAp, ID 143PBp, ID 229PBp, ID 136EB, ID 124 EAe, ID 126EAe.

9:00-11:30 (S11) Clinical Engineering // Engenharia Clínica. Room // Sala 03

ID 163EB, ID 168SAs, ID 164SBs, ID 121EBp, ID 134EBp, ID 186EBp, ID 178PBp.

12:00-13:20 Lunch and networking break

13:20-14:00 (S16) Feature presentation: The Brazilian Experience on the implementation of Ethics Committees in Research: historical background and perspective // A experiência brasileira na implantação de Comitês de Ética em Pesquisa: histórico e perspectivas (P); Carlos Alberto Guimarães, UFRJ

14:00-15:00: (S12) Poster presentations (*Posters set up 9:00 AM - 9:15 AM*) Auditorium Hall/Entrada Auditório

ID 166EB, ID 167EA, ID 170EB, ID 176SB, ID 182PB, ID 183PB, ID 184EA, ID 201EA, ID 203EB, ID 215EA, ID 221PB, ID 222EB, ID 223EA, ID 224EA, ID 225SB, ID 227EB, ID 234PA.

15:00-17:30 (S13) New R&I trends in Ultrasonic and Electronics Systems for Cardiovascular Diagnosis - Part II // Novas Tendências em P&D para Sistemas Ultrassônicos e Eletrônicos em Diagnóstico Cardiovascular (*Special feature session organized by Dr. A. Ramos*) - Parte II. Room / Sala 01;

ID 208EBp, ID 149EAs, ID 139EBs, ID 217EB, ID 179EB, ID 213EAe, ID 119EAe.

15:00-17:10 (S14) Biomedical Signal and Image Processing - Part II // Processamento de Sinais e Imagens Biomédicas - Parte II. Room / Sala 02;

ID 194EBp, ID 160EB, ID 173EAe, ID 175EAe, ID 209EB, ID 202SBs

15:00-17:30 (S15) Health care technologies. Room / Sala 03;

ID 105PAP, ID 187EBp, ID 196PBp, ID 192EBp, ID 115EBs, ID 116EAs, ID 111EAe.

17:30-17:50 Summary

Social/networking 19:30 - 22:00;

(open to registered conference participants - included in a regular registration only)

4/02/11 Saturday

Independent social/networking

Post conference independent programs (1-4 or more days)

and/or specialized independent individual visits.

PAHCE and another reason to visit

Rio de Janeiro, Brazil (See Online Registration at [/P7RegistEN.htm](http://www.pahce.org/P7RegistEN.htm))

3/28/11 Monday

Professional workshops

Accident cases occurred in health service units: maintenance management and training influences. (W1M - P) Coordinators: Alexandre Ferreli de Souza, M.Sc. IEEE EMBS Senior Member; Fernando Cesar Coelli, D.Sc.; Celso Suckow da Fonseca Center for Technological Education (CEFET), Rio de Janeiro.

9:00 - 11:00 . Location: Centro de Ciências da Saúde, bloco K, Room /Sala 01, Cidade Universitária, Ilha do Fundão, Rio de Janeiro. No cost to registered conference participants. Preregistration required. Send email to Erika Sales <erikasale@gmail.com> before 3/26, Friday noon.

The workshop intends to present a discussion of recent accident cases which occurred in health service units. The costs related to failures or accidents in hospital environment are associated to large financial and social consequences. The analyzed cases demonstrate the lack of appropriate maintenance and training policies. The goal of the workshop is to verify the need for professionalizing the maintenance management and training strategies in hospital environment.

Resumo: O workshop pretende apresentar uma discussão de casos de acidentes recentes ocorridos em unidades de serviços de saúde. Os custos relacionados com falhas ou acidentes no ambiente hospitalar estão associados a prejuízos financeiros e sociais. Os casos analisados demonstram falhas na política de manutenção e de treinamento. O objetivo do workshop é verificar a necessidade de profissionalizar a gestão, manutenção e planejamento de treinamento em ambiente hospitalar.

Challenges and software solutions in clinical engineering (W2M - P). Coordinator: Eng MSc. Elyr Teixeira de Almeida Alves, INOVECARE Company (www.inovecare.com) 11.15 -13.00 PM. Location: Centro de Ciências da Saúde, bloco K, Room /Sala 01, Cidade Universitária, Ilha do Fundão, Rio de Janeiro. No cost to registered conference participants. Preregistration required. Send email to Erika Sales <erikasale@gmail.com> before 3/26, Friday noon.

This workshop will address challenges and solutions in software faced by clinical engineering sectors and how Information Technology (IT) could be a great ally. A big tendency is the use of radio frequency identification (RFID) technology in hospitals. How has the clinical engineering been preparing for it? Furthermore, how will the IT sector deal with this technology? For example. The aim is to unite these two great players in a common goal, to increase hospital productivity and to ensure better services for the patients.

Resumo: Este workshop irá tratar de desafios e soluções em software encontrados por setores de engenharia clínica e como a Tecnologia da Informação pode ser uma grande aliada. Uma tendência inevitável é o uso da tecnologia de identificação por rádio frequência (RFID) em hospitais. Como a engenharia clínica tem se preparado para isso? Mais ainda, como o setor de TI irá se deparar com mais esta demanda? Por exemplo. O intuito é unir estes dois grandes players num objetivo comum, aumentar a produtividade hospitalar e garantir um melhor serviço para seus pacientes.

