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THREE CONFERENCES

ONE EXHIBITION

EUROPE'S PREMIER
MICROWAVE, RF,
WIRELESS AND
RADAR EVENT



EuMW2018
PASSION FOR
MICROWAVES

**EUROPEAN
MICROWAVE WEEK**
IFEMA FERIA DE
MADRID, SPAIN
23-28 SEPTEMBER 2018
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CALL FOR PAPERS

IFEMA - FERIA DE MADRID,
MADRID, SPAIN
23RD - 28TH SEPTEMBER 2018

The 21st European Microwave Week combines:

- The European Microwave Conference (EuMC)
- The European Microwave Integrated Circuits Conference (EuMIC)
- The European Radar Conference (EuRAD)

PLUS:

- Workshops, Short Courses and Special Sessions
- The Forum on Defence, Security and Space
- The European Microwave Exhibition



EuMA

European Microwave Association

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**EuMIC
2018**

The 13th European Microwave
Integrated Circuits Conference

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48TH EUROPEAN MICROWAVE CONFERENCE 2018

The 48th European Microwave Conference

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2018

The 15th European Radar Conference

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THE 21ST EUROPEAN MICROWAVE WEEK

The European Microwave Week 2018 (EuMW 2018) continues the series of successful microwave events held in Amsterdam (1998, 2004, 2008 and 2012), Munich (1999, 2003 and 2007), Milan (2002), Manchester (2006 and 2011), Nuremberg (2013 and 2017), Rome (2009 and 2014), Paris (2000, 2005, 2010 and 2015), and London (2001 and 2016). EuMW 2018 consists of three conferences:

- **The European Microwave Conference (EuMC)**
- **The European Microwave Integrated Circuits Conference (EuMIC)**
- **The European Radar Conference (EuRAD)**

In addition, the EuMW 2018 will include **The Forum on Defence, Security, and Space**.

EuMW 2018 provides the opportunity to attend conferences, workshops, short courses, and special sessions. For PhD and graduate students, special competitions will take place and doctoral sessions and lectures on microwave theory and techniques will be offered. The annual European Microwave Exhibition, which is by far the largest trade show on RF and microwaves in Europe, is held in conjunction with the conferences. The exhibition includes a series of technical seminars (exhibitor workshops) describing microwave products and processes.

The venue of the European Microwave Week 2018 will be the IFEMA - Feria de Madrid. It is easy to reach from Madrid airport as well as by car or train. Hotel accommodation is available in Madrid, with excellent public transport connections to IFEMA (Metro Line 8 from Madrid airport and downtown and several bus lines from Madrid downtown).

Come and join us in Madrid and enjoy both the EuMW, Europe's prime microwave event in 2018, and Madrid downtown as well as its beautiful surroundings to make 2018 a truly prime year in your calendar.

ADDRESSES

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Email: student_contests@eumw2018.com

IMPORTANT DATES:

18th December 2017: Deadline for proposals of workshops, short courses, focused and special sessions
12th February 2018: Deadline for submission of papers
20th April 2018: Notification of acceptance
1st June 2018: Submission of requests for grants and fellowships
11th June 2018: Submission of final papers

EUMW 2018 EXHIBIT:

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Horizon House Publications, 16 Sussex Street, London SW1V 4RW, UK

at www.eumweek.com by 12th February 2018

SUBMISSION OF PRELIMINARY PAPERS AND GENERAL INSTRUCTIONS FOR AUTHORS

Authors are requested to submit a 4 page preliminary paper in the standard conference proceedings layout. A template can be downloaded from the EuMW 2018 website: www.eumweek.com. The paper must be uploaded in pdf format. The maximum file size is 3 MB. It is essential to emphasize the novel aspects of your paper. One author information form per paper must be completed at the EuMW 2018 website when uploading the paper.

