National Institute of Technical Teachers Training and Research, Chandigarh

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Newsletter

His Excellence V.P. Singh Badanore, Governor, Punjab addressing during 'Developed Villages Developed Nation' (Sansad Adarsh Gram Yojna) on 26.06.2018. As an outcome of discussions, during the visit of Hon'ble Governor, Punjab, Sh. JM Balamurugan, IAS, Principal Secretary to Governor, Punjab asked the institute to take a lead role in connecting academic institutions for village upgradation. Sambandh Punjab is launched which was conceived by Professor (Dr.) SS Pattnaik,Director of the institute.

Sambandh Punjab is an initiative started with the overarching goal to connect the Universities and Colleges with the Society around them for mutually beneficial engagement and to establish a culture of University Social Responsibility. The participating Universities and Colleges will not only adopt villages around their vicinity to support their long-term development but also implement several innovative schemes in their campus in alignment with the National Flagship development schemes to improve the standards of governance in their institutions. "Sambandh Punjab" website is a one-stop platform created by the "National Institute of Technical Teachers Training and Research, Chandigarh" for information sharing among all participants in this programme. The participating institutions can upload their information, showcase the best practices and initiatives.

2nd International Conference on Communication, Computing and Networking was organized by department of Computer Science & Engineering from 29-30 March, 2018. Dr. Raghuram Rao Akkinepally, Director, NIPER Mohali. Dr. C Rama Krishna, Dr. (Mrs.) Maitreyee Dutta, Dr. Rakesh Kumar were the co-coordinators. 113 papers were presented in the conference

Meeting with DTEs of various states regarding Future Strategies for Technical Education, June, 2018

International Yoga Day Celebrations on 21.06.2018

Education & Training of Persons with Disabilities (PWDs) in India

Prof (Dr.) JS Saini
Professor & Head,
Entrepreneurship Development & Industrial Coordination

1 World-wide Disability Landscape

Throughout human history,people with dysfunctions and disabilities have been present. Over the time, while the general condition of mankind has improved the population with disabilities has seen limited improvements to their situation, because medical interventions have been unable to bring about full restoration of their abilities. Currently,around 15 per cent of the world's population,or an estimated one billion people, live with disabilities, making them the world's largest minority spread across all countries and communities. According to the WHO, this figure is increasing through population growth, medical advances and the ageing process. Eighty per cent of persons with disabilities live in developing countries, according to the UN Development Programme (UNDP). However,prevention and early detection programs are few and typically with limited impact in the developing countries; the treatment and corrective options are also limited in these countries. Studies on disability legislation show that only 45 countries have anti-discrimination and other disability-specific laws. Even in those countries that have such laws enforcement is weak and hence the effect of the legislation does not reach the general population. As a consequence of these factors,PWDs are often marginalized in society, and end up with a poor quality of life. Mentioned below are a few facts which describe the status of PWDs world over:

- Over a billion people world over live with some form of disability; People with disabilities often do not receive needed health care.
- Children with disabilities are less likely to attend school than non-disabled children.
- People with disabilities are more likely to be unemployed than non-disabled people.
- People with disabilities are vulnerable to poverty; Rehabilitation helps to maximize functioning and support independence.
- People with disabilities can live and participate in the community.
- The Convention on the Rights of Persons with Disabilities promotes, protects & ensures the human rights for people with disabilities.

2 Disability Landscape in India

According to the Indian Census 2011, a total of 26814994 persons are disabled in India, which implies that 2.21% of the total population of India is disabled. This figure is many magnitudes lower than the 15% reported for the world. This leads us to believe that in the Indian context, there is gross under reporting of the disabled population. Further, it can be reasonably concluded that services needed for this population such as early intervention, education, employment and inclusion are not addressed adequately. Though accurate studies have not been done, it is estimated that, in India, around 5 million people are speech and hearing impaired, around 10 million have autism spectrum disorders, and around 5 million have cerebral palsy and related multiple disorders. Then there are populations with other.

2.1 Incidence of Disability in India

As per censuses 2011, the country had 26814994 PWDs. Disability wise number of PWDs across the country is shown in Table 1.

Table 1: Disability wise number of PWDs in India

Sr. NO.	Type of Disability	No. of Disabled Persons	%
1	In Seeing	5033431	18.77%
2	In Hearing	5072914	18.92%
3	In Speech	1998692	7.45%
4	In Movement	5436826	20.28%
5	Mental Retardation	1505964	5.62%
6	Mental Illness	722880	2.70%
7	Any Other	4927589	18.38%
8	Multiple Disability	2116698	7.89%
	Total	26814994	100%

Figures in Table 1 pertain to disabilities covered under the PWD Act 1995. This act has been revised by the GOI in 2016 and the present Act in force titled RPWD Act 2016 recognises the following disabilities: 1 Blindness,2 Low-vision,3 Leprosy Cured persons, 4 Hearing Impairment (deaf and hard of hearing),5 Locomotors Disability,6 Dwarfism, 7 Intellectual Disability,8 Mental Illness,9 Autism Spectrum Disorder,10 Cerebral Palsy, 11 Muscular Dystrophy, 12 Chronic Neurological Conditions, 13 Specific Learning Disabilities,14 Multiple Sclerosis,15 Speech and Language Disability,16 Thalassemia,17 Hemophilia,18 Sickle Cell Disease,19 Multiple Disabilities including Deaf-blindness,20 Acid Attack Victim,21 Parkinson's Disease.