Metrology as a link between patient and health care technology (W3M - E) Coordinator: Rodrigo P.B. Costa-Félix (rpfelix@inmetro.gov.br); Laboratory of Ultrasound; Brazilian National Institute for Metrology, Standardization, and Industrial Quality, Duque de Caxias, Rio de Janeiro, Brazil. 14:00 - 17:00. Location: Centro de Ciências da Saúde, bloco K, Room /Sala 01, Cidade Universitária, Ilha do Fundão, Rio de Janeiro. No cost to registered conference participants. Preregistration required. Send email to Erika Sales <erikasale@gmail.com> before 3/26, Friday noon.

Metrology is the science of measurements and their applications. It concerns basic and general concepts of measurements, as well as associated terms and definitions. In any technology based development or application, crucial aspects are those related to metrology, as the confidence of the quantity being measured or the output of a source are remarkably important (regardless of physical principle underneath). Health care technologies are not exceptions, and extra compromises are on focus. In a humanistic approach, the patient is a vital part in a medical "system", as in many aspects it plays the most important role. For instance, a proper healing procedure using any kind of technology shall rely on the physical interaction between medical system and patient, as unwanted over or under doses would compromise the desired bioeffects. On the other hand, a medical diagnostic system shall also provide accurate enough data considering a particular application and patient. Considering the patient wellbeing as the final goal of a health care technology, metrology is a fundamental tool to assure medical equipment performance and safety. The present workshop will introduce the most updated concepts and definitions on metrology that have practical, useful and direct application in health care technology and devices. *Topics:* International Metrology Organization - BIPM, JC and CC, RMOs and SIM; National Metrology Institutes / -International Standardization Organizations-ISO and IEC, International Standards for Safety and Performance of Medical Equipment (IEC 60.601 series)/-International Vocabulary of Metrology (VIM 2008) - History, structure and main terms and definitions /Measurement Uncertainty - Basic fundamentals and applications / Ultrasound Metrology-An overview of the Brazilian National Laboratory of Ultrasound at Inmetro

(See note 1 and 2 below in Tuesday schedule); Independent networking/social



3/29/11 Tuesday

Professional workshops

Neuroscience and learning: Learning and brain development - neuroanatomy, related locations and functions Part I. (W4T - S) 10:00 -12:00 PM, Coordinator: Guillermo Avendano; Location: Centro de Ciências da Saúde, bloco K, Room /Sala 01, Cidade Universitária, Ilha do Fundão, Rio de Janeiro. No cost to registered conference participants. Preregistration required. Send email to Erika Sales <erikasale@gmail.com> before 3/26, Friday noon.

Summary: Part I: Main concepts of brain function in the learning process. Learning disorders and their relationship to brain functionality. Concepts and models of learning, the myth of teaching and learning, constructivism, NLP, Mozart effect and other myths. Cognitive functions input and output processing. Plasticity and brain development, the importance of the relationship and language.

Neuroscience and learning: The three functional blocks of the brain, learning disorders, psychophysiology and neuroscience. Biomedical Technology. Part II (W5T - S) 14:00 PM -16:00 PM. Coordinator: Guillermo Avendano; Location: Centro de Ciências da Saúde, bloco K, Room /Sala 01, Cidade Universitária, Ilha do Fundão, Rio de Janeiro. No cost to registered conference participants. Preregistration required. Send email to Erika Sales <erikasale@gmail.com> before 3/26, Friday noon.

Summary: Part II: The functional blocks of the brain and its relation to the learning of children and adults. The importance of correct measurement of brain function. Measurement at four levels) Tests and scales b) Instruments of Psychophysiology c) Bioinstrumentation d) Advanced Imaging fMRI, PET, MEG. Teams psychophysiology, Tachistoscope, estesiometria, MAINS, measurement of reaction time. Developments and applications.

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Note 2: Workshops only participants who register for two workshops may participate in the 3rd workshop free of additional charge. Independent networking/social

3/30/11 Wednesday

10:00 - 14:00 Technical visits and tours.

The Center of Health Sciences// Centro de Ciências da Saúde

The Radiology Department // Departamento de Radiologia (TS1)

Clinical Research Unit// Unidade de Pesquisas (TS2)

Clinicas National Laboratory of Embryo stem-cells Laboratory// Laboratorio Nacional de Celulas-tronco Embrionarias (LANCE). (TS3)

Laboratory of Cell and Molecular Tagging// Laboratório de Marcação de Células e Moléculas - LMCM (TS4)

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Professional networking city tour - Rio, 3:30 PM - 5:30PM Independent and optional/self-reliant - information will be provided to registered conference participants. Independent networking/social

3/31/11 Thursday

(See Online Registration at <http://www.pahce.org/P7RegistEN.htm>)

Location: Center for Health Science, block K, Hélio Fraga Auditorium, University City, Fundão Island, Rio de Janeiro, RJ, Brazil. // Centro de Ciências da Saúde, bloco K, Auditório Hélio Fraga, Cidade Universitária, Ilha do Fundão, Rio de Janeiro, RJ, Brasil.

09:00-11:30 (S01) Physical Properties of Biological Tissues by Ultrasonic Techniques. Detection & Imaging // Propriedades Física de Tecidos Biológico por Técnicas de Ultrassom. Detecção e Imagem (Special feature session organized by Dr. A. Ramos) Room /Sala 01; Session Chairs: Antonio Ramos and Carlos Negreira ID 211EBE, ID 153EBE, ID 207EBE, 120EBE, 137EBP, ID 165EAP, ID 200EBP

9:00-9:20 Laboratory Characterization of Electromechanical Behaviour of Bessel Array-Transducer Annuli for Detection & Imaging in Biological Media (ID 211EBE); L Castellanos, A Ramos, H Calás, JA Eiras, E Moreno

9:20-9:40 Intraoperative Application of Real-time Tissue Elastography for the Diagnosis and Staging of Pancreatic Tumours (ID 153EBE); J Elias Jr, FM Mauad, AAO Carneiro, E Caetano, JS Dos Santos, R Kemp, TZ Pavan