The week comprises three conferences. A paper can only be submitted to a single conference. Do not upload the same paper to more than one conference. The deadline for submission of preliminary papers is 12th February 2018. Late submissions cannot be accepted. Each preliminary paper will be reviewed by the Technical Programme Committee (TPC) of the conference to which the paper has been submitted by the author(s). Exceptionally, the General TPC Chair reserves the right to redirect a paper, which does not fit with the conference selected by its authors, towards the most appropriate conference. For topics common to two conferences, as indicated in the respective topics lists, the decision about acceptance of the paper will be taken jointly by both Technical Programme Committees. Even in this case, each paper must be submitted to only one conference, selected by the author(s). Authors will be notified on the status of their submission by 20th April 2018. The final digest paper will be required by 11th June 2018. Authors of accepted papers will find instructions for publication and presentation on the EuMW 2018 website. Authors are responsible for obtaining publication approval by their employer or sponsor. Papers must be written in English and formatted in the standard conference proceedings layout on A4 paper. Word or Latex Templates can be downloaded from www.eumweek.com from November 2017. Please, make sure that you choose the correct files and settings for an A4 conference paper.

INCENTIVES FOR AUTHORS

All participants in one or more of the conferences will receive a memory stick containing the conference proceedings. Furthermore, all accepted papers will be published on IEEE Xplore. Selected papers will also be nominated by the Technical Programme Committee for a Special Issue of the International Journal of Microwave and Wireless Technologies, published by Cambridge University Press. Poster sessions, including electronic and interactive features, will be attractive and inspiring, encouraging information exchange and discussions between authors and participants. The poster sessions will have a dedicated slot in the programme. Each conference will award a best paper conference prize and one or two young engineer's prizes. Prize winners will receive a financial award.

WORKSHOPS AND SHORT COURSES

During EuMW 2018, a number of workshops and short courses on a variety of popular topics of current or emerging interest will be organized. If you have any suggestions for a workshop or a short course, please e-mail your proposals by 18th December 2017 to the Workshop and Short Course Chair, José Carlos Pedro (workshops@eumw2018.com). Proposals should be submitted on the templates which will be available on the EuMW 2018 website or you can request them directly from José Carlos Pedro. Proposers will be informed about the TPC's decision by 20th April 2018.

FOCUSED AND SPECIAL SESSIONS

Focused sessions are sessions dedicated to an emerging subject of specific interest to the microwave community. They consist of solicited and unsolicited papers. Special sessions should reflect specific (historical or recent) events of interest to the microwave community or recognize the life work of persons by honouring their contributions. They may also highlight technical achievements made in a specific geographical region of the world. If you have any suggestions for a focused or special session, please e-mail your proposal by 18th December 2017 to the Special Session Chair, Juan O'Callaghan (special_sessions@eumw2018.com). Proposals should be done on the templates which will be available on site or be requested directly from the organizers. Proposers will be informed about the TPC's decision by 20th April 2018.

WOMEN IN MICROWAVE ENGINEERING

We continue the tradition of holding the Women in Microwave Engineering event during the European Microwave Week. Of course, both women and men are welcome. If you have any suggestions for the program of this event, please e-mail your proposal by 18th December 2017 to the Women in Microwaves Chair, Mónica Fernández Barciela (women_microwaves@eumw2018.com).

STUDENT DESIGN COMPETITION AND STUDENT CHALLENGE

Eligible students are invited to take part in the Student Design Competition or in the Student Challenge during EuMW 2018, which are organised by the Student Activities Committee chaired by José Luis Gómez Tornero (student_contests@eumw2018.com). Please visit the EuMW 2018 website for further information.

STUDENT GRANTS AND FELLOWSHIPS

All EuMW conferences will provide several competitive student grants, and, in addition, the GAAS Association offers three PhD student fellowships for the European Microwave Integrated Circuits Conference. Applications should be sent to the General Chair by 1st June 2018.



**EUROPEAN
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THE CITY OF MADRID



Located in the center of Spain, Madrid is a lively cosmopolitan and friendly city where everyone feels at home. A place for business and new trends, the capital of Spain offers a safe, comfortable setting where taking time out and doing business are equally enjoyable. Its rich artistic and natural heritage, cutting-edge transport network, quality accommodation, fine cuisine and the passion locals show when enjoying their city's day and night life make it one of the most attractive cities in the world.



Madrid is the political, economic and cultural centre of Spain and the third-largest city in the European Union. Madrid is considered the major financial centre of Southern Europe due to its economic output and market size. Madrid also serves as a cultural bridge to Latin America and it is a city to enjoy, with 144 museums, almost 3,000 hours of sunshine per year, 6 public and 7 private universities, more than 300 subway stations and almost 300 km of underground lines, and more than 5,000 restaurants.

More information at <http://www.esmadrid.com/en>.