2.2 Institutions for the Support of the PWDs in India

The institutions for disability service and support in India are few and far between. While many of the government institutions such as RCI,National Trust,AIISH,NIMH,NIVH, NIOH,NIEPMD,SVNIRTR,AYJNIHH,NIMHANS,ICDS,provide extremely valuable services to PWDs, the quantum of demand from the disabled population is far more than their current capacity, and even among them there is no institution focused on disability studies and higher education for the disabled. There are also several NGOs in the field of disabilities, such as Vidyasagar, ADAPT, IICP, ASHA, AADI, Blind People's Association, Amar Jyoti Foundation,EnAble India,Devnar Foundation for the Blind,in different parts of India that provide a valuable service and make an important contribution in their communities.

2.3 Implications

The limited availability of services for PWDs, across the spectrum ranging from prevention and early intervention to education and gainful employment to rehabilitation and integration into society,leads to marginalization of PWDs in India and their inability to develop to their full potential. This is a huge loss to them and the nation. The PWDs do not get the early intervention, education or skill development opportunities as envisaged in the Right to Education Act of 2009. There is a cultural barrier due to the shame felt by the families in having a person with disability in the household and that prevents the family from seeking the appropriate help and support from outside agencies.

3 Present Status of School Education & Higher Education for the PWDs in India

3.1 Educational Attendance of Disabled Children (5-19 years)

- The Census 2011 showed that,61% of the disabled children aged 5-19 years are attending educational institution.
- Among the disabled children aged 5-19 years who were attending educational institutions,57% are male children.
- The rate of school attendance of disabled children (5-19 years) is higher in urban areas (65%) compared to rural areas (60%).
- Among all the female disabled children (5-19 years), 60% are attending institutions, while among the male disabled children, 62% are attending educational institutions.
- 54% of the disabled children with multiple disabilities never attended educational institutions. Also, 50% of the children with mental illness never attended educational institution.

3.2 Educational Status of Disabled Population

- Disability may act as a major impediment in formal education. However,the educational attainment of disabled persons is important in improving their living conditions.
- According to Census 2011,of the total disabled population,nearly 55% (1.46 Cr.) are literates.
- Out of the male disabled population,62% are literates and among the female disabled 45% are literates.
- Amongst the disabled,67% and 49% of them are literates in urban and rural areas respectively
- Among the total disabled persons,45% are illiterates. 13% of the disabled population has matric/secondary education but are not graduates and 5% are graduates and above. Nearly 8.5% among the disabled literates are graduates.
- Among the male disabled persons,38% are illiterates. 16% of the disabled male population has matric/ secondary education but are not graduates and 6% are graduates and above. About 9% among the male disabled literates are graduates.
- Among the female disabled persons,55% are illiterates. 9% of the disabled female population has matric/ secondary education but are not graduates and 3% are graduates and above. About 7.7% among the female disabled literates,are graduates.
- In urban areas,67% of the total disabled persons are literate vis a vis 49% in rural areas.
- Amongst the disabled who are literates, only 15% and 5% of them are graduates in urban and rural areas respectively.

3.3 Participation of PWDs in Indian Higher Education

Total enrolment in higher education was estimated to be 35.7 million with 19.0 million boys and 16.7 million girls. There were 70967 PWD students enrolled in higher education during 2016-17, out of which 40894 were male and 30073 were female students.
(Source: All India Survey on Higher Education 2016-17,GOI,New Delhi)

4 Prevailing Models of Education & Training for the PWDs in India

From the above it is evident that PWDs constitute an integral part of Indian Education System. Due to complex nature of disabilities,variety of disabilities and intensity of disability in different individuals, no single model of education and training of the PWDs can be considered universally applicable. Prevailing models of education and training of the PWDs are as under:

4.1 Exclusive Model of Education for the PWDs

Under this model,the PWDs are segregated and provided education and training by specially trained instructors/faculty. Most of the NGOs and some of the Govt. Aided educational and training institutes in India work on this model. JSS Polytechnic for the Handicapped,Mysore; Dr. Amedkar Institute of Technology for Handicapped,Kanpur (for diploma level programes), Govt. ITI for the Handicapped, Sundernagar (HP) and College of Engineering for the Deaf at Kalasalingam University in Tamil Nadu are a few examples of such exclusive model of of education for the PWDs.

4.2 Inclusive Model of Education for the PWDs

Under this model, students with disability are mainstreamed with students without disabilities. Instructions are usually imparted by mainstream instructors/teachers. Increasingly, the services of resource instructors/teachers are made available so as to supplement the efforts of mainstream instructors/teachers in education and training of the PWDs. This model is prevalent in most of the Govt., Govt. Aided and Private education and training institutions across the country. 50 polytechnics spread over 24 States and UTs in India are implementing a Centrally Sponsored Scheme titled Integrating Persons with Disabilities in the Mainstream of Technical and Vocational Education for providing Vocational and Technical Education to students with disabilities in an inclusive environment.

