

# CLINICAL VISION ON DESIGN AND PERFORMANCE OF LOWER LIMB EXOSKELETON

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**H**uman motion is a complex, multi-disciplinary process to achieve finally, safe, balanced, bipedal ambulatory movement. When an individual loses his ambulatory function due to any pathological aetiology with an irreversible injury like spinal cord injury, stroke or any degenerative disorder. The recent exoskeletons focus on only one feature of motion process, which is ambulatory movement (flexion/extension of hip/knee), making balance mission on the crutches in patient's hands and these cases suffer from shoulder and elbow pain due to massive weight bearing on them during motion. Also it prevents patients of higher injuries to use these technologies because upper limb was affected by injury. This notes and problems let us to look in the design and try integrate other elements of human motion process in the design and functioning of exoskeleton. We designed bio-inspired technologies and neuro-like processing systems to self-balance the exoskeleton and the pilot at during all motion patterns and protect them from falling, achieving safety and dependency.

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