



16TH EUROPEAN CONFERENCE ON ANTENNAS & PROPAGATION

EuCAP MADRID

27 MARCH / 1 APRIL 2022

FOCUS ON LINKING ANTENNAS AND
PROPAGATION WITH NEW TERRESTRIAL AND SATELLITE
COMMUNICATION NETWORKS



THE CONFERENCE

EuCAP is Europe's largest and most significant antennas and propagation conference attracting more than 1400 participants from academia and industry, and more than 50 industrial exhibitors, from all over the world. It is a great forum for exchange of new technical-scientific achievements, for demonstrating state-of-the-art technology, and for establishing and strengthening professional networks. The 2022 host country, Spain, has a strong antennas and propagation community both in academia and industry. Moreover, antennas and propagation play a central role in the current transition of Spain to the Digital Society and the next generation of terrestrial and space communication systems and networks, hand in hand with the telecommunications and aerospace industry. Many telecommunications operators and aerospace companies have their Spanish headquarters in the host city, Madrid, and its surrounding area. Therefore, EuCAP 2022 will be a unique place to strengthen the link between the scientific antennas and propagation community and the aerospace as well as the 5G industry.

FORMAT OF THE CONFERENCE

The conference will comprise:

- > Plenary sessions with invited and keynote speakers
- > Oral sessions (both convened and regular)
- > Poster sessions
- > Short courses
- > Industrial and scientific workshops
- > Industrial exhibition

IMPACT OF COVID-19

The EuCAP Conference Organising Committee, the EuCAP Steering Committee and EurAAP are committed with the return to the classic "on-site" format, although the worldwide development of COVID-19 will be carefully monitored. In any case, after the good experience from previous editions, EuCAP 2022 will offer some on-line to allow the participation of people who cannot attend to Madrid physically due to travel restrictions or any other reason.

APPLICATION TRACKS

Aiming at increasing the interaction between academia and industry, the conference will feature session tracks focused on front-line applications; see reverse side.

BEST PAPER AWARDS

For EuCAP 2022 there will be a Best Student Paper Award and Best Paper Awards in the four categories Antennas, Electromagnetics, Propagation, and Measurement.

GRANTS

A limited number of grants covering both travel and registration will be offered to selected authors of high-quality papers. More information will be published at:

www.eucap.org/awards/ticra-euraap-grants

AMTA EUROPE

The Antenna Measurement Techniques Association (AMTA) is strongly involved in the conference. AMTA will contribute with invited speakers, provide special sessions, cooperate in the application tracks, and sponsor the technical tours.

AUGMENTED PAPERS PUBLICATION

As in previous editions, authors can apply for the publication of EuCAP augmented paper in a special issue of either Microwaves, Antennas & Propagation (IET) or International Journal of Microwave and Wireless Technologies (EuMA) during the submission process. Please see the conference home page for more information. In addition, starting from this year, authors will also have the chance to apply for publication in the new EurAAP journal: Reviews of Electromagnetics.

EXHIBITION AND SPONSORSHIP

The conference will provide numerous opportunities for exhibitors and sponsors, according to their strategic visibility and publicity targets. Coffee breaks and lunches will be served in the exhibition area, in order to increase the interaction between participants and exhibitors. Please see the conference homepage for more information.

MADRID

Madrid, cheerful and vibrant at all hours, is famous for being an open city with people from anywhere in the world. It is a fascinating city with an open-minded and cosmopolitan way of life. It is the economic core of Spain and one of its main cultural and entertainment areas, being an important venue for conferences and trade fairs, with the corresponding infrastructure such as a modern conference centre, with a large exhibition area, efficient and easy public transport connections, a huge choice of hotel rooms and great variety of restaurants. Madrid is the main transport hub of Spain, and is connected to almost any part in the world, offering direct flight connections worldwide. With its lively districts, its incredible cultural offer, the "Madrid de los Austrias" Old Town, and its dazzling taste, Madrid's open, warm and welcoming character makes it the perfect place for EuCAP 2022.

