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## EDITORIAL

This issue invites Vadim Yakovlev to write a short resume of the 14th Seminar on "Computer modelling of microwave engineering and applications" which was held in Bayreuth during 6 March 2012.

The 2nd World Congress (2GCMEA) is now only less than one month away and the Microwave Working Group together with MRS are working hard registering delegates and getting the papers together. There are also three short courses offered on various topics. So apart from the opportunity to participate in a number of outdoor activities such as windsurfing, jet skiing and sailing at Long Beach, the conference programme promises to be very exciting with a comprehensive number of papers spanning a

variety of topics and including keynote and invited speakers.

As members will recall the last issue of the Newsletter (72 March 2012) launched a new column called "An Afterthought" where members can write short articles on interesting topics akin to the use of RF or microwaves. In this issue I continue with a short piece about funding research during such difficult economic times.

**AC Metaxas**

EUG St John's College

Cambridge UK

## 14TH SEMINAR "COMPUTER MODELING IN MICROWAVE ENGINEERING AND APPLICATIONS"



by **Vadim V Yakovlev**  
Industrial Microwave  
Modeling Group  
Worcester Polytechnic  
Institute  
Worcester, MA, USA

companies – Püschner GmbH and SAIREM SAS.

The event brought together researchers, engineers and practitioners engaged in advanced computer modeling of systems and processes in microwave power engineering. On the seminar opening, the participants were greeted by the Seminar Vice-Chair Monika Willert-Porada. For two days, 25 delegates from Finland, France, Germany, Italy, Poland, Sweden, Switzerland, Ukraine, and the US shared their experience with their counterparts, presented their accomplishments in the field and discussed major conceptual and technical issues in development of adequate and accurate algorithms and their implementations. Twelve papers were presented in four sessions focused on modeling of systems and processes, advanced models and techniques and material properties in modeling.

Another meeting in the series of seminars "Computer Modeling in Microwave Engineering and Applications" organized annually by the Industrial Microwave Modeling Group (IMMG) of Worcester Polytechnic Institute, Worcester, MA was held on 5-6 March 2012 in Bayreuth, Germany. The event sub-titled "Multiphysics Modeling in Microwave Power Engineering" was organized in cooperation with Society for Industrial and Applied Mathematics (SIAM) and in partnership with University of Bayreuth's Chair of Materials Processing. The seminar was made possible due to sponsorship by AMPERE, DFG – Deutsche Forschungsgemeinschaft, and two industrial

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## 14TH SEMINAR "COMPUTER MODELING IN MICROWAVE ENGINEERING AND APPLICATIONS"



Marilena Radoiu representing the seminar sponsor, SAIREM SAS



Peter Puschner representing the seminar sponsor, Puschner GmbH

The social program of the meeting included a reception featuring special presentations of the industrial sponsors – Puschner and SAIREM – as well as the Seminar Dinner in the historic *Schlossgaststätte Eremitage*, the site of the memorable banquet of the 8<sup>th</sup> AMPERE Conference in 2001.

At the closing of the meeting, plans for the next Seminar were announced. The 15<sup>th</sup> meeting will be held on 4-5 March, 2013 in the scenic Amalfi Coast village of Cetara in Italy.

The event will be co-organized by the University of Salerno and the University of Modena and Reggio Emilia.



Vasyl Yatsyk and Lutz Angermann



Yury Shestopalov

The papers presented at the 14<sup>th</sup> Seminar in Bayreuth are published in the Seminar Proceedings and on the web ([www.wpi.edu/+CIMS/IMMG/Seminars](http://www.wpi.edu/+CIMS/IMMG/Seminars)). For more information on this and previous seminars/workshops in computer modeling, contact the Seminar Founder and Chair, Professor Vadim Yakovlev ([vadim@wpi.edu](mailto:vadim@wpi.edu)) or visit the IMMG web pages at [www.wpi.edu/+CIMS/IMMG/](http://www.wpi.edu/+CIMS/IMMG/).



## 14TH SEMINAR "COMPUTER MODELING IN MICROWAVE ENGINEERING AND APPLICATIONS"



Michael Fleck and Andreas Rosin



Left to right: Vadim Yakovlev, Mateusz Kryszicki, Adam Raniszewski, and Przemyslaw Korpas



Left to right: Rio Reinhardt, Ho-Seon Park and Giuseppe Annino



In Touché Restaurant, Burg Hartenstein



Seminar participants in front of Puschner's microwave system in Eckart GmbH..