9:40-10:00 Quantitative Predictive Analysis of Responses in a Strictly Non-invasive Procedure to Measure Thermal Properties inside Tissues based on Parametric PSD Estimation (ID 207EBE); I Bazán, A Ramos, L Trujillo

10:00-10:10 Break

10:10-10:30 On the reproducibility of the average gray-level for noninvasive temperature estimation in the hyperthermia range (ID 120EBE); CA Teixeira, AV Alvarenga, GA Cortela, AJF Pereira, MA von Krüger, WCA Pereira

10:30-10:50 Automatic Microcalcifications Segmentation Procedure Based on Otsu's Method and Morphological Filters (ID 137EBP); MA Duarte, AV Alvarenga, CM Azevedo, AFC Infantosi, WCA Pereira

10:50-11:10 Change in strain image contrast with applied compression evaluated via finite elements analysis (ID 165EAP); TZ Pavan, AAO Carneiro

11:10-11:30 Preliminary comparative results on axial resolution using both coded excitation and conventional pulses in ultrasound A-mode scan (ID 200EBP) TM Machado, ET Costa

09:00-11:30 (S02) Rehabilitation and Biomechanics // Reabilitação e Biomecânica. Room/ Sala 02 Session Chairs: Josefina Gutierrez and Rodrigo Félix

ID 117SBs, ID 122EBs, ID 125SBs, ID 127EBs, ID 150 EBs, ID 177SBs

9:00-9:20 Design of a Sensor for measuring Range of Motion of the hand // Diseño de un Sensor para la Medición del Rango de Movimiento de los Dedos de la Mano (ID 117SBs); A Ortiz, J Gutiérrez, F Barraza, R Delgado, M Nuñez, H Aguirre

9:20-09:40 A Measurement System of Flexion and Extension of the Hand Joints Based on Accelerometers (ID 122EBs); GS Arias, E Cardiel, J Gutierrez, PR Hernandez

09:40-10:00 Rehabilitation system of patients with motor dysfunction in upper limb based Miofeedback // Sistema de rehabilitación para pacientes con disfunción motora en extremidad superior Miofeedback (ID 125SBs); OP Torres, HH Andrade, H Henao, A Montoya

10:00-10:10 Break

10:10-10:30 Electronic long cane for locomotion improving on visual impaired people. A case study (ID 127EBs); AR García, R Fonseca, A Durán

10:30-10:50 Low Cost Human Computer Interface based in self-inflicted ocular movement as communication system for disabled people (ID 150EBs); JG Vazquez, A Minor, H Sossa

10:50-11:10 Differences of Useful Bandwidth in the Step of the March of Patients with Parkinson's Disease // Diferencias de Ancho de Banda il en el Paso del Proceso de la Marcha de Pacientes con Parkinson; J. Castilla de Cuba, L. V. Arenas, M. Barrios (177SBs)

09:00-11:30(S03) Biomedical Engineering: Brazilian perspective // Engenharia Biomédica: Perspectiva Brasileira (Special feature session organized by Dra. Lourdes Brasil) Room / Sala 03; Session Chair: Lourdes Brasil and Fabiano Schwartz

ID 171PAP, ID 174PBp, ID 135PAP, ID 169PAP, ID 144PAP, ID 195PAP.

9:00-9:20 Three Dimensional Modeling Applied to Breast Cancer // Modelagem Tridimensional Aplicada ao Câncer de Mama (ID 171PAP); MR Parente, MG Barros, LM Brasil, CG Abreu, APB Silva, JM Lamas

9:20-9:40 Reducing of the Noise Level in High Speed Pens // Redução do Nível de Ruído em Canetas de Alta Rotação (ID 174 PBp); LM Brasil, TJM Rodrigues, KS Damião, JF Silva

9:40-10:00 Serious Games in Cognitive Rehabilitation // Serious Games na Reabilitação Cognitiva (ID 135PAP); GC Peron, LIB dos Santos, LM Brasil, RC Silva, F Bombonato, PS de Lima, TB Pontes

10:00-10:10 Break

10:10-10:30 Development of an Active Prosthesis for Transtibial Amputees // Estudo e Desenvolvimento de Prótese Ativa para Amputados Transtibiais (ID 169PAP); JAA Andrade, RC Silva, LM Brasil, SF Rosa

10:30-10:50 Automatic Counting of Aedes Aegypti Eggs Deposited in Ovitrap by Algorithm of Digital Image Processing and Artificial Neural Network // Contagem Automática de Ovos de Aedes Aegypti Depositados em Ovitrapas através de Algoritmo de Processamento Digital de Imagens e Rede Neural Artificial (ID 144PAP); FGG Elpidio, LFR Costa, MM Andrade, EA Costa Jr, LM Brasil, MAB Rodrigues

10:50-11:10 Aspects of Technology Management Involving Electrocardiography Equipment in Hospitals in the Brazilian Federal District // Estudo da Gestão de Tecnologia Envolvendo Eletrocardiógrafos em Hospitais e Clínicas no Distrito Federal-Brasil (ID 195PAP); WH Veneziano, ES Santos

12:00-14:00 Organizational remarks and lunch break

14:00-15:00 (S04) Poster presentations (Posters set up 9:00 AM - 9:15 AM) Auditorium Hall / Entrada Auditório; Session chairs: Eduardo Moreno and Antonio Mauricio Miranda de Sá

ID 101EB, ID 102EA, ID 106PB, ID 123EA, ID 128SB, ID 129EB, ID 130EB, ID 131SB, ID 132EB, ID 140EB, ID 142EB, ID 145EB, ID 148EB, ID 152EB, ID 155SB, ID 154EA, ID 156EB, ID 157PA, ID 159PA, ID 161PA.

