

POLSKA AKADEMIA UMIEJĘTNOŚCI

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**KOMISJA NAUK
TECHNICZNYCH**

Kraków, czwartek, 24 października 2019

ZAPROSZENIE

Uprzejmie zapraszamy na posiedzenie naukowe Komisji Nauk Technicznych (KNT; **Sekcja ENERGETYKI**) PAU, które odbędzie się **19 listopada** (wtorek) **2019** r. o godz. **16.00** w **Centrum Energetyki AGH**, ul. Czarnowiejska 36, 30-054 Kraków, główne wejście do budynku C5 sala 109 I piętro. W trakcie posiedzenia Prof. dr hab. inż. Janusz S. Szmyd (Kierownik Katedry Podstawowych Problemów Energetyki, AGH-Kraków) wygłosi wykład:

" Development of High Efficiency Technologies for Reinforcing Energy Security "

Abstract

The development of civilisation is linked inextricably with growing demand for electricity. Thus, the still-rapid increase in the level of utilisation of natural resources, including fossil fuels, leaves it more and more urgent that conventional energy technologies and the potential of the renewable energy sources be made subject to re-evaluation. It is estimated that last 200 years have seen use made of more than 50% of the available natural resources. Equally, if economic forecasts prove accurate, for at least several more decades, oil, natural gas and coal will go on being the basic primary energy sources. The alternative solution represented by nuclear energy remains a cause of considerable public concern, while the potential for use to be made of renewable energy sources is seen to be very much dependent on local environmental conditions. For this reason, it is necessary to emphasise the impact of research that focuses on the further sharpening-up of energy efficiency, as well as actions aimed at increasing society's awareness of the relevant issues. The history of recent centuries has shown that rapid economic and social transformation followed on from the industrial and technological revolutions, which is to say revolutions made possible by the development of power-supply technologies. While the 19th century was "the age of steam" or of coal, and the 20th century the era of oil and gas, the question now concerns the name that will at some point come to be associated with the 21st century. In this presentation, the subjects of discussion are primary energy consumption and energy resources, though three international projects on the global scale are also presented, i.e. ITER, Hydrates and DESERTEC. These projects demonstrate new scientific and technical possibilities, though it is unlikely that commercialisation would prove feasible before 2050. Research should thus be focused on raising energy efficiency. The development of high-efficiency technologies that reinforce energy security is presented, with it being assumed that these new high-efficiency technologies are capable of being applied globally in the near future.

Po dyskusji odbędzie się krótkie zebranie administracyjne członków KNT PAU

Serdecznie zapraszamy

Prof. Kazimierz Furtak, Przewodniczący Komisji Nauk Technicznych PAU

Prof. Wojciech Mitkowski, Sekretarz KNT-PAU