

# Newsletter

## January 2017

### Editor's Note

Hi friends,

Happy New Year!!

Starting the New Year on a cheerful note and looking forward to accessible public places as 2017 is the International Year of Sustainable Tourism for Development. I also look forward for an increased readers participation in Connect Special.

This edition features a discussion thread on the new bill, some new assistive technology, an innovative inclusion idea and pointers for accessible tourism.

Happy Reading!

Regards

Bhavna Botta



### The New Bill - An Activist's Perspective

**Abha Khetrapal**

The Rights of Persons with Disabilities Bill 2016, passed in December has replaced the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 and this change was long due.

After many years of waiting and all the struggles to level the playing field, the bill comes as an assortment of agreeable and non agreeable changes. The right to free legal aid is quite a welcome move as persons with disabilities are mostly unable to afford legal help.

Another remarkable part is inclusion of autism, dyslexia, deaf-blindness and other impairments taking the number of disabilities to 21 now. The process of procurement of disability certificate has been extremely difficult and time-consuming in our country since ages. Moreover certificate from one state was not considered by another state. The new law now brings in much-needed change. The RPWD Bill provides that henceforth such certificates "will be valid across the country". But the bill does not specify the time frame for a certificate of disability to be issued.

There are some points on the non agreeable side of this Bill. the clause "appropriate Governments shall, within the limit of their economic capacity and development, formulate necessary schemes and programmes to safeguard and promote the rights of persons with disabilities for adequate standard of living, to enable them to live independently or in the community". But the term "economic capacity" is unclear and is liable to be used subjectively and remains under the risk of multiple interpretations as per convenience of different parties.

# Newsletter

## January 2017

It is unfortunate that reservation has decreased to 4 from 5% and with three fold increase of other impairments, how is the government going to cope up with this percentage, remains an area of debate.

The Bill continues with the provision of having a chief commissioner and state commissioners. But nowhere is it mentioned that the commissioners or any of the members of their advisory committees are required to be Persons with Disabilities. It is against the idea of 'nothing about us without us'.

Another controversial point in the Bill is the Section 3(3) of the Bill which has a clause of discrimination as "any distinction, exclusion, restriction on the basis of disability" which impairs or nullifies the exercise on an equal basis of rights in the "political, social, cultural, civil or any other field".

However, it accepts such discrimination if "it is shown that the impugned act or omission is a proportionate means of achieving legitimate aim". The term 'legitimate' is completely subjective and can be misused by bureaucracy .



Abha Khetarpal, President, Cross the Hurdles, is a counselor for persons with disabilities and a disability rights activist. She has been providing free online counseling to persons with disabilities since 2011. She is a disability rights activist. She is an awardee of #100 Women Achievers Award by Ministry of Women and Child Development.

# Newsletter

## January 2017

### **From the Heart –**

### **Inclusive Education: Every child's Right**

**-Bro K K Thomas ,Principal & Correspondent**

#### **Q. Tell us about the school**

Montfort School, St. Thomas Mount strives to impart Inclusive Education since the last 12 years from June 2004 to address the learning needs of children with special needs, with a particular focus on those who are subject to being isolated and excluded.

The philosophy behind inclusive education is to promote opportunities for all children to participate, learn and have equal treatment, irrespective of their mental or physical abilities. It also brings in harmonious interaction between the normal students and students with special needs which helps in increasing the confidence of the children with special needs to aspire for a valuable education like their normal peers and also educates the others to be empathetic towards everyone in the society.

#### **Q. How do you implement this**

Inclusion at Montfort is done with the help of institutions specialized in special education and inclusion support. Initially we worked with Vidya Sagar at Koturpuram, Chennai. Currently 3 institutions including, Vidya Sagar, Kare & Abyas are mutually working with the Shadow teachers and the staff and management to provide customised curriculum according to the child's need and

ability.

#### **Q. Can you please share some experiences?**

Every day is a learning experience where new strategies and methodologies are applied to make the learning process easy and interesting; this cannot be possible without co-ordination of the class/subject teacher, shadow teacher, special Education/inclusion support staff & the parents.

It is indeed a challenging mission where we need to strike a balance with the children who follow the regular curriculum and the children with special needs as it is not merely an academic change, but it involves social and communal change among the students, extra-ordinary dedication and sensitivity in the teacher and acceptance in the parents of both the normal children as well as children with special needs

In the last couple of years we have been getting more and more requests for admissions for students who need inclusion & we are trying our level best to accommodate students with varied special needs along with children following the regular curriculum.

#### **Q You conduct an interesting Unified Sports meet, what is it?**

As part of our pioneering efforts we have been conducting the UNIFIED SPORTS MEET inviting students from institutions such

# Newsletter

## January 2017

as MCDS, Swabhodhini, etc .The inclusive sports meet has team games (every team has a few students with special needs) and inculcates inclusion and harmonious interaction.

As the saying goes 'Small drops of water,make a mighty ocean',we at Montfort Mat Hr Sec School, St Thomas Mount believe that this small seed sown now will definitely bear abundant fruits in the years to come and make life more meaningful for every member of the Montfortian Family.