ID 101EB fMRI-based Inverse Analysis of Stroke Patients' Motor Functions; J. A. Gutiérrez-Celaya, R. Leder, R. Carrillo, A. Hawayek, J. Hernández and E. Suvar

ID 102EA Ventricular Late Potentials Assessment Based on Amplitude and Time Alignments of Heartbeats; RL Avitia, MA Reyna-Carranza, LA Cetto, ME Bravo-Zanoguera

ID 106PB Proposition of an Operational Flow for Medical Electrical Equipment Evaluation for SUS Bahia// Proposição de um Fluxo Operacional para Demonstração de Equipamentos Eletromédicos para o SUS Bahia;

MCD Souza, MV Nóbrega, M Silveira

ID 123EA Detection of expiratory flow limitation by evaluating the spontaneous flow pattern; LS Guimarães, RA Rocha, I Teixeira, ACD Faria, PL Melo

ID 128SB Application of Player Stage free robotic platform to the development of a robotized wheelchair // Aplicación de la plataforma de software libre Player/Stage al desarrollo de una silla de ruedas robotizada; A Durán, AO López, JC García, AR García

ID 129EB Wavelet Neural Network as EMG Classifier; JM Gutiérrez, R Muñoz

ID 130EB Monitoring of environmental systems using electronic tongues as sensor networks; JM Gutiérrez, A Mimendia, R Muñoz, L Leija, PR Hernández, M del Valle

ID 131SB Electrical Stimulator for Surface Nerve Stimulation by Using Modulated Pulses Estimulador Eléctrico para Estimulación Nerviosa Superficial Usando Pulsos Modulados Laguna Z.V.; E Cardiel, LI Garay, PR Hernández

ID 132EB Computerized Simulation of Breast Ultrasound Images; W Gómez, WCA Pereira, AFC Infantosi, A Díaz-Pérez

ID 140EB Implementing Human-Like Motion Patterns in a Trans-Humeral Prosthesis of Three Degrees of Freedom and Parallel Actuators; D Moreno, A Ramirez-García, L Leija, R Muñoz, A Vera

ID 142EB Evaluating Pharmaceutical Assistance Activities in Brazilian Hospitals; A Nascimento, SR Castilho; RMVR Almeida, AFC Infantosi

ID 145EB Wastage of Diphtheria, Tetanus, Pertussis and Haemophilus influenzae Type-b Vaccine (Tetravalent Vaccine) and its Impact on the Increase of Dose Costs; MLO Novaes, RMV Almeida, RR Bastos, MM Novaes, LM Novaes, MW Afonso, JKC Filardi, MHS Silva, BF Dias, CEF Silva

ID 148EB Segmenting 3D X-Ray Microtomography Using Two Different Approaches: Morphological Filters and Artificial Ant Colony; E Sales, A Alvarenga, W Gómez, WCA Pereira

ID 152EB EMG pattern recognition using Support Vector Machines classifier for myoelectric control purposes; M Leon, JM Gutierrez, L Leija, R Muñoz

ID 154EA Methodology of testing Electromagnetic Interference caused by active RFID applied with Electrocardiography; APS Silva, AM Fukuoka, CG Ribeiro, F Tomoda, K Camacho, RMA Almeida, A Gibertoni

ID 155SB MMIG: A Middleware for Communicating a WSN to a Web Site for Monitoring Vital Signs // SMGI: Sistema de comunicación RIS 802.15.4 -WEB para monitorización de signos vitales; AJ Laflor-Hernandez, JI Nieto-Hipolito, M Vazquez-Briseno, H Cervantes-De Avila, JD Sanchez-Lopez, E Jimenez-Garcia

ID 156EB A Video Game for an Upper Limb Rehabilitation Robotic System for Children with Cerebral Palsy; J Cifuentes-Zapien, J Valdez-Aguilar, F Rojas-Correa, J Chong-Quero, A Pineda-Olivares

ID 157 PA Diálogo Dirigido no Tratamento da Hemorragia Digestiva Alta Varicosa // Diálogo Dirigido no Tratamento da Hemorragia Digestiva Alta Varicosa; MG Bastos, FT Paiva, VRS Rocha, FP Schwartz

ID 159PA Oriented Dialogue in the Treatment of Rasmussen's Encephalitis // Diálogo Dirigido no Tratamento da Encefalite de Rasmussen; FT Paiva, VRS Rocha, C Benac, JV Theodosio, FP Schwartz, MG Bastos

ID 161PA Oriented Dialogue in the Treatment of Rett Syndrome // Diálogo Dirigido no Tratamento da Síndrome de Rett; C Benac, JV Theodosio, FT Paiva, VRS Rocha, FP Schwartz, MGB Bastos

15:00-16:50 (S05) Physical Properties of Biological Tissues by Ultrasonic Techniques. Detection & Imaging - Part II // Propriedades Física de Tecidos Biológico por Técnicas de Ultrassom. Detecção e Imagem - Parte II (Special feature session organized by Dr. A. Ramos) Room / Sala 01; Session Chairs: Antonio Ramos and Carlos Negreira; ID 197EBp, ID 210EBp, ID 219EB, ID 228EB, ID 172EBs, ID 138EBs, ID 141EBs.

