



Health, demographic change and wellbeing

PARTNER SEARCH FORM

ORGANISATION NAME	Center of Advanced Technologies in Rehabilitation (CATR), Rehabilitation hospital, Sheba medical center, Israel		
ORGANISATION TYPE	<input type="checkbox"/> SME <input type="checkbox"/> Large Company	<input type="checkbox"/> University <input checked="" type="checkbox"/> Research Centre	<input type="checkbox"/> Consultancy <input type="checkbox"/> Public Administration
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H2020 Societal challenge	SC1: health, demographic change and wellbeing
Topic (from work program)	SC1-DTH-03-2018: Adaptive smart working and living environments supporting active and healthy ageing
Keywords	

CONTRIBUTION TO PROJECT <i>e.g. expertise, testing, lab facilities, etc</i>	<p>The Center of Advanced Technologies in Rehabilitation is equipped with state of the art laboratories of gait and virtual reality (VR). In the gait labs, we use motion capture systems that allow sampling human movement with high spatio-temporal resolution. Thus, we can reconstruct and analyze the kinematics of each motor action performed by the limbs or other body parts.</p> <p>In our gait lab, several special treadmills are equipped with dense force sensitive sensors which enable the measurement of the pressure application during stepping. Special carpet and force plates embedded in the laboratory's floor, allow capturing the pressure application during stepping also during over ground walking.</p> <p>Some of our treadmills have split belts, allowing the implementation of different speeds for each leg, and subsequently study and train adaptation processes related to inter-limb coordination and gait symmetries. Our equipment also allows us to study gait while the subjects are conducting their daily living activities at their home environments.</p> <p>Our VR laboratories are in the front line amongst most advanced VR labs worldwide (e.g., see figure). We are able to install different virtual environments, to use avatar technologies, and to provide real time feedback to the trained/studied subject to enable behavior modification. The subject's performance is also fed into the operating system to later the stimulation regime.</p> <p>As the largest hospital in Israel, we have ready access to different patients' populations (e.g., neurological, psychiatric, diabetes, orthopedic), and have on going collaborations with the clinical leaders in many medical disciplines.</p>
Did you participate in an FP project?	<p>We are currently participating as consortium partners in two H2020 projects: H2020-ICT-2014-1- MAMEM in which we are leading two more centers in a clinical trials work package. H2020-MSCA-ITN-2014 - PACE – in which we recruited a young researcher to join a young researcher network.</p>
YOUR intended role in the project	<p><input type="checkbox"/> Coordinator <input checked="" type="checkbox"/> Leading Partner <input checked="" type="checkbox"/> Partner</p> <p>Our role can be: (1) pilot feasibility and use ability trials in clinical cohorts and in healthy subjects including elderly; (2) clinical trials; (3) basic research of physiological aspects; (4) define user requirements including specific clinical users (5) leading work package. During the years and while participating in other H2020 projects, we have accumulated significant experience in such tasks.</p> <p>We are searching for: (1) Coordinator; (2) partners that complements our abilities, mainly engineering and IT partners.</p>