DECLARATION OF THE WORLD CONGRESS OF ENGINEERS - WEC23

DEKLARACJA ŚWIATOWEGO KONGRESU INŻYNIERÓW - WEC23

The 7th World Engineers Convention, organized by the Czech Association of Scientific and Technical Societies (CS-VTS) in cooperation with the World Federation of Engineering Organizations gathered the leading engineers from the entire world. The aim of WEC23 was to find the answer to the guestion: how to manage with the urgent challenges of our Planet, and to examine how the technological innovations and transdisciplinary approach may bring the profits to sustainable development of the environment, societies and economy in order to ensure the safe, fair, healthy and peaceful future.

We should take the following into consideration:

- The goals of the UN Sustainable Development ensure the frames, which facilitate meeting the unprecedented global challenges facing the humanity and are a threat to our future welfare and quality of life
- Engineering community has a duty to make the contribution to reaching the aims and fining the solutions
- The climate change is the most critical and urgent problem of our time.
- Strengthening of the relationships between education, science, engineering and politics is indispensable if we have to reach the Goals until 2030
- Covid-19, War in Ukraine and energetic crisis have make us aware of the necessity to develop the resistance to the safety threats and also, social concerns
- There is a strict relation between engineering and life which may bring the unusually positive contribution to development
- Governments, business and industry have to cooperate in order to accelerate the positive changes
- The natural resources of the Planet our limited and biological diversity is facing the serious dangers
- We need innovative engineering to develop circular economy
- Engineering has a key meaning in ensuring the necessary change of paradigm and it will require common efforts to increase the number of graduates of engineering directions of the studie.



The Delegates to WEC23 declare that the engineers will:

- deal with agriculture and natural resources and develop the solutions which enable keeping the equilibrium between energy, water, food, fertility of soils and deforestation
- develop the solutions mitigating a negative effect of human activity on ecosystems and species
- ensure that computers, robots, artificial intelligence (AI) and other technologies will be utilized in the responsible, ethical and safe way and shall not cause any damages
- take more active role in solution of the problems connected with cyber-safety and privacy problems
- contribute to improvement of energetic safety by development, implementation and keeping the systems and technologies ensuring the reliable and resistant supplies of energy
- develop the innovative technologies, indispensable for ensuring reliability, safety and cost-effectiveness of developing energetic systems, based on the renewable energy sources
- improve the technologies of energy storage and develop the intelligent networks facilitating the effective and flexible energy distribution
- develop and implement the technologies, strategies and solutions, reducing GHG emission and eliminating the causes of global warming up
- support the education of engineers, their professional devel-





opment and training in the field of new technologies in the industrialized and developing countries

- develop low-energy and low-emission technologies and industrial processes, ensuring a low consumption of materials, recycling, waste management and support of circular economy
- develop the technologies and solutions which create the possibilities for generation of income for marginal societies
- design medical equipment and develop the technologies of health care system which improve the diagnostics, treatment and access to medical care, especially in the remote sites of the world
- Develop the technologies and systems which strengthen the position of women in economic, social and educational aspects
- try to ensure the access to clean water and sanitary solutions

- develop the infrastructure available for disabled persons
- enter into work on the technological solutions in respect of preventing the criminality, execution of law and of justice systems
- design and construct effective and friendly-to-environment transport networks such as public transport, bicycle paths and the routes for pedestrians, and also, ensure the passage to electric and hybrid vehicles and to alternative fuels
- support the sustainable development of cities via cooperation with architects, with the aim to create the multi-functional objects which limit the need of long routes to work place, encouraging to pedestrian and bicycle moving.

The engineers are the masters of creativity. They find the new methods for solving the problems of their workaround, creating simultaneously the ingenious protection from failures and minimizing a risk, in order to maximize the resistance, functionality and performance.

It should be stressed that the engineers have adopted this important Declaration in Prague where, in 1707, Christian Josef Willenberg founded the world's first engineering institution, dealing with education. It made the background for development of engineering school all over the world.

Prof. Daniel Hanus The President of CSVTS Prof. Jose Vieira The President of WFEO

Source: https://www.wec2023.com/ https://not.org.pl/