

# DOORS OPEN WHEN THEY OPEN WHEN THEY OPEN WITHIN

Equitable Use Equitable Use Equitable Use Equitable Use  
Flexibility Flexibility Flexibility Flexibility Flexibility  
Simple and Intuitive Simple and Intuitive Simple and Intuitive  
Perceptible Information Perceptible Information Perceptible Information  
Tolerance for Error Tolerance for Error Tolerance for Error  
Low Physical Effort Low Physical Effort Low Physical Effort  
Size and Space for Approach and Use Size and Space for Approach and Use



The 2nd NCPEDP-Mphasis Universal Design Awards  
Openness & Inclusiveness for All



NCPEDP MPHASIS  
UNIVERSAL DESIGN  
AWARDS

The NCPEDP-Mphasis Universal Design Awards logo stands for the spirit of Freedom and Celebration. The disabled person appears to be throwing her/ his arms up in the air in celebration of the awards and the hope they bring to so many. The dynamic oval form gives an illusion of constant motion suggesting that people can achieve whatever they want, regardless of the odds stacked against them.

The orange colour further enhances this optimism of the new universal and inclusive world.

## About NCPEDP



Registered as an independent trust in 1996, National Centre for Promotion of Employment for Disabled People (NCPEDP) is a non-profit voluntary organisation working as an interface between Government, Industry, International Agencies and Voluntary Sector towards empowerment of persons with disabilities.

NCPEDP's mandate encompasses a host of activities from encouraging the employment of disabled people to increasing public awareness on issues concerning disability, empowering disabled people through appropriate legislation, equipping disabled people with educational opportunities and ensuring easy and convenient access to all public places.

In the past 14 years, NCPEDP has established itself as a leading cross-disability organisation. In fact, NCPEDP pioneered the concept of cross-disability in our country, which was later strengthened by the formation of the National Disability Network (NDN) in 1999. Since then, NCPEDP has been successful in reaching disabled people across all states and union territories of the country and has successfully advocated several policy changes for empowerment of people with disabilities.

With support from Mphasis and in association with AccessAbility and BarrierBreak, NCPEDP has instituted The NCPEDP-Mphasis Universal Design Awards.

[www.ncpedp.org](http://www.ncpedp.org)

## The NCPEDP-Mphasis Universal Design Awards

Conservative estimates put the population of disabled people in India at 70 million. Only a miniscule percentage of this population can be seen in the mainstream. The core reason for this is the basic lack of access. Accessibility not only means access to physical spaces but also means access to information, technology, transport, services, aids and appliances, etc.

Access, therefore, is an issue that cuts across disabilities and sectors and forms the very basis of empowerment of disabled people. A concept that is intrinsic to any kind of access is 'Universal Design', which means a design that is usable to the greatest extent possible by everyone, regardless of age, ability, or situation.

With a view to spreading awareness of Universal Design and popularising the concept, these awards will be conferred under three categories: persons with disabilities, working professionals and companies/ organisations. Across categories, the awards will recognise innovative efforts that create an impact in the area of accessibility and Universal Design. It is expected that, in time, the awards will gain recognition and credibility as also encourage more and more people to work in the field of promoting access and Universal Design.

Access symbolises the true spirit of freedom as far as persons with disabilities are concerned. These awards are therefore, being given away on August 14, the eve of our Independence Day. Never before has one award meant so much to so many.



## **Som Mittal**

President of NASSCOM, the premier IT-BPO Industry trade body, Som Mittal has a rich and wide ranging work experience of over 30 years in corporate India, including 20 years in IT industry. A member of the National Integration Council and the National E-Governance Plan implementation body chaired by Hon'ble Prime Minister, he is also on the Governing Board of several educational institutions including the IITs at Bangalore, Delhi and Hyderabad. He is an alumnus of IIT, Kanpur and IIM, Ahmedabad.



