

**RAST 2011**

on the occasion of

**100<sup>th</sup> Anniversary of Turkish Air Force****5<sup>th</sup> International Conference on****Recent Advances in Space Technologies****“The Future is in the Skies”****09-11 June 2011, İstanbul, TÜRKİYE**[www.rast.org.tr](http://www.rast.org.tr)

**Preamble:** The 5th RAST (Recent Advances in Space Technologies) Conference, or RAST 2011, has a special significance in that it coincides with the 100<sup>th</sup> anniversary of the foundation of the Turkish Air Force (TuAF). The theme of the conference is based on the visionary statement “The Future is in the Skies” of Mustafa Kemal Atatürk, who also predicted, in a speech he gave in Eskişehir in 1936, “One day, mankind will roam in the skies without an aircraft, travel to distant planets, and perhaps, send messages to us from the moon. For the realization of this miracle, there will be no need to wait for the year 2000”. The achievements in space, in the last half century, did prove Atatürk right. Future accomplishments are surely in store. Therefore, in honor of the centennial anniversary of TuAF, the organizers have decided to dedicate the theme of RAST 2011 to “The Future is in the Skies”, which underscores the future of mankind and space. RAST 2011 welcomes all contributors and participants, with challenging visions in all fields of space science and technology.

**Objectives:** As before, RAST 2011 has the general objective of providing a forum for the presentation of recent developments in space technologies. Furthermore and in particular, the organizers wish to make RAST 2011 a special event for looking into the future of space technology developments.

**Participants:** RAST 2011 welcomes all contributors and participants, engaged in all fields of space science and technology. The conference should be attractive for participants coming both from technical and management/policy backgrounds, including academicians, engineers, space agency officials, other government officials, space company managers, businessmen, educators, and students.

**Plenary and Invited Speakers:** In addition to the regular contributors and participants, the conference will feature high level speakers from leading international and national space organizations, who are expected to open up new visions into the future of mankind and space.

**Topics:** In general, contributions regarding all aspects of recent developments in space technologies are welcome. Presentations addressing the specific theme of RAST 2011 are especially encouraged. Papers may fall under, but not be limited to the following topics:

- Utilization of space for the future of mankind;
- Space technologies that contribute to security, including all aspects and threats, natural, man-made, humanitarian efforts, etc.
- Earth observation projects and programs geared especially toward prediction, mitigation and monitoring of natural disasters
- Computational modeling for design, development and control of aerospace vehicles, during launch, space travel (orbit), and reentry
- Developments in GNSSs, interoperability, new applications
- Small satellites, micro, nano and pico satellites, cubesats
- New and novel instrumentation for various spacecraft functions, including ADCS, power, vehicle control, space robotics etc.
- Space law, space medicine, and benefits of information available from space (social, educational and others)
- Visions into future of space science, multiverses, black holes, etc.
- Energy from space
- Design and construction of space structures, space systems, materials, simulation and testing
- Computational modeling of material processing and other flow physics associated processes under microgravity conditions in space
- New remote sensing technologies and applications, i.e. hyperspectral sensing, SAR, applications in environment, agriculture, etc.
- Affordable and novel launch systems
- New space communication techniques, higher frequencies, new apps
- Scientific applications, deep space, near-Earth space, space weather, microgravity
- International cooperation, especially among space-faring and developing countries.
- Space travel; colonization of other heavenly bodies; SETI

**Special Sessions:** The participants of the conference are encouraged to organize special sessions (4-6 papers) in a particular area within the conference theme. For details, the special sessions chair Seyhan Onbaşıoğlu (onbasioglu1@itu.edu.tr) is to be contacted.

**Exhibition:** An exhibition is planned during the conference.

**Paper submission:** Prospective participants are invited to electronically submit an extended summary (minimum 500 words) of their work, following the instructions available on the web page. **Accepted papers will be published in an IEEE proceedings volume, that will appear on IEEE Xplore, that will be available at the time of the conference.** Selected papers from the conference will be considered for possible publications in archival journals. Further information about the conference can be obtained from the web site or the secretariat, the contact details of which are given below.

**Important Dates:**

Submission of summaries and special session proposals

**13 February 2011**

Notification of acceptance

**07 March 2011**

Camera-ready submission of full papers

**10 April 2011****Organized under the auspices and guidance of the Commander of Turkish Air Force, General Hasan AKSAY****Organized by:**

Turkish Air Force Academy, Aeronautics and Space Technologies Institute (ASTIN), Türkiye  
İstanbul Technical University, Türkiye  
Boğaziçi University, Türkiye  
Bahçeşehir University, Türkiye  
İstanbul Commerce University, Türkiye  
Yeditepe University, Türkiye  
Çankaya University, Türkiye

**In Technical Co-operation with**

IEEE Aerospace & Electronic Systems Society  
IEEE Geoscience & Remote Sensing Society  
AIAA (American Inst. for Aeronautics&Astr.)  
European Assoc. of Rem. Sens. Lab.-EARSEL

**Honorary Chair:**

Major General İsmail Taş  
(Commander, Turkish Air Force Academy)

**General Chair:**

Col. Mustafa İlarıslan (ASTIN)

**Technical Program Co-chairs:**

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Fuat İnce (ASTIN and Marmara Univ.)  
M. Fevzi Ünal (ASTIN and İTÜ)  
Okyay Kaynak (Boğaziçi Univ., ASTIN)  
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