Smart Help at the Workplace for Persons with Disabilities (SHW-PWD)

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Abstract : The Smart Help for persons with disability (PWD) is a part of the project SMARTDISABLE which aims to develop relevant solution for PWD that target to provide an adequate workplace environment for them. It would support PWD needs smartly through smart help to allow them access to relevant information and communicate with other effectively and flexibly, and smart editor that assist them in their daily work. It will assist PWD in knowledge processing and creation as well as being able to be productive at the work place. The technical work of the project involves design of a technological scenario for the Ambient Intelligence (AmI) - based assistive technologies at the workplace consisting of an integrated universal smart solution that suits many different impairment conditions and will be designed to empower the Physically disabled persons (PDP) with the capability to access and effectively utilize the ICTs in order to execute knowledge rich working tasks with minimum efforts and with sufficient comfort level. The proposed technology solution for PWD will support voice recognition along with normal keyboard and mouse to control the smart help and smart editor with dynamic auto display interface that satisfies the requirements for different PWD group. In addition, a smart help will provide intelligent intervention based on the behavior of PWD to guide them and warn them about possible misbehavior. PWD can communicate with others using Voice over IP controlled by voice recognition. Moreover, Auto Emergency Help Response would be supported to assist PWD in case of emergency. This proposed technology solution intended to make PWD very effective at the work environment and flexible using voice to conduct their tasks at the work environment. The proposed solution aims to provide favorable outcomes that assist PWD at the work place, with the opportunity to participate in PWD assistive technology innovation market which is still small and rapidly growing as well as upgrading their quality of life to become similar to the normal people at the workplace. Finally, the proposed smart help solution is applicable in all workplace setting, including offices, manufacturing, hospital, etc.
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