## **Dr. Govind**

Dr. Govind is Senior Director & HoD (E-Infrastructure & Internet Governance Division), Department of Information Technology, Government of India. After his doctorate from IIT, Delhi he worked in IIT and thereafter joined the Government. His experience covers the fields of policy and technology development in the domains of Internet & Broadband and Internet Governance. As CEO of National Internet Exchange of India (NIXI), he is responsible for setting up of Internet exchange points in India and .IN Registry. He is presently working towards the use of Internet for inclusive growth and its multilingualisation in the Indian context.



## **Papiya Sarkar**

A post graduate in Urban Design and senior architect in CPWD Delhi, Papiya Sarkar has worked for creating barrier free environments for over 20 years. This includes partnering with architects and planners to make Indian Missions abroad and Passport offices in India accessible for disabled persons. She is currently working to make Central Government buildings in Delhi accessible.



## **Vinnie Mehta**

Vinnie Mehta, Executive Director, Automotive Component Manufacturers Association of India (ACMA) is an Electrical Engineer from IIT-BHU, an MBA from FMS, University of Delhi and a Masters in International Trade from the Indian Institute of Foreign Trade (IIFT). He has been actively involved in promotion, growth and development of the auto component industry in India. Prior to joining ACMA, he headed the Manufacturers' Association for Information Technology (MAIT), the apex body of the IT hardware Industry in India.



## **Rema Nagarajan**

An Assistant Editor with The Times of India, Rema Nagarajan earlier worked with Hindustan Times and the Pioneer. She has been writing regularly on issues regarding the rights of persons with disabilities for over one and a half decades. Through her writings, she has helped to highlight the policy gaps when it comes to implementation of disability rights and has also ensured continued focus on issues touching various aspects of the lives of people with disabilities including accessibility, employment and inclusive education.



## **Dr. Meenu Bhambhani**

Global Head of Corporate Social Responsibility, Mphasis, Dr. Meenu Bhambhani worked with the World Bank and NCPEDP in the past. She has led and sustained diversity initiatives at Mphasis, with specific focus on disability. Her efforts have resulted in the company not only becoming a positive recruiter of disabled persons, but also a role model for others.

# Category A PERSONS WITH DISABILITIES

Awards in this category are given to people with disabilities who have created an impact in accessibility and Universal Design in any of the areas such as built environment, transport infrastructure, service provision, information and communication technology (ICT), universally designed consumer products, mobility & independent living aids, or assistive technology in their personal/professional capacity.

The work that the person has done can be in policy framework, grass-root level implementation, design and development, access audits, or even the rights movement/advocacy.

Every year, this award will be given out to 3 people across the country.



## Arvind Ramesh Praboo

The basic problem of disabled people is that the society just does not see enough of them in the mainstream. This thought consumed Arvind Praboo who has been a wheelchair user for the last 24 years due to a road accident and he started working towards providing accessible transportation to people with disabilities. Access4All was born in 2008 and has been providing invaluable assistance to disabled people in the city of Mumbai.



His vision is to have franchises all over the country who will provide door to door pick up and drop service to people with disabilities. Arvind Praboo is also the Executive Vice President of Vijay Merchant Rehab Centre for the Disabled which has empowered over 900 disabled persons by providing them telephone booths in Mumbai. He is also a patron and advisor to 'UMANG' which is a home away from home for the mentally and physically disabled adult orphans.

# REINVENTING THE WHEEL

The city has virtually no dependable travel facility available for the physically challenged. The efforts of these two very driven men are changing that for the better

**Arvind Praboo**

Arvind Praboo has been a wheelchair user for the last 24 years due to a road accident. He started working towards providing accessible transportation to people with disabilities. Access4All was born in 2008 and has been providing invaluable assistance to disabled people in the city of Mumbai.

**Praboo and Praboo**

The city has virtually no dependable travel facility available for the physically challenged. The efforts of these two very driven men are changing that for the better.

Praboo and Praboo have started a service called Access4All, which provides door-to-door pick-up and drop-off services for people with disabilities. The service is run by two very driven men, Arvind Praboo and Praboo, who are both wheelchair users. They have started this service because they realized that there was a huge gap in the market for accessible transportation in Mumbai.

