

125 years of IEEE – 20 years of IEEE HS

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IEEE HS 20th anniversary event

On 16th of November a celebration for the 20th anniversary of IEEE HS was held. At the event most of the former officers participated. All the past chairs, vice chairs, secretaries, treasurers and chapter chairs received a memory plaque and a certificate of merit. Chair Imre Rudas summarized the present situation and the past chairs told short reminiscence about the shiny past.



Prof. Rudas and Prof. Bejczy

	<i>Chair</i>	<i>Vice chair</i>	<i>Secretary</i>	<i>Treasurer</i>
1987-1989	Vámos Tibor		Roska Tamás	
1990-1991	Bán Gábor	Roska Tamás		Bitó János
1991-1993	Roska Tamás		Timár P. László	Timár P. László
1994-1998	Arató Péter	Bitó János	Péceli Gábor	Rudas Imre
1998-2000	Fodor István	Péceli Gábor	Szolgay Péter	Zeisler Gábor
2001-2002	Péceli Gábor	Kerekes István	Román Gyula	Szakál Anikó
2003-2004	Kerekes István	Szolgay Péter	Krómer István	Kádár Péter
2005-2008	Krómer István	Rudas Imre	Kádár Péter	Szakál Anikó
2009-	Rudas Imre	Kádár Péter	Szederkényi Gábor	Szederkényi Gábor



<i>Chapter</i>	<i>id</i>	<i>Chair</i>
Circuits, System & Computers Joint Chapter	CAS004	Kolumbán Géza
Computational Intelligence	CIS011	Fodor János
Component Packaging and Manufacturing Technology, joint chapter with Romania	CPMT021	Illyefalvy-Vitéz Zsolt
Industrial Applications	IA034	Ruzsányi Tamás
Industrial Electronics & Robotics and Automation Joint Chapter	IE013+RE024	Tar József
Instrumentation and Measurement & Engineering in Medicine and Biology and Joint Chapter	IM009+EMB018	Jobbágy Ákos
Microwave Theory and Techniques/Education/Antennas and Propagation/CompSoc Joint Chapter	MTT017+E025+AP003+C016	Nagy Lajos
Power Engineering	PE031	Jermendy László
Systems, Men and Cybernetics	SMC028	Horváth László

IEEE HS honorary membership

IEEE HS founded honorary membership award for outstanding IEEE members origin from Hungary living abroad. In this year this award was donated to professor Antal Bejczy and professor Georg Karady. Both scientists live in the USA.

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Dr. Antal K. BEJCZY¹

Born in Hungary in 1930, started EE studies at the Technical University in Budapest. He left Hungary in 1956, continued studies in applied physics at the University in Oslo, Norway, where he defended his thesis work on a neutron distribution problem in atomic reactors in 1963. He was teaching statistical thermodynamics there till 1966 when he went to CALTECH with NATO/Fulbright fellowship as Senior Research Fellow working on optimal control and nonlinear filtering problems. He joined JPL of CALTECH in 1969 where robotics and its application in space exploration became his major research interest. He published over 170 papers and 12 book chapters on topics in dynamic modeling, sensing, control, telepresence, virtual environments, and human-machine interaction in robotics, and co-edited a book on parallel computation topics in robotics. He became Senior Research Scientist at JPL (a professor rank at JPL) in 1985 and was a Technical Manager in the robotics research program for eight years. He was Principal Investigator of a robotic experiment on the Space Shuttle in 1994. He received 43 NASA innovation awards and holds seven U.S.

patents. He was also Affiliate (non-resident) Professor at Washington University in St. Louis, MO since 1983 to help establish and maintain graduate studies in robotics for Ph.D. students, and supervised ten Ph.D. students' work in eleven years. - Dr. Bejczy frequently organized tutorials, workshops and sessions on robotics at IEEE and other technical conferences, and gave lectures on robotic topics at more than twenty-four universities in nine countries. He was General or Program Chair at several conferences on Robotics and Automation, served as President of the IEEE Council of Robotics and Automation in 1987 and helped transform the Council to the current IEEE Robotics and Automation Society (RAS) where he served as member of the governing board during 1989-1999. He received the IEEE Fellow grade and the Jean Vertut award of SME&RI in 1987, the NASA Exceptional Service Medal in 1991, the IEEE Third Millennium Medal in 2000, and the IEEE RAS Pioneer Award in 2004. He is listed in the Marquis Who's Who in America. - He served as curatorium member of the Zoltan Bay Foundation for Applied Sciences in Budapest in 1993-1999, received the Gabor Baross and Gyorgy Szechenyi Awards in 1997 and 1998, respectively, and the Banki Donat

Medal in 1999. He became Honorary Member of the Hungarian Academy of Engineering in 2005. - He retired from JPL in 2001 after 32 years of service, but continues lecturing and consulting work.