# Newsletter

## January 2017

### **New Innovations at R2D2**

**-Dr Sujatha Srinivasan**

**We have heard and seen many innovative developments from R2D2 lab; please tell us about the genesis of this**

Rehabilitation Research and Device Development (R2D2) lab (now the TTK Center for R2D2) was established by me in the Department of Mechanical Engineering at IIT Madras with a focus on assistive device development.

The motivation behind is the millions of people in India with loco motor disability who lack access to good quality, functional assistive devices that are also affordable. The mission of R2D2 is the design and development of assistive devices to enable users to live fuller, more independent lives. R2D2 collaborates with NGOs, hospitals and rehabilitation centers working in the field of disability.

Various sources fund the projects of R2D2 - SBMT (a DRDO society), DBT, Wellcome Trust, TTK group and alumni schemes of IIT Madras.

**Could you please share some key innovations?**

#### **Standing wheelchair (SWC):**

For wheelchair users, standing is a necessary activity to prevent secondary problems like pressure sores. However, it is very difficult to accomplish without assistance. R2D2's SWC design enables the user to self-stand in the wheelchair with low upper-limb muscular effort. The design can

be customized to various users with a target price of a good quality manual wheelchair.

Commercialization is in progress in partnership with an industry and an NGO partner for user-testing with funding from the Wellcome Trust (WT), UK. The goal is a certified SWC at an affordable price so that every wheelchair user can afford this device.

#### **Body-movement-wheelchair (BMW):**

Children with cerebral palsy (CP) have no means of independent mobility. They cannot self-operate a manual wheelchair and lack fine motor control to operate a joystick-controlled motorized wheelchair.

BMW allows the user to use whatever gross body movement they are capable of – trunk, hands, head, etc. – to operate the device. The device can be calibrated within a minute to adapt to a new



# Newsletter

## January 2017

user. A light-weight version of this device is under development.

### **Saathi walker:**

The objective of this project is to develop a self-propelled mobility device for children with loco motor disability. Existing walkers are either too difficult for some children with CP to use independently or too expensive.

The project aims at developing an affordable, ergonomic independent mobility device for such children who may otherwise be able to walk only with support from a caregiver. The walker we are developing would aid children with CP to “walk” independently with minimal assistance and reduce the burden on the caregiver as well.

The second prototype we are working on includes a seat and a sit-to-stand mechanism so that the child can stay in the device for longer periods of time.

**Swimming Pool Lift:** Hydrotherapy is beneficial for people with musculo skeletal impairments. However, getting into and out of the pool is awkward and arduous: they have to be pushed in and be pulled out of the water, which is challenging and risky. The pool lift lowers the users into the water and brings them up safely. We are working on a version of this lift that can be operated manually.

### **All-terrain wheelchair (Optimus):**

It is a manual lever-operated wheelchair for use outdoors in rough terrain. The design makes use of locally available

bicycle parts and is therefore easily repairable and affordable. The mechanism to attach and detach the lever is very easy to use so that the user can easily switch chair to push rim mode. The elongated base frame ensures stability on rough terrain. With brakes located on the pushing levers, the user can stop the chair quickly. The wheelchair has a small turning radius making it easily maneuverable in tight spaces. The wheelchair is also foldable, making it easy to transport.



Dr. Sujatha graduated with her B.Tech in Mechanical Engineering from IIT-Madras

in 1992, her MSME from the University of Toledo, USA in 1994, and after a long stint in the prosthetics industry, her PhD from the Ohio State University in 2007. She joined the faculty at IIT-Madras in 2008. & work is in the areas of Prosthetics and Orthotics, Biomechanics and Mechanisms



# Newsletter

## January 2017

### Central Access

**Reader (CAR)** is a free, open source text-to-speech program designed for students with print disabilities (e.g. ADHD, dysgraphia, dyslexia, and visual impairment) that deciphers



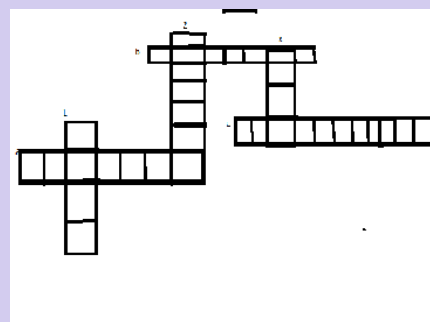
mathematical notations, equations, and symbols that most screen readers do not support. CAR was created at Central Washington University by Spencer Graffe, a senior computer science major who conceived it as a capstone project. Central Access, which furnishes accessible educational materials to CWU students with disabilities

### Tips to make a place accessible for all-

- Building ramps
- Enlarging doorways to accommodate wheelchairs
- Redesigning seating and parking spaces
- Braille signs, clear signage
- visual fire alarms&Assistive listening system
- Installing grab bars in wash rooms

### Vertical

1. Incline
2. Act of stopping and disengaging a vehicle
3. vertical transportation



### Horizontal

- a. Accommodation to sit
- b. Tactile writing system

c. Translates speech orally or into sign language.



**For comments and subscriptions**

**[botta.bhavna@gmail.com](mailto:botta.bhavna@gmail.com)**

**[www.connectspecial.com](http://www.connectspecial.com)**