Praboo and Praboo have started a service called Access4All, which provides door-to-door pick-up and drop-off services for people with disabilities. The service is run by two very driven men, Arvind Praboo and Praboo, who are both wheelchair users. They have started this service because they realized that there was a huge gap in the market for accessible transportation in Mumbai.

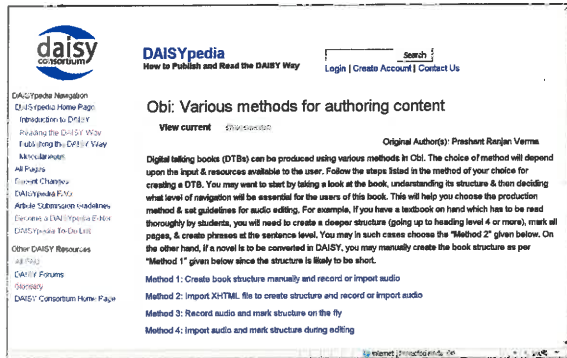
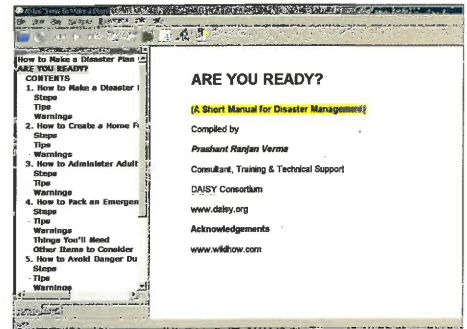
## Prasant Ranjan Verma



Prasant has been working as a DAISY advocate, an International Trainer and as a technical support since 2002. He has been involved in establishment of accessible digital content production facilities, storage systems and distribution systems in more than a dozen countries. DAISY Standards or Digital Accessible Information System is widely accepted as the most Accessible Reading and Publishing

System for All including persons with disabilities.

He established the first Assistive Technology Helpline and has created innovative IT based solutions for making routine tasks accessible for visually impaired people such as the Bank Cheque Printing Template. He has conducted web accessibility trainings and has helped in making many websites accessible for persons with disabilities. Prasant, a recipient of the National Award from the President of India in 2007 for his outstanding work is now involved in the setting up of 100 ICT Labs in small towns all over the country with the aim of taking accessible IT solutions to the grassroots.



## Shrirang Prakash Sahasrabudhe

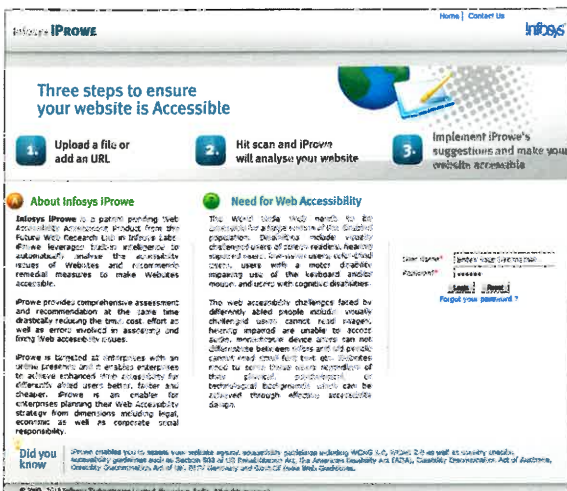


Inspite of an overnight sight loss at the tender age of 13, Shrirang Prakash Sahasrabudhe completed his schooling with other sighted students and then went on to do a BA in Maths and a Masters in Computer Management. Since then he has been actively involved in developing solutions that enable visually impaired people to access computers and internet. He designed and developed



solutions like "SpeakPad", "ReadNetForMe" for visually impaired persons, as well as "TeachMeTyping", a talking keyboard-typing tutor. During his freelancing stint, he also contributed to the development of the "Adaptive Multimedia Information System" open source DAISY playback software.

In his present role as an accessibility specialist at Infosys, he critically contributed to conceptualizing and building iProve, an automated web accessibility assessor. In Infosys, he is also engaged in consulting and user experience support in the areas of accessibility of websites and applications. He is a co-inventor of 4 patents in the areas of web accessibility and has won the CSI Young IT Professional Award for the year 2006. He regularly speaks, blogs, and publishes papers on the topic of accessibility.



