

# Rehabilitation Engineering

Authored by  
**mohammad looti**

November 19, 2022

## RECOMMENDED CITATION

mohammad looti (2022). *Rehabilitation Engineering*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=39279>

Rehabilitation engineering is the systematic application of engineering sciences to design, develop, adapt, test, evaluate, apply, and distribute technological solutions to problems confronted by individuals with disabilities. Functional areas addressed through rehabilitation engineering may include mobility, communications, hearing, vision, and cognition, and activities associated with employment, independent living, education, and integration into the community

While some rehabilitation engineers have master's degrees in rehabilitation engineering, usually a subspecialty of Biomedical engineering, most rehabilitation engineers have undergraduate or graduate degrees in biomedical engineering, mechanical engineering, or electrical engineering. A Portuguese university provides an undergraduate degree and a master degree in Rehabilitation Engineering and Accessibility. Qualification to become a Rehab' Engineer in the UK is possible via a University BSc Honours Degree course (such as the one at Coventry University.)

The rehabilitation process for people with disabilities often entails the design of assistive devices such as Walking aids intended to promote inclusion of their users into the mainstream of society, commerce, and recreation.

The Rehabilitation Engineering and Assistive Technology Society of North America, whose mission is to "improve the potential of people with disabilities to achieve their goals through the use of technology", is one of the main professional society for rehabilitation engineers.

Rehabilitation Engineering Research Centers conduct research in the rehabilitation engineering, each focusing on one general area or aspect of disability. For example, the Smith-Kettlewell Eye Research Institute conducts research for the blind and visually impaired. Many of the Veterans Administration Rehabilitation Research & Development Centers conduct rehabilitation engineering research

Within the National Health Service Rehabilitation Engineers (REs) are commonly involved with assessment and provision of wheelchairs and seating to promote good posture and independent mobility. This includes electrically powered wheelchairs, active user (lightweight) manual wheelchairs, and in more advanced clinics this may include assessments for specialist wheelchair control systems and/or bespoke seating solutions. Professional registration of NHS Rehab' Engineers is with the Institute of Physics and Engineering in Medicine (IPEM).