RadarConf'22
2022 IEEE RADAR CONFERENCE

TIMES SQ

... Where Radar Innovation Never Sleeps

AESS IEEE Region 1

21-25 March, 2022 | Times Square | New York City, USA | www.radarconf2022.org

Call for Papers

For the first time, New York City (NYC) will host the annual IEEE Radar Conference, with the 2022 event taking place 21 – 25 March in Times Square. The NYC area has a rich history in radar innovation with the invention of pulse compression and stretch processing, and like radar, NYC runs all days and all nights. Since World War II, the area has been well known for the design, development and manufacture of world-class airborne, shipboard, and ground-based systems. The area is also home to many great radar pioneers, from Harold Wheeler to Eugene Fubini. The city is the land of innovation, businesses, venture capitals and startups, making it the perfect place to disseminate new ideas and novel capabilities.

The Venue

The 2022 IEEE Radar Conference is being held at the Sheraton Times Square in New York City. The hotel is ideally located in the heart of NYC and within walking distance to Broadway theaters, Central Park, the Museum of Modern Art, Fifth Avenue, Rockefeller Center, and the newly built High Line and "Vessel". The venue is surrounded by subway stations, which can take conference participants to the Statue of Liberty, Ellis Island, the 911 Memorial, One-World observatory, Wall Street, Chinatown, Little Italy, the Brooklyn Bridge, the Metropolitan Museum of Art, the Guggenheim Museum, the Empire State Building, the Museum of Natural History, St. Patrick Cathedral, and the Frick Collection. NYC also hosts five thriving boroughs, from Brooklyn to Queens, all rich in cultural history: from culinary experiences, to open street art, zoos and botanical gardens.

Call for Papers

Original papers describing significant advances in radar technologies, systems, applications, and techniques are sought. Prospective authors should prepare a 4-6 page full paper (including figures) using the IEEE format. Papers should be submitted no later than 22 October 2021. Complete submission instructions can be found at www.radarconf2022.org.Particular topics of interest include, but are not limited to:

- **Radar Signal & Data Processing:** including STAP, MIMO, compressive sensing, SAR / ISAR processing, digital beamforming, array processing, super-resolution techniques, detection and false alarm enhancement, waveform diversity, target tracking and fusion.

- **Radar Phenomenology & Remote Sensing:** including target and clutter estimation, modeling, atmospheric propagation and scattering phenomenology, foliage and ground penetration, and exploitation of multipath.

- **Radar Systems & Applications:** including innovative designs/missions for airborne, spaceborne and shipborne radar, imaging radar, distributed active/passive radar, air traffic radar, automotive radar, multi-function radar, sense & avoid radar for UAVs, and weather radar.

- **Antenna Technology:** including conformal arrays, design for low sidelobe level, ultra-wideband, metamaterials, multi-polarization, frequency-diverse arrays, and multiple beams.

- **Emerging Radar Technologies:** including cooperative radar systems (scheduling, networking, fusion), radar spectrum sharing, cognitive radar, fully digital phased array radar, foliage and ground penetration, Terahertz and Quantum radar.

- **Sub-Systems and Components:** including novel & advanced processing architectures, software-defined radar, RF system-on-chip (RF-SoC), advanced components (e.g. GaN MMICs), real-time processing platforms (e.g. FPGA, GPU), T/R modules, and advanced receiver designs.

Tutorials

Tutorials will be held on 21 and 25 March, 2022. Brief tutorial proposals should be submitted by 15 August 2021 to the Tutorial co-Chairs and must include title, outline, contact information, biography, selected publications for the presenter(s), and a description of the tutorial and material to be distributed to participants.

Key Dates

- **Special Session Proposals Due:** 2 August 2021
- **Paper Submission Due:** 22 October 2021
- **Tutorial Proposals Due:** 15 August 2021

- **Paper Acceptance Notification:** 21 December 2021
- **Final Paper Submission:** 21 January 2022

For any inquiry, please contact info@radarconf2022.org