## Category B WORKING PROFESSIONALS

Awards in this category are given to people who work for the cause of accessibility and Universal Design in any of the areas such as built environment, transport infrastructure, service provision, information and communication technology (ICT), universally designed consumer products, mobility & independent living aids, or assistive technology.

She/ he may be an employee of an education institute/ NGO/ corporate/ government body that has taken up the cause, or may be a consultant or freelancer who has devoted her/ his time for the cause. Her/ his individual contribution to the cause is a major reason for the success achieved by the organisation/ firm/ movement.

She/ he may also be an individual who is involved in the cause independent of any organisational support and has achieved significant success in the core objective of gaining accessibility for disabled people.

Every year, this award will be given out to 3 people across the country.



### Prof. Abir Mullick

Abir Mullick, Professor, Georgia Tech in Atlanta, is a strong proponent of universal design and is internationally known for inclusive designs that deal with social justice, personal empowerment and collective equity. He is one of the co-authors of the Seven Principles of Universal Design, USA. Mullick serves as the Jamsetji Tata Chair for Universal Design at the National Institute of Design. Recently, he

co-authored the Universal Design India Principles along with eight Indian experts. A recipient of 2010 Fulbright-Nehru Award, he has researched universal access to public toilets in Indian slums; developed India specific research methods, conducted contextual research and designed public toilets for universal access. Mullick has directed many sponsored projects and is a winner of many design awards including the coveted IDEA awards and American Society of Aging award. His designs have been

published extensively in national publications, including the Wall Street Journal, Popular Science and Business Week.





### Prof. Anupam Basu

The research interests of Prof. Anupam Basu, considered to be a pioneer in Assistive Technology research in India, include Intelligent Systems, Embedded Systems and Language Processing. His research resulted in a number of cost effective Assistive Systems, which are presently in use at several centres and disability organisations.



The systems include Sparsha, an educational toolset for the sightless; Sanyog, a multilingual iconic communication system for the neuro-motor disordered children; Chitra-Katha, an auto-scan voice output communication aid for the speech impaired, to mention a few. He works very closely with different disability organisations and groups, making them aware of the possibilities of technical support and helping them in that regard. He is also leading national efforts in developing accessible material and documents for the blind.

A Professor at the Department of Computer Science and Engineering, IIT Kharagpur, Prof. Basu is a Fellow of the Indian National Academy of Engineering. He is a recipient of the National Award for the Best Technology Innovation for the Physically Disabled (2007), and the Da Vinci Award (2004).



### P. J. Mathew Martin

As a Mass Media Professional at Ali Yavar Jung National Institute for the Hearing Handicapped (AYJNIHH) since 1989, he works towards promoting accessible media. He is the Coordinator for the One Year Post Graduate Diploma Course in 'Media and Disability Communication' at AYJNIHH. This course is a pioneering effort of AYJNIHH and Department of Communication & Journalism of the University of Mumbai. In this course,



the media professionals and students are given training in specific skills to make mass media accessible to persons with disabilities.

He created the 'AYJNIHH-NEWS' in Universal Design. This is a 'YouTube' based News Channel that implements the concept of Universal Design in the news media. 'AYJNIHH-NEWS' is in Indian Sign Language with Captions for deaf persons and Closed Captions in 61 languages using the machine translation facility and audio for the blind. The 'AYJNIHH-NEWS' is updated constantly. The video is linked to the accessible website of AYJNIHH: <http://www.youtube.com/user/AYJNIHHNEWS>. He is part of the team that won the International 'We Care Filmfest 2011' Award for the Indian National Anthem in Universal Design and 'Manthan Award South Asia 2009 for E-inclusion'.



## Category C COMPANIES/ORGANISATIONS

Awards in this category will be given to those companies or organisations who have taken up the cause of accessibility and Universal Design in any of the areas such as built environment, transport infrastructure, service provision, information and communication technology (ICT), universally designed consumer products, mobility & independent living aids, or assistive technology.