15:00-15:20 Evaluating Periodicity of Trabecular Bone Phantoms Using Ultrasound Signals (ID 197EBp); PTCR Rosa, DP Matusin, AJF Pereira, CB Machado, WCA Pereira

15:20-15:40 In Vivo Characterization of Long-Bone in Animal Model by Two Ultrasonic Scattering Parameters; AIB and FSAB (ID 210EBp); AJF Pereira, DP Matusin, PTCR Rosa, CB Machado, ML Ferreira, A Schanaider, MA von Krüger, WCA Pereira

15:40-16:00 A Correlation Processing Tool to Calculate Transient Driving Signals Creating Limited Diffraction Beam-forming in Medical Diagnosis (ID 219EB); L Castellanos, A Ramos, I Bazán

16:00-16:10 Break

16:10-16:30 Analysis of Different Techniques for Measuring the Attenuation Coefficient in Ultrasonic Phantom (ID 228EB); LE Maggi, JFS Costa Junior, GA Cortela, WCA Pereira, MA von Krüger

16:30-16:50 An Agarose Based Phantom Embedded in an In Vitro Liver Tissue to Simulate Tumors: First Experience (ID 172EBs); SA Lopez-Haro, CJ Trujillo, A Vera, L Leija

16:50-17:10 Magneto Hyperthermia Applied In Vitro Liver Tissue by Using an External RF Applicator (ID 138EBs); CJ Trujillo, S Garcia-Jimeno, A Vera, L Leija

17:10-17:30 Portable and Tunable Continuous Wave Driver from 1 MHz to 10 MHz for HIFU transducers (ID 141EBs); R Martinez, A Vera, L Leija

15:00-17:10 (S06) Rehabilitation and Biomechanics - PartII // Reabilitação e Biomecânica - Parte II. Room / Sala 02; Session Chairs: Lorenzo Leija and Marcus Stecklow

ID 158SAs, ID 180SBs, ID 181SBs, ID 226SBs, ID 214PAp, ID 212PBs.

15:00-15:20 Threshold of Tactile Discrimination TTD and Stroop Tachistoscope in Schoolchildren as a Indicator of Deficit Conditions in Learning // Determinación de Umbral de Discriminación Táctil UDT y Taquitoscopia Stroop en Niños Escolares Como Indicador de Condiciones Deficitarias en el Aprendizaje (ID 158SAs); GA Avendaño, T Larrondo

15:20-15:40 Conceptual Design of a Polycentric Knee Prosthesis for Transfemoral Amputees in Venezuela // Diseño Conceptual de una Prótesis Policéntrica de Rodilla para Amputados Transfemorales en Venezuela (ID 180SBs); BT Amador, RR Torrealba, CM Müller-Karger

15:40-16:00 Development of a File Transfer Platform Between Cortex® and Opensim for Dynamyc Simulation of Biomechanical Models from Motion Capture // Desarrollo de Plataforma de Transferencia de Archivos Desde Cortex® a Opensim para Simulación Dinámica de Modelos Biomecánicos a Partir de Captura de Movimiento (ID 181SBs); BR Burgos, RR Torrealba, LA Zambrano

16:00-16:10 Break

16:10-16:30 Continuous monitoring of rehabilitation in patients with scoliosis using automatic laser scanning // Monitoreo continuo de rehabilitación en pacientes con escoliosis utilizando barrido Laser automático (ID 226SBs); JC Rodriguez, OY Sergiyenko, VV Tyrsa, LC Basaca, JIN Hipólito

16:30-16:50 Robocop Boot Adapted for Patients with Equinus Foot Deformity//Bota Robocop Adaptada para Pacientes com Pés Equinovaros (ID 214PAp);JV Theodosio,C Benac,FT Paiva,FP Schwartz,MG Bastos,VRS Rocha

16:50-17:10 Expression of Uncertainties of a Pressure Measurement System Using IDEF0 Modeling // Expressão de Incertezas de um Sistema para Medição de Pressão Utilizando Modelagem IDEF0 (ID 212PBs) JR López-Urbe, AB B-Souza, RM Ichinose, A Giannella-Neto

15:00-16:50 (S07) Biomedical Engineering: Brazilian perspective Part II // Engenharia Biomédica: Perspectiva Brasileira (Special feature session organized by Dra. Lourdes Brasil) - Parte II. Room / Sala 03; Session Chair: Lourdes Brasil and Renan Almeida

ID 198PAp, ID 199PAp, ID 204PAp, ID 151PBp, ID 133PAp, ID 193EBp.

15:00-15:20 A Process for Integrating RIS, PACS and Full-Field Digital Mammography // Um Processo para Integração de RIS, PACS e Mamografia Digital (ID 198PAp); PBL Klavdianos, LM Brasil, JM Lamas

15:20-15:40 Onto-Mama: An Ontology of the Female Breast Anatomy Applicable to a Virtual Learning Environment // Onto-Mama: Uma Ontologia da Anatomia da Mama Feminina, Aplicável em um Ambiente de Realidade Virtual (ID 199PAp); PBL Klavdianos, EKF Souza, LM Brasil, JM Lamas

15:40-16:00 Framework Multiplataforma de Interação Háptica // Interaction Haptic Multiplatform Framework (ID 204PAp); JSS Melo, GA Borges, LM Brasil, FL Souza, J Cerqueira, MS Ramos

16:00-16:10 Break

16:10-16:30 Aedes Aegypti Web-Based Proliferation and Analysis Monitor for SAPIO // Sistema WEB para Monitoração e Análise de Proliferação do Aedes Aegypti (ID 151PBp); GD Amvame, A Bezerra, LM Brasil, MAB Rodrigues

16:30-16:50 Development of an Smart Insole for Treating the Diabetic Foot // Desenvolvimento de uma Palmilha Inteligente para o Tratamento do Pé Diabético (ID 133PAp); MC Reis, SSR Fleury Rosa, LM Brasil, AF Rocha

16:50-17:10 Reports on Homeopathic therapy efficacy: a survey of two Brazilian newspapers (ID 193EBp); RMR Almeida

17:10-17:50 (S08) Feature presentation: Electrosurgery: Truths, Myths and Advances in Haemostatic Systems // Eletrocirurgia: Verdades e Mitos e os Avanços nos Sistemas de Hemostasia (P); José Alberto Burlá, COVIDIEN; Independent social/networking

4/01/11 Friday
(See Online Registration at <http://www.pahce.org/P7RegistEN.htm>)
Location: Center for Health Science, block K, Hélio Fraga Auditorium, University City, Fundão Island, Rio de Janeiro, RJ, Brazil. // Centro de Ciências da Saúde, bloco K, Auditório Hélio Fraga, Cidade Universitária, Ilha do Fundão, Rio de Janeiro, RJ, Brazil.

