

**Lista rezerwowa
modułów dydaktycznych w języku angielskim w obszarze nauk technicznych
(inżynierskich) dla potrzeb programów kształcenia,
typ M01**

Projekt Cyfrowy Kampus Nauki i Technologii AGH UNESCO
w realizacji programu NAWA: SPINAKER - Intensywne Międzynarodowe Programy
Kształcenia, finansowanego z Funduszy Europejskich

**Intensywne Międzynarodowe Programy Kształcenia (IMPK 01): Engineering
for sustainable energy.**

1. Elasticity of demand in microgrids with smart building systems; Dr inż. Andrzej Ożadowicz; AGH University of Science and Technology, Poland;
2. Energy for long-term operation of battery electro vehicles; Prof. dr hab. inż. Lech Jerzy Sitnik; Wrocław University of Science and Technology, Poland;
3. Introduction to energy performance of buildings directive — short history and impact on new technologies and new legal regulations in buildings; Mgr inż. Paweł Kwasnowski; AGH University of Science and Technology, Poland;
4. Methods for ensuring cyber-security in public transport based on electric buses; Prof. dr hab. inż. Sylwester Markusik; Silesian University of Technology, Poland;

**Intensywne Międzynarodowe Programy Kształcenia (IMPK 02): Engineering
for natural resources and environment.**

1. Assessment of emissions of internal combustion engines powered by mixtures containing bio components; Prof. dr hab. inż. Lech Jerzy Sitnik; Wrocław University of Science and Technology, Poland;
2. Impact of control systems on energy efficiency of buildings — how to measure, classify and improve - lecture; Mgr inż. Paweł Kwasnowski; AGH University of Science and Technology, Poland;
3. Impact of control systems on energy efficiency of buildings — how to measure, classify and improve - training; Mgr inż. Paweł Kwasnowski; AGH University of Science and Technology, Poland;
4. Intelligent buildings — innovative energy-saving solutions — introduction; Mgr inż. Paweł Kwasnowski; AGH University of Science and Technology, Poland;
5. Piezoelements in sound and vibration reduction; Prof. dr hab. inż. Jerzy Wiciak; AGH University of Science and Technology, Poland;
6. Practical statistics; Assoc. prof. dr hab. Joanna Soszyńska-Budny; Sopot University of Applied Sciences, Poland;
7. Risk management for sustainable development; Asst. prof. dr Weam Nasan Agha; University of Aleppo, Syria;

Intensywne Międzynarodowe Programy Kształcenia (IMPK 03): Technologies for digital era.

1. Aircraft avionics systems; Assoc. prof. dr hab. inż. Mariusz Zieja; Air Force Institute of Technology, Poland;
2. Cumulative fuel consumption of hybrid electric vehicles; Prof. dr hab. inż. Lech Jerzy Sitnik; Wrocław University of Science and Technology, Poland;
3. Media filtration process; Prof. dr hab. inż. Lech Jerzy Sitnik; Wrocław University of Science and Technology, Poland;
4. Open standards for smart buildings - comfort and energy efficiency improvement; Dr inż. Andrzej Ożadowicz; AGH University of Science and Technology, Poland;
5. Open standards for smart buildings - comfort and energy efficiency improvement; Dr inż. Andrzej Ożadowicz; AGH University of Science and Technology, Poland;
6. Smart home — advanced functionalities; Mgr inż. Paweł Kwasnowski; AGH University of Science and Technology, Poland;
7. Smart home — do it yourself; Mgr inż. Paweł Kwasnowski; AGH University of Science and Technology, Poland;
8. Smart home — intelligent building for everyone; Mgr inż. Paweł Kwasnowski; AGH University of Science and Technology, Poland;
9. Wear kinetics of machine parts by cyclic loading conditions; Prof. dr hab. inż. Lech Jerzy Sitnik; Wrocław University of Science and Technology, Poland;

Intensywne Międzynarodowe Programy Kształcenia (IMPK 04): Engineering for the manufacturing of the future.

1. Development of intermodal transport of bulk materials in Central Europe; Prof. dr hab. inż. Sylwester Markusik; Silesian University of Technology, Poland;
2. How to develop your own IoT device - lecture; Mgr inż. Paweł Kwasnowski; AGH University of Science and Technology, Poland;
3. How to develop your own IoT device - training; Mgr inż. Paweł Kwasnowski; AGH University of Science and Technology, Poland;
4. How to connect your IoT device to cloud – introduction and training; Mgr inż. Paweł Kwasnowski; AGH University of Science and Technology, Poland;