

The annual Conference of Automaticians whose motto was "Renovable sources of energy-energy efficiency and environmental protection" was held at the hotel Pearl of the South in Rytro near Nowy Sacz on May 18 - 20. The organizers kept many traditional organizational elements of previous conferences in this series. Professor Ryszard Tadeusiewicz (AGH) was the Chairman of the Conference. The Professor, a great authority among scientists, ensured the high level of the conference and the high-rating of all the events associated with it.

The company SKAMER-ACM was the initiator and main organizer of the conference. Also the companies: ABB, DANFOSS, EATON ELECTRIC, EMERSON PROCESS MANAGEMENT, HIT - Barcodes, JUMO, LIMATHERM SENSOR, PEPEL+FUCHS, SKAMER, TECHNOKABEL, TURCK, WIKA POLAND were the organizers of this year's conference. The Regional Fund for Environmental Protection and Water Management in Krakow, which assumed the honorary patronage over the conference and granted subsidies to it, the National Agency for Energy Conservation, which assumed the honorary patronage over the conference, and the Association ideaTECH Krakow took part in organization of the conference as well.

The Stanislaw Staszic AGH University of Science and Technology in Krakow, the Automation and Robotics Committee of the Polish Academy of Sciences, the Association of Polish Electrical Engineers, the Malopolska-Podkarpacie Clean Energy Cluster and the S&P Group from Krakow participated in the conference organization. The conference was held under the auspices of: the international journal Measurement Automation Monitoring (formerly: Pomiary Automatyka Kontrola, PAK) as well as the national technical journals: Automation monthly, magazine for automaticians Automation-Components-Applications (APA), Control Engineering, Drives and Control, Measurement Automation Robotics and the Internet portals: automatyka.pl, automatykaOnLine.pl.

The conference was held under the scientific patronage of the AGH University of Science and Technology in Krakow, the Polish Academy of Sciences (PAS) as well as the Warsaw, Rzeszow and Silesian Universities of Technology. Numerous representatives of engineering staffs of large industrial plants and design offices of industrial automation and metrology profile, mainly from the south-east region of Poland, as well as the representatives of the organizers-presidents, directors and chief power engineers, participated in the conference.

The scientific presentations at the conference highlighted the tasks related to energy efficiency and environmental protection. The conference is of particular importance for Poland whose economy is still characterized by excessive energy consumption compared to the results achieved in other countries. Moreover, higher energy prices and increasing dependence on energy supply from outside the European Union pose a threat to energy security and competitiveness of EU industry. This is especially important in light of the Ukrainian crisis.

The Climate and Energy Package (the so-called 3x20) published in January 2008 is the most important document in the field of energy efficiency and environmental protection in Europe. According to it, the member states are required to:

- reduce CO<sub>2</sub> emission by 20% in the year 2020 compared to the year 1990,
- increase the share of energy from renewable sources in the EU to 20% (for Poland to 15%) in the year 2020,
- increase the energy efficiency by 20% by the year 2020.

A new EU climate and energy package for the years 2020-2030 adopted at a summit in Brussels in October 2014 will force a reduction in the level of CO<sub>2</sub> in the atmosphere. However it will not be an excessive burden for the Polish economy. Poland has negotiated, among others, maintaining a system of free permits to emit CO<sub>2</sub> at the level of 40% by the power sector until the year 2030. It will enable the free transfer of CO<sub>2</sub> emission allowances to the Polish power sector.

The agreement at the European Council summit predicts that the European Union will reduce the CO<sub>2</sub> emissions by at least 40% by the year 2030 compared to the year 1990. The compromise also assumes

that the share of energy from renewable sources in total energy consumption will be equal to 27% in 2030. This goal is for the whole UE, not for the individual member states.

Heads of the EU states and governments have also agreed to increase energy efficiency (i.e. to reduce energy consumption) by 27%. Poland has managed to negotiate favourable provisions concerning the fund for compensating developing countries the cost of ambitious EU climate policy. The fund comes from the sale of a fixed number of CO<sub>2</sub> emission allowances and is destined for subsidizing installation of innovative renewable energy technology and carbon capture and storage in the EU developing countries. Poland will be entitled to additional emission allowances.

In Poland, the energy efficiency obligation scheme was introduced pursuant to the Act of 15 April 2011 on energy efficiency. Currently, a legislative work on the draft of a new Act on energy efficiency is ongoing in Poland

The ambitious objectives of politicians enforce rational use of energy. The words placed on a banner in the conference room "science-designers-producers" concerned those very challenges.

Each participant received the conference materials in electronic form containing the scientific and technical papers as well as the compendium of knowledge on energy efficiency.

The companies - organizers of the conference, presented their offer in the field of measurements and automation with a focus on energy efficiency and environmental protection.

The conference was chaired by Mr. Andrzej Turak - Vice-President of the Board, Management Engineer of the Company SKAMER-ACM. In the first part of the conference, the following papers were presented:

- Prof. dr hab. inż. Ryszard Tadeusiewicz: Co się kryje pod hasłem "smart city"
- Prof. Ryszard Tadeusiewicz PhD, DSc, Eng: What is hidden under the slogan "smart city"
- Prof. Leszek Trybus PhD, DSc, Eng: How power engineers are currently taught to control a power unit
- Prof. Jan Maciej Kościelny PhD, DSc, Eng: An intelligent system for preventing IAPS failures
- Prof. Tadeusz Skubis PhD, DSc, Eng: Methods for investigating magnetic properties of materials of new generation
- Prof. Ireneusz Soliński PhD, DSc, Eng: The wind-solar laboratory at the Faculty of Mining and Geoengineering of AGH
- Prof. Tomasz Stapiński PhD, DSc, Eng: New trends in photovoltaics-facts and myths
- Janusz Teneta PhD, Eng: Automation in photovoltaic systems
- Szczepan Moskwa PhD, Eng: SMART power engineering continuity of supply and energy efficiency
- Andrzej Izvorski PhD, Eng: The role of the Faculty of Electrical Engineering, Automation, Computer Science and Biomedical Engineering in education of automaticians
- Józef Kała MSc, Eng: Subsidizing the tasks related to improving energy efficiency from the means of the Regional Fund for Environmental Protection and Water Management in Krakow

After the lunch break, each company presented its solutions. The presentations of offers were dynamic, their forms were different (slides, photos, videos), there were many speakers, which resulted in constant interest among the participants.

On the second day of the conference, at the stand of each company, the participants could talk to the representatives of the organizers, ask about technical details of products, download catalog materials or indicate a specific problem to be solved

At the same time, in two conference halls, there were presentations of the companies - organizers and discussion panels. The conference helped to rebuild the awareness of engineering environment in Poland in the issues related to efficient and clean use of energy.