Companies/ organisations that have implemented either/ all of these within their organisations, which has led to them recruiting or serving people with disabilities and providing them equal opportunities to participate to the best of their abilities.

These can be any type of an education institute, NGO, corporate, government body, private sector, public sector, joint sector, SME or even proprietorship/ partnership firms. The selection criteria will not only be for adopting accessibility policies, but also for implementing them at the workplace.

Every year, this award will be given out to 4 companies/ organisations across the country.



### Accessible Systems

Accessible Systems, a software firm based in Mumbai, is committed to making digital content, like websites, and digital documents – more readable and accessible. This not only serves people with print disability, that is, people who are unable to read printed material, but also works very well for those without any disability by simplifying their access to information. Formed in late 2010, the firm is propelled by a vision of a world, free from barriers to access!

The technology developed by Accessible Systems provides a rich reading experience for people who read on digital platforms – mobile phones, tablets, computers, etc – and hence also for people who depend upon use of assistive technology for reading. This technology converts websites and digital documents (e.g. pdf and doc files) to more reader-friendly formats – EPUB and DAISY. These formats have specially been designed for display and rendering on digital devices, and further, they have been designed for accessibility. This leads to a greatly enhanced reading experience for all people, whether using assistive technology or not.

The firm, Accessible Systems, has two products – DocPort and NewsPort. These convert documents and websites respectively to DAISY or EPUB. Both these products are available for PC and Android

platforms, where they have met with great response from people – blind as well as sighted.

Further, the firm is working with different organisations for improving reading accessibility for people with different disabilities. One such organisation is Saksham Trust, New Delhi, with whom a project is underway for providing newspapers and school and college books in an accessible digital format. The firm is also partnering with Apps4Android, a US based company, which focuses on improving accessibility of the popular Android mobile platform. Apart from this, Accessible Systems is participating in a study-project launched by Universitat Pompeu Fabra, Barcelona, Spain, for designing methods to improve the access to information for people with dyslexia.

The founders of Accessible Systems – Gaurang Kanvinde and Saurabh Gupta, both graduates of Indian Institute of Technology, Bombay – firmly believe that technology must simplify lives and empower people, and their work clearly demonstrates this!

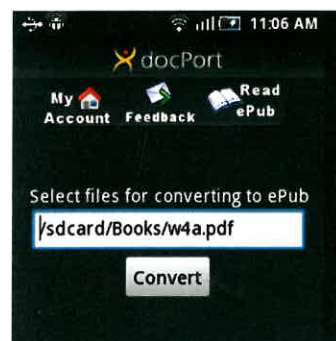
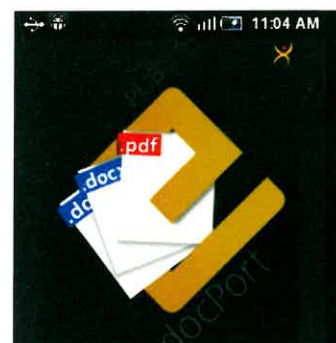


Table of Contents	
AccessibleNewsPDF Created Document	1
FEDERAL COMMUNICATIONS COMMIS...	1
47 CFR Parts 1, 6, 7, and 8	1
Implementing the Provisions of the C...	2
Summary	15
I. Introduction and Overview	15
II. Background	29
III. Statutory Definitions	45
IV. Implementation Requirements	228
V. Industry Guidance	260
VI. Section 717 Recordkeeping and ...	268
VII. Section 718 Internet Browsers B...	342
VIII. Procedural Matters	347





## Lemon Tree Hotels Pvt. Ltd.

Since its inception in 2003, Lemon Tree Hotels, India's largest chain of upscale hotels and resorts has designed each property with an emphasis on easy accessibility to deliver a trouble free experience to people with disabilities.

This experience starts from the ramp at the entrance which provides easy access to the lobby/ reception on the ground floor. The lobby area in turn provides trouble-free access to the elevators, specially designed public toilets, and the coffee shop located on the ground floor. Each Lemon Tree has at least one specially designed room for orthopaedically disabled people which is located near elevators (and mostly on the first floor). These rooms are equipped with large sliding doors; low height vision panels; barrier free spacious bathrooms with grab bars equipped with low height wash basins and adjustable hand showers and sliding door wardrobes with low height hangers.