## **GRANTS FOR ATTENDING THE 2GCMEA CONFERENCE AND COURSE**

The Management Committee of AMPERE invites applications from students to apply for a grant of 500 euro to attend the 2GCMEA conference and the short course outlined

above. Applications and details about eligibility will appear on the AMPERE website ([www.ampereurope.com](http://www.ampereurope.com)) in June.

## **EVENTS**

### **IMPI Congress 2012**

Bally's, Las Vegas USA, 20-22 June 2012

For more information contact

Molly Poisant

Executive Director

[molly.poisant@impi.org](mailto:molly.poisant@impi.org)

### **GCMEA 2012 MAJIC 2st**

Global Congress on Microwave Energy Applications

Long Beach California USA, 23-27 July 2012

Organised by the Microwave Working Group

International Committee Chairperson B

Krieger

Cober Electronics USA

<http://www.jemea.org/majic2012/>

### **PIERS 2012**

Progress in Electromagnetics Research Symposium (PIERS)

Moscow, Russia, 19-23 August, 2012

<http://piers.org>

Special Session "Microwave Processing of Materials - Recent Advances in Modeling and Experimentation"

Abstract submission deadline: March 20, 2012

For more info, contact Vadim Yakovlev,

Session Chair and Organizer

E-mail: [vadim@wpi.edu](mailto:vadim@wpi.edu)

### **SCEE 2012**

Scientific Computing in Electrical Engineering

ETH, Zürich Switzerland, 11-14 September 2012

Topics

1. Computational Electromagnetics
2. Circuit and Device Modelling & Simulation
3. Coupled Problems
4. Mathematical and Computational Methods

Last SCEE 2010 to browse through

<http://sites.onera.fr/SCEE2010/node/1>

### **14<sup>th</sup> International AMPERE Conference 2013**

The 14th International AMPERE conference on Microwave and High Frequency Heating will be staged at National Centre for Industrial Microwave Processing which is based at Nottingham University, UK. The conference will be held during 16-19 September 2013. As with previous conferences in the series the first day will be dedicated to staging short course(s). Details will be published online in due course [www.ampereurope.org](http://www.ampereurope.org)

### **EHE2013**

The next International Conference on Electromagnetic Fields, Health and Environment, will be held in Porto, Portugal, from 19th to 21st September, 2013.

For more information browse at: <http://www.apdee.org/index.php?pageid=1578>



## AN AFTERTHOUGHT FUNDING FOR RESEARCH AND INNOVATION

The world is experiencing unprecedented financial crisis not seen since the aftermath of the Wall Street Stock Market Crash of 1929. Whether we are heading for a similar crash it is difficult to say but what is certain is that sources of money be it for commerce, investment in new technology or for industrial expansion is in very short supply. This does not mean that there isn't money available but the prime aim of many is to hoard money rather than spend it which exacerbates the situation and renders the recovery very slow indeed. As a consequence unemployment rises which hurts most of us but must be very depressing to young graduates desperate to secure their first employment.

This brings me to the case which is very close to all of us: that of acquiring funds needed to carry our R&D in topics akin to radio frequency and microwave heating. Glancing through the European Commission's website on FP7 (Frame Programme 7) [http://ec.europa.eu/research/fp7/index\\_en.cfm](http://ec.europa.eu/research/fp7/index_en.cfm) gives the impression a considerable amount of money has been allocated to various research projects throughout countries within the European Community. The participant Portal is one's entry point

for electronic administration of EU funded research and innovation projects and hosts the services for managing the proposals and projects throughout their lifecycle. Currently the portal covers mainly actions under the 7th EU-Framework Programme for Research and Technological Development (FP7). In the future, its coverage will be extended to other programmes in the area of research and innovation. FP7 covers the period 2007-13 but one is bound to ask what would happen after 2013. Will funds be frozen or at best reduced to a fraction allocated in previous years? I suppose the essence of the European Union is on the line following the resistance to the austerity measures that are imposed on a number of countries.

My advice to would-be young researchers in universities would be to start developing links with industry, particularly larger manufacturers that fund their own R&D and do not depend wholly on EU or their own indigenous country's grants. Of course the quest of EU funding should continue but in such uncertain times the likelihood of securing a 2-3 year funding for research or innovation is very small indeed.

*Ricky Metaxas*  
*Editor*

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**Readers are therefore advised to consult experts before acting on any information contained in this Newsletter**

**Association of Microwave Power in Europe for Research and Education (AMPERE Europe)**