George Karady

Was born in Budapest, Hungary. He received his BSEE and Doctor of Engineering degree in electrical engineering from Technical University of Budapest in 1952 and 1960, respectively. Dr. Karady was appointed to Salt River Project Chair Professor at Arizona State University in 1986, where he is responsible for the electrical power education and performs research in Power Electronics, High Voltage Techniques and Electric Power. Previously, he was with EBASCO Services where he served as Chief Consulting Electrical Engineer, Manager of Electrical Systems and Chief Engineer of Computer Technology. He was Electrical Task supervisor for the Tokamak Fusion Test reactor project in Princeton. From 1969 to 1977 he worked for the Hydro Quebec Institute of Research as a Program Manager and in 1976 was elected to Research Fellow. Between 1952-1969 he worked for the Technology University of Budapest

¹ <http://www.mernokakademia.hu>

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where he progressed from Post Doctoral Student to Deputy Department Head. In addition, Dr. Karady worked as visiting lecturer/professor in England and in Baghdad, Iraq. Between 1980-86 he served as an Adjunct Professor of the Brooklyn Polytechnic Institute. Dr. Karady is a registered professional engineer in New York, New Jersey and Quebec. He is the author of more than 100 technical papers.

Dr. Karady holds several positions in IEEE, he is the chairman of Chapter/Membership's Award Committee, Education committee's Award Subcommittee and WG on Non-ceramic insulators.

Dr. Karady served in the US National Committee of CIGRE as Vice president

and secretary treasurer. He was a member of the Canadian Electrical Engineering Association and the Electrical Engineering Association of Hungary, where he held different positions between 1952-1966.



R8 meeting in Lisbon

On 10-11 of October 2009 in Hotel Sana Malhoa, Lisbon, Portugal was held the Region8 fall meeting. Beside the traditional warm welcome and cultural program there was no any exiting hot topic. The financial situation of IEEE is stabilized, the number of the membership has a steady smooth growing. The local and regional student activities are encouraged. Most of the

sections are seeking for the connections with their neighboring sections.

Some sections reported about best practices as student contests, conferences and newsletters. The content development of the R8 homepage also can be expected. Peter Kadar Hungarian Section Vice Chair and Igor Kuzle Croatia Section Chair proposed a common motion for a Hungarian – Croatian common TEP workshop. The Region 8 Educational Activities Subcommittee examines possibilities and makes decision later about the support.

Peter Kadar



R8 delegates in Lisbon

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Technical English Program (TEP) in St. Petersburg

On 3rd of October in StPetersburg, Russia a Technical English Program Workshop was hosted by IEEE R8 Russia (Northwest) Section. In the event participated 5 IEEE staff members, 20 R8 members and 30 Russian students. The workshop was led by Moshe Kam. This was a pilot activity of a workshop that organized for students who participated at some specific English course before. In this daylong event they could test and use their English skills for solving specific technical problems. They can have also impression about the IEEE operation culture (meetings, agendas, presentation techniques, etc.)

Technique applied:

- “English speaking zone” – no Russian talk during the activity
- Sitting around 10 tables, 2 student / IEEE volunteers
- Complicated creative exercises to solve. Steps are
 1. problem generation – and time for solution
 2. analysis, group work, lot of talks about the solutions, co-operation,
 3. presentation

- Set of problems
 - logical problems
 - clue identification
 - biometry, statistical analysis, evaluation methods
 - seeking for stolen paintings, etc.

Final briefing

- This is only the beginning.
- The participation of the students in a TEP course must be certificated.
- Local language and technical teachers should be involved.

The local initiatives will be partly supported R8 boards.

Peter Kadar



TEP workshop in StPetersburg

New IAS & PES joint chapter

The requirements of the MGA Board Operations Manual have been met, and the IEEE Hungary Section Industry Applications and Power Electronics Joint Societies Chapter has been formed. The effective date of this Joint Chapter formation is 15 September 2009. Tamas Ruzsanyi has been recorded as Chapter Chair.



New IEEE Power Engineering Society Student Branch Chapter

The requirements of the Member and Geographic Activities Board Operations Manual have been met and a new IEEE Power Engineering Society Student Branch Chapter has been formed at the Budapest University of Technology and Economics, in Hungary. The effective date of this Student Branch Chapter formation is 20 May 2009.

