

3rd Global Congress on Microwave Energy Applications

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The 3rd Global Congress on Microwave Energy Applications (3rd GCMEA) was held at the Facultad de Ciencias de la Empresa (School of Business, Fig. 1) at the Universidad Politécnica de Cartagena (UPCT) during 25-29th July, in the Spanish city of Cartagena. The 3rd GCMEA was organized by the Grupo de investigación Electromagnetismo y Materia (Electromagnetism and Matter Research Group, GEM)¹ on behalf of AMPERE². The main researchers of this group are with the Departamento de Tecnologías de la Información y las Comunicaciones and affiliated to the Escuela Técnica Superior de Ingeniería de Telecomunicación (School of Telecommunication Engineering) at UPCT.

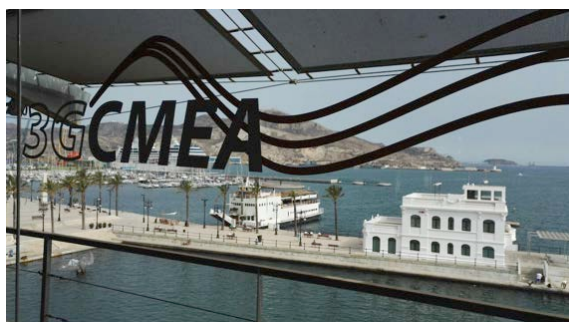


Figure 1. View from the Business School of Universidad Politécnica de Cartagena

Along with AMPERE, all five MAJIC confederation members (Fig. 2), namely the Int'l Microwave Power Institute (IMPI), the Microwave Working Group (MWG), the Japanese Society of Electromagnetic Wave Energy Applications (JEMEA), and the Chinese Microwave Association, provided an irreplaceable help in order to enjoy high-quality plenary lectures. They also cooperated with the local organisers by supporting Scientific Committee and monitoring the Congress organization. Our greatest thanks to all these organizations.

Sponsors coming from industry, academic, administrative and research fields supported the Congress. We specially thank all of the 23 sponsors³. Due to their support, an interesting Social Program was successfully organized, a

conference bag was handed out, and several students received grants to attend the meeting.



Figure 2. Leaders of the five associations incorporated in MAJIC, during the 3rd GCMEA Gala Dinner.

The 114 attendants came from 23 countries and five continents. Spain was the country providing the highest number of attendants, 29 (25% from the total), but lecturers also came from far countries such as USA, Japan, China, Australia, Ecuador, Iceland, Indonesia, Israel, and other countries, confirming, thus, the global nature of this conference.

The Congress began on Monday 25th of July with an impressive touristic visit to the City Hall (Fig. 3) and the ancient Roman Theatre (Page 42). After that, the Welcome Event took place at the Batel Auditorium (Fig. 4), where the presidents of the MAJIC confederation associations and the 3GCMEA chairmen had the courtesy of addressing a few welcoming words to the audience, followed by an outstanding modern flamenco performance.

After the show, the Congress guests had the chance to enjoy a nice cocktail on the Auditorium's terrace facing the harbour. The Rector of UPCT, Prof. Alejandro Díaz-Morcillo also gave an informal speech during the visit to the Batel Auditorium, explaining the main features of the hosting University, and blessing the attendants and lecturers.

The scientific program included 90 contributions divided into 14 plenary lectures, 24 posters and 52 oral presentations.



Figure 3. Cartagena City Hall welcome

The contributions were classified into 13 different topics covering: Devices, Dielectric and Magnetic Measurements, Energy and Environment, Enhanced Chemical Reactions, Equipment, Industrial Applications, Material Synthesis, Microwave Assisted Extraction, Microwaves in Everyday Life, Modelling and Numerical Techniques, Nanotechnology, Process Control, Radiation Safety, and Standards.

