2008 European Electromagnetics Conference (EUROEM 2008)

By Frank Sabath, Region 8 Conference Coordinator

More than 500 engineers and scientists in the disciplines of Electromagnetic Compatibility, High Power Engineering and Electromagnetics attended the 2008 European Electromagnetics Conference (EUROEM 2008), which took place July 21 to July 25 at the Swiss Federal Institute of Technology (EPFL) in Lausanne, Switzerland.

EUROEM 2008 continued the EUROEM/AMEREM tradition of bringing together the:

- 16th High Power Electromagnetics Conference (HPEM16)
- 9th Ultra-Wideband, Short-Pulse Electromagnetics Conference (UWB SP 9)
- 9th Unexploded Ordnance Detection and Range Remediation Conference (UXO 9)

Lausanne, capital of the canton of Vaud, is the second-largest city on Lake Geneva. It combines a dynamic commercial town with the locality of a holiday resort. Lausanne is also a lively university and convention town. Sports and culture are given a high profile in the Olympic capital.

View from Lausanne.

The setting of Lausanne is extremely picturesque; it is hardly surprising that the International Olympic Committee has been based here since 1914. The town is built on three hills, surrounded by vineyard-covered slopes, with Lake Geneva at its feet. Rising impressively from the opposing French lakeshore are the Savoy Alps. The old town is dominated by the cathedral, which is regarded as Switzerland's most impressive piece of early Gothic architecture. Lausanne was a diocesan town for over a thousand years. The "Olympic Capital" is home to the Olympic Committee and also the Olympic Museum, the world's largest information centre about the Olympic Games.

The campus of the Swiss Federal Institute of Technology at Lausanne (EPFL).

EPFL is one of the two Ecoles Polytechniques Fédérales (Federal Institutes of Technology) in Switzerland. Like its sister institution, ETHZ, it has three missions: education, research and technology transfer at the highest international level. EPFL, in its idyllic location on the shores of Lake Geneva, brings together a campus of more than 10,000 people. By its novel structure, the school stimulates collaboration between students, professors, researchers and entrepreneurs. These daily interactions give rise to new and groundbreaking work in science, technology and architecture.

The environment at EPFL is one of exchange and interaction. With 107 nationalities represented on campus and more than 50% of its professors coming from abroad, the EPFL is one of the world's most cosmopolitan universities.

EUROEM 2008 was hosted by the Electromagnetic Compatibility Group of the Ecole Polytechnique Fédérale de Lausanne (EPFL) under the patronage of Professor Dr. Patrick Aebischer (President of the Ecole Polytechnique Fédérale de Lausanne) and Mr. Jakob Baumann (Head of Armasuisse). During the week, spanning from Sunday to Friday, a top-notch technical program with something of interest for every attendee took place, including 339 presentations in 45 technical sessions, workshops, a plenary session with six key note presentations and various side meetings.

Farhad Rachidi welcomed the participants of EUROEM 2008.

In his opening address, Farhad Rachidi, the Symposium Chairman, welcomed more than 500 participants from more than 40 countries representing all inhabited continents. The opening ceremony was followed by a keynote speech with the title "Nature-Inspired Optimization Techniques in Engineering: Let Darwin and the Bees Help Improve Your Designs". In this keynote speech, Yahya Rahmat-Samii from the University of California at Los Angeles introduced the participants to optimization techniques in engineering electromagnetics such as generic algorithm and particle swarm optimization.

Yahya Rahmat-Samii started the technical program by giving a keynote speech on Nature-Inspired Optimization Techniques in Engineering.

The technical program chair Armin Kälin together with the conference Co-Chairs, Fred M. Tesche and William A. Radasky for the HPEM 16, Dave Giri and Frank Sabath for the UWB 9 and Ira Kohlberg and Jan Rhebergen for the UXO 9, did a great job in leading the technical committee, selecting the best papers and grouping them as best as possible into the

appropriate sessions. They lined up a top-notch technical program of more than 395 papers that were included in the Symposium technical program and presented in 56 regular sessions, three poster sessions and one plenary session. Those sessions covered a broad range of areas in the field of High Power Electromagnetics, Ultra Wideband and Short Pulse Electromagnetics, Electromagnetic Compatibility, Target Detection and Sensor techniques. The technical program was completed by two tutorials on Information Theory and Electromagnetism and High Frequency Grounding.

A technical exhibition took place alongside the Symposium, thus forming the link between the models, analyses and theories of scientists and the needs of real world applications and systems. Over 15 exhibitors from Europe and North America were on site to provide hands-on demonstrations and explanations of their products and services.

A technical excursion to CERN (European Organization of Nuclear Research) was organized on Friday afternoon after the closing ceremony.

The social program consisted of the opening ceremony, a welcome cocktail at the Olympic Museum, the Symposium Banquet and five Symposium Tours. The banquet took place in the Hotel Beau-Rivage Palace, located in Lausanne-Ouchy on the banks of Lake Geneva. At this banquet new EMP Fellows and Best Paper Awards were presented.

In closing, EUROEM 2008 was an outstanding symposium with a technical program of the highest scientific quality and a wonderful social program. The symposium was complemented by the professionalism and hospitality of the symposium staff. **EMC**

Presentation of the newly selected EMP Fellows (from left): Anthony Wraight, Georgy Vodopyanov, William Radasky (chair of the EMP Fellow selection committee), Scott Tyo, Robert Torres, Kenneth Smith, Richard Hoad, Sergey Tkachenko, Leland Bowen and John Aurand (not shown).

The Opening Ceremony Panel (from right): Martin Vetterli (standing), Vice-President of EPFL, Farhad Rachidi, EUROEM 2008 Symposium Chair, Daniel Thévenaz, Head of Armasuisse Science & Technology, Jean-Yves Pidoux, Member of Lausanne Municipality, Armin W. Kälin, Technical Program Committee Chair, Markus Nyffeler, Armasuisse, Marcos Rubinstein, HEIG-VD, Rachid Cherkaoui, and Andrée Moinat

Scenes from EUROEM 2008, Lausanne, Switzerland, July 21-25, 2008

Meeting rooms were filled up to the last row.

More than 500 scientists participated at EUROEM 2008.

Most participants spent their coffee break time in the exhibition area with discussions and gathering of information.

Kimball Williams (left) advertised the Detroit EMC Symposium at the booth of the EMC Society.

Poster presentations were well attended and inspired various technical discussions.

The welcome cocktail took place at the Olympic Museum. Participants gazed at exhibits of the Olympic Games and enjoyed a relaxed time with colleagues.

Frank Sabath, chair of the best paper committee, presented the Best-HPE-Paper-Award in the category applied paper to William Prather (left), Dave Giri (second from right) and Fred Tesche (right).

Jürgen Nitsch (left) and Sergey Tkachenko (right) received the Best-HPE-Paper-Award in the category basic paper.

A traditional Swiss music formation entertained participants at the banquet.

During the banquet evening several participants tried to blow an alphorn including Farhad Rachidi (above) and, Carl Baum (below).

Farhad Rachidi and his wife were pleased about the success of the banquet as well as the EUROEM 2008.

Eric Mokole, Frank Sabath and Frank Gronwaldt (from left) enjoyed the banquet evening.

Elya Joffe and his wife Anat had a lot of fun.

The symposium banquet at Beau Rivage Palace.

Handover of the AMEREM/EUROEM trophy from the recent symposium chair, Farhad Rachidi (right) to Lot Shafai, the Chair of the next AMEREM 2010.

To see more pictures of the EUROEM 2008 please visit the web site: www.euroem.org