



8th INTERNATIONAL CONFERENCE ON HEAT ENGINES AND ENVIRONMENTAL PROTECTION

May 28–30, 2007 Hotel Uni, Balatonfüred, Hungary

SECOND ANNOUNCEMENT

Supported by:

Hungarian Power Companies Ltd. Hungarian Chamber of Engineering

Sponsored by:

Hungarian Academy of Engineering – Rubik Foundation Hungarian Chamber of Engineering – Mechanical Section Hungarian Chamber of Engineering Branch of Heat and Electric Power Hungarian Energy Society Foundation for Promoting Energy Engineering Training Hungarian Scientific Society of Energy Economics

Organized by:

Budapest University of Technology and Economics Department of Energy Engineering www.energia.bme.hu

Scientific Committee:

Chair:	Prof. Dr. Antal Penninger
Co-chair:	Prof. Dr. Károly Reményi
Secretary:	László Kárpáti
Members:	Prof. Dr. Attila Meggyes
	Prof. Dr. László Imre
	Prof. Dr. Attila Bíró
	Dr. Gróf Gyula
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Local Arrangements:

TRIVENT Conference Office H-1119 Budapest, Etele út 59-61. Hungary Phone/Fax: +36-1-371-1333 E-mail: trivent@trivent.hu Web: www.trivent.hu The construction of machines and equipments, the fuel composition and fuel quality have decisive role in the operation of the heat engines and the power plants and extremely high impact on the environment. Due to the need of the conservation of the nature and the sustainable development the renewable energy resources have been used more and more intensively resulting in the application of the new systems, new solutions and new constructions for the energy industry. The conservation of the nature and the efficient, economic supply of energy is the main task nowadays in the energy engineering. These goals can be reached by the harmonized utilization of the renewable and the classic energy resources.

The aim of the conference, organized on the eighth occasion, is providing a forum of all those who are interested in the subjects and means to survey the possibilities, the results and the development trends.

> ANTAL PENNINGER Conference Chair

Papers/Proceedings

We are expecting papers not more than 6 A4 camera ready pages written according to the requirements of the Guidelines for Manuscript Preparation. The papers should be submitted not later than 20th April 2007 through e-mail to trivent@trivent.hu or on-line, according to the descriptions under the homepage www.energia.bme.hu.

The publication of the papers in the conference proceedings can be ensured only in case of the receipt of the registration fee. The proceedings will be published in English.

Language

During the conference lectures will be given in both Hungarian and English language. Simultaneous translation will be provided.

Venue

The conference venue is Hotel Uni, Balatonfüred, Hungary. Address: H-8230 Balatonfüred, Széchenyi u. 10.

Registration Fee

The expected early registration fee until 1st May 2007 is EUR 350/ person + 20% VAT, the late registration fee after 1st May 2007 is EUR 380/person + 20% VAT and includes conference proceedings (Printed proceeding and CD), accommodation in single rooms with full board, cocktail- and grill-party.

The expected early student registration fee until 1st May 2007 is EUR 200/person + 20% VAT, the late student registration fee after 1st May 2007 is EUR 230/person + 20% VAT and includes CD proceeding, accommodation in double bedrooms with full board, cocktailand grill-party.

Company presentations, exhibition and advertising materials are to be paid extra:

- Company presentation: 105 EUR/15 minutes
- Exhibition material: 85 EUR/1 poster board (100x150 cm) + 1 table
- Advertising material in the conference bags: 65 EUR/100 flyers

The deadline for sending the registration form is 27th April, for payment is 5th May 2007. The payment is to be done by bank transfer.

Our bank:	OTP Bank Rt.
Address:	1126 Budapest, Hungary Böszörményi út 9–11
Account:	11712004-20144016
Account holder:	S.J.T. TRIVENT Bt.
Swift code:	OTP V HUH B XXX
	IBAN number: HU 55 11712004-20144016

For those participating between 31 May – 2 June in IYCE 2007 conference (www.iyce2007.org) as well a 40% reduction from both registration fees can be given.

For more information please write an e-mail to trivent@trivent.hu.

