

Technology Adaptation for Persons with Multiple Disabilities having Multi Sensory Impairment in Skill training set up through Mechatronic devices.

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INTRODUCTION:

The Department of Adult Independent Living, NIEPMD with the Support of Department of Science and Technology (DST) under the scheme "Technology Interventions for Disabled and Elderly" (TIDE) initiated a project, Titled "**Technology Adaptation for Persons with Multiple Disabilities having Multi Sensory Impairment in Skill training set up through Mechatronic devices**".

Training adult in Skill training setup, particularly persons with Multiple Disabilities, needs proper planning and adaptation, to bring out the maximum output. Keeping this in view, the said project was initiated in the Department of Adult Independent Living (AIL). This devices mainly works on the main principle of stimulation to the tactile sense. By this method the individual are conditioned to perform the basic need activities in skill training setup independently. Similarly the same procedure was established for generalization in home environment.

FUNDING:

This project was funded by Department of Science & Technology. The duration of the project was two years. The sanction budget was Rs. 3 Lakhs. As an outcome of this project, a review on the progress of the activities was held at Hyderabad on 10th January 2014.

OUTCOMES:

- A multi-sensory Mechatronic devices (vibrator) for use by the Instructor in the Work and Home Environment.
- Easy communication system for Teacher, Peers & Parents.
- Developed, Prototype suitable for skill training setup.

WORKING MECHANISM

- Works on the main principle of stimulation to the tactile sense.
- Conditioned through learning principles
- Bracelet type gadget
- Operation key board with switches for keys On /Off
- Dc volt and Solar operated
- Cost effective
- Easy to handle

KNOWLEDGE PARTNERS:

- National Institute for the Mentally Handicapped (NIMH).Hyderabad (AP).
- Shree Maruthi Artificial Limb centre Purasavakkam, Chennai.
- Anna University college of Engineering, Chennai.
- Indian institute of Technology, Chennai.
- National Institute for Technical Teachers Training and Research- Chennai.

SHARING OF INFORMATION:

The above information shared in the following forum:

- Presented a paper on 3/12/2014,-TIDE Exhibition cum Exposition - International Day of Persons with Disabilities, organised by department of Science and Technology - New Delhi.
- Participated in Exhibition 22/08/2014 – Organised by Confederation of the Indian Industry, TNPC & NIEPMD at Chennai.
- Poster Presentation on 29/10/2014- International Conference on Empowerment of Persons with Disabilities- Vigyan Bhavan, New Delhi.

Development of Mechatronic Devices:



Prototype



Final Product (Device)



Visitors from Meghalaya - NIEPMD as part of exposure visit.



Exhibition stall - 22/8/2014 - Organised by Confederation of the Indian Industry, TNPC & NIEPMD, at Taj Hotel, Chennai.



Exhibition stall – 17/11/2014 Makkal Karutholi Iyakkam - Puducherry.



Exhibition stall - 06/02/2015 – National Conference on Assistive Technology in Education and Sport for total Inclusion of Persons with Disabilities - Ramakrishna Mission Vivekananda University, Coimbatore.



Poster Presentation for Persons – 29/10/2014- International Conference on Empowerment of Persons with Multiple Disabilities – Vigyan Bhavan - New Delhi.



Exhibition stall on 03/12/2014 - Indian Habitat –Centre - New Delhi.



Paper presentation - 3/12/ 2014 - Exhibition cum – International Day of Persons with Disabilities – Indian Habitat Centre – New Delhi.



Exhibition stall on 27/09/2014 Disabilities camp of Aids and Assistive Device for Persons with Disabilities - S.V University – Tirupathi, Andhra Pradesh.