INFORMATION FOR AUTHORS

Authors are invited to submit papers online with a minimum length of two and a maximum length of five A4 pages. The paper must contain enough information for the Technical Programme Committee and reviewers to assess the quality of the work in a single acceptance/rejection review process. It will be possible to revise accepted papers in line with the reviewers' comments. Submit your paper online at www.eucap2022.org no later than October 15th 2021. The submission requires an EDAS[®] account, which is free. Presented papers will be proposed for inclusion in IEEE Xplore, if the authors choose this option during the submission process. Compliance to the IEEE format is mandatory in this case. At least one of the authors of each paper must register as delegate for attending the conference. A delegate cannot register more than two papers in his/her name as "presenting author".

FIRM DEADLINE

Please recall the EurAAP policy for EuCAP: there will be no extension of the paper submission deadline; late or updated submissions will not be accommodated after the deadline.



Important dates

Convened session proposals:

Call: May 17th 2021
Deadline: June 20th 2021
Notification: July 12th 2021

Call for papers:

Call: July 2nd, 2021
Deadline: October 15th, 2021
(fixed deadline).
Several reminders.
Notification: December 17th, 2021

Conference Topics and Application Tracks



ANTENNAS

A01	Antenna systems and architectures
A02	Antenna theory
A03	Design and technologies for array antennas
A04	Analysis of array antennas
A05	Antenna interactions and coupling
A06	Mm-wave antennas
A07	Sub mm-wave, THz and nano-optical antennas
A08	Multiband and multifunctional antennas
A09	Wideband and UWB antennas
A10	Electrically small antennas
A11	Wearable and implantable antennas
A12	Lens antennas
A13	Reflector, feed systems and components
A14	Reflect arrays and transmit arrays
A15	Slotted-waveguide and leaky-wave antennas
A16	Dielectric resonator antennas
A17	Adaptive and reconfigurable antennas
A18	Active and integrated antennas
A19	MIMO, diversity, smart antennas & signal processing
A20	Conformal antennas
A21	RFID antennas/sensors and systems
A22	Antennas for wireless power transmission and harvesting
A23	Additive Manufacturing for Antennas
A24	Other antenna topics

ELECTROMAGNETICS

E01	EM theory
E02	Computational and numerical techniques in frequency domain
E03	Time domain methods and time modulated antennas
E04	Optimisation methods and machine learning in EM and antenna design
E05	Imaging and inverse scattering
E06	Scattering, diffraction and high frequency techniques
E07	Frequency/polarization selective surfaces and periodic structures
E08	Metamaterials and artificial materials
E09	Metasurfaces
E10	Other EM topics

MEASUREMENTS

M01	Material characterisation and non-destructive testing
M02	Near-field, far-field, compact and RCS measurement and calibration techniques
M03	Data acquisition, imaging algorithms and measurement post-processing
M04	EMI/EMC/PIM instrumentation and measurements
M05	Measurement range evaluation
M06	UAV-based measurements
M07	Dosimetry, exposure and SAR assessment
M08	Satellite and aerospace antenna characterisation
M09	Mm-wave, THz and quasi-optical antenna measurements
M10	MIMO and OTA testing
M11	General antenna measurements and other topics

PROPAGATION

P01	Propagation theory and deterministic propagation modelling
P02	Empirical and statistical propagation modelling
P03	Channel sounding and parameter estimation techniques
P04	Propagation experimental methods and campaigns
P05	Mm-wave and UWB propagation
P06	Multidimensional and advanced channel modeling
P07	Machine learning for propagation
P08	Satellite propagation
P09	Propagation for vehicular communications
P10	Body and biological tissues propagation
P11	Radar, localisation, and sensing
P12	Radio science and remote sensing
P13	Other propagation topics

APPLICATION TRACKS

T01	LTE and Sub-6GHz 5G
T02	Millimetre wave 5G and 6G
T03	Wireless LANs, IoT and M2M *
T04	Biomedical and health
T05	Aircraft (incl. UAV, UAS, RPAS) and automotive
T06	Defence and security
T07	Positioning, localization & tracking
T08	Space (incl. cubesats)
T09	EM modelling and simulation tools
T10	Fundamental research and emerging technologies

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