

Using IoT Technologies for Assistive Devices

With the advances in sensor and microcontroller technologies, there is expected to be a spurt in devices being used for a variety of applications, loosely called the Internet of Things (IoT). Our goal is to leverage these technologies to build embedded systems and wearables that offer persons with disabilities a more inclusive experience e.g. wearable devices that have inertial-motion-sensors can double as alternative and augmentative communication (AAC) devices, or be used to monitor compliance of physiotherapy exercises. Similarly, text to speech and speech recognition algorithms can be used to build devices for persons with autism or with hearing impairment. Through this talk we shall explore the different possible solutions and the challenges in translating them into products.