IFEMA - FERIA DE MADRID CONVENTION CENTER

IFEMA - Feria de Madrid is at the core of Madrid's business scene and acts as a clear benchmark in the international show and conference sector. Set against the backdrop of one of the most important business centres in the city, the Feria de Madrid venue is linked to Madrid's major arteries by means of a network of roads that provide easy access to the Fair. Furthermore, the Adolfo Suárez Madrid-Barajas Airport is barely a few miles away, which makes it accessible from every corner of the world. Attendants can also make use of public transport, particularly thanks to the vast Metro Madrid underground network, which links the venue to every point of the city.



The venue boasts an exhibition area that covers 200,000 square metres, 12 Halls, 2 Convention centres, a themed area for Fashion and Lifestyle events in Hall 14.1 that includes 2 catwalks, and 14,000 parking spaces.





The 48th European Microwave Conference

EUROPEAN MICROWAVE CONFERENCE 2018 Madrid 25th – 27th September 2018

The 48th European Microwave Conference (EuMC) represents the main event in the European Microwave Week 2018, the largest event in Europe dedicated to microwave components, systems and technology. The European Microwave Conference is a premier event to present the status and trends in the fields of microwave, millimetre-wave and terahertz systems and technologies. A broad range of high frequency related topics, from materials and technologies to integrated circuits, systems and applications will be addressed in all their aspects: theory, simulation, design, and measurement. Examples include the latest developments for filters and passive components, modelling and design of RF MEMS and microsystems, high frequency and high data rate microwave photonics, highly stable and ultra low-noise microwave and millimetre-wave sources, new linearization techniques, 5G, IoT, and the impact of new packaging technologies on development applications. Special emphasis will be placed on emerging technologies, additive manufacturing techniques and materials for microwave components such as nanotechnologies and graphene, metamaterial structures and devices, tuneable RF components, reconfigurable RF systems and system-in-package. The scope

also includes electromagnetic field theory, theoretical and experimental developments in wave propagation and antenna systems, and advanced simulation and characterization techniques. An additional focus will be put on the system implications of future microwave communications, wireless power transfer, radar with wireless communication capability, millimetre-wave imaging systems, and microwaves in industrial and medical applications.

The European Microwave Conference provides many opportunities for networking and interaction with international experts in a wide variety of specialties, attracting delegates with academic as well as industrial backgrounds. With carefully selected papers in more than 40 oral and poster sessions, the conference represents an exciting forum for the presentation and discussion of the most recent advances in the microwave arena. In addition to scientific papers, contributions on industrial applications are also encouraged, covering the fields of instrumentation, medical, telecommunication, radar, space, automotive and defence systems, etc.

EuMC 2018 CONFERENCE TOPICS

Passive Components, Circuits and Subsystems

- E1 Planar Passive Components and Circuits: *Planar transmission lines, couplers, dividers/combiners, hybrids, lumped-element circuits, tunable planar components and devices, additive manufacturing techniques*
- E2 Non-Planar Passive Components and Circuits: *Non-planar micromachined transmission lines, waveguides, couplers, dividers/combiners, hybrids, tunable components and devices, additive manufacturing techniques*
- E3 Planar Filters and Multiplexers: *Innovative synthesis and analysis, active filters, additive manufacturing techniques*
- E4 Non-Planar Filters and Multiplexers: *Innovative 3D filters and multiplexers solutions, and non-planar innovative integrated technologies (LTCC, Liquid Crystal Polymer, MCM-Deposition), additive manufacturing techniques*
- E5 Ferroelectrics, RF MEMS, MOEMS and NEMS: *Bulk and thin-film ferrite components, surface and bulk acoustic wave devices including FBAR devices, RF micro-electro-mechanical and micromachined components and subsystems*
- E6 Metamaterials, Frequency Selected Surfaces and Electromagnetic Bandgap Structures
- E7 Interconnects, Packaging and Multi-Chip Modules: *Assembly methods, hybrid integration, interconnects and multi-chip modules, heterogeneous IC technologies*
- E8 Emerging Materials and Technologies: *Emerging 2D/3D printing techniques, graphene, novel-material based nanotechnology, nanodevices, nanoscale RF components, superconducting RF materials and devices, additive manufacturing techniques, organic plastics and other*