09:00-11:30 (S09) New R&I trends in Ultrasonic and Electronics Systems for Cardiovascular Diagnosis // Novas Tendências em P&D para Sistemas Ultrassônicos e Eletrônicos em Diagnóstico Cardiovascular (Special feature session organized by Dr. A. Ramos). Room / Sala 01; Session Chairs: Antonio Ramos and Wagner Coelho

ID 205EB, ID 206SB, ID 216SBs, ID 147SBs, ID 220SBs, ID 146SBs, ID 235EAp.

09:00-09:20 Some Perturbations on the Ultrasonic Measurements in Phantoms using Transit-time Flow-metering Systems (ID 205EB); H Calás, PT Sanz, L Diez, A Ramos, E Moreno, WCA Pereira, MA von Krüger, C Negreira

9:20-09:40 Mathematical Model for an accurate measurement of flow in blood vessels, considering their cyclic deformation in the time // Modelo Matemático para una Medición Precisa de Flujo Sanguíneo en Vasos considerando sus Deformaciones Cíclicas en el Tiempo (ID 206SB); H Calás, PT Sanz, L Diez, A Ramos, J Prohías, R Lopez, J O'Connors, E Moreno

9:40-10:00 Some improvements in the acquisition of pulsed signals of TTFM type for USB compatible display in cardiovascular ultrasonic flow-metering // Algunas mejoras en la adquisición de señales pulsadas tipo TTFM para presentación USB-compatible en flujometría ultrasónica cardiovascular (ID 216SBs); EC Barroso, AJ Cañas, EM Hernández, AR Fernández, JP Martínez, AV Inclán

10:00-10:10 Break

10:10-10:30 On the evaluation of an ultrasonic transducer response using a fixing angle device in the acquisition of Doppler blood flow signals during coronary graft surgery // Evaluación de la respuesta de un transductor ultrasónico que utiliza un dispositivo fijador de ángulo en la adquisición de señales Doppler de flujo sanguíneo durante la revascularización coronaria (ID 147SBs); J Solano, I Sanches, M Vazquez, M Fuentes, DF Garcia, J Prohías, A Villar, L Leija

10:30-10:50 Implementing in Reconfigurable Hardware the Control Logic of a TTFM Ultrasonic System for Cardiovascular Flow-metering // Implementación en Hardware Reconfigurable de la Lógica de Control de un Sistema Ultrasonico TTFM para flujometría cardiovascular (ID 220SBs); D Torres, A Jiménez, E Moreno, E Carrillo, L Leija, A Ramos, A Vera

10:50-11:10 Simulation and construction of an ultrasonic transducer applied to blood flow detection // Simulación y construcción de un transductor ultrasónico para detección de flujo sanguíneo (ID 146SBs); I Sanchez, P Acevedo, JA Contreras, M Fuentes

11:10-11:30 Evaluation of Heating Patterns Generated by Therapeutic Ultrasound Insonation in Muscle Phantoms (ID 235EAp); RLQ Basto, NS Amorim, ER Monteiro, JNN Quaresma, RM Cotta, MA von Krüger, WCA Pereira

9:00-11:10 (S10) Biomedical Signal and Image Processing // Processamento de Sinais e Imagens Biomédicas. Room / Sala 02; Session Chairs: Jesus Enrique Chong Quero and Danilo Melges

ID 103EAp, ID 143PBp, ID 229PBp, ID 136EB, ID 124 EAe, ID 126EAe.

9:00-9:20 Analysis of the impacts caused by the digitization of diagnostic imaging in a hospital, in the view of everyone involved (ID 103EAp); LT Kawamoto Jr, P Cadette Jr, AFF Slaets

9:20-9:40 Local Positioning System Using Images for Monitoring in Swimming // Sistema de Posicionamento Local Usando Imagens para Acompanhamento na Natação (ID 143PBp); MRS Giannetti, TMTR Faria, WC Boaventura, CJ Tierra-Criollo

