

6º CONGRESSO COMITÉ PORTUGUÊS DA URSI

16 de novembro de 2012, Lisboa

Aplicações das ondas
eletromagnéticas:
da eficiência energética
à bioengenharia

PROGRAMME

09:00 REGISTRATION

09:30 OPENING SESSION

Fátima Barros | Chairman of the Management Board, ANACOM

Carlos Nuno Oliveira | Secretary of State of Entrepreneurship, Competitiveness and Innovation,
Ministry of Economy and Employment

10:00 INTERVENTIONS

MODERATOR: Maria Emília Manso | Instituto de Plasmas e Fusão Nuclear

Challenges and opportunities of nanotechnology and of the INL

José Rivas Rey | Director, International Iberian Nanotechnology Laboratory

Aperture arrays for the SKA: the optimal solution

Jan-Geralt Bij de Vaate | Project Manager "Aperture Array Verification Programme"

11:00 COFFEE-BREAK

POSTER SESSION AND PROJECT DEMONSTRATIONS

11:30 ROUND TABLE | RADIO FREQUENCIES: RESEARCH, INNOVATION AND ENTREPRENEURSHIP

MODERATOR: Carlos Salema | Chairman, Instituto de Telecomunicações

Matias Ramos | Bastonário da Ordem dos Engenheiros

ITER Project

Bruno Gonçalves | Chairman, Instituto de Plasmas e Fusão Nuclear, Instituto Superior Técnico

Smart Cities

António Vidigal | CEO, EDP Inovação

Radiation applications in health

Pais Clemente | Professor, Faculdade de Medicina, Universidade do Porto

Radiation applications in health

Pedro Vaz | Head Researcher, Instituto Superior Técnico

13:00 LUNCH (ANACOM INVITATION)

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14:00: PARALLEL SESSIONS

AUDITORIUM:

SCIENTIFIC SESSIONS I

MODERATOR: Nuno Borges de Carvalho |
Universidade de Aveiro

14:00

**Regulatory and standardization issues on
cognitive radio based maritime B-VHF
communications**

Eduardo Bolas | Instituto de Telecomunicações,
Departamento de Electrónica,
Telecomunicações e Informática,
Universidade de Aveiro, Centro de Investigação
Naval

14:20

**Lens-based steerable-beam compact antennas
for Ka-Band ground terminals**

Joana Silva | Instituto de Telecomunicações,
ISCTE- Instituto Universitário de Lisboa

14:40

**Demixing radio waves in MIMO spatial
multiplexing: geometry-based receivers**

Francisco Monteiro | Instituto de
Telecomunicações, ISCTE- Instituto
Universitário de Lisboa

15:00

**A novel battery-less remote control system
based on low cost passive RFID technology**

Alírio de Jesus Soares Boaventura | Instituto de
Telecomunicações, Universidade de Aveiro

15:20

**Microcellular networks in a cooperative
wireless communication system**

António Rodrigues | Instituto de
Telecomunicações, Instituto Superior Técnico

ESCOLA DO FUTURO

BEST STUDENT PAPER AWARD

MODERATOR: José Pedro Borrego | ANACOM

14:00

**Electromagnetic energy harvesting for
wireless body area networks with cognitive
radio capabilities**

Norberto Barroca | Instituto de
Telecomunicações, Universidade da Beira
Interior

14:20

**Evaluation of comb generator performance
for nonlinear measurements on mixed-
domain instrumentation**

Diogo Ribeiro | Instituto de
Telecomunicações de Aveiro

14:40

**Alternative implementation of a
cyclostationary detector**

Francisco Paisana | Instituto Superior Técnico,
Instituto de Telecomunicações

15:00

**Interference on coordinated and
uncoordinated heterogeneous LTE-Advanced
Networks**

Nuno Monteiro | Instituto Superior Técnico,
Instituto de Telecomunicações

15:20

**Imperceptible Monitoring and transmission
of four biological magnitudes using spectral
bands**

Eduardo Pinheiro | Instituto de
Telecomunicações

15:40 COFFEE-BREAK

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POSTER SESSION AND PROJECT DEMONSTRATIONS

16:00 PARALLEL SESSIONS

AUDITORIUM: SCIENTIFIC SESSIONS II

MODERATOR: Carlos Fernandes | Professor,
Instituto Superior Técnico

16:00

Cherenkov emission in a nanowire material
David Fernandes | Universidade de Coimbra