Active Components, Circuits and Subsystems

- E9 Low Noise Circuits and Modules (*): *LNA, detectors, receivers, radiometers*
- E10 Frequency Generation, Conversion and Control: *Oscillators, VCOs, phase-locked loops and frequency synthesizers, mixers, frequency multipliers/dividers*

- E11 Front-End and Transceiver Modules, System-in-Package Technologies: *Analog and digital front-end architectures, modulators/demodulators, analogue RF and mixed signal SIP, switches, phase shifters, limiters*
- E12 Tunable and Reconfigurable Circuits and Systems (*): *Reconfigurable transceiver circuits, modules and amplifiers*
- E13 Hybrid High Power Amplifiers: *High-power amplifier design, power combining techniques, vacuum electronics*
- E14 Power Amplifiers, Efficiency Enhancement and Linearization (*): *Characterization and power amplifier behavioral modelling, linearization and predistortion techniques*
- E15 Sub-THz and THz Circuits and Modules
- E16 Microwave Photonic Circuits and Systems (*): *Including indium phosphide and silicon nitride based photonic integrated circuits*

Field and Circuit Analysis, Simulation and Characterization Techniques

- E17 Electromagnetic Field Theory and Numerical Techniques: *Frequency and time domain modelling, periodic structures, sparse arrays, simulation of electrically large problems, multi-scale and multi-physics approaches*
- E18 Electromagnetic Compatibility and Interference, Signal Integrity
- E19 Interaction of Electromagnetic Waves with Matter, Biological Effects, Electromagnetic Scattering: *Electromagnetic propagation and absorption phenomena, electrodynamic characterization of biological materials, interaction at atomic/molecular/macroscale level*
- E20 Measurement Techniques and Systems from RF to THz: *Frequency and time domain measurements, automated performance testing*

Antennas and Propagation

- E21 Antenna Design and Characterization (**): *Modelling, calibration and measurements, antenna systems*
- E22 Integrated Antennas: *Active antennas, reconfigurable antennas*

- E23 Phased Arrays (Active/Passive), Related Circuits and Components, Tx/Rx Module Technologies (**)
- E24 Smart Antennas, Digital Beam-Forming and MIMO Antennas
- E25 Channel modelling and Measurements: *Extended channel models, cluster emulation, narrowband and wideband channel measurements*

Systems and Applications

- E26 Microwave Systems: *System simulation and characterization, base-station front-ends and handheld transceivers, satellite systems, navigation and positioning systems, industrial systems, vehicular applications and intelligent transportation systems*
- E27 Millimeter-wave, THz Technologies and Systems (**): *mm-Wave and THz wireless communications, imaging/spectroscopy, sensors*
- E28 Ultra Wide Band Technology and Systems
- E29 Emerging System Architectures: *Mixed signal processing, advanced modulation techniques, optimized and highly integrated RF front-ends and architectures*
- E30 Wireless Power Transfer and Energy Harvesting
- E31 Biomedical Applications
- E32 Wireless High Data Rate Communications and Cognitive Radio: *3G/4G/5G systems, software-defined radio, wireless transceiver systems*
- E33 RFID, Near Field Communication, Microwave/Wireless Sensors and Sensor Networks: *Including non-destructive testing and crowd sensing*
- E34 Process Automation, Mobility, and Logistics: *Industry 4.0, intelligent transport systems and smart logistics, machine-to-machine communications, smart metering, smart cars and others*

General topic

- E35 Education and RF Engineering: *Online teaching, e-learning, moocs, engineering education, international exchange programs*

(*): common topic with EuMIC

(**): common topic with EuRAD

48TH EUROPEAN MICROWAVE CONFERENCE 2018

The 48th European Microwave Conference

CONFERENCE HIGHLIGHTS

The European Microwave Conference is the ideal event to keep up to date with the most recent achievements in the field of microwave theory, technology, systems, and applications. Through its multidisciplinary and highly interactive character, it offers second-to-none opportunities to network and interact with international experts from the industrial and academic fields. High quality contributions, selected via a rigorous reviewing process, offer an unparalleled perspective on the state-of-the-art in the field. Keynotes and invited papers, presented by well-known specialists, as well as a variety of workshops, short courses and special sessions on “hot topics” will complement the programme.