09:40-10:00 Comparison of Artificial Neural Networks Using Texture Parameters in the Recognition of Lesions in Mammograms Digitized // Comparação entre Redes Neurais Artificiais Utilizando Parâmetros de Texturas no Reconhecimento de Lesões em Mamografias Digitalizadas (ID 229PBp); V Androni, BC Guingo, EL Santana, WCA Pereira, AFC Infantosi
10:00-10:10 Break
10:10-10:30 Artificial Ant Colony: Features and Applications on Medical Image Segmentation (ID 136EBe); AV Alvarenga
10:30-10:50 Stationarity of Surface Electromyographic Signals on Isokinetic Knee Extension Test (ID 124EAe); FP Schwartz, FAO Nascimento
10:50-11:10 Multiobjective support vector machines optimization for epileptic seizure prediction (ID 126EAe); F Ventura, CA Teixeira, A Dourado
9:00-11:30 (S11) Clinical Engineering // Engenharia Clínica. Room // Sala 03; Session Chairs: Fabian Garcia and Roberto Macoto
ID 163EBE, ID 168SAs, ID 164SBs, ID 121EBp, ID 134EBp, ID 186EBp, ID 178PBp.
9:00-09:20 BCI: a Historical Analysis and Technology Comparison (ID 163EBE); O Padierna-Sosa, Y Quijano, M Doniz, JE Chong-Quero
09:20-09:40 ISO/IEC 17025 Technical Requirements in Electrical Safety Laboratory for Electromedical Devices // Aspectos Técnicos de la norma ISO/IEC 17025 de Laboratorio de Seguridad Eléctrica en Equipamiento Electromédico (ID 168SAs); D Rubio, S Ponce, F Madrid
09:40-10:00 Program of Clinical Engineering and Bioengineering-Secretary of Science and Technology-National-Technological University // Programa de Ingeniería Clínica y Bioingeniería - Secretaría de Ciencia, Tecnología y Posgrado - Universidad Tecnológica Nacional (ID 164SBs); SD Ponce, M Lencina, D Rubio, J Suchur, G Schuemer, G Veleche
10:00-10:10 Break
10:10-10:30 Direct Benefits of a Maintenance Management System: A Case Study (ID 121EBp);ETA Alves, LLB de Oliveira
10:30-10:50 The Absence of Maintenance Policies in Health Care Services:Case Studies(ID134EBp);AF Souza,FC Coelli,JS Júnior
10:50-11:10 Using GETS for Medical Technology Management: a drill down case (ID 186EBp); ACB Eboli, ET Silva, ET Costa, JWM Bassani
11:10-11:30 Health care technology management applied to public primary care health // Gerenciamento da tecnologia médico-hospitalar aplicado a atenção básica da Saúde (ID 178PBp); SJA Garcia, RAD Santos,PS de Avelar,R Zaniboni,R Garcia
12:00-13:20 Lunch and networking break
13:20-14:00 (S16) Feature presentation: The Brazilian Experience on the implementation of Ethics Committees in Research: historical background and perspective // A experiência brasileira na implantação de Comitês de Ética em Pesquisa: histórico e perspectivas (P); Carlos Alberto Guimarães, UFRJ
14:00-15:00 (S12) Poster presentations (Posters set up 9:00 AM - 9:15 AM) Auditorium Hall / Entrada Auditório; Session chairs: Pedro Mayorga Ortiz and César Teixeira
ID 166EB, ID 167EA, ID 170EB, ID 176SB, ID 182PB, ID 183PB, ID 184EA, ID 193EB, ID 201EA, ID 203EB, ID 215EA, ID 221PB, ID 222EB, ID 223EA, ID 224EA, ID 225SB, ID 227EB, ID 234PA.
ID 166EB Portable system for human stability assessment based on head movements analysis; Y Solis, E Cardiel, PR Hernández
ID 167EA Infrared image inside a phantom heated by ultrasound irradiation; TP Omena, RM Costa, LE Maggi, WCA Pereira, MA von Krüger
ID 170EB Virtual System for Training and Evaluation of Candidates to use a Myoelectric Prosthesis; JA Barraza, R Munoz-Guerrero
ID 176SB Integral Design Systems for Neuroendoscopy Training // Diseño de un Sistema Integral de Entrenamiento para Neurocirugía; ED Lorias, JL Ortiz, JA Gutierrez
ID 182PB Ampare: Electronic Physical Therapy Record for Evaluation of Amputee Patients // AMPARE: Prontuário Eletrônico para Avaliação Fisioterapêutica de Amputados; GA Costa, LC Reis, RRR dos Reis, TQ dos Santos, LE Maggi, ERR dos Reis
ID 183PB SYNAPSE: Electronic Physical Therapeutic Record for Neurofuncionnal Evaluation;AIW Lin,FP Santos,LE Maggi,RD Lopez
ID 184EA Development and Evaluation of an Architecture of Wireless Sensors Network for e-health: partial results; H Cervantes-Ávila, JI Nieto-Hipólito, O Sergiyenko, ME Martínez-Rosas, VR Velázquez-Mejía
ID 201EA A Brain-Computer Interface for Intelligent Wheelchair Mobility; CT Lin, C Euler, A Mekhtarian, A Gil, L Hern, D Prince, Y Shen, J Horvath
ID 203EB Design and Development of a Holter Prototype with Bluetooth Transmission; A Juárez-Carrasco, JE Chong-Quero
ID 215EA Electronic Device to Help the Diagnosis of Parkinsonian and Essential Tremor; E Cichaczewski, JM Maia, P Nohama, EM Novak, HAG Teive, AA Assef
ID 221PB The Influence of Physical and Human Infrastructure in the unavailability of MRI Equipment // Influência da Estrutura Física e Humana na Indisponibilidade de Equipamentos de RM; AF Souza, FC Coelli
ID 222EB Simultaneous Selective Stimulation and Impedance Measurement of the Human Skin; EM Esser, P Ngyen, H Gamba