16:20

**Stimulation biological signal communication
system via the human body**
Ricardo Matias | Instituto de Engenharia
Electrónica e Telemática de Aveiro,
Universidade Aveiro

16:40

Ultraconfined interlaced plasmons
Tiago Morgado | Universidade de Coimbra

17:00

Metamaterial waveguides
António Topa | Instituto Superior Técnico

ESCOLA DO FUTURO

BEST STUDENT PAPER AWARD

MODERATOR: Jaime Afonso | ANACOM

16:00

**Economic impact assessment of using fixed
repeaters on an LTE network**
André Martins | Instituto Superior Técnico,
Instituto de Telecomunicações

16:20

**Improving GNSS availability by using predicted
doppler measurements**
Pedro Silva | Instituto Superior Técnico

16:40

Preparation of a novel X-band digital receiver
Miguel Bergano | Universidade de Aveiro

17:00

**Planning, deployment and optimization of
femto-cells on UMTS networks**
Pedro Vieira | Área Departamental de
Engenharia de Electrónica e
Telecomunicações e de Computadores,
Instituto Superior de Engenharia de Lisboa

17:30 PRIZE-GIVING SESSION

Helder Vasconcelos | Member of Management Board, ANACOM

- Best Student Paper Award 2012
- Award of ANACOM-URSI Portugal Prize 2012

Honourable mention:

Joana Santos Silva | Instituto de Telecomunicações, ISCTE- Instituto Universitário de Lisboa
Antenas compactas baseadas em lentes com feixe orientável para terminais de Terra na
banda-Ka

Winner:

Jorge Manuel Gonçalves Baptista dos Santos | EURATOM, Instituto Superior Técnico
Microwaves used for the first time in the position control of a fusion machine

- Presentation of the winning work of the ANACOM-URSI Portugal Prize 2012

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18:00 CLOSURE

Luísa Mendes | Chairman of the Portuguese Committee of URSI

ATRIUM OF CASA DO FUTURO

POSTER SESSION

Transcranial magnetic stimulation: a highly useful neuropsychiatric instrument for today

Ana Ribeiro Cardoso, UC

RF-based stent-graft endoleakage monitoring system

Cristina da Cunha Oliveira, INESC TEC, FEUP | Nuno Almeida, FEUP | José Machado da Silva, INESC TEC, FEUP

Coverage and capacity analysis on fourth-generation (4G) LTE mobile networks

David Pernes, ADEETC, ISEL | David Neves, Nuno Cota, Pedro Vieira, IT

Evaluation of ionizing radiation food treatment for risk groups

Joana Pereira, UNL, FCT | Marina Oliveira, IST, ITN

Experimental performance evaluation on in urban environment 4G mobile networks (*Long Term Evolution*)

João Nascimento, ADEETC, ISEL | Pedro Vieira, ISEL, IT | Luis Varela, CELFINET

Updated results of electromagnetic field measurements performed by monIT project

Mónica Branco, IST, IT | Carla Oliveira, Daniel Sebastião, Luis M. Correia, IST, IT

Application of electromagnetic waves in the self-sufficiency of electronic circuits

Nuno Sousa, ISEL | Pedro Pinho, ISEL, IT Aveiro | Miguel Fernandes, ISEL

Small reconfigurable printed antenna for mobile devices

Ricardo Gonçalves, ISEL, IT | Pedro Pinho, ISEL, IT Aveiro

EU-HOUMW connecting classrooms to the Milky Way

Maria Luísa Teixeira de Almeida & Rosa Doran, NUCLIO | Domingos Barbosa, IT, UA | Consórcio europeu EU-HOU

Cost/revenue optimization of WiMAX networks with relay power saving modes: measurement-based scenario in a hilly region in Proc. of IEEE Globecom 2012, Anaheim, CA, United States, December 2012

Daniel Robalo, IT – DEM UBI | João Oliveira e Fernando Velez, IT – DEM UBI | Oliver Holland e A. Hamid Aghvami, CTRKCL