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IEEE



The first International
IEEE-AESS Conference
in Europe on
Space and Satellite
Telecommunications

Cestel

CONFERENCE

**Integrated Satellite
Systems and
Emerging Technologies**

Supported by:



Partners:



**October 2-5 2012
Rome, Italy**

Roma Eventi
Fontana di Trevi
Conference Centre

Overview of the Conference

The Estel Conference is the International Conference on Space and Satellite Telecommunications organized for the first time in Europe by IEEE (the world's largest non-profit professional association for the promotion of technological innovation in the electric and electronic engineering sector), AESS (Aerospace and Electronic Systems Society, one of the 38 societies of IEEE), ESOA (European Satellite Operator's Association) and in collaboration with SAT EXPO (Expo-Forum on Satellite and Advanced Telecommunications).



What sets this Conference apart

- **A unique venue**

Four days of very specialized seminars on all main topics of satellite telecommunications sector, from Tuesday, 2nd to Friday 5th October, held in the heart of Rome, next to the well known Trevi's Fountain in a very comfortable and well equipped Conference Centre, "Roma Eventi – Fontana di Trevi Conference Centre".

- **High-Quality papers and presentation**

The Estel Conference program will present the cutting-edge solutions, from the technological point of view to all possible applications related to Improving the Quality of Life (QoL) (Health, Security and Energy). It will offer an impressive list of speakers, including satellite telecommunications experts, top scientists and managers especially from the US, Europe and the Far East.

- **Multidisciplinary Focus**

The program is designed to facilitate dialogue among members of governments, industry, and the academic community. The goal is to create a very diverse and multidisciplinary conference where operators and scientists from various complementary disciplines can meet and discuss subjects of common interest in the field of satellite telecommunications. The emphasis will be on applications-oriented research and development, from antennas, devices and components to the most updated systems and softwares.

- **International participation**

The Organization foresees as first edition the participation of over 250 foreign aerospace specialists, government, academic and commercial leaders, offering excellent corporate exposure for your organization, coming from 21 Countries from the US, Europe, Africa and the Far East.

Topics of the Conference

• Communication and Navigation Technologies

- Ground and Space Antenna Technologies and Systems
- Ground Segment Architecture and Terminals
- Modulation and Coding Schemes Synchronization
- Equalization and Channel Estimation
- Satellite Channel Modeling
- MIMO Communications for Satellites
- Interference Detection and Mitigation Techniques
- Urban Personal and Vehicular Navigation
- GNSS Augmentation Systems
- Terrestrial Radio-navigation and RF-Positioning
- DVB and Broadband Access Technologies

- Unmanned Aerial Vehicles (UAVs)
- Aeronautical Satellite Communications
- Swarm Sensor Networks

• Value added Services & Applications for Improving the Quality of Life (QoL) (Health, Security and Energy)

- Mobile Satellite Services
- Real-time Multimedia Streaming
- Broadcast/Multicasting
- Communication Protocols and Services for Space Networks
- Tele Healthcare, Medical Applications and Information Systems
- Smart Homes and Assisted Living
- Mobile Technologies for Healthcare Applications
- Standards for e-Healthcare
- Wearable and Implantable Wireless Sensors for Healthcare
- Wireless Body Area Networks (BANs) and In-Body Communications
- ICT for Intelligent Transportation Systems
- Cybersecurity
- Homeland Security
- Artificial Intelligence and Expert Systems for e-Healthcare Cyber Attacks
- Satellite-based Remote eHealth
- Military and Dual Use Applications
- Satellite-based Disaster Recovery
- Interoperability of Disaster Responders Communication Systems
- Satellite-based Earthquake Surveillance
- Satellite-based Environmental Surveillance
- Satellite-based Weather Forecast
- ICT Impact on Climate Changes and Green Communications
- Satellite-based Power Grids Monitoring and Control
- Unmanned Search and Rescue
- E-learning

• Future Satellite Communication Systems.

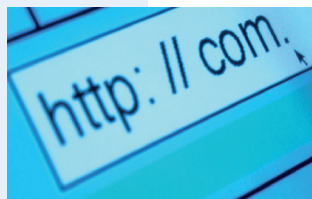
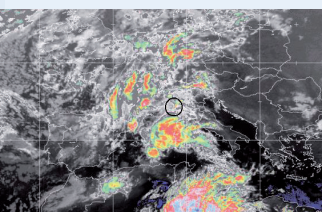
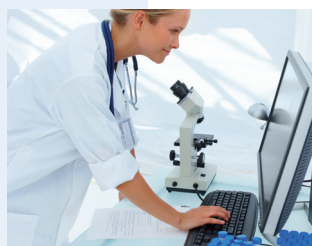
NEW!

