ZAT presents its innovations at the market of control systems for power generation and industry for 2015

In Plzeň/Příbram on 30 January 2015

ZAT a.s, a supplier of control systems for the power generation and industry, presents its innovations of the SandRA control system for 2015. Last year, the company's development centre focused on fast control tasks processed by SandRA Z200 processing stations, and on the development of new types of compact processing stations SandRA Z210. In the nuclear power field, ZAT engineers developed a VVER-type reactor power regulator prototype based on the SandRA Z100 platform.

"Our development was aimed on both hardware and software," says Pavel Kulík, Technical Director at ZAT. The company introduced its control system innovations on its twelfth year of Customer Day, which was held in Plzeň/Pilsen in January.

The leading industrial control system applicator is currently focusing its development mainly on **advanced integration of tools for designing and system administration and maintenance, and on the development of diagnostic and simulation tools for the SandRA** (Safe and Reliable Automation) control system. It represents a modern Distributed Control System (DCS) designed for demanding industrial applications requiring high reliability and long control system's lifetime.

Another important direction is the development of hardware and software for SIL3-category safety applications according to EN 61850, and A, B and C category applications according to EN 61226 in nuclear power generation.

SandRA processing station production and testing

Last year, ZAT engineers developed **an automated testing laboratory which tests the produced SandRA boards**. The tester enables automated testing of all guaranteed parameters of the produced boards, their calibration and adjustment. Automated testing process increases the testing **efficiency and eliminates potential faults** caused by human factor. This year, the company will prepare a customized version for customers with larger control systems and spare parts, so that they can perform on-premise board testing.

ZAT has been developing very special products for technological partners and in cooperation with these partners. Last year, based on specification from *Doosan Škoda Power*, the company **developed a new functional block SW for the SandRA control system to calculate steam turbine lifetime, and a compact PLC for the turning gear synchronization equipment**.

ZAT has its own R&D centre as one of a few companies in the field in Central Europe

"Thanks to our research, development and production activities, we can offer solutions for special requirements, e.g. use of non-standard communication protocols, connection of non-standard

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sensors, special computing functions, and gradual control system migration," says Ivo Tichý, Member of the Board at ZAT. The company has supplied control systems based on its original control systems and control systems of other manufacturers **to more than fifty countries around the globe**.

Five times longer guarantee period for control systems

The SandRA control system was launched in 2011, and ZAT invests tens of millions CZK into its development every year. In the past four years, the control system has been deployed both in nuclear power plants in the Czech Republic and Slovakia, and conventional power plants, heating plants and other facilities in the Czech Republic, Slovakia, Poland, Iceland, Cuba and other countries. "*The SandRA control system has proven itself to such extent that we can provide a ten-year guarantee period. We can allow to do that thanks to our investments into production quality,"* comments Vladislava Česáková, Member of the Board at ZAT.

Thanks to a broad range of technical means being offered and optional system architecture configurations, the system can be used to control both **large technological units (e.g. power generation units) and small ones**, such as wastewater treatment plants, gas control stations, etc.

Double revenues and global position

Thanks to innovations and customer care, ZAT has doubled its revenues in the past ten years in comparison with 1995 to 2004 period. Currently, the company is working on projects worth CZK 800 million. Apart from the SandRA control system development, the company (with the help of its subsidies) invested CZK 30 million into modernization of industrial electronics production lines. In the past five years, the company has invested over CZK 70 million into reconstruction and modernization of its R&D centre in Příbram.

"ZAT is a co-founder of the automation sector in the world. In 2012 we celebrated 50 years at the market. Constant development and innovation are our investment for future. That is the only way we, as a Czech company without any foreign capital, can maintain our position among the top world suppliers of advanced technology control systems," concludes Vladislava Česáková.

ZAT a.s. is the oldest Czech company in the field of technological process automation with more than 50 years of experience. It is a senior certified supplier namely in the fields of nuclear power, conventional power, surface mining and transportation of raw materials, gas distribution, transport and industrial processes.

Company headquarters are seated in Příbram. In Plzeň (Pilsen), ZAT has its own development, designing, manufacturing, installation and maintenance capacities for electronic devices and control systems and their components. It is also a manufacturer of medical devices. The company has over 300 employees; 80 % of employees are university and secondary school graduates.

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