The conference begins with registration from 16:00 and check in at the hotel, continuing with grill-party from 19:00 on 28th May.

For further information:

Concerning the conference:

Mr. László Kárpáti Budapest University of Technology and Economics Department of Energy Engineering Phone: +36-1-463-2609 Fax: +36-1-463-1762 E-mail: karpati@energia.bme.hu Web: www.energia.bme.hu

Concerning the organization:

Ms. Mónika Jetzin TRIVENT Conference Office Phone/Fax: +36-1-371-1333 E-mail: trivent@trivent.hu Web: www.trivent.hu

Preliminary Program

The exact schedule of the lectures, breaks and the evening program will be published in the final program.

The speakers will be informed about the exact time of their presentations in e-mail, 3 weeks before the conference the latest.

- Power generation what should be the next step? Károly Gerse
- Supporting of the CHP generation and the renewable resource utilization on the liberalized system
 Alore Statut

Alajos Stróbl

- About the energy policy *Pál Zarándy*
- Possibilities in repowering of the hydrocarbon fuelled units by using alternative fuelled gas turbine

Botond Czinkóczky, Iván Gács, Péter Bihari

- Possibilities in transformation of structure of Hungarian primer energy sources Iván Gács, Péter Bihari
- The Heller program: renewable energy utilization by heat pumps *Ferenc Komlós*
- The Hungarian mineral resources and its role in the energy utilization János Horn
- Increase of cooling capacity by hybrid condensation László Hazlach
- Increase of the rate of primary energy saving by complementing the gas engine based CHP units with cool energy productions Gábor Bercsi
- Cost and likelihood measure determination of the surplus/shortage of power system level

András István Fazekas

- Studying the energy utilization of an industrial pound Bence Somogyi
- Use of micro-cogeneration systems for the decentralized production of electricity and heat

Armando Oliveira

Natural gas replacement by direct using of renewable energy sources and by cogeneration Gergely Büki The statistical model of the estimation of the daily average wind power potential Károly Tar Comparison of benefits of distributed generation technologies using multicriteria analysis István Krómer, Zoltán Bessenvei Multistage power generation from geothermal energy Lajos Tímár Environmental impacts of renewable energy Károly Reményi Biomass: its present and future role in climate change mitigation Tamás Jászai Utilization of bio fuels in internal combustion engines Ákos Bereczky Utilization of pure vegetable oil in Diesel engines Róbert Kecskés, Benjámin Losonczy, Péter Hermanutz, Ákos Bereczky Cofiring of different syngases with natural gas Krisztina Valler, Ágnes Woperáné Serédi, Árpád Bence Palotás Utilization of wood and grass type biomass, waste and by-products as the power plant fuels Tamásné Szemmelveisz, István Szűcs, Árpád Bence Palotás, László Winkler, Krisztina Valler Excess air control by using ion-current László Winkler, Árpád Bence Palotás Evaporation of vegetable oils and oleic acids Tamás Laza, Rainer Stauch, Antal Penninger Actual research results of TUKI in industrial burner development Mónika Sevcsik, László Nemes, György Bodnár The radiation heat transfer in combustion technique André Charette Comparative analysis of the pirolysis gases by spectrometry Viktória Kovács Effect of the valve timing on exhaust emission István Lakatos

Results of the first field tests of the HOVAL woods logs boiler/Stirling engine combination

Bodo Groß, Ulrich Bemmann, Daniel Hegele

Temperature dependent thermal properties determination by the genetic algorithms

Balázs Czél, Gyula Gróf

- Experimental analysis of transient thermal behaviour in hydrogen cryoadsorption storage systems *Petar Aleksic*
- Heat transfer between the water surface and the superheated steam
 - Tamás Környey, Gyula Gróf
- We reduced a panel house's heat consumption to one fourth *Zoltán Czinege*
- Integration of fuel cells into the heating system Albin Zsebik
- Numerical simulation of thermal behavior of an artificial geothermal system Anita Jobbik
- The renewable energy sources and their impacts on the gas engines operation Viktória Kovács, Attila Meggyes, Ákos Bereczky