

Programme



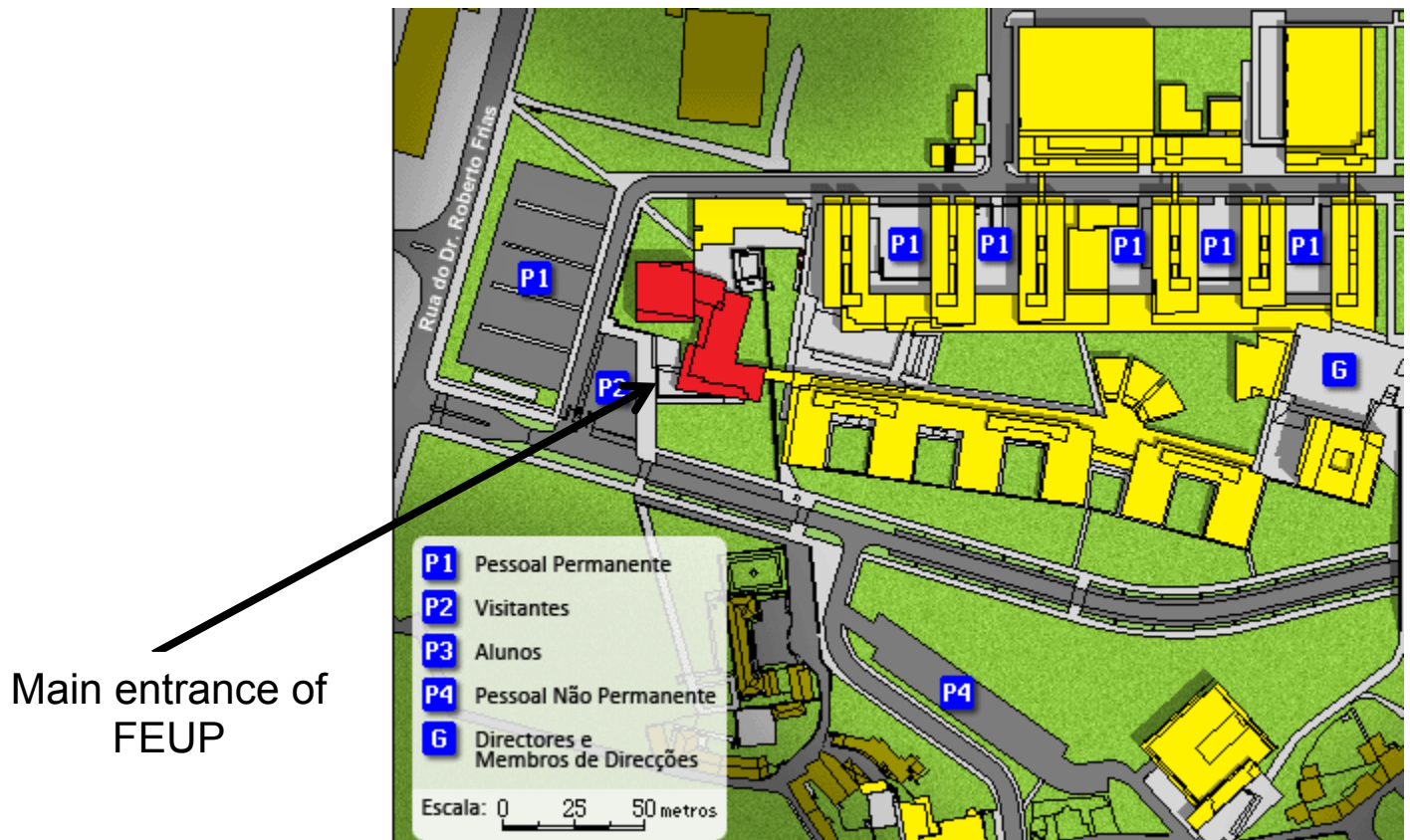


LOCATION



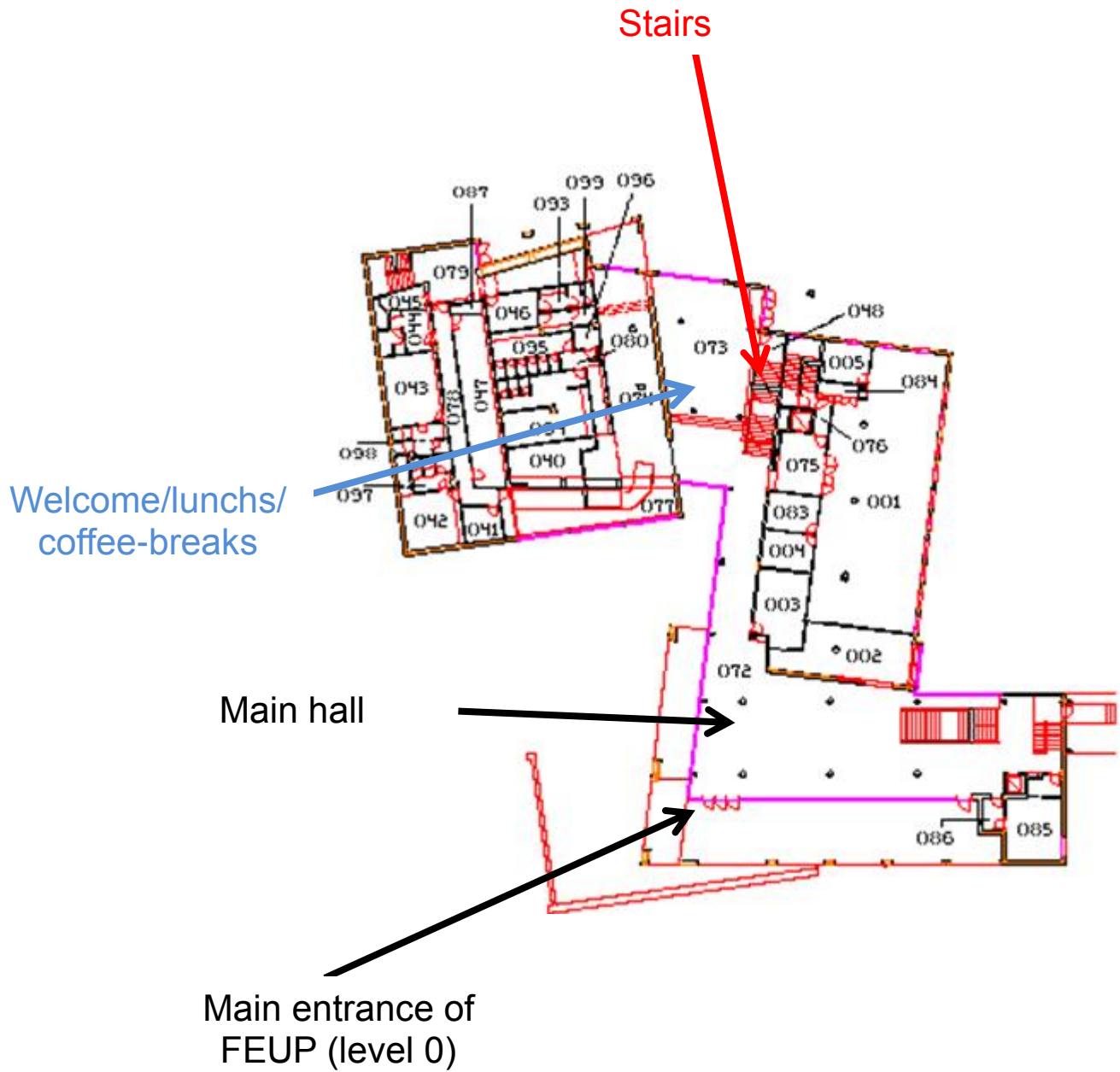


LOCATION

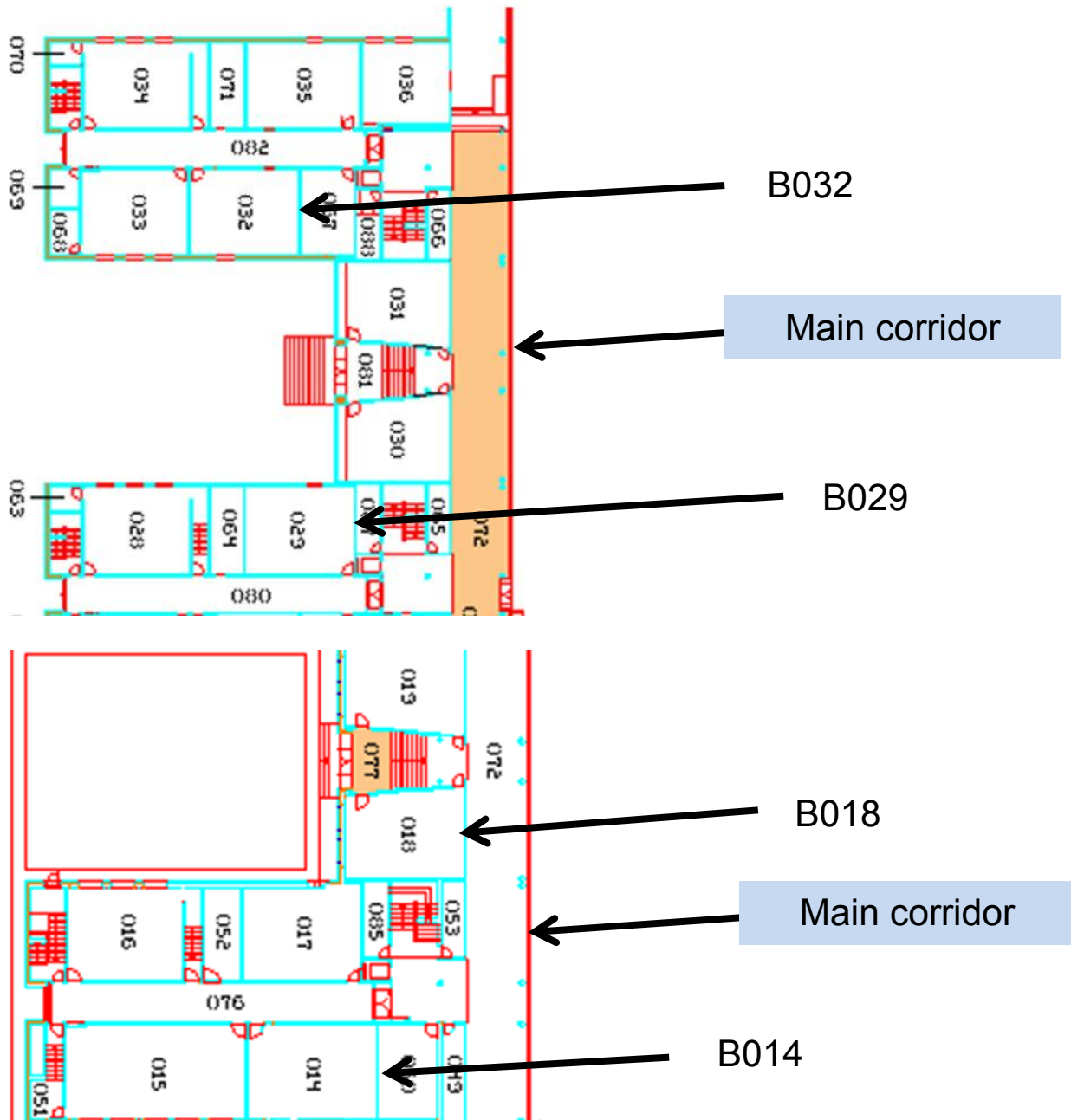


Faculdade de Engenharia da Universidade do Porto
Rua Dr. Roberto Frias, s/n
4200-465 PORTO

LOCATION



Main hall





WIRELESS CONNECTION

Wireless network connection: guest-eduroam

FEUP WiFi

 [This page in English](#)

here

HotSpot da Faculdade de Engenharia da Universidade do Porto




Encontra-se no HotSpot da FEUP.

A rede Wireless da FEUP está disponível aos seus utilizadores, docentes, investigadores, não docentes, alunos e aos utilizadores de outras instituições que estejam validados pela rede e-U.

