

# Exoskeleton Device

- ❑ Exoskeleton is the device that reside in category of wearable robotics, is an external structural mechanism with joints and links corresponding to those of the human body.
- ❑ Exoskeletons device can be used as a capability magnifier or assisting device for rehabilitation of spinal cord injury and stroke patients, elderly population etc.
- ❑ CSIR-CSIO working is in the area of Mobility Assistive Gait Device for Rehabilitation (MITRA) has designed and developed an active exoskeleton for lower limbs.

## Specifications and Features

- 6 Degree of Freedom (DOF) augmentations, one each for hip, knee and ankle joints of both limbs
- Prime components: The Exoskeleton Suit, Control Hardware, Interfacing Circuit Board, Touch Panel and Power system
- Software modes: Sit-stand mode, Walk Mode, Therapy Mode.
- Powered with rechargeable battery and can support 30 minutes of walking.



**Mobility Assistive Gait Device for Rehabilitation MITRA (मित्र) developed at CSIR-CSIO Chandigarh**