- Twisted radio waves and their applications to telecommunications via satellite

- Next Generation Mobile, Broadband and Broadcast Satellite Systems
- Beyond Ka Band Satellite Missions
- Channel Modeling for EHF Satellite Communications
- Millimeter Wave Technology and Devices
- Multi-Gigabit Communications
- New Constellation Design
- Quantum Satellite Communications

• Space Missions, Systems and Architectures and Launchers

- Green Technology for Space
- Accelerating Evolution – Spacecraft Propulsion Technology and Mission Design
- Technologies for Safe Lunar Landing
- System and Technology Challenges for Landing on the Earth, Moon and Mars
- Radiation Issues and Modeling for Deep Space Missions
- Mission Design for Spacecraft Formations
- Future Space and Earth Science Missions
- Space Debris Mitigation and Removal
- Missions & Technologies for In Situ Exploration & Sample Return
- VEGA Launcher
- Air Vehicle Flight Controls
- UAV Systems & Autonomy
- Multi-Agent Technologies for Aerospace
- PHM for Aircraft and Propulsion Program Applications



Main deadlines

Abstract Submission
1 March 2012

Notification of Abstract
Acceptance
1 April 2012

Draft Manuscript Submission
15 May 2012

Notification of Acceptance
20 June 2012

Final Manuscript Submission
20 July 2012

- IP over Satellite and QoS Support
- Transport Protocols over Satellite
- Onboard Switching and Processing Technologies
- Delay Tolerant Networking (DTN) over Satellite
- Radio Resource Management and Packet Scheduling
- Power control, Hand-Over Issues and Call Admission Control
- Cross-layer Design
- Software Defined Radio Technology
- Next Generation Mobile, Broadband and Broadcast Satellite Systems
- Multi-Gigabit Communications
- New Constellation Design
- Emerging Standardizations and Issues
- Advanced Circuits and Devices
- Security Issues of Satellite Communications
- Precise Positioning
- High Performance Inertial Sensors
- UWB technology

• Integrated Satellite Systems and Emerging Technologies

- Integration between Telecommunication, Navigation and Earth Observation Systems
- IP over Satellite and Heterogeneous Networks
- Emergency Communications and Services
- Maritime Communication Technologies
- Infrastructure and Network Management
- Convergence with Optical Networks
- Cooperative/distributed network Architectures
- Convergence with Optical Networks
- Hybrid Satellite & Terrestrial Networking
- Security Defence
- Space Exploration and Interplanetary Internet



The Trevi's Fountain in Rome



The Roma Eventi Fontana di Trevi
Conference Centre - Venue



The Auditorium Loyola inside the
Roma Eventi Fontana di Trevi Conference Centre

Where does it take place?

ESTEL CONFERENCE will take place at the "Roma Eventi - Fontana di Trevi Conference Centre" recently opened in the heart of Rome and a stone's throw of the Quirinale Palace and its namesake The Trevi Fountain; a very strategic location for visiting Rome. It is located in a magnificent neoclassic palace and it covers 2,500 metres square with 15 meeting rooms able to accommodate over 1,000 participants. Even if located in the heart of Rome the Conference Centre can be easily reached by metro, bus and car.

Whom does it address?

- National, regional and local institutional decision-makers
- Government institutions of communications, industrial programming, territorial and defense control agencies
- National and International space agencies decision-makers
- Universities, research, scientific and technological transfer institutions
- Aerospace district members
- Leaders of Technological districts
- Technical and Environmental offices of national and local P.A.
- Institutions and government agencies of Telecommunications, Industrial programming and territorial control
- Aerospace sector Industries
- High-tech SMEs
- Associations of Education, VIA and VRA territorial programs
- Environmental services members and organisms, and operative territorial emergency Units
- Transportation organisms and managing companies for automotive, aerial, railway and maritime transportation
- Professional associations of environmental and urban design
- Telecommunications companies
- Broadcasting and new transmissive technology companies

For information:

For program contents:

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