



ISSUE 59,
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EDITORIAL

Editorial
.....1

The latest
regarding the
status of
AMPERE
.....1

Time for unified
microwaves?
Steps towards
IEEE MTT-S
.....2

News from C-
Tech Innovation
LTD.....4

News and Events
.....5

Ampere
Disclaimer
.....7

In this issue

In this issue I will outline the events that have taken place since the Oradea conference striking AMPERE EUROPE off the register of Companies House and changing its structure to a new Association based in France. Despite his intention to step down from the Management Committee Jon Binner undertook to liaise with the accountants and Companies House in order to ensure that this business was conducted properly and according to the set rules. The Committee is indebted to Jon for his monumental efforts in this respect.

In this issue Vadim Yakovlev informs us of some interesting developments following the

Modena Seminar in February 2008 in bringing closer together all those concerned with microwave and RF heating in the world. One such initiative is briefing the President of MTT-S, Prof. Modelski about such a goal and aspirations. It appears that Prof Modelski has responded positively to such initiatives because in a recent paper he singles out Microwave Power Engineering as a vital link. Of course this is not a new issue having been discussed at our conferences many times but it is important from time to time to revisit it in order to put in fresh ideas for future consideration.

Ricky Metaxas, Editor
St John's College, Cambridge
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THE LATEST REGARDING THE STATUS OF AMPERE

By Ricky Metaxas
St John's College,
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The Committee has been working very hard in the period after the Oradea meeting to redirect AMPERE. One of the main issues is that as the structure stood after the Oradea conference it was costing AMPERE a considerable amount of funds while attracting very little income after Loughborough University's decision not to continue to administer our affairs and consequently no bank transactions could be carried out. During the Oradea AGM I suggested that the

Committee should consider carefully the issue of continuing as a Company registered in the UK incurring ever more costs or removing it and reverting back as an association. The Committee therefore, after many exchanges and e-mails and in consultation with myself, decided to follow the latter route.

Following the recent exchange between Jon Binner and Dave Barnett the solicitors at Loughborough, they advised AMPERE strongly to wind down the company as quickly as possible rather than wait until Sept 09 (during the venue of the 12th



TIME FOR UNIFIED MICROWAVES? MAKING STEPS TOWARDS IEEE MTT-S

AMPERE conference) as this would be the cheaper option. Simply put, why wait another year and have additional costs in submitting more reports to Companies House in the UK when we could cancel the company status. With the pending World Congress in Japan an opportunity arose to call an Extraordinary General Meeting (see Articles 6.6.2) to be held in the Main Auditorium at OTSU Prince Hotel, Lake BIWA, Otsu, Japan during the GCMEA Congress on Wednesday 6th August 2008. Calling the EGM at that time fell within the 21 days minimum notice required to give the members of AMPERE (see article 6.6.5). After the debate and discussion the resolution that members attending were asked to vote was on the following:

"The Committee strongly advises members to vote for the dissolution of AMPERE EUROPE and to strike it off the register of Companies House in the UK".

The meeting was announced on the AMPERE website and e-mails were sent to those members that could be contacted electronically. This meeting took place at the World Congress in Japan and the resolution was passed by the twenty one members attending the meeting. Following that meeting the solicitors were instructed to proceed and remove AMPERE EUROPE from the Companies House Register in the UK and therefore as I write this Editorial we are awaiting final confirmation from the English authorities that this has been carried out.

Koen van Reusel who has considerable experience in dealing with the business of UIE in France

was kind enough to produce a draft set of Articles in both French and English as a basis for the new AMPERE. At a Committee meeting that took place in Karlsruhe during 22-23 September 2008 it was decided that new AMPERE should be registered in France and Koen van Reusel informed the Committee recently that he has just submitted the dossier for registering AMPERE in France to the authorities.

At the time of this issue appearing on the website we are awaiting confirmation from the French authorities that all is well. Any developments will be announced on the website.

Ricky Metaxas

Editor

TIME FOR UNIFIED MICROWAVES? MAKING STEPS TOWARDS IEEE MTT-S

By Vadim Yakovlev



Some interesting issues have emerged from an initiative generated in the 10th Seminar "Computer Modeling & Microwave Power Engineering" which was held in Modena, February 28-29, 2008. In general, this seminar was focused on the issues in computational electromagnetics at high frequencies and aimed to reveal some major modern trends in



TIME FOR UNIFIED MICROWAVES? MAKING STEPS TOWARDS IEEE MTT-S

development and usage of numerical techniques and computer technologies suitable for modeling of a variety of scenarios in microwave power engineering.

A special panel discussion in this seminar came up with some observations about the current not really natural state of relationship of microwave power community and "traditional" microwave community (formed around the IEEE MTT Society). Indeed, contemporary applications of microwave power span an increasing number of research and industrial sectors. Beyond widely known microwave heating and thawing of food products, they include sintering of particulate materials, powder metallurgy and metal casting, microwave plasma generation and acceleration of chemical reactions, manufacturing of nanomaterials, processing of biocompatible alloys, and surface coating of polymers. However, while, on the fundamental level, microwave power applications deal with the same electromagnetic laws as conventional telecommunications, the multidisciplinary field of high power engineering has been historically staying somewhat aside the developments in the "traditional" electromagnetics. As a consequence, this field remains beyond the main scope of interests of the IEEE MTT Society.