EuMC MICROWAVE PRIZE

The EuMC Technical Programme Committee and the EuMW Steering Committee will award the EuMC Microwave Prize of €5,000 to the author(s) of the best paper to the 48th European Microwave Conference. An extended version of the winning paper will be considered for publication in the International Journal of Microwave & Wireless Technologies.

EuMC YOUNG ENGINEERS PRIZE

The Technical Programme Committee of the EuMC and the EuMW Steering Committee will award two EuMC Young Engineers' Prizes of €2,000 each to young engineers or researchers who have presented an outstanding paper at the European Microwave Conference. To be eligible, candidates must: (1) be under 30 years of age at date of award, (2) be the first author of the paper, and (3) be the contribution presenter in an oral or a poster session. The first author must have made a major contribution to the work reported which must be described in an electronic statement signed by all authors of the paper (effectively co-authors state that their contribution was merely advisory). This statement has to include the date of birth of the first author and must be submitted together with the original submission. The number of co-authors of the paper is not limited. An extended version of the winning paper will be considered for publication in the International Journal of Microwave & Wireless Technologies.

REDUCED FEES AND SPECIAL GRANTS

Reduced registration fees are offered for students as well as senior persons aged 65 years or more. The European Microwave Association will also provide up to 14 student grants of €750 and free EuMC registration. Applicants for a student grant must be aged 30 or younger at the time of the European Microwave Week, be a full time student (i.e., an undergraduate or a PhD student), and they will be asked to provide a supervisor's written confirmation of their current student status. The European Microwave Association will also provide a number of grants for delegates coming from the Newly Independent States, from Russia and from low-income countries. The value of the grant is €750 in addition to a free EuMC registration. Applications should be sent to the EuMW General Chair by 1st June 2018.

48TH EuMC TEAM

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TPC Co-Chair	Francisco Mesa, Universidad de Sevilla	mesa@us.es



The 13th European Microwave Integrated Circuits Conference

EUROPEAN MICROWAVE INTEGRATED CIRCUITS CONFERENCE 2018 Madrid 24th – 26th September 2018

The 13th European Microwave Integrated Circuits Conference (EuMIC) will be held in Madrid, Spain, as part of the European Microwave Week 2018. Initiated by the GAAS® Association in 1990 and renamed in 2006, the conference visits Madrid in 2018 for the first time.

The EuMIC conference is jointly organised by the GAAS® Association and EuMA and is the premier European technical conference for RF, microwave and photoelectronic. It has established itself as a key contributor to the success of the overall European Microwave Week and remains the largest scientific event in Europe related to microwave integrated circuits.

The aim of the conference is to promote the discussion of recent developments and trends, and to encourage the exchange of scientific and technical information covering a broad range of high-frequency related topics, from materials and technologies to integrated circuits and applications; encompassing all relevant aspects such as theory, simulation, design, and measurement. Research and innovation in this field helps to create the crucial enabling infrastructure for new and emerging information and communication applications, such as 5G communications, the Internet-of-Things or sustainable electronics.

Technological innovations continue to drive challenges for modelling and simulation as well as for the characterisation techniques applied at both device and circuit levels. While GaAs and silicon-based IC technologies are extensively used in

today's systems, emerging technologies such as wide-bandgap (SiC, GaN, etc.), CNT, and graphene-based devices are expected to become commercially available within the coming years, with a huge expected impact on system performance. Moreover, new materials and devices push integrated circuit capability to millimetre-wave and even to THz bands, while high-speed digital and optoelectronic integrated circuits represent other key areas of interest.

In the modelling area, topics related to device and system small- and large-signal characterisation, test set-ups, and modelling approaches up to the THz band are of interest. In the technology area, papers on nanotechnologies for microwaves, as well as wide-bandgap devices and technologies for microwave photonics are specifically solicited. Topics related to semiconductor devices, IC reliability and 3D-interconnects in ICs are also invited to the conference. Finally, contributions are encouraged in the areas of circuit design and applications, RF and microwave ICs, millimetre and sub-millimetre wave ICs, photonic ICs, mixed-signal and high-speed digital ICs, tunable and reconfigurable ICs as well as integrated detectors, receivers, transmitters, and transceivers.

If you are interested in the subject of microwave and RF microelectronic devices and ICs, the EuMIC conference is an exceptional high-quality event to learn about the latest advances in the field and to meet internationally recognized experts from both industry and academia.

