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Introduction of micro and nanotechnology into the bachelor physics curriculum THUAS

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The bachelor curriculum at the Hague University of Applied Sciences (THUAS) for Applied Physics has been revised recently. The revision was designed in order to meet the latest conditions and demands from research (industry) laboratories, but also considering regional, national and European perspectives and interests. Although the general physics character of the curriculum is preserved, the role of the European Key Enabling Technologies (KETs) Micro- and Nanotechnology and Photonics has become more prominent, both on the educational level and on the research level. In order to introduce micro-technology at the bachelor level, a new minor Micro-technology, Processing and Devices (MPD) was launched. This minor intends to equip students with modern research skills, with a special focus on clean-room skills. Next, a new bachelor specialization semester nanotechnology was launched. This semester focuses on modern applications of quantum mechanics, especially in the fields of nanoelectronics, nanophotonics, quantum information and quantum computing. These are quite demanding topics for a bachelor student, and the chosen strategy for presenting these topics on a bachelor level is discussed. The revised curriculum is expected to meet high standards, and intends to equip students with solid basic theoretical knowledge and skills in such a way that the students are well prepared for challenging jobs in modern research (industry) laboratories.

Biography

Lodewijk Arntzen studied Physics in Amsterdam (NL) and completed his PhD in Physics at the Ruprecht Karls Universitat in Heidelberg, He is currently a Principle Physics Lecturer at The Hague University Of Applied Sciences (THUAS) in DELFT and works in the research group smart sensor systems of Prof. John Bolte. He is also an editor for het nederlands tijdschrift voor natuurkunde (eng. Dutch journal of physics).

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