UNITED NATIONS
Office for Outer Space Affairs

**United Nations/Croatia Workshop on the
Applications of Global Navigation Satellite Systems**

Organised jointly by
The United Nations Office for Outer Space Affairs and

the Faculty of Maritime Studies of the University of Rijeka

Co-organized by
The International Committee on Global Navigation Satellite Systems

Hosted by
The Faculty of Maritime Studies of the University of Rijeka

Baška, Krk Island, Croatia

21 – 25 April 2013

PROGRAMME-AT-A-GLANCE[1]

Tutorials

RINEX-based global navigation satellite systems (GNSS) performance data analysis

Thematic Sessions

Session 1: Current and planned global and regional navigation satellite systems and satellite-based augmentation systems

- Programme updates-GNSS: Global Positioning System (GPS), GLObal NAvigation Satellite System (GLONASS), European Satellite Navigation System (GALILEO), COMPASS/BeiDou Navigation Satellite Systems (CNSS), Indian Regional Navigation System (IRNSS), Quasi-Zenith Satellite System (QZSS)
- GNSS space-based augmentation systems: Wide-Area Augmentation System

---

[1] The Workshop programme will include plenary sessions and sufficient time for discussions among participants to identify the priority areas where pilot projects should be launched and examine possible partnerships that could be established in the region.

(WAAS), System of Differential Correction and Monitoring (SDCM), the European Geostationary Navigation Overlay Service (EGNOS), GPS Aided Geo-Augmented Navigation (GAGAN), the Multi-functional Transport Satellite Satellite-based Augmentation System (MSAS)

Session 2: GNSS user applications

- New capabilities in efficiency and safety across all modes of transportation: aviation, maritime, rail and highway
- Applications in surveying and mapping, geodesy, science and timing, environment, agriculture, and remote sensing with GNSS and integrated sensors
- Space and atmospheric weather: observation of space weather phenomena through the deployment of ground-based world-wide instrument arrays such as GPS receivers, magnetometers, solar telescopes, very low frequency (VLF) monitors, solar particle detectors, and data analysis and the sharing of recorded data

Session 3: GNSS reference station networks and services

- Regional and national reference frames/systems implementation
- International GNSS Service (IGS) and other initiatives, multi-GNSS environment

Session 4: Capacity building, training and education in the field of GNSS

- Education and training programmes
- GNSS education tools

Discussion Sessions

- Issues, concerns and approaches for pilot projects/initiatives, requirements of implementing, mechanisms and resources of implementing
- Possible follow-up projects and initiatives and proposals for future workshops/training courses