EuMIC 2018 CONFERENCE TOPICS

Modelling and Circuit Simulation

- G1 Physics-based and Multi-physics Device Modelling and Simulation
- G2 TCAD Device Modelling and Simulation
- G3 Small Signal, Large Signal and Noise Modelling and Characterization
- G4 Linear and Non-linear CAD Techniques for Devices and Circuits
- G5 Modelling of Passive RF, Microwave, mm-Wave and Photonic Components for ICs
- G6 Advanced Packaging and Thermal Simulation of High Power Devices and ICs

Technologies and Devices

- G7 Nanotechnologies, Nanodevices and Nanomaterials for Microwaves
- G8 III-V Compound Semiconductor Devices and IC Technologies
- G9 Wide-Bandgap Semiconductor Devices and IC Technologies
- G10 Si-based Semiconductor Devices and IC Technologies
- G11 Device and IC Reliability, Manufacturing Processes and Testing
- G12 3D-Interconnects in ICs
- G13 Devices for Integrated Microwave Photonics
- G14 New and Emerging Material and Device Concepts (Metamaterials, Graphene, Carbon Nanotubes, Organic, etc.)

Circuit Design and Applications

- G15 RF and Microwave Integrated Circuits
 - G16 Millimetre-Wave and Sub-Millimetre-Wave Integrated Circuits
 - G17 Low Noise Circuits and Modules (*)
 - G18 Single-chip Power Amplifiers
 - G19 Power Amplifiers: Efficiency Enhancement and Linearization (*)
 - G20 Si-Based, Mixed Signal, High Speed Digital ICs
 - G21 Microwave Power Silicon Devices
 - G22 Ultra Low-Power Integrated Circuits
 - G23 Tunable and Reconfigurable Circuits and Systems (*)
 - G24 Integrated Receivers, Transmitters and Transceivers
 - G25 Microwave Photonic Circuits and Systems (*)
- (*) common topic with EuMIC



**EuMIC
2018**

**The 13th European Microwave
Integrated Circuits Conference**

CONFERENCE HIGHLIGHTS

Over 100 papers and poster papers will be presented with contributions from Europe, Asia, Middle East, USA, and a growing number of emerging countries. High-quality papers and posters will be accepted after a rigorous review process and made available in the Conference Proceedings. Lively industrial panel sessions will also be organised. Keynote speakers from industry and academia will present invited talks on hot topics. Tailored short courses and workshops will complement the programme.

EuMIC MICROWAVE PRIZE

The EuMIC Technical Programme Committee and the EuMW Steering Committee will award the EuMIC 2018 Prize of €3,000 to the author(s) of the best contributed paper to EuMIC 2018. An extended version of the winning paper will be considered for publication in the International Journal of Microwave and Wireless Technologies.

EuMIC YOUNG ENGINEERS PRIZE

The EuMIC Technical Programme Committee and the EuMW Steering Committee will award a EuMIC Young Engineer Prize of €2,000 to young engineers or researchers who have presented an outstanding paper at the European Microwave Integrated Circuits Conference. To be eligible, candidates must be (1) under 30 years of age at date of award, (2) the first author of the paper, and (3) the contribution presented in an oral or a poster session. The first author must have made a major contribution in the work reported, which must be described in an electronic statement signed by all co-authors of the paper (effectively co-authors state that their contribution was merely advisory). This statement has to include the date of birth of the first author and must be submitted together with the original submission. The number of co-authors of the paper is not limited. An extended version of the winning paper will be considered for publication in the International Journal of Microwave and Wireless Technologies.

GAAS® PHD STUDENT FELLOWSHIP

The GAAS® Association sponsors three student fellowships of €2,000 each, to be given to young full-time PhD students each having an accepted paper at EuMIC 2018. The purpose is to recognize and provide financial assistance to international PhD students who show promise and interest in pursuing a graduate degree in microwave electronics. Applications should be submitted before 1st June 2018 to the EuMW General Chair. For further details, see the GAAS® Association website www.gaas-symposium.eu.

REDUCED FEES AND SPECIAL GRANTS

Reduced registration fees are offered for students as well as senior persons aged 65 years or more. The European Microwave Association will also provide up to six student grants of €750 and free EuMIC registration. Applicants for a student grant must be aged 30 or younger at the time of the European Microwave Week, be a full-time student, i.e., an undergraduate or a PhD student, and they will be asked to provide a supervisor's written confirmation of their current student status. The European Microwave Association will also provide a number of grants for delegates coming from the Newly Independent States, from Russia, and from low-income countries. The value of the grant is €750 in addition to a free EuMIC registration. Applications should be sent to the EuMW General Chairman by 1st June 2018.