[Configurações Automáticas Wireless](#)

Para aceder à rede Wireless da FEUP realize as instruções:

FEUP WiFi

 Esta página em Português

HOTSPOT OF THE FACULDADE DE ENGENHARIA DA UNIVERSIDADE DO PORTO



The wireless Network of the FEUP is available to it's students, professors, researchers, staff and people from other institutions that are authorized to authent

- [Mobility](#)
- [Requirements](#)
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- [Others users](#)
- [Configuration](#)
- [Conferences](#)
- [Contact](#)

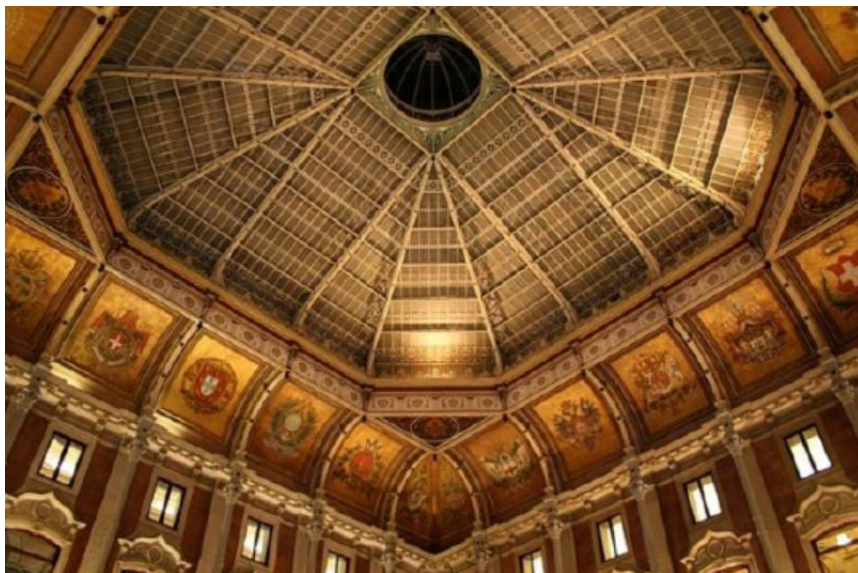
here

Username: tmsi
Password: feup2010



WELCOME RECEPTION: “Palácio da Bolsa”

- One bus will leave at 17:00
- Departure from FEUP (in front of the main entrance)
- Return by 19:00 to FEUP





BANQUET: “Pousada do Porto”

- One bus will leave at 19:00
- Departure from FEUP (in front of the main entrance)
- Dinner starts at 20:00





Thursday	
07:30	Registration
08:30	Welcome (Room: B032)
09:00	Invited Lecture (B032) In-silico models as a tool for the design of medical device technologies Jose M. García Aznar
09:45	Invited Lecture (B032) Extrusion based on biomanufacturing process Paulo Jorge Bártolo
10:30	Coffee break / Poster Session
11:00	Oral presentations I (Room: B032) Chairs: L. Rocha & M. Parente
	Non invasive diagnosis of cystic fibrosis by mass spectrometry study of exhaled breath S.G.M. Piñeiro, A. Canelas, A.R. Gonsalves, F. Gambôa, C.R. Cordeiro
	A breast modelling application for surgeons A. Cardoso, H. Costa, V. Sá, G. Smirnov
	Evaluation and implementation of technology in health care R. Santos
	Noninvasive Assessment of Blood-Retinal Barrier Function by High-Definition Optical Coherence Tomography T. Santos, A. Santos, R. Bernardes, J. Cunha-Vaz
	Anticipatory postural adjustments in post-stroke subjects during reaching S. Ferreira, C. Silva, P. Carvalho, A. Silva, R. Santos
	White matter segmentation in simulated MRI images using the Channeler Ant Model E. Fiorina
13:00	Lunch



