Wearable robotics for a sustainable ageing

Nicola Vitiello*[1]

[1]The BioRobotics Institute (SSSA) – Pise, Italie, Italie

Résumé

Résumé :
Ageing population affects society welfare sustainability. The ageing of the population is one of the most critical challenges current industrialized societies will have to face in the next years, and threatens the sustainability of our social welfare. In 40 years from now, nearly 35% of the European population will be older than 60, hence the urgency to provide solutions enabling our ageing society to remain active, creative, productive, and – above all – independent. Among many diseases, gait disorders and upper-limb impairment are common and often devastating companions of ageing, leading to reductions in quality of life and increased mortality.

In the next years, ageing-related upper- and lower-limb impairment and disability will lead to a tremendous increase of the number of people needing assistance in their fundamental activities of daily living. In this scenario, people will become increasingly reliant on technology to meet their own needs to live active, fulfilling, and independent lives. Wearable robotics can be an enabling technology for establishing a sustainable welfare.

This presentation will introduce the results achieved by the team of wearable robotics of the BioRobotics Institute of Scuola Superiore Sant'Anna in the last years.

Bio :
Nicola Vitiello received the PhD degree in Biorobotics from Scuola Superiore Sant'Anna on 2010. He is currently Associate Professor with The BioRobotics Institute, SSSA, where he leads the Wearable Robotics Laboratory. He is the author or co-author of more than 50 ISI/Scopus papers and more than 30 peer-review conference proceedings papers. He is/has been the scientific coordinator of several EU and national research projects. His interests include the development, experimental validation and maturation of novel wearable robotic devices for human movement augmentation, assistance and rehabilitation. On January 2015, together with colleagues he co-founded the spin-off company IUVO S.r.l.

*Intervenant