

**Lista
modułów dydaktycznych w języku angielskim w obszarze nauk technicznych
(inżynierskich) dla potrzeb programów kształcenia,
zaakceptowanych do przygotowania i realizacji,
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. Advanced energy conversion; Prof. dr hab. inż. Wojciech Nowak; AGH University of Science and Technology, Poland;
2. Comparison of hybrid and internal combustion vehicles in terms of energy demand; Prof. dr hab. inż. Lech Jerzy Sitnik; Wrocław University of Science and Technology, Poland;
3. Economic assessment of the battery electric vehicle operation in public transport; Prof. dr hab. inż. Sylwester Markusik; Silesian University of Technology, Poland;
4. Energy for sustainable development; Asst. prof. dr Weam Nasan Agha; University of Aleppo, Syria;
5. Energy management in buildings; Asst. prof. dr Weam Nasan AGHA; University of Aleppo, Syria;
6. Energy technologies and development challenges; Assoc. prof. dr inż. Mohamed Eid; INSA – Rouen, France;
7. Fundamentals of energy storage; Prof. dr hab. inż. Wojciech Nowak; AGH University of Science and Technology, Poland;
8. Hydrogen economy; Prof. dr hab. inż. Wojciech Nowak; AGH University of Science and Technology, Poland;
9. Noise in the arctic settlements; Prof. dr hab. inż. Jerzy Wiciak; AGH University of Science and Technology, Poland;
10. Nuclear energy and sustainable development; Assoc. prof. dr inż. Mohamed Eid; INSA – Rouen, France;
11. Nuclear is a climate friendly energy source; Assoc. prof. dr inż. Mohamed Eid; INSA – Rouen, France;
12. Practical application of statistical methods; Assoc. prof. dr hab. Joanna Soszyńska-Budny; Sopot University of Applied Sciences, Poland;
13. Reliable wind power generation; Prof. dr hab. inż. Tomasz Barszcz; AGH University of Science and Technology, Poland;
14. Strategies for converting the conventional public transport bus fleet to electric propulsion; Prof. dr hab. inż. Sylwester Markusik; Silesian University of Technology, Poland;
15. Technologies of electricity achieving from municipal solid waste; Prof. dr hab. inż. Lech Jerzy Sitnik; Wrocław University of Science and Technology, Poland;

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

1. Biomaterials – materials for medicine; Prof. dr hab. inż. Elżbieta Pamuła; AGH University of Science and Technology, Poland;
2. Climate changes and complex systems resilience; Assoc. prof. dr inż. Mohamed Eid; INSA – Rouen, France;
3. Development of green logistics; Prof. dr hab. Aleksander Śładkowski; Silesian University of Technology, Poland;
4. Environment protection & industrial risks; Assoc. prof. dr inż. Mohamed Eid; INSA – Rouen, France;
5. Environmental aspects of the production and use of biofuels in transport; Prof. dr hab. Aleksander Śładkowski; Silesian University of Technology, Poland;
6. Health/ecological balance in the assessment of pyrolysis technology of municipal solid waste; Prof. dr hab. inż. Lech Jerzy Sitnik; Wrocław University of Science and Technology, Poland;
7. Life cycle assessment of biofuels; Prof. dr hab. inż. Lech Jerzy Sitnik; Wrocław University of Science and Technology, Poland;
8. Materials from renewable resources; Prof. dr hab. inż. Elżbieta Pamuła; AGH University of Science and Technology, Poland;
9. Nanomedicine; Prof. dr hab. inż. Elżbieta Pamuła; AGH University of Science and Technology, Poland;
10. Safe and efficient storage and delivery of hydrogen; Prof. dr hab. inż. Wojciech Nowak; AGH University of Science and Technology, Poland;
11. Sustainable energy development in terms of reducing greenhouse-gas emissions; Prof. dr hab. inż. Wojciech Nowak; AGH University of Science and Technology, Poland;
12. The effect of wind turbine on human; Prof. dr hab. inż. Jerzy Wiciak; AGH University of Science and Technology, Poland;
13. Thermal energy storage; Prof. dr hab. inż. Wojciech Nowak; AGH University of Science and Technology, Poland;
14. Water desalination technologies and development; Assoc. prof. dr inż. Mohamed Eid; INSA – Rouen, France;
15. Wind farm reliability analysis; Assoc. prof. dr inż. hab. Joanna Soszyńska-Budny; Sopot University of Applied Sciences, Poland; wykład;