The 16 chapter members are PhD students of power system and power plant engineering studies. The chapter formation was supported by Mr. Tamas Ruzsanyi, head of IEEE HS IA chapter chair and Mr. Peter Magyar, R8 TA Chapter Coordination Subcommittee Chair

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SACI 2009 Symposium

Budapest Tech (Hungary) in cooperation with “Politehnica” University of Timișoara (Romania) organized the 5th IEEE International Symposium on Applied Computational Intelligence and Informatics (SACI 2009) in Timișoara, Romania, on May 28-29, 2009. A Pre-Symposium International Workshop on Computational Intelligence in Information Science was organized in Miskolc, on May 25-26 as a part of SACI 2009. The events were sponsored by IEEE Hungarian Section, IEEE Chapter of Computational Intelligence Society, IEEE Chapter of SMC, IEEE Joint Chapter of IES and RAS, Hungary.

The symposium was chaired by Imre J. Rudas, Rector of Budapest Tech and Nicolae Robu, Rector of Politehnica” University of Timișoara.

The aim of SACI 2009 was to offer researchers an opportunity to extend the existing scientific relationships in the field of computational intelligence, intelligent mechatronics, artificial intelligence, intelligent manufacturing systems and control, genetic, neural, fuzzy algorithms, expert systems, advanced informatics applications and information technology in biomedicine. Two plenary talks highlighted the event, ‘Alcatel-Lucent – Applications

Enablement Strategy’ was presented by Dan Bedros from Alcatel-Lucent (Romania) and ‘Virtual Product Definition on the Way Towards Intelligent Engineering’ by László Horváth from Budapest Tech (Hungary).

It was a great success, more than one hundred people participated on the oral and poster sessions. The papers were included into the CD proceedings, and IEEE Xplore database.

SACI 2009 conference focused on theory and application on the field of applied computational intelligence and informatics. The goal was to provide platform for scientists, teachers, researchers and students as well to publish their papers, and discuss the results.

Budapest, October 2009

Rita Lovassy, IEEE CIS HS Secretary



15th International Symposium for Design and Technology of Electronics Packages – SIITME 2009

Between the 17th and 20th of September, 2009, the 15th International Symposium for Design

and Technology of Electronics Packages (SIITME) was arranged for the first time outside Romania, in the beautiful spa town, Gyula, Hungary. This conference is an annual event in Central and Eastern Europe since 1995, having a special interest to improve and to implement new electronics technologies. The topics cover design, simulation and quality aspects of electronics packages, devices and circuit modules. There were also a biomedical and an educational topic, the latter is a perspective field, as e-learning and life-long learning are becoming more and more important in these new member states of the European Union.

The Symposium is traditionally a forum of scientists and researchers both from academia and the industry. This year the professors, young scientists and students were from Germany, Poland, Slovenia, Czech Republic, Slovakia, Romania and Hungary. The Romanian participants came from all over the country, representing the technical universities from Bucharest, Cluj-Napoca, Pitesti, Suceava, Timisoara, Galati, Alba Iulia, Iasi, and Brasov. The SIITME is especially popular among Ph.D. students and young researchers, more than 60 % of the participants being from this group. Every year it is a

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very good opportunity for them to share their scientific ideas, and present their research work at an international forum.

SIITME has always been strongly supported by CETTI of Politehnica University of Bucharest, the IEEE-CPMT Hu&Ro Joint Chapter and ARIES (Romanian Association for Electronic and Software Industry). This year, the activities of the Joint Chapter were the organization of the whole conference, both in scientific and in technical way, which has led to a high level conference and a friendly and enjoyable atmosphere. Not just the local organizers, but also the members from Romania contributed with a lot of work to have a successful event. The SIITME 2009 also was an IEEE Conference, registered in the conference database. After the final evaluation, the papers of the highest scientific value are included in the IEEE Xplore webpage. The members of the steering and the scientific committees have done a hard work helping the authors and evaluating their abstracts, papers and presentations. The Town council was represented by Dr. Klára Perjési, the Mayoress of Gyula and Mr. Árpád Szabó, the Deputy Mayor of Gyula. It was also our honour that Mr. Ioan Fodoreanu, the General

Consul of Romania in Hungary also participated in the Opening session and had the opportunity to meet Prof. Paul Svasta General Chair of SIITME, Prof. Zsolt Illyefalvi-Vitéz Conference Chair of SIITME2009 and Prof. Dan Pitica Chair of the IEEE-CPMT Hu&Ro Joint Chapter.



