

Artificial Intelligence-Driven Motor Pattern Analysis for Early Mild Cognitive Impairment Screening: The E-Move Project

Wednesday, September 25, 2024 2:30 PM (20 minutes)

In recent years, there has been growing interest in exploring alternative, objective, and transparent measures as adjuncts to conventional diagnostic tools in the field of clinical and rehabilitative cognitive neurodegeneration. This interest stems from promising findings regarding the application of artificial intelligence (AI) systems for motor pattern analysis, which offer insights into the underlying conditions, their potential prognostic trajectories, and improvements in diagnostic methodologies.

The E-move project is positioned within this research paradigm and proposes the integration of AI systems and wearable technologies to enhance early screening and rehabilitation strategies within the domain of neurodegeneration, with a specific focus on Mild Cognitive Impairment (MCI). E-move is conceptualized as a screening tool that amalgamates conventional psychodiagnostic assessments with novel objective and transparent measurements. These measurements are acquired and analyzed through AI systems that interface with data streams from inertial sensors, cameras, and other pertinent devices. This approach aims to discern subtle alterations in cognitive behavioral patterns and spatial movement, which are correlated with the progression and precursors of MCI.

The incorporation of AI systems in this context holds promise for the development of advanced neuropsychological assessment protocols, thereby facilitating clinicians in devising more efficacious and timely interventions.

If you're submitting a poster, would you be interested in giving a blitz talk?

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E-Health: Tecnologie e Innovazioni per l'invecchiamento Attivo

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