



IEEE AESS Technical Panel on Space Systems



The relevant international activities in Italy and Western Europe have been strongly interleaved with those of the Space Systems Panel and they are:

1. Activities related to the development of the first IEEE AESS European Conference on Satellite **TE**Lecommunications (ESTEL) that will take place in Rome, Italy on October 2-5, 2012. This Conference is financially sponsored by IEEE AESS.

MoU with AES has been signed. The Advisory, Technical, Organising and Financial Committees have been formed.

The confirmation deposit of 12.960€ was paid by Promospace to “Centro Congressi Trevi Rome” for the rent of the Convention Center, according to the contract.

The conference bank account for receipt and disbursement of conference funds has been established.

The organizing committee is developing the communications plan, marketing materials and conference website (www.estelconference.org)

Conference Record #: 19294.

The ESTEL Conference has been registered on EDAS.





IEEE AESS Technical Panel on Space Systems

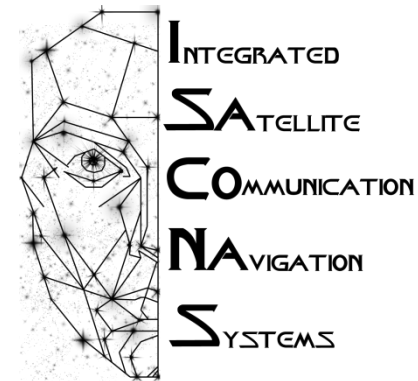


➤ Activities related to the development and organization of the first *IEEE AESS Summer Workshop on Integrated Satellite Communication and Navigation Systems (ISaCoNaS)*: “Advanced Services and Applications, Architectures and Terminals To improve Quality of Life” which was held in Nicotel Pineto in Castellaneta Marina, Apulia, Italy on July, 25-30 2011. Conference Record #: 19177. (<http://isaconas-workshop.uniroma2.it/>).

This course was focused on systems, technologies and relative services associated to Earth Observation and Earth Science Applications, Advanced Satellite Communications and Navigation, Swarm Intelligence and Advanced Modulation and Coding Techniques which can significantly improve the quality of life of World Citizen.

Sistemi Software Integrati (SSI), Taranto hosted ISaCoNaS on Monday and Tuesday, while on Friday it was held in the Italian Space Agency (ASI), Matera.

Budget required to AESS: 12000 USD for 2012 ISaCoNaS.





IEEE AESS Technical Panel on Space Systems



In the scenario of GOLD for GOLD activities, we have identified the following activities:

- Consider GOLD people providing tutorials to PhD students at IEEE AESS sponsored conferences on space systems topics;
- Consider GOLD people who have recently written an appropriate book on space systems topics who may want to use the tutorial as means to promote the book among other GOLD members;
- Identification of qualified GOLD academics or professionals who may want to prepare tutorials on space panel topics. Some possible people to realise tutorials for GOLD to GOLD initiative have been identified:

- Fabio Dosis (Polytechnic of Turin, Italy) - *Digital Signal Processing in GNSS receivers*;
- Cosimo Stallo (University of Rome Tor Vergata, Italy) - *Wireless Technologies for Future Multi-Gigabit Communications Beyond 60 GHz - Design Issues and Performance Analysis for Terrestrial and Satellite Applications*;
- Gonzalo Seco (Universitat Autònoma de Barcelona, Spain) - *Antenna Arrays for GNSS and multicarrier signals for positioning*;
- Tommaso Rossi (University of Rome, Tor Vergata, Italy) - *EHF satellite communications*;
- Oleg Stukach (Tomsk Polytechnic University, Russia) - *Researches in the picosecond electronics, new mathematical methods of optimal synthesis of nonlinear devices*;
- Daniela Valente (University of Rome Tor Vergata, Italy) - *Advanced modulation techniques for satellite communications*;
- Andrew Terzuoli Fuse (Ohio State University, USA) - *Structurally integrated antennas on a joined-wing aircraft* or other topics (we are contacting him in order to establish the appropriate topic);
- Mauro De Sanctis (University of Rome Tor Vergata, Italy) - *Advanced Techniques for Satellite Constellations Design*.

Budget required to AESS: 2000 USD for each tutorial.



IEEE AESS Technical Panel on Space Systems



- Activities related to the role of Editor of Space Systems of the AES Transactions and for the Systems Magazine.
- Organisation of training and thesis activities of students at the University of Roma Tor Vergata in the field of space systems.
- The 8th edition of the Master Course in “Advanced Satellite and Communications Systems” is in progress at the University of Rome Tor Vergata, while the 9th edition is in preparation.
- The 5th edition of the on line Master Course in “Satellite Communications and Navigation Systems” organized by University of Rome Tor Vergata and Scuola IaD (Istruzione a Distanza) is in progress, while the 6th edition is in preparation.
- Activities related to projects, publications and teaching in the space system related topics.
- Development and publication of several papers about space systems in conference proceedings and journals.
- The creation of a new panel on Quality of Life topics with transversal features (energy, security and biomedicine) to other IEEE societies. Budget required to AESS: 5000 USD.