عنوان مقاله:

IMU Applications within STEM Branch: Cognitive,Behavioral, Practical and Design-Based Implementation Approach

محل انتشار:

ششمین کنفرانس بین المللی پژوهش های کاربردی در علوم و مهندسی (سال: 1401)

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خلاصه مقاله:

IMU Sensors have always been the main focus for applications concerning science, technology,engineering, and mathematics; recently, IMUs usage is blooming within interdisciplinary fields of study involving applications concerning designation where accuracy and precision are of high importance. The aforesaid applications can be implemented concerning state-of-art design projects, both within architectural and urban-based designs. Moreover, considering the wide applications of such systems in science and engineering, projects can be defined in clinical situations. In such cases, patient monitoring can be performed, including knee angle and head/neck posture performance analysis, where psychological and behavioral factors play a significant role in contributing appropriate diagnosis via provided questionnaires to the patients. In this research study, the main concentration is over investigation within the distribution of recent academic papers published with proposed applications of such systems, and finally, a novel design-based approach is then introduced and analyzed in detail and elaboration.

کلمات کلیدی:

Biomedical Applications, IMU Sensors, Design Approaches, Behavioral and Cognitive Approaches, STEM Branch

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