Soon after the seminar we luckily had a chance to share the related observations with the President of the IEEE MTT-S, Professor Jozef Modelski. This has resulted in his comments included in the article published as a traditional President's Column in the latest

IEEE Microwave Magazine, vol. 9, no. 6, pp. 14, 16, 18, 32, Dec. 2008 and entitled "**MTT-S Technical Committees – Our Motive Power to Progression**". As can be seen from the quotations below, this publication reveals his vigorous support of making better and closer links between the two communities. It is hard to resist a temptation to share with the readers of the Newsletter some of Prof. Modelski's encouraging statements:

"We can all agree that the recent technical developments blend together the traditional fields of interest of different IEEE Societies. Thus, I think the question that needs to be addressed, is whether we need to form stronger and new alliances with other Societies. <...> I have also been thinking whether there is a field where our efforts could flourish with a new flavour, bearing new scientific, industrial or societal benefits. And one such a field does catch my eye: this is high-power microwave power research and engineering. <...> Isn't it the time to cross?"

And another quote goes like this:

"Inside MTT-S, I can feel the demand for "new" directions, including new markets where the existing designs could generate an added value or new technologies where some of the existing software and hardware tools could be brought to a new life. It seems that microwave power engineering can produce excellent grounds for these expectations. <...> It appears as a fascinating idea to bring the two fields closer to each other with the hope to initiate information exchange and identify the areas of common concerns that could be jointly addressed by the "traditional" MTT-S membership as



well as microwave power experts. Possible options include dedicated workshops or short courses, or a series of review articles in MTT-S publications."

Of course, various thoughts about feasibility and necessity of building some "bridges" to the IEEE MTT-S have been around in the microwave power community for a while; for instance, I remember talking about the related issues with José Catalá-Civera in Valencia back in September 2005. So I would like to acknowledge the participants of the Modena panel session as well as all others who, implicitly or explicitly, contributed to generation of the initiative of moving towards the IEEE MTT Society. It appears that after the appealing statements in the President Column of the IEEE Microwave Magazine, the ball is on the side of the microwave power community. Are we continuing the game?

A further concrete step in this direction may be the special Workshop entitled "Recent Advances in Microwave Power Applications and Techniques (RAMPAnT)" proposed back in September 2008 for inclusion in the program of the next IEEE MTT-S International Microwave Symposium (IMS). The organizers/proposers are Malgorzata Celuch, Warsaw University of Technology and QWED, and myself. We are happy to report now that after a long multi-step evaluation of the proposal by several MTT-S Technical Program Committees, it has been accepted (and thus won competition with several dozens of other proposals) – the RAMPAnT Workshop is now an official part of the 2009 IMS and will take place June 8 or 12, 2009 (the exact date to be determined) in Boston, MA.

The RAMPAnT Workshop will present an overview of current and emerging microwave energy applications in science and industry. It will expose the MTT community to the recent advancements in electromagnetic modeling techniques relevant to high-power microwave processes, computer-aided optimization of microwave heating systems, experimental studies in material processing, imaging and measurements for high-power microwave scenarios, and developments of new industrial microwave technologies.

Before the details on the RAMPAnT Workshop are available at the IMS 2009 web site (www.ims2009.org), more data on this one-day MTT-S event can be found at <http://www.qwed.eu/ieee2009.html>. For more information on the Modena and other (previous and future) annual seminars on computer modeling, contact the seminar founder and chair, Professor Vadim Yakovlev (vadim@wpi.edu) of Worcester Polytechnic Institute, Worcester, MA, or visit <http://www.wpi.edu/+CIMS/IMMG>.

Vadim V. Yakovlev,
Industrial Microwave Modeling
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NEWS FROM C-TECH INNOVATION LTD

Two interesting pieces of news emanate from C-Tech Innovations regarding microwave technology. First, the Carbon Trust has awarded C-Tech a grant of £278,000 to



demonstrate the potential of energy efficiency for a range of chemical reactions. C-Tech Innovation's expertise in microwave engineering will build and test a microwave-heated, continuous flow, laboratory system that is capable of producing kilograms of material per day. Larger systems are envisaged after successful operation of the pilot scale systems.

Secondly, Ceralink Inc, C-Tech's US based licensee of Microwave Assisted Technology, (the heating technology that combines microwave with traditional gas or electric heating, and used successfully in ceramics and metal industries) has signed an agreement with American kiln builder Harrop Industries Inc. This exclusive agreement grants Harrop Industries the right to market and build industrial kilns using C-Tech's patented Microwave Assist Technology.

For more information contact: info@ctechinnovation.com.

NEWS AND EVENTS

11th Seminar "Computer Modeling in Microwave Engineering and Applications"

Worcester Polytechnic Institute,
Worcester, MA

January 16, 2009

<http://www.wpi.edu/+CIMS/IMMG/seminars.html>

For details contact:
Dr. Vadim V. Yakovlev
E-mail: vadim@wpi.edu

MICROWAVE/FLOW CHEMISTRY CONFERENCE 2009

Antigua Jan 28-31

C. Oliver Kappe
Chairman

Zing Conference on Microwave and Flow Chemistry 2009

Contact www.maos.net for registration and other details

PIERS 2009

Progress in Electromagnetics Research Symposium (PIERS) 23-27 March, 2009, Beijing, CHINA.

Call-for-Paper is available at <http://piers.mit.edu/piers/>

IMS 2009 RAMPAnT Workshop

Workshop "Recent Advances in Microwave Power Applications and Techniques" (RAMPAnT) – a part of the 2009 International Microwave Symposium, 7-12 June, 2009, Boston MA

<http://www.ims2009.org>

For details contact the organizers:

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or Dr. Vadim V. Yakovlev

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PIERS 2009 Moscow

Progress in Electromagnetic Research Symposium (PIERS)

18-21 August, 2009, Moscow, Russia

Deadline for Abstract Submission: 20 February 2009

<http://piers.mit.edu/piers2k9Moscow/>



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