The opening ceremony of the 15th SIITME in the Town Hall of Gyula (from left to right: Árpád Szabó, Ioan Fodoreanu, Paul Svasta, Zsolt Illyefalvi-Vitéz, Dan Pitica).

Demonstrating the traditionally good and fruitful relationship among the member countries, a workshop about a common EU project, Elect2eat (www.elect2eat.eu) was organized during the Symposium. This project initiates life-long e-learning in electronics design and technology, improving the knowledge of students in vocational education schools and of skilled workers in electronics

assembling companies. There is also a scientific bilateral cooperation between Romania and Hungary, with the topic of low-energy consuming joining technologies. Several papers were written in the frame of this cooperation at this and other previous international conferences (ISSE, IMAPS Cz&Sk). At SIITME 2009, Radu Bunea presented a paper about laser soldering topic, which is the result of his 6-week stay in Hungary, where he did experiments with the help of the local experts. At the closing ceremony, the best scientists were awarded: the Best Poster Award was given to Mr. Ciprian Ionescu (UPB-CETTI, Bucharest) for the paper entitled Electrochemical Sensor with Polymer Thick Film Printed Electrodes; the Best Poster Award for Young Scientist was given to Mr. Rajmond János (TU Cluj-Napoca), for the paper entitled Intelligent Human Interface Device. Excellent Poster Awards for Young Scientist were given to Mr. Cosmin Tamas (UPB-CETTI, Bucharest), Mr. Olivér Krammer (BME-ETT, Budapest), Mr. Constantin Barabasa (Gh. Asachi TU, Iasi) and Mr. Radu Bunea (UPB-CETTI, Bucharest). Excellent Poster Awards were given to Ms. Marina Santo Zarnik (HIPOT Slovenia) and to Mr. Radu Arsinte (TU Cluj-Napoca).

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Acknowledgements were expressed to Ms. Georgiana Buta (Stefan cel Mare University, Suceava), Mr. Iulian Busu (UPB-CETTI, Bucharest) and to Mr. Mihai Machedon (TU Brasov).



The awarding ceremony of SIITME 2009, for Best Poster Awards.

During the whole conference, the organizers made efforts to present Hungary and to have an overview of the local specialties. One of them was a *pálinka* tasting and the secrets of the production were also shown. The participants had the opportunity to visit the castle and the spa. These occasions enhanced the contacts and networking which forecast future scientific and social relationships.

Submitted by Réka Bátorfi, IEEE CPMT Hu&Ro Joint Chapter



An excellent CPMT Region 8 event

An innovative Electronics Interconnection Technology (TIE) Design competition was won by excellent students. Bogdan Raducanu was the top scoring student winner from the Polytechnic University of Bucharest. Others were not far behind. The TIE event on 9th and 10th April comprised two days of Workshops and a one day hands-on real-time competition for undergraduates in electronics.

The Workshops were discussion events with lectures by professionals intended to give students insight into the practicalities of the outside world. Two lectures from the Distinguished Lecturer Programme were given by Nihal Sinnadurai on the first day, one technical and the other on the benefits and opportunities from IEEE-CPMT membership. Some 70 people attended the workshops.

The excellent student competition followed the Workshop. Each undergraduate student competitor had to carry out a circuit design and layout project under time pressure. The design requirements were defined to the student competitors just before the competition began. Each student was

provided with a computer with a suite of design software and a high definition colour screen. The students were required to develop a parts library, create component footprints, create a schematic and complete a layout. The adjudication was by small teams of experienced CAD designers plus anyone else who wishes to intervene, i.e. a fully transparent process. The event was very impressive and encouraged students in the electronics technologies relevant to CPMT.



Paul Svasta, TIE Chair, and Nihal Sinnadurai

Some 39 students (both female and male) participated in the competition and I watched the impressive skills they displayed. The prizes to the top three were financial scholarships to support their ongoing education. All the funds received were from sponsors. Since

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then CPMT Society is also awarding a free one year CPMT Student membership to the winner.



The competition under way

Zsolt Illyefalvy
CPMT Hungarian – Roumanian Chapter



Report on the 9th BME International 24-hour Programming Contest



9th BME International 24-hour Programming Contest

The 9th BME International 24-hour Programming Contest was an international event organized at the Budapest University of Technology and Economics (BME), Hungary, by the Electrical Engineering Students' Hungarian Association (MAVE). The main aim of the competition is to

provide university students and professional software developers with an opportunity to test their knowledge and capabilities.

