

**MODIFIED PROBLEM STATEMENTS FOR HACKATHON 2020 FROM**  
**PANDIT DEEN DAYAL UPADHYAYA NATIONAL INSTITUTE FOR THE PERSONS WITH PHYSICAL**  
**DISABILITIES,**

**MIN OF SOCIAL JUSTICE AND EMPOWERMENT**

**Software/e-governance (re-edited statements)**

1. One step easy software based Job tracker for disabled (divyangjan)

**New Problem Statement Title- -One step easy software based Job tracker for disabled persons (divyangjan)**

**New Problem Statement Category --Software**

**New Problem Statement Description-**This software would enable each and every disabled person to get registered and to seek jobs based on their potential abilities at one click in various government agencies/offices.

2. Health guide monitor to check well-being and fitness quotient

**—New Problem Statement Title- -Health guide monitor to check well-being and fitness quotient in disabled person (divyangjan)**

**New Problem Statement Category --Software**

**New Problem Statement Description** This software would identify the key markers of health/well being and fitness to accordingly modify or take preventive measures during any alterations in health status as reflected by warning signs. Some markers of health includes body mass index (BMI) Haemoglobin, serum calcium, blood pressure etc. which would summarise the results after entering the data as fitness quotient

3. Portable Stress monitor to devise solutions for stress based on physiological parameters

**New Problem Statement Title- - Portable Stress monitor to devise solutions for stress based on physiological parameters for disabled persons (divyangjan)**

**New Problem Statement Category --Software**

**New Problem Statement Description—**This software would identify the indicators of stress and related aftermath or effects on body so as to take remedial measures during initial phase before the occurrence of secondary serious problems. The indicators of stress includes, blood pressure , blood sugar measurers of sympathetic system etc .

**4 . New problem Statement Title-** How can we improve of patient care management system in Rehabilitation.

**New Problem Statement Category** – software

**New Problem Statement Description-** The quality of patient care is essentially determined by quality of infrastructure, quality of training competence of personnel and efficiency of operational system. Patient care management system allows for delivery of services real time that can enable individuals to learn work, socialize and interact with community with without being subject to physical barriers, ex: ERP – (Entrepreneurship Resource Planning) software to be developed for efficient management of academic activities and service activities in the Prosthetics & Orthotics department. The department serves 4 ½ year Bachelor degree course in Prosthetics & Orthotics and Master in Prosthetics & Orthotics. Beside that Prosthetics & Orthotics department has assessment, fabrication and fitment Prosthetics & Orthotics lab.

**5. New problem Statement Title-** How physically disabled people (Divyangjan) can benefit from the virtual reality technology.

**New Problem Statement Category** – software

**New Problem Statement Description-** Virtual reality technology means the potential to try out – of - reach experience such as climbing a mountain, skateboarding or swimming in the sea perhaps for the first time for persons with disability ( Divyangjan) . Virtual reality Technology used in different ways by Prosthetist and Orthotist to design and fit novel Prosthetics and orthotics device. The usage of technology unsurprising to learn of the value of virtual-reality approaches in helping them to adapt to the absence of their missing limbs and improve their control of their new prosthetic devices.

**6. New Problem statement Title:** What are the applications of technology in the area of Neurorehabilitation

**New Problem Statement Category** – software

**New Problem Statement Description-** The main challenges that face both Institute and decision maker is how they are to integrate technologies and services in everyday routine and Institute how can take advantages. Solution for activities of daily leaving of patient with quadriplegia, ambulation by technology integration in P&O aids appliance for Divyangjan.

**Hardware (No changes suggested)**

1. Universal access ATM machines for disabled (divyangjan)
2. Universally accessible toilets for disabled (divyangjan)
3. Customised multifunctional convertible work surface for disabled to encourage various functional positions.