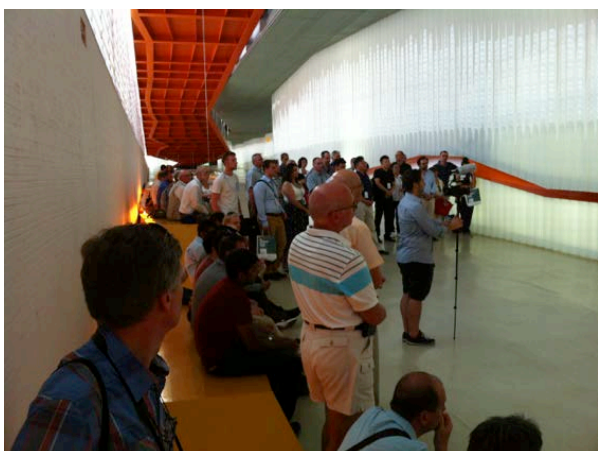


Figure 4. Attendants in the Batel Auditorium

The poster sessions were carried out in an innovative way taking benefit of the available technologies: the posters were displayed on a set of ten 55" LED portrait monitors per session. This arrangement allowed authors to send their contributions in digital format, avoiding printing costs and transportation inconveniences, with the advantage of having the chance to correct mistakes until the very last moment.

The social program of the Congress included two days of Tapas' Route at the evening, where the local organizers offered to the attendants a guided touristic walk through

the downtown and the harbour stopping at the main pubs and bars of Cartagena (Fig. 5), where they had the opportunity to taste wines and other drinks together with tapas (small amounts of food to accompany drinks). It was an interesting opportunity to play networking while enjoying the good Spanish gastronomy.



Figure 5. Attendants enjoying the Tapas' Route

The journey to the Mining Park in La Unión was dedicated to the accompanying persons under the Congress Social Program. Visitors were able to visit a pyrite underground mine and know how Spanish workers extracted minerals some decades ago. La "minera" is a Flamenco style linked to the mining vicissitudes, and this place holds its international flamenco festival.

The Gala Dinner was held in the Príncipe Felipe 5* Hotel on Thursday 28th of July. During this Gala, Dr. Metaxas presented the third Ricky Metaxas Pioneer Award to Mr. John Gerling, of John Gerling Inc. (Fig. 6). Later on, Dr. Marilena Radoiu (Page 34) received the Rustom Roy Innovator Award for her work in the dielectric heating industry.



Figure 6. The 3rd Ricky Metaxas Pioneer Award is presented to Mr. John Gerling.

The first prize poster award was presented to Mr. Jose D. Gutierrez-Cano from Universidad Politécnic de Valencia (Spain) for the work entitled “Study of thermal processes through in-situ Raman and dielectric spectroscopy”. The 2nd and 3rd Prizes were given to Mr. Matthew Thomas Porter from Birmingham University and Ms. Ana Álvarez from Universidad de Valladolid, respectively. The Gala Dinner ended with an astonishing show (Fig. 7), and speeches of the leaders of the different associations.



Figure 7. The Gala Dinner show.

Finally, on 29th July, the Closing session was held at Congress venue and included two round tables sponsored by the Microwave Working Group and the IMPI regarding the Microwave Summit 2017 (MWS), and the presence and future of microwave applications in the food industry (Fig. 8), respectively.



Figure 8. Round table about the presence and future of microwave applications in the food industry.

After the speeches of all the representatives from IMPI, Microwave Working Group,

JEMEA, Chinese Microwave Association and AMPERE, the 3rd GCMEA was closed and the next location for the 4th GCMEA was announced.

All the plenary lectures were video recorded and they will be soon available online for free, as well as the Book of Abstracts. The scientific sessions were also recorded, but the choice of their publication remains on each presenter who keep their own recording privately. Also the Welcome Event and the Gala Dinner were recorded and they will be given to the attendees as a nice souvenir from the 3rd GCMEA organization. Dr. Vladimir Bilik (from S-TEAM, Slovakia) is acknowledged for his contribution of photographs to this article and to the website.

Attendants had an agreement on qualifying the 3rd GCMEA to be a unique successful congress, where all the scientific, professional and social aspects were handled with so much care and high quality. The local organizers are very honoured in having hosted the 3rd GCMEA and we are excited to meet again in 2020 in China, during the next promising GCMEA!

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3GCMEA Chairman

General Director of
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