13TH EuMIC TEAM

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The 15th European Radar Conference

EUROPEAN RADAR CONFERENCE 2018 Madrid 26th - 28th September 2018

The 15th European Radar Conference (EuRAD 2018) will be held from 26th September to 28th September 2018 in Madrid, Spain, in the framework of the European Microwave Week 2018. This Radar Conference is the major European event for the present status and the future trends in the field of radar technology, system design, and applications.

In the Radar Sub-systems and Phenomenology area, the conference focuses on radar EM phenomenology modelling and characterisation, antenna design, simulation and measurements, active/passive phased arrays and transceiver technologies as well as reconfigurable sub-systems.

The Radar Signal Processing topic will gather the main recent innovative research contributions on digital beamforming, MIMO processing, interferometry, polarimetry, tomography, waveform diversity, tracking, target localisation, high-resolution radar signal processing techniques, multi-dimensional imaging and compressive sensing.

The Radar Architecture and Systems topic addresses the development of sensors from the classical designs such as CW, over-the-horizon, passive, noise and polarimetric radar, up to the most complex and sophisticated architectures, such as Remotely Piloted Aircraft radar, multisensor systems, multifunctional systems, cognitive radar, bio-inspired radar, UWB systems and Millimetre-wave and THz radars. New tools for radar simulation and system performance modelling are also included.

The Radar Applications area covers various fields such as ground/space radar, remote sensing, ground penetrating radar, surveillance, traffic control, automotive radars, defence and security, as well as other radar uses, related to medical, industrial, and system diagnostic applications. Special attention will be given to novel applications such as multistatic radar systems, passive radar, short range radar, bio-medical imaging, Remote Piloted Aircraft radars, and millimetre-wave technology or any other new emerging radar application.

EuRAD 2018 CONFERENCE TOPICS

RADAR Sub-systems and Phenomenology

- R1 Radar EM Phenomenology: RCS, clutter, complex media, propagation, modelling, channel emulation and over-the-air testing, etc.
- R2 Antenna Design and Characterization (*)
- R3 Phased Arrays (Active/Passive), Related Circuits and Components, Tx/Rx Module Technologies (*)
- R4 Reconfigurable & Multifunction Radar Front-Ends, Mixed Signal Radar Sub-Systems

RADAR Signal and Data Processing

- R5 Digital Beam-Forming, MIMO Processing, Waveform Diversity and Information Coding
- R6 Interferometry, Polarimetry and Tomography
- R7 Target Tracking, Localization, Classification & Automatic Target Recognition
- R8 High Resolution Processing, Imaging, MTI/STAP/SAR Processing and Techniques
- R9 Robust Multi-dimensional Detection & Estimation Techniques, Compressive Sensing and Sparse Representations

RADAR Architectures and Systems

- R10 UWB Radars, Short Range Radar, Remotely Piloted Aircraft Radars, Imaging and CW Radars
- R11 Network, Passive and MIMO Radars, Multi-Sensor and Multi-Static Systems, Data Fusion
- R12 Innovative Radar Concepts, Over-the-horizon, Cognitive Radar and Bio-inspired Radar
- R13 Multifunctional Systems: Communications, Radar, Meteorology and Positioning
- R14 Millimetre-wave, THz Technology and Systems (*)
- R15 Radar Simulation & System Performance Modelling

RADAR Applications

- R16 Ground / Airborne / Space-based Radars, Remote Sensing
 - R17 Defence and Security, Surveillance, Traffic Monitoring, Sense and Avoid Applications, Remotely Piloted Aircraft Detection
 - R18 Ground Penetrating Radar, Foliage Penetrating Radar, Radar Detection of Landmines and Improvised Explosive Detector
 - R19 Automotive Radar
 - R20 Biomedical Imaging
 - R21 System Diagnostic, Near-Field Characterization, Non-Destructive Testing and Industrial Applications
 - R22 Millimetre-Wave and THz Imaging, 2-D, 3-D and 3-D + T Imaging
 - R23 Emerging Radar Applications
- (*) Common topic with EuMC



The 15th European Radar Conference

CONFERENCE HIGHLIGHTS

The conference is the ideal event to keep up to date with the latest achievements in the field of radar and to interact with international experts from industry and academia. The conference brings together researchers and radar developers from all over the world to stimulate development of new products and services. International experts will present keynote papers on topics of current importance and on the latest advances. Tailored short courses and workshops will complement the programme.