In addition, an audio-visual fire alarm system and an alarm button are installed within easy reach, for emergency situations.

Accessibility is a key consideration right from the design stage and in some instances, the operating hotels too have been redesigned to incorporate better accessibility features. At Lemon Tree Aurangabad, a hotel which the company acquired, the entire entrance was redesigned to incorporate ramps. Also, elevators were installed for easy movement of physically disabled guests.

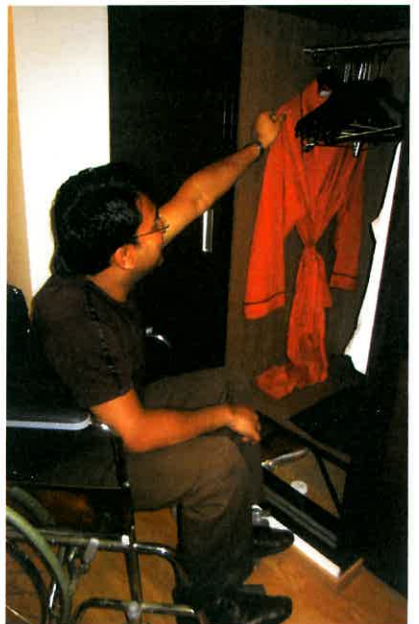
Not just in terms of physical infrastructure, Lemon Tree also strives to make its work areas accessible to people with disabilities. The company is an equal opportunity employer and currently employs over 100 people with disabilities in both guest facing and back of the house areas. All Lemon Tree staff are sensitised to the needs of their disabled colleagues and guests and are also trained to communicate in ISL (Indian Sign Language) with the help of external professionals.



The company works with numerous NGOs and disability organisations in its initiative to make itself a more disabled friendly place and going forward plans to incorporate blind people in the workforce.

Lemon Tree believes in offering a refreshingly different experience to all its stakeholders and

this commitment includes offering easy accessibility to both, disabled employees as well as guests.



## Select Citywalk



Select Citywalk is the brainchild of 3 passionate individuals, Mr. Yograj Arora, Mrs. Neeraj Ghei and Mr. Arjun Sharma, who in the early 2000s envisioned the creation of a world class Destination Shopping Centre in India. Mr. Inder Sharma, former owner and Chairman of SITA World Travel is the Chairman of Select Infrastructure Pvt. Ltd.

This mall has been designed to be a disabled friendly shopping destination. The operations of the mall are also aimed at being disabled friendly. From free movement of wheelchairs to disabled friendly washrooms on each floor, including the basement, Select Citywalk is one of those few malls that make people with disabilities feel welcome. All entrances are equipped with ramps and railings and there are automatic doors to ensure smooth movement. Parking spaces are reserved for people with disabilities along with free valet service. The mall also keeps readily available wheelchairs in the premises. There is golf cart service in the basement.

The access to PVR cinema had steps, where a trek chair has been put in place. There are plans to replace this with a platform lift very soon.

Elevators have also been designed in a disabled friendly manner. Grab bars and hand rails are provided inside the lifts for people with mobility impairments.

Select Citywalk has also undertaken an access audit to evaluate the accessibility of the mall.

Medical aid rooms along with nursing attendants are available for emergencies. The mall also has a tie up with a hospital for quick response.

The management of Select Citywalk mall is committed in their constant endeavour to make this centre accessible and friendly to all people with disabilities.

Select Citywalk takes pride in being a responsible organisation. They have conducted various events targeted at people with disabilities.

Since its inception, Select Citywalk has received

several awards and felicitations. This includes the 'Most Admired Mall of India', The Images Shopping Centre Awards for the years 2008, 2009, 2010 and 2011.

Select Citywalk aims at being a unique shopping experience which is inclusive for all. The Corporate philosophy of Select Citywalk is "there is only one Harrods; it is not about how many malls you can make, it is about how well you can make them".