Teams are made up of three people and must demonstrate various skills in informatics and mathematics, i.e. programming and algorithmic skills, network programming, artificial intelligence. Out of the 320 teams of 56 countries registered the best 30 qualified during the Electronic Contest to take part in the Budapest finals.

The opening ceremony was held on 2nd May, where Dr. Gábor Péceli, the president of the BME opened the event then at 9AM, so thus the 24-hour adventure begun. The problem set was created by the BME Department of Automation and Applied Informatics and the members of the Electrical Engineering Students' Hungarian Association. Beyond the eight independent algorithmic problems, some others were connected to physical tasks, featured an automated Guitar Hero platform and a LEGO Mindstorms Robot set.

Eventually, the Swedish team "Three headed monkey" emerged victorious ahead of a British and a Polish team. The best Hungarian team ranked 5. The total value of awards exceeds 5000 Euros and the winner

took the Challenge24 Trophy. The diamond grade sponsors of the event were the Magyar Telekom and Nav N Go, the professional partner being the IEEE Hungary Section.

Diamond grade sponsors of the event:



Organizer:



Magyar Villamosmérnök- és Informatikus-hallgatók Egyesülete
www.eestec.hu

Association of Hungarian Electrical Engineering Students



Report on the International Youth Conference on Energetics 2009

As the organizers of the International Youth Conference on Energetics 2007 promised, the IYCE conference returned in 2009 to provide opportunity for M.Sc. and Ph.D. students, young researchers to present their work at an international forum and meet their colleagues working on any field of energetics. Between June 3 and June 6,

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2009 the Budapest University of Technology and Economics hosted guests from 20 countries. 62 presenters and almost the same number of visitors followed the invitation of the Student Association of Energy to attend the IYCE 2009.

The high standard of the conference was guaranteed by the involvement of international professional organizations. The closest cooperation was built up with the IEEE Industry Applications Society that took on the technical co-sponsorship. According to the evaluation of the reviewers and the opinion of the session chairs Best Presenter Awards were presented in topics of Electric Power Engineering, Nuclear Techniques, Power Engineering and to the Best Woman Presenter. The official opening on June 4 included a speech from József Modelski. We believe that the outcome of the conference was in agreement with his greetings: *“I hope IYCE 2009 will be productive and enjoyable for all of you. I wish you a very fruitful and pleasant conference.”* The keynote speeches were given at the plenary session started by Rami T Al-Muschab who held a presentation titled Technological Challenges Facing the Oil & Gas Industry. This presentation was followed by four others: European

approaches and initiatives for Nuclear Education & Training and Knowledge Management, Gas and power activities of MOL Group, Energy audit analysis techniques and Renewables in the CEE region covering many actual questions of energetics.

The conference program included an IEEE round table conversation organized by Péter Magyar and Tamás Ruzsányi. They also helped us a lot to organize the conference. Earlier they suggested us to find closer relations to IEEE. Seventeen people, members of the Student Association of Energy and from the related departments decided to take part. During the mentioned meeting the establishment of the IEEE Budapest University of Technology and Economics Joint IAS/PES Student Branch Chapter was announced.

Attendees also had the possibility to learn about IEEE at an info desk with IAS and PES material.

As it is one of the main purposes of IYCE the conference allowed many opportunities to socialize with other colleagues. The informal opening of the conference was celebrated on June 3 at the Budapest Zoo with a small welcome party. The conference gala dinner was held at the Buda Castle Labyrinth and on June 6 afternoon an excursion to Gödöllő Castle and the Aquaworld was

organized. The participants also had the possibility to get to know the laboratories of the University. Visits were guided to the Nuclear Training Reactor, to the Jendrassik Heat Technical Laboratory and to the High Voltage Laboratory.

The positive reflections made us sure that it was worth to organize the IYCE for the second time, too. Most members of the Student Association of Energy took part more or less in the hard work during the previous year. Concerning our plans for the next IYCE hereby we announce that in 2011 we would like to hold the conference abroad in cooperation with foreign organizers. Please find more information at www.iyce2009.org or at www.eszk.org.

Bálint Németh, Bálint Hartmann, Péter Jeszencsák, Richárd Cselkó
The Local Organizing Committee of IYCE 2009



Sister societies

Memorandum of Understanding had been signed by the Institute of Electrical and Electronics Engineers and John Von Neumann Computer Society (NJSZT).

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To encourage the exchange and dissemination of technical information, and to promote understanding and cooperation among the members of the NJSzT and the IEEE have entered into an agreement on the following matters:

- visiting members
- joint activities
- coordination of technical meetings
- publications
- standards and information

The other sister societies are the HTE, MATE and MEE.



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