Thursday	
14:00	<p>Oral presentations II (Room: B032) Chairs: P. Martins & V. Sá</p> <p>Study of Pressure Sensors Placement using an Abdominal Aortic Aneurysm (AAA) Model L.A. Rocha, A. Sepulveda, A.J. Pontes, J. Viana, I. Santos, J. Tavares</p> <p>Possible relations between female pelvic pathologies and soft tissue properties P.A.L.S. Martins, R.M. Natal Jorge, A.L. Silva-Filho, A. Santos, L. Santos, T. Mascarenhas, A.J.M. Ferreira</p> <p>The bioactive textiles materials design as an emerging area in textile engineering research M.J. Geraldès, N.J.R. Belino, M.F. Nunes, S. Daniel</p> <p>Blood Flow in artificial bypass graft: a numerical study L.C. Sousa, C.F. Castro, C.C. Antonio, B. Relvas</p> <p>The use of muscle recruitment algorithms to better assess problems for children with gait deficiency M. Voinescu, D.P. Soares, M.P. Castro, A.T. Marques, R.N. Jorge</p> <p>Measuring the pressure in a laryngoscope blade A. Silva, J. Teixeira, J. Gabriel, C. Teixeira, P. Amorim, M. Quintas, R. Natal</p>
16:00	Welcome Reception
17:00	Departure from FEUP to visit "Palácio da Bolsa"
19:00	Return to FEUP



Thursday	
14:00	<p>Oral presentations III (Room: B014)</p> <p>Chairs: L. Rato & P. Talaia</p> <p>OCT noise despeckling using a 3D nonlinear complex diffusion filter C. Maduro, R. Bernardes, P. Serranho, T. Santos, J. Cunha-Vaz</p> <p>Processing and Classification of Biological Images: Application to Histology B. Nunes, L.M. Rato, F.C. Silva, A. Rafael, A.S. Cabrita</p> <p>Improving the resolution of scintigraphic images with super-resolution: development of a dedicated device R. Oliveira, F.J. Caramelo, N.C. Ferreira</p> <p>Calibration of free hand ultrasound probe tracked by optical system K. Kryztoforski, E. Swiatek-Najwer, R. Bedzinski, P. Krowicki</p> <p>Lissajous Scanning Pattern Simulation, for development of a FLO P. Nunes, P. Vieira</p> <p>New approach to bone surface reconstruction from 2.5D sonographic dataset P. Krowicki, K. Kryztoforski, E. Swiatek-Najwer, R. Bedzinski</p>
16:00	Welcome Reception at FEUP
17:00	Departure from FEUP to visit "Palácio da Bolsa"
19:00	Return to FEUP



Friday	
09:00	Invited Lecture (B032) Functional biomechanical continuum analysis and applications Todd Pataky
09:45	Invited Lecture (B032) Modelling, designing and simulating living systems with BlenX Paola Lecca, Carmen Maria Livi
10:30	Coffee break / Poster Session
11:00	Oral presentations IV (Room: B032) Chairs: J. Gabriel & A. Paterno Measurement system of the eye vergency and accommodation with 3D hologram stimulation T. Jindra, J. Dusek, M. Dostalek The influence of an unstable shoe on compensatory postural adjustments A.S.P. Sousa, J.M.S. Tavares, R. Santos, R. Macedo Design of Medical Rehabilitation Devices: a Case Study E. Seabra, L.F. Silva, P. Flores, M. Lima The contribution of the scapular patterns to the amplitude of shoulder external rotation on thrower athletes A.M. Ribeiro, A.G. Pascoal Neurom: a motor treatment system for chronic stroke patients F.L.C. Junior, R.C. Araújo, D.N. Rocha, T. Sono, S. Payossim, A.M. Valladão, N. Petten, M.P. Barbosa Interactive Collaboration for Virtual Reality Systems related to Medical Education and Training B.R.A. Sales, L.S. Machado, R.M. Moraes
13:00	Lunch



