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## **NEW CHALLENGES IN EDUCATION: TEACHING FUTURE ENGINEERS FOR THE INDUSTRIAL INTERNET OF THE THINGS AND INDUSTRY 4.0**

### **Abstract:**

A major topic that can dictate the success of the Industrial Internet of the Things (IIoT) is obviously related with the new challenges that arise in engineering education. New skills and knowledge are required for future engineers that must incorporate a broader range of abilities and qualifications. Students' social attitudes and collaborative working in multidisciplinary teams must also be properly addressed and stimulated during graduation. In this context, scientific and technological competences must be complemented with computing, communication, and even social, sustainability, social impact and behavioral science knowledges. The typical engineering knowledge core of math, physics and chemistry, must be substantially expanded. Students' curricula must be arranged according to these new required competences and skills and must emphasize students' attitudes, as well as communication capabilities.

This paper underlines some teaching strategies that can be considered to maximize the skills and the capabilities of future engineers for the Industrial Internet of the Things and Industry 4.0, including lifelong learning that must be a continuous activity of any engineering graduate.

### **Keywords:**

education; engineering; IIoT; Industry 4.0

**JEL Classification:** I23, I29, A00