## TBox Apps and UniqMove

Tbox Apps together with their partner, UniqMove have spent time working directly with people with communication disabilities and professionals in the industry to develop two apps for the iOS devices, which result in the device becoming a communication aid. This makes it relatively more affordable for people needing support to communicate their needs in the community in a socially inclusive manner, using the latest technology.

'Predictable' is a voice output communication aid (VOCA), which enables people with motor neuron disease, cerebral palsy or other impairments to chat easily with their families and in the wider community. By offering features such as switch accessibility, integration with facebook and email, people with these communication disabilities can stay connected.

'Scene & Heard' is a ground breaking Visual Scene Display approach to augmentative communication.

It is a multilingual capable app, where teachers, parents or therapists create interactive communication scenes that can speak a message, play a video, or link to a new scene. It is all supported by Widgit symbols. Visual scene displays are essential for aiding new communication aid users in early communication and learning. Understanding the importance of accessibility for people with communication and physical disabilities, and also the power of using mainstream technology in an affordable price bracket, TBox Apps and UniqMove's commitment is to provide these applications to Indian communication aid users.

TBox Apps had a good understanding of the Indian market. Partnering with UniqMove, they have designed the applications to be global in reach and yet understanding the need for an affordable communication aid in countries such as India. Both are keen to continue to support the Indian market and with the next release of 'Predictable' (in August 2011), they will also be offering an Indian English voice option.

This partnership between Therapy Box (TBox Apps) and UniqMove, shows the value of collaborative working to achieve goals for the benefit of a wide and global user group of people with communication disabilities. Having made in-roads into using affordable technology while not only matching other traditional devices on features, TBox Apps and UniqMove are taking it to a new level.





## National Centre for Promotion of Employment for Disabled People

### NCPEDP

A-77, South Extension Part II, New Delhi 110 049, India.

Phone: +91-11-26265647/ 48 Fax: +91-11-26265649

E-mail: [secretariat@ncpedp.org](mailto:secretariat@ncpedp.org)

[www.ncpedp.org](http://www.ncpedp.org)



Mphasis is a \$1 billion global service provider, delivering technology-based solutions to clients across the world. With currently over 41,000 people, Mphasis services clients in Banking and Capital Markets, Insurance, Manufacturing, Communications, Media & Entertainment, Healthcare & Life Sciences, Transportation & Logistics, Retail & Consumer Packaged Goods, Energy & Utilities, and Governments around the world. Our competency lies in our ability to offer integrated service offerings in Applications, Infrastructure Services, and Business Process Outsourcing. We are uniquely positioned to offer our clients the highest level of expertise and competitive costs.

Mphasis is an equal opportunity employer that offers equal employment opportunities to all job applicants, ensuring compliance to relevant laws that prohibit discrimination for employment. To know more about Mphasis, log on to [www.mphasis.com](http://www.mphasis.com)

## Our Partners



An Architectural Access and Universal Design Consultancy that provides design solutions to include persons with disabilities. The firm's motto, Access = Ability reinforces its belief that an inclusive environment significantly contributes towards making a better tomorrow for all. Being India's most credible Access Consultants, they take pride in being pioneers of the country's accessibility movement as also for introducing Access Consultancy as a professional service in the country, thereby bridging the knowledge gap in indigenous construction and design industries. To sum up in their words – for most people, accessibility makes things easier; for people with disabilities, it makes things possible.

[www.AccessAbility.co.in](http://www.AccessAbility.co.in)



A firm believer in using technology as an enabler in the lives of persons with disabilities, BarrierBreak Technologies' pioneering work in the area of Accessibility and Assistive Technology dates back to 2004. Some of its Electronic and Information & Communication Technology initiatives include creation of disabled friendly websites; product testing to ensure universal design; Sign-N-Talk that empowers the lives of deaf people in India, Digital Talking Book conversion for people with print impairment and Techshare India, an international platform for raising awareness about Accessibility and Assistive Technology. Perhaps, BarrierBreak's commitment to the cause of disabled people can be best appreciated by the fact that three-fourths of its staff comprises of persons with disabilities.

[www.barrierbreak.com](http://www.barrierbreak.com)