4.3 Mixed Model of Education for the PWDs

Under this model a significant percentage of students with disabilities are made to study with students without disability. Such models have experimented both at school and higher education level. Dr. Amedkar Institute of Technology for Handicapped,Kanpur is one such model of mixed education for the PWDs. Under this model the institute offers B. Tech programs wherein 60% seats are reserved for the PWDs and remaining 40% seats are offered to students without disability. Govt. College of Art, Chandigarh and College of Art at New Delhi are also practising a mixed model of the Fine Art education for the Deaf and hearing students.

5 Suggestive Plan for Strengthening School Education & Professional Technical Education for the Students with Disabilities

Considering the situation in India mentioned above, it is important that the country provides adequate resources with a long-term vision covering the whole gamut of services in the field of disability including rehabilitation, school education and professional technical education of the PWDs. At school level,efforts need to be made to make provisions for adequate number of resource teachers to work in the mainstream schools for supporting education of students with mild and moderate disabilities. In addition, at least one exclusive school for the students with severe and profound disabilities be established in each block of the district across the country. Traditional universities, engineering colleges and other technical institutes under the provision of 5% reservations for the PWDs focus on a variety of courses and research programmes that are considered attractive in terms of income potential and career advancement in the market place. Exclusive professional and technical education courses in institutions are found missing. With a view to bridging this gap, a few leading technical institutions across the country need to offer technical and professional programs in engineering and technology at different level exclusively for the PWDs. It is strongly recommended that at least one ITI for students with disabilities at district level, one polytechnic for such students for a cluster of 3-4 districts and at least one engineering college for the students with disabilities be established at the state level across the country.

A two days International Conference on Clean Technologies and Sustainable Development was organized jointly with Chitkara University,Himachal Pradesh from 23-24 February, 2018 in collaboration with the Ministry of Science and Technology, Department of Scientific and Industrial Research, Govt. of India, New Delhi. Quality Council of India played the role of Knowledge Partner and FICCI assisted in organizing this conference as an Industry Partner. Over 362 academicians, researchers, teachers, administrators, officers, industry professionals, architects and students attended the conference.

With YMCA University of Science and Technology (Haryana State Government University), Faridabad (January 11, 2018)

With Semi-Conductor Laboratory (Department of Space, Govt. of India), Mohali (February 2, 2018)

SIGNINING OF MOUs

Superannuation

Shri Ashutosh Kapila Senior Producer 30.04.2018	
Sh. JL Verma Electronics Engineer 30.06.2018	
Dr. Vinod Vasishth Senior Translator 30.06.2018	

Training programmes conducted during

Programme Mode	January - March, 2018	
	Number of Programmes	Number of Teachers Trained
Contact Mode	59	854
Training Programmes through ICT	17	4056
Programme Mode	April - June, 2018	
Conta ct Mode	50	1050
Training Programmes through ICT	14	2190

Significant Achievements :

NITTTR, Chandigarh is notified as a National Resource Centre by Ministry of Human Resource Development, Govt. of India in Electrical and Electronics Engineering on 02.05.2018.

Department of Education & Educational Management,NITTTR,Chandigarh has undertaken a sponsored Research Project: 'Assessment of Faculty working in both Government and Private polytechnics under the State Council for Technical Education & Vocational Training,Govt. of Odisha'. The objectives are: a) To recognize and register the faculty of polytechnics in the state of Odisha; b) To study the status of faculty of polytechnics in terms of their qualification,experience (including industrial if any),training programmes attended; c) to determine the extent of knowledge and skills possessed by them on the basis of their profile and identify the gaps; and d) To suggest suitable interventions for improving the technical education particularly in polytechnics of Odisha state.

Electrical Engineering Department completed two Consultancy Projects: a) Street Lighting Inspection,Municipal Corporation of Panchkula; and b) Emergency Vehicle Pre-emption - Department of Science & Technology (DST) Project.

The institute has organized a DSTSponsored Training Programme: Entrepreneurship Awareness Camp from 22-24 January,2018 at GPW,Chandigarh (UT).

Faculty and Staff Achievements :

Dr. P Sudhakar Rao

Assistant Professor obtained Ph.D. degree in the field of Mechanical Engineering on 'Studies on Electrochemical Honing of External Cylindrical Surfaces' on 8th March, 2018 from Indian Institute of Technology,Roorkee.

Er. Amrendra Sharan

Junior System Programmer,completed M.Tech. (Information Technology) from CDAC Mohali.

Training Programmes attended by Faculty & Staff outside the institute:

Er. Amit Doegar

Assistant Professor,Computer Science & Engineering attended a training programme on 'Image and Video Forensics' from 12th to 16th March 2018 at Tripura University.

Dr. PS Rao

Assistant Professor,Mechanical Engineering attended a training programme on 'Composite materials in engineering application design and manufacturing prospective' from 15-19 January, 2018 at IITMandi.

TEAMING TOGETHER NITTTR CHANDIGARH

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