ID 223EA Automated Integration of Flow-Volume Loop and Acoustic Data;S Raman, C Druzgalski
ID 224EA Specialized Remote Patients' Diagnostic Tool for Treatment Optimization; S Doddick, C Druzgalski
ID 225SB Piezoelectric ceramic made of PLZT with two implants applying as high pass filter and Splitter for bioelectrical signals modulating/Cerámica piezoeléctrica elaborada de PLZT con dos implantes como filtro pasa-alto y divisor para señales bioeléctricas con una técnica de modulación; CO González-Morán, E Suaste-Gómez
ID 227EB Influence of Temperature on Mean Scattering Spacing Estimation of in vitro Bovine Muscle; GA Cortela, MA von Krüger, CB Machado, CA Negreira, WCA Pereira
ID 234PA O Gerenciamento da Tecnologia na Saúde; RA Santos
15:00-17:30 (S13) New R&I trends in Ultrasonic and Electronics Systems for Cardiovascular Diagnosis - Part II//*(Special feature session organized by Dr. A. Ramos)* - Parte II. Room / Sala 01; Session Chairs: Antonio Ramos and Wagner Coelho
ID 208EBp, ID 149EAs, ID 139EBs, ID 217EBe, ID 179EBe, ID 213EAe, ID 119EAe.
15:00 -15:20 Doppler images of heterogeneous gel dosimeter phantom by multi-frequency vibration (ID 208EBp); G Marini, TZ Pavan, AL Baggio, AAO Carneiro
15:20-15:40 Noise cancellation technique for Doppler ultrasound spectrogram enhancement (ID 149EAs); B Zabihian, CA Teixeira, MG Ruano
15:40 -16:00 Microwave Ablation for Breast Cancer using a Microcoaxial Antenna: Thermal comparison between swine breast tissue and breast phantom (ID 139EBs); R Ortega-Palacios, S García-Jimeno, MFJ Cepeda, A Vera, L Leija
16:10-16:30 Telemetry Acquisition Module for Ultrasonic Cardiovascular Diagnostic (ID 217EBe); MA Rodríguez-Hernández, GA Hernández-Peñaloza
16:30 -16:50 The role of ultrasound operation mode for safely interfering in the heart rate (ID 179EBe); E Belassiano, R Miller, E Hartman, WD O'Brien Jr, F Buiochi, ET Costa
16:50-17:10 FPGA-Based Real-Time Digital Beamformer for Ultrasonic Elastography (ID 213EAe); AA Assef, JM Maia, FK Schneider, ET Costa, VLSN Button
17:10 -17:30 The Effect of Cortical Bone Mineralization in Ultrasound Axial Transmission: On The Possibility of Fracture Healing Monitoring (ID 119EAe); CB Machado, WCA Pereira, M Talmant, F Padilla, P Laugier
15:00-17:10 (S14) Biomedical Signal and Image Processing - Part II // Processamento de Sinais e Imagens Biomédicas - Parte II. Room / Sala 02; Session Chairs: Guillermo E. Avendando and André Alvarenga
ID 194EBp, ID 160EBE, ID 173EAe, ID 175EAe, ID 209EBE, ID 202SBs
15:00-15:20 Event-related synchronization/desynchronization to assess changes in alpha peak frequency along time during kinaesthetic motor imagery (ID 194EBp); MV Stecklow, M Cagy, AFC Infantosi
15:20-15:40 Development of an EEG Signal Processing Program Based on EEGLAB - Open Source Matlab Toolbox (ID 160EBE); OA Padierna-Sosa, Y Quijano, M Doniz, JE Chong-Quero
15:40-16:00 Module for the acquisition and processing of biological signals related to the emotional state (ID 173EAe); DG Domingues, CJ Miosso, AE Paredes, AF Rocha
16:00-16:10 Break
16:10-16:30 Bioengineering and Technoscience Art: Electromyography and signal processing for synaesthesia - in-activity muscles and data visualization (ID 175EAe); DG Domingues, CJ Miosso, AO Paredes, AF Rocha
16:30-16:50 Sweep Operator Applied to the Calculation of Partial and Multiple Coherence (ID 209EBE); A d'Affonsêca Netto, FS Ranaudo, AMFL Miranda de Sá, AFC Infantosi, LB Felix
16:50-17:10 Expanded Quantitative Models for Assessment of Respiratory Diseases and Monitoring // Ampliando Modelos Cuantitativos para Valoración de Enfermedades Respiratorias y Monitoreo (ID 202SBs);P Mayorga, C Druzgalski, OH González, A Zazueta, MA Criollo
15:00-17:30 (S15) Health care technologies. Room / Sala 03;Session Chairs: Marco A. Reyna and Marco Antônio von Krüger
ID 105PAp, ID 187EBp, ID 196PBp, 192EBp, ID 115EBs, ID 116EAs, ID 111EAe.
15:00-15:20 Advances in Equipment Management in Public Healthcare Units at the State of Bahia since 2007: the implementation of the medical equipment management process // Avanços na Gestão de Equipamentos nas Unidades Públicas de Saúde do Estado da Bahia desde 2007: Implantação do processo de gestão de equipamentos medicos (ID 105PAp);MCD Souza, MV Nóbrega, M Silveira, MG Duarte, B Rocha
15:20-15:40 Evaluation of the Dynamic Mechanical Behavior of Polymer Gel Dosimeter (ID 187EBp); SL Vieira, M Fatemi, AAO Carneiro
15:40-16:00 Oriented Dialogue in the Treatment of Pancoast Tumor// Diálogo Dirigido no Tratamento do Tumor de Pancoast (ID 196PBp); MG Bastos, VRS Rocha, FT Paiva, FP Schwartz
16:00-16:10 Break
16:10-16:30 Detecting Response of Somatosensory Evoked Potentials from averages with small number of epochs using Self-Organizing Map (192EBp); JCGD Costa, DB Melges, RMVR Almeida, AFC Infantosi
16:30-16:50 High Resolution EKG with USB Connectivity (ID 115EBs);J Salto-Mendoza, MA Reyna-Carranza, R López-Avitia
16:50-17:10 Using Wigner Distribution's Cross Terms to Detect Patterns of Ventricular Late Potentials (ID 116EAs); MA Reyna, LS Fierro
17:10-17:30 Assessment of Procedures for Air Pollution Time-Series Reconstruction (ID 111EAe); AP Moreno, MA Reyna
17:30-17:50 Summary; Social/networking 19:30 - 22:00