Friday	
11:00	<p>Oral presentations V (Room: B018) Chairs: F. Caramelo & S. Rua</p> <p>Contact finite element with surface tension adhesion R.A.P. Hellmuth, R.G. Lima</p> <p>Multi-objective optimization of bypass grafts in arteries C. Castro, C. Antonio, L.C. Sousa</p> <p>Influence on the mandible and on a condyle implant of the distribution of the fixation surgical screws A. Ramos, M. Mesnard, C. Relvas, A. Completo, J.A. Simoes</p> <p>Finite element analysis of a three layered cartilage D.M. Freitas, P.J. Bártolo, H.A. Almeida</p> <p>Wavelet analysis of the pupil.s autonomic flow G. Leal, P. Vieira, C. Neves</p> <p>Blood Volume Pulse Peak Detector with a Double Adaptive Threshold J. Medeiros, R. Martins, S. Palma, H. Gamboa, M. Reis</p>
13:00	Lunch



Friday	
14:00	<p>Oral presentations VI (Room: B032) Chairs: L.C. Sousa & C. Castro</p> <p>Supercritical solvent impregnation of natural bioactive compounds in n-carboxybutylchitosan membranes for the development of topical wound healing applications A.M.A. Dias, I.J. Seabra, M.E.M. Braga, M.H. Gil, H.C. de Sousa</p> <p>In vivo measurement of skeletal muscle conductivity from rest to fatigue I.O. Hoffman, O.L. Silva, F.S. Moura, J.C. Aya, R.G. Lima</p> <p>A biomimetic strategy to prepare silica- and silica/biopolymer-based composites for biomedical applications R.B. Chim, M.E.M. Braga, M.M. Figueiredo, H.C. de Sousa, C.R. Ziegler, J.J. Watkins</p> <p>Reducing and preventing drug interactions - an approach R. Barros, F. Janela</p> <p>In vitro method for test and measure the accuracy of implant impression F.J. Caramelo, P. Brito, J. Santos, A. Carvalho, G. Veiga, B. Vasconcelos, J.N. Pires, M.F. Botelho</p> <p>External breast radiotherapy treatment planning verification using advanced anthropomorphic phantoms J.A.M. Santos, J. Lencart, A.G. Dias, L.T. Cunha, C. Relvas, A. Ramos, V. Neto</p>
16:00	<i>Coffee break / Poster Session</i>



Friday	
14:00	<p>Oral presentations VII (Room: B029) Chairs: E. Seabra & M. Mesnard</p> <p>Frequency domain validation of a tetrapolar bioimpedance spectroscopy system with tissue equivalent circuit A.S. Paterno, P. Bertemes-Filho, V.C. Vincence</p> <p>Intensity inhomogeneity corrections in MRI simulated images for segmentation R. Lavrador, L. Caldeira, N.F. Lori, F. Janela</p> <p>Significance of fast and simple determination of catecholamines and their metabolites in patients with Down syndrome L.I.B. Silva, A.M. Gomes, M.M. Pintado, H. Pinheiro, D. Moura, A.C. Freitas, T.A.P. Rocha-Santos, M.E Pereira, A.C. Duarte</p> <p>Non-invasive biomonitoring of human health: Technical developments in breath analysis V. Vassilenko</p> <p>Highly focalized thermotherapy: a minimally invasive technique for the treatment of solid tumours A. Portela, M. Vasconcelos, J. Cavalheiro</p> <p>Termographic Assesment of Internal Derangement of the Temporomandibular Joint: Clinical Study M. Clemente, A. Sousa, A. Silva, J. Gabriel, J.C. Pinho</p>
16:00	<p><i>Coffee break / Poster Session</i></p>



Friday	
16:30 to 18:30	<p>Oral presentations VIII (Room: B032) Chairs: V. Vassilenko & M. Parente</p> <p>Therapeutic contact lenses obtained by scf-assisted imprinting processes: improved drug loading/release capacity M.E.M. Braga, M.H. Gil, H.C. de Sousa, F. Yañez, C. Alavarez-Lorenzo, A. Concheiro, C.M.M. Duarte</p> <p>Registration of bone ultrasound images to CT based 3D bone models P.J.S. Gonçalves, P.M.B. Torres</p> <p>Hyperbolic surfaces for scaffold design H.A. Almeida, P.J. Bártolo</p> <p>Visual tracking of surgical instruments, application to laparoscopy P.J.S. Gonçalves, A.M.D. Gonçalves</p> <p>Knowledge based system for medical applications C.S. Moura, P.J. Bártolo, H.A. Almeida</p> <p>Phosphonium-based ionic liquids as new greener plasticizers for poly(vinyl chloride) biomedical applications S. Marceneiro, A.M.A. Dias, J.F.J. Coelho, A.G.M. Ferreira, P.N. Simões, M.E.M. Braga, H.C. de Sousa, C.M.M. Duarte, I.M. Marrucho, J.M.S.S. Esperança, L.P.N. Rebelo</p>
19:00	<i>Departure from FEUP to Banquet</i>
20:00	<i>Banquet at "Pousada do Porto"</i>