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

1. Additive manufacturing – versatile but challenging process; Prof. dr hab. inż. Dariusz Kata; AGH University of Science and Technology, Poland;
2. Digital industry for sustainable development; Asst. prof. dr Weam Nasan Agha; University of Aleppo, Syria;
3. Eyetracking and gaze control applications; Prof. dr hab. inż. Piotr Augustyniak; AGH University of Science and Technology, Poland;
4. From functional consideration of a system to dysfunctional one; Prof. dr hab. Benoit IUNG; University of Lorraine, France;
5. Hybrid cardiac telerehabilitation; Assoc. prof. dr hab. Stanisław Rumian; Krakow University of Health Promotion, Inter-university Cracow Center of New Techniques and Medical Technologies, Poland;
6. Introduction to wind turbines vibration analysis; Prof. dr hab. inż. Tomasz Barszcz; AGH University of Science and Technology, Poland;
7. IT support for aircraft operation and maintenance; Assoc. prof. dr hab. inż. Mariusz Zieja; Air Force Institute of Technology, Poland;
8. IT support for flight safety; Assoc. prof. dr hab. inż. Mariusz Zieja; Air Force Institute of Technology, Poland;
9. Neuro-symbolic AI for the digital era industry: an introduction; Prof. dr hab. Hervé Panetto; University of Lorraine, France;
10. Neuro-symbolic AI for the digital era industry (AI technique for the industry 4.0: some applications); Prof. dr hab. Hervé Panetto; University of Lorraine, France;
11. Neuro-symbolic AI for the digital era industry (Ontology-based symbolic AI for knowledge management in industry); Prof. dr hab. Hervé Panetto; University of Lorraine, France;
12. PHM: Challenges and opportunities brought by data analysis; Prof. dr hab. Benoit Iung; University of Lorraine, France;
13. Physiological signals – nature and recording methods; Prof. dr hab. inż. Piotr Augustyniak; AGH University of Science and Technology, Poland;
14. Practical fault detection of rotating machinery; Prof. dr hab. inż. Tomasz Barszcz; AGH University of Science and Technology, Poland;
15. Techniques and software for engineering and realizing of investment on site; CEO MSc. C. Eng. Grzegorz Bałda; BP BIPROSTAL Sp. z o.o., Poland;

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

1. (Bio) signal processing – a nature-oriented viewpoint; Prof. dr hab. inż. Piotr Augustyniak; AGH University of Science and Technology, Poland;
2. Ambient assisted living – sensors around us; Prof. dr hab. inż. Piotr Augustyniak; AGH University of Science and Technology, Poland;
3. Application of neural networks to fault detection; Assoc. prof. dr hab. inż. Mirosław Świercz; Białystok University of Technology, Poland;
4. Artificial intelligence for industry of the future; Prof. dr hab. Benoit Iung; University of Lorraine, France;
5. Basics of aircraft construction, operation and maintenance; Assoc. prof. dr hab. inż. Mariusz Zieja; Air Force Institute of Technology, Poland;
6. Ceramics for innovative structural composites; Prof. dr hab. inż. Zbigniew Pędzich; AGH University of Science and Technology, Poland;
7. Fault detection and isolation in dynamic systems – classical approaches; Assoc. prof. dr hab. inż. Mirosław Świercz; Białystok University of Technology, Poland;
8. Flight safety management; Assoc. prof. dr hab. inż. Mariusz Zieja; Air Force Institute of Technology, Poland;
9. Hacking life sciences – case study based discussion; CEO MSc. C.Eng. MBA. Pawel de Sternberg Stojalowski; Aseptium Limited, UK;
10. Hacking life sciences; CEO MSc. C.Eng. MBA. Pawel de Sternberg Stojalowski; Aseptium Limited, UK;
11. Industry 4.0 where human play an important role; Prof. dr hab. Benoit Iung; University of Lorraine, France;
12. Predictive maintenance engineering; Prof. dr hab. Benoit Iung; University of Lorraine, France;
13. Risk assessment in aircraft operation and maintenance; Assoc. prof. dr hab. inż. Mariusz Zieja; Air Force Institute of Technology, Poland;
14. Sustainable entrepreneurship – engineering sustainable products; CEO MSc. C. Eng. MBA. Pawel de Sternberg Stojalowski; Aseptium Limited, UK;
15. Systems and technologies of intermodal transport; Prof. dr hab. inż. Sylwester Markusik; Silesian University of Technology, Poland;