Extract of the paper "Synergies between Geomatics and Health Sciences for the creation of new virtual materials for teaching podiatry"

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Abstract

Thermography as a methodology for quantitative analysis is not usually addressed in the degrees of the university programs of the Health Sciences branch, with the consequent deficiencies in technological tools in the training of future graduates. Therefore, this manuscript proposes a novel approach for the acquisition of advanced skills in the Health Sciences degree of podiatry, through the application of techniques and tools from Geomatics engineering and based on free/open-source software solutions. This strategy uses 3D visualization techniques on thermographic images to improve the interpretation and understanding of thermographic images related to the physiological and pathological analysis of the lower extremity. The specific workflow for the generation of didactic material related to this objective is proposed for asynchronous and e-learning programs, so that these virtual materials can be easily deployed on the institutional based-on Moodle platform, allowing students to enrich the learning. The application of Geomatics advances in the Health Sciences branch will improve students' critical thinking, so they will be better prepared to face future challenges in the labor market.

Citation

Keywords

Educational innovation; ICT; E-Learning; Engineering; Thermography; Podiatry

Link to the publisher

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