AI IN STEAM EDUCATION: DEVELOPING CRITICAL UNDERSTANDING AND AI LITERACY AMONG LEARNERS

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Over the last few decades, we have witnessed an unprecedented technological revolution that has deeply impacted our everyday lives and work. This revolution was largely driven by: computerization, Worldwide Connectivity, mobile communications, and, most recently, AI, which is likely to be the most impactful of all the technologies mentioned earlier. These developments create both opportunities and challenges for education in general and for physics teaching in engineering education, where students are increasingly expected to use AI-supported tools critically, responsibly, and effectively for modeling, data analysis, experimentation, and problem-solving. Developing AI literacy has become an important element of modern STEAM education.

The ongoing AI2Schools (https://ai2schools.fizyka.pw.edu.pl/) Erasmus+ KA2 project focuses on integrating and implementing AI into STEM secondary school education through the STEAM approach. The main target group is secondary school educators and learners, including potential candidates for higher education studies. AI2Schools' results include documents, online courses, training materials, learning scenarios, and hands-on AI projects:

- AI curriculum Teacher Handbook – describes the methodology of AI application in formal and informal settings, and helps teachers introduce AI literacy to their students,
- Two AI hands-on projects that teachers may replicate during their lesson: These are the "AI body-beats" project, which utilizes the BBC micro:bit & the micro:bit Create AI Machine Learning environment and introduces AI through gesture recognition and music, and the "Visual Lab" project, which makes abstract mathematical concepts visible and dynamic,
- An open Moodle AI course enhanced with quizzes and assignments, and 3 webinars for teachers and educators.

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