EuMA RADAR PRIZE

The EuMA Radar Prize is awarded by the EuRAD Technical Programme Committee and the EuMW Steering Committee to the author(s) of the paper presenting the most significant advance in radar state of the art. The value of the EuMA Radar Prize is €3,000. Eligible candidates for the EuMA Radar Prize are the author(s) of a paper accepted for inclusion in the programme of EuRAD, published in the Conference Proceedings and presented during the conference in either an oral or poster session. An extended version of the winning paper will be considered for publication in the International Journal of Microwave and Wireless Technologies.

EuRAD YOUNG ENGINEER PRIZE

The EuRAD Technical Programme Committee and the EuMW Steering Committee will award a EuRAD Young Engineer Prize of €2,000 to young engineers or researchers who have presented an outstanding contribution at the EuRAD. To be eligible, candidates must (1) be under 30 years of age at date of award, (2) be the first author of the paper, and (3) be the contribution presenter in an oral or a poster session. The first author must have a major contribution in the work reported which must be described in an electronic statement signed by all authors of the paper (effectively co-authors state that their contribution was merely advisory). This statement has to include the date of birth of the first author and must be submitted together with the original submission. The number of co-authors of the paper is not limited. An extended version of the winning paper will be considered for publication in the International Journal of Microwave and Wireless Technologies.

REDUCED FEES AND SPECIAL GRANTS

Reduced registration fees are offered for students as well as senior persons aged 65 years or more. The European Microwave Association will also provide up to five student grants of €750 and free EuRAD registration. Applicants for a student grant must be aged 30 or younger at the time of the European Microwave Week, be a full-time student, i.e., an undergraduate or a PhD student, and they will be asked to provide a supervisor's written confirmation of their current student status. The European Microwave Association will also provide a number of grants for delegates coming from the Newly Independent States, from Russia, and from low income countries. The value of the grant is €750 in addition to a free EuRAD registration. Applications should be sent to the EuMW General Chair by 1st June 2018.

15TH EuRAD TEAM

Function	Name	Email
Chair	Mateo Burgos García, Universidad Politécnica de Madrid	mateo@gmr.ssr.upm.es
Co-Chair	Gonzalo de Miguel, Universidad Politécnica de Madrid	gonzalo@grps.ssr.upm.es
TPC Chair	Manuel Rosa Zurera, Universidad de Alcalá	manuel.rosa@uah.es
TPC Co-Chair	Pilar Jarabo Amores, Universidad de Alcalá	mpilar.jarabo@uah.es

SIX DAYS

THREE CONFERENCES

ONE EXHIBITION

EUROPE'S PREMIER
MICROWAVE, RF,
WIRELESS AND
RADAR EVENT



EuMW2018
PASSION FOR
MICROWAVES

**EUROPEAN
MICROWAVE WEEK**
IFEMA FERIA DE
MADRID, SPAIN
23-28 SEPTEMBER 2018
www.eumweek.com

CALL FOR WORKSHOPS/ SHORT-COURSES

IFEMA - FERIA DE MADRID, MADRID, SPAIN
23RD - 28TH SEPTEMBER 2018

The European Microwave Week 2018 will take place from 23rd - 28th September in IFEMA - Feria de Madrid, Madrid, Spain. Besides the contributed papers, the programme shall include workshops and short-courses on Sunday, Monday and Friday. If you have ideas for workshops or short-courses, we invite you to e-mail your proposals to the Workshop Chair, José Carlos Pedro, (workshops@eumw2018.com). The proposals should be one page long and indicate the selected conference (EuMC, EuMIC, or EuRAD), the title and an abstract of the topic. The name(s), affiliation(s) and e-mail address(es) of the organiser(s), the duration (half or full day), a preliminary list of speakers, and the expected attendance. We look forward to receiving your submission!



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The 15th European Radar Conference

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SUBMIT SUMMARIES ONLINE BY 18TH DECEMBER 2017 TO:
workshops@eumw2018.com