Saturday	
09:10	<p>Oral presentations IX (Room: B032) Chairs: A. Tavares & R. Natal</p> <p>Ethical Aspects in the Design of Medical Devices J. Ferreira, F. Soares, J. Machado, M. Curado</p> <p>A Framework Model for e-Health Services M. Macedo, P. Isaías</p> <p>Multidisciplinary interactions for the development of medical devices R. Simões</p> <p>Improving diagnosis processes through multidimensional analysis in medical institutions O. Belo</p>
10:30	Coffee break / Poster Session
11:00	<p>Oral presentations X (Room: B032) Chairs: R. Simões & M. Pinotti</p> <p>3D biomechanical model of the human hand using FEM D.N. Rocha, R.M. Natal, M. Pinotti</p> <p>Multiple Sclerosis Subjects Plantar Pressure - A new tool for postural instability diagnosis L.F.F. Santos, J.M.C.S. Abrantes</p> <p>3D Modelling for FEM simulation of an obese foot V.C. Pinto, N.V. Ramos, M.A.P. Vaz, M.A. Marques</p> <p>Identification of rib boundaries in chest X-ray images L. Brás, A.M. Jorge, E.F. Gomes, R.B. Melo</p> <p>Medial-lateral CoP-Rearfoot Relation during Stance T.J.V. Atalaia, J.M.C.S. Abrantes</p> <p>Approaches to juxta-pleural nodule detection in thorax CT images A. Massafra</p>
13:00	Close Session (B032)



Poster Session

Metal-organic framework as potential drug carriers against inflammation

I.B.V. Santos, T.G. Silva, S.A. Júnior

Development of a flexible pressure sensor for measurement of endotension

I.C.T. Santos, J.M.R.S. Tavares, A. Sepúlveda, L.A. Rocha, A.J. Pontes, J.C. Viana

Crystalline lens imaging with a slit-scanning system

C. Oliveira, J.B. Almeida, S. Franco

A possibility for pos-evar surveillance: a novel smart stent-graft

I.C.T. Santos, J.M.R.S. Tavares, L.A. Rocha, S.M. Sampaio, R. Roncon-Albuquerque

The action of middle ear muscles using the finite element method

F. Gentil, C. Garbe, M. Parente, P. Martins, R. Jorge

Development of computational model to the influence of fiber direction in the tympanic membrane

C. Garbe, F. Gentil, M. P. L. Parente, P. Martins, A. J. M. Ferreira, R. M. Natal Jorge

Uniaxial tension test of temporalis muscle

V.L.A. Trindade, S. Santos, P. Martins, R. Natal Jorge, A. Santos, L. Santos

Analysis of the contraction of the pelvic floor through the finite element method considering different pathologies

T.H. da Roza, R. Natal Jorge, T. Mascarenhas, J. Loureiro, S. Duarte

Segmentation and 3D reconstruction of the vocal tract from MR images - a comparative study

S.R. Ventura, D.R. Freitas, I.M. Ramos, J.M.R.S. Tavares

Using radiobiology simulators for evaluation of 99mTc auger electrons for targeted tumor radioterapy

A.A.S. Tavares, J.M.R.S. Tavares

Potential and suitability of Ion Mobility Spectrometry (IMS) for breath analysis

V. Vassilenko, A.M. Bragança, V. Ruzsanyi, S. Sielemann

Bilateral study on arterial stiffness assessment by a non-invasive optical technique of Photoplethysmography

V. Vassilenko, A.C. Silva, A.M. Martin, J.G. O'Neill