

# ROLE OF TECHNICAL UNIVERSITY IN THE NUCLEAR POWER DEVELOPMENT – EDUCATION, TRAINING, COOPERATION WITH INDUSTRY, PREPARATION AND OPERATION OF TOOLS FOR KNOWLEDGE AND INFORMATION SHARING

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**NUCLEAR ENERGY RENAISSANCE IN CZECHIA AND EUROPE - THE ONLY WAY TO  
ENERGY SECURITY AND SELF-SUFFICIENCY**

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- Czech Technical University – the oldest and largest technical university in Czech Republic
- education of nuclear experts and scientists was started already in 1955, when the Faculty of Nuclear Sciences and Physical Engineering was founded as a part of Czechoslovak nuclear program
- currently the Faculty graduates about one hundred engineers (M.Sc. degree) and about thirty doctors (Ph.D. degree).  
Number of students is educated and graduated at the other faculties – Faculty of Mechanical Engineering and Faculty of Electrical Engineering. CTU covers education in all necessary fields concerning of the nuclear energy development

- the University is aware that the demand for nuclear engineers and all professions necessary for the construction and operation of nuclear power plants will increase dramatically in the coming years – it is estimated that the entire nuclear program and all that is linked to it will need in the order of tens of thousands of new highly qualified personnel and experts over the next twenty years
- CTU is ready to enter into cooperation with industry, nuclear research and development and, of course, nuclear power plant operators in order to produce graduates who will be in demand and who will find suitable employment in the field of nuclear energy

- to enhance extent of knowledge and information we cooperate not only with our technical universities, but we are ready to cooperate with foreign universities and other relevant bodies (R&D, technology and safety bodies etc.)
- CTU is ready to expand and modify the study program according to the requirements and needs of practice
- CTU welcomes cooperation with leading experts both in direct teaching and in other various forms of sharing information with students (with the aim of expanding knowledge and expertise and, most importantly, post-graduation employment opportunities)

- one of the important tools for increasing the level of information and knowledge can be the "PE" platform – a sharing tool and an aid for teaching and learning
  - ✓ individual faculties or institutes (departments) use a number of shared information tools, none of which is comprehensive
  - ✓ platform should provide this – from initial simple information or question (or just interpretation of a password, concept, equation ...) to comprehensive information, projects, detailed studies ....
  - ✓ in the first phase, the possibilities of using the platform were checked using keywords and based on a simple open source software system (Drupal) were explored, which enables the creation of complex systems
  - ✓ CTU is ready to start work on the creation of the platform

- the essential role of the state (Ministry of Education) – to create the conditions for the development of university (and secondary school) education, corresponding to the demand in the nuclear energy sector
  - ✓ media campaigns and support for technical - engineering - education, clarification of attractiveness, etc. – this is important from both the state and university level
  - ✓ a fundamental change of perspective on technical education – it has to be a state priority

I strongly believe that the state and universities activities initiated by the nuclear power sector development will lead to a mature and technically advanced society. This is really the only way for growth of the overall economy and standard of living.