

# Xavier's Resource Centre for the Visually Challenged

St. Xavier's College, Mumbai





Launch of the accessible canteen menu of the St. Xavier's College Mumbai



# **Breaking Barriers**

Training on Inclusive Education for professors of IIT Madras



Advanced MS Excel training for persons with visual impairment at XRCVC-Viviana Extension centre





Students participating in a cricket match for the visually impaired

# Achieving Access



A video magnifier being lent to a student as a part of our Assistive Technology Lending Scheme



Our youngest students with visual impairment being trained to use the Brailler

### **About Us**

The Xavier's Resource Centre for the Visually Challenged (XRCVC), a department of St. Xavier's College, Mumbai, was set up in 2003 as an Assistive Technology support centre for students with visual impairment in higher education. Through its various initiatives over the past two decades, it has grown into a national-level pandisability direct support and training centre, a state-of -the-art Assistive Technology hub promoting accessibility and accessible solutions in larger society, and an awareness centre championing the rights of persons with disabilities (PWDs) and creating policy impact at micro and macro-levels.

#### **Our Vision**

A diverse and inclusive world where all, irrespective of disability, can thrive.

#### **Our Mission**

Engage with diverse stakeholders to accelerate inclusion in education, products, services, and mindsets through replicable models, research, technology, and advocacy-based interventions.





### **Our Work**

XRCVC's interventions are three-pronged:



**Inclusive Education & Learning** — aims to provide access to quality education to lay the foundation of dignified and independent living for persons with disabilities

Accessible Products & Services – aims to make Assistive Technology and Services as well as mainstream inaccessible products and services more accessible and affordable





**Awareness & Policy Engagement** – aims at building an inclusive world by transforming mindsets about persons with disabilities



The Abacus being demonstrated as an AT as a part of an Antarchakshu® awareness event



Laboratory Skills training for high school students with visual impairment



# **Inclusive Education & Learning**

Our Inclusive Education & Learning programme improves access to and quality of inclusive education to enable independent living for persons with disabilities. It addresses the challenges of lack of trained teachers, special educators, lack of training services and accessible teaching-learning resources.

#### This is achieved through:

- Training programmes for persons with disabilities, both needs based and standardised, designed to facilitate their inclusion in educational institutions, workplaces and the larger community
- Trainings for special and mainstream educators to create more inclusive educational institutions
- Consultancy services through our SHAMIL (Services Harnessing Accessibility Models to Inclusive Learning) Programme to educational institutes to help replicate our 360-degree approach to inclusion
- Creation of accessible books and teaching-learning aids as well as research into the fields of accessibility of educational content and educational aids



# **Impact (as of December 2024)**

- 7,600+ PWDs reached
- **5,900+** stakeholders reached through **170+** stakeholder trainings
- **2,000+** teaching-learning aids (TLAs) in a TLA Library
  - **700+** books created in accessible format

### **Key Achievements**

- ★ Subject matter experts via an MOU with National Institute for the Empowerment of Persons with Visual Disabilities, Ministry of Social Justice and Empowerment, Government of India for promotion of accessible STEM (Science Technology Engineering and Mathematics) education
- ★ Conducted trainings for Rehabilitation Council of India (RCI) for the Continued Rehabilitation Education (CRE) of special educators across the country
- → Training partners for the Maharashtra State Faculty Development Academy (MSFDA) on inclusive education in higher education institutes
- ★ Consultants for premiere institutes across the country like IIT Delhi, IIT Madras, Ashoka University, Maharashtra University of Health Sciences (MUHS) on various aspects of inclusive education policies and practices



# **Accessible Products & Services**

Our Accessible Products and Services programme aims to improve accessibility of mainstream inaccessible products, services and infrastructure as well as affordability and availability of effective Assistive Technologies for persons with disabilities.

#### This is through:

- Accessibility Testing of products and services; and User
   Feedback for website and mobile applications development
- Testing for Assistive Technology companies for developing affordable user technologies
- Providing consultancy services to organizations to make their services and infrastructure accessible



# **Impact (as of December 2024)**

250+ Assistive Technology available in-house

**100+** products tested



# **Key Achievements**

- ★ Trainers for Election Commission of India, State Election Commission, Jharkhand and Rehabilitation Council of India for creation of accessible documents and social media posts
- ★ Key consultants to Indian Banks' Association (IBA), NCR Corporation of India and Diebold India for design and deployment of 30,000+ accessible talking ATMs across India
- Supported end-to-end development of accessible IFT physiotherapy machine for practitioners with visual impairment
- → Designers of the accessible Air Safety Manual and in-flight menu for Akasa Air
- → Designed and developed first audio-tactile restaurant menu for Bombay Blue Restaurant – listed in the Limca Book of Records
- ★ Accessibility testing and user feedback for websites and apps like MyJio, Amazon.in, Jet Airways, PayTM, etc.
- → Provided inputs for low-cost local Assistive Technologies such as BrailleMe, Smart Cane and KIBO

# **Awareness and Policy Engagement**

Our awareness and policy engagement initiatives focuses on building an inclusive world, one mindset at a time, by addressing myths and misconceptions about lives of persons with disabilities.

#### We achieve this through:

- Antarchakshu<sup>®</sup> a simulation-based sensitisation and awareness workshop
- Diversity Discourse a structured learning programme designed to develop an inclusive mindset
- Access-Setu Assistive Technology awareness exhibitions
- Tech Roshni regular awareness sessions on developments in Assistive Technology for persons with disabilities to bridge the digital divide for them





# **Impact (as of December 2024)**

- **44,500**+ persons reached through **660**+ Antarchakshu<sup>®</sup> awareness events and workshops
- **13,000+** persons reached through Assistive Technology awareness exhibitions
- **1,300+** persons reached through **45+** Diversity Discourse Courses across various institutes

# **Key Achievements**

- → Providing print access to the print disabled through Copyright (Amendment) Act 2012 through our advocacy efforts
- ↑ Change in RBI and NSDL rules and regulations for independent operation of bank accounts and Demat accounts for persons visual impairment
- ★ Changed the CBSE, HSC, Physiotherapy and Psychology education rules for students with visual impairment



Orientation and Mobility training for students with visual impairment



A person with visual impairment using an Accessible ATM machine



Antarchakshu $^{\rm @}$  workshop for the frontline staff of Central Railways – Travelling Ticket Examiners and RPF at the CST headquarters

# **Our Global Reach**



- India
- United Kingdom
- Germany
- Kenya
- Nigeria
- Ghana
- Oman
- Bangladesh
- Malaysia
- Philippines



### **Testimonials**

From a very young age, I had a dream of becoming a doctor and it seemed impossible after I became visually impaired at the age of 8. However, XRCVC showed me that I could take up physiotherapy. By doing this, it has helped me make my dream come true. I am a successful professional today and I owe it to XRCVC.

#### - Dr Kritika Purohit, Physiotherapist

Initially, I had a limited understanding about the use of the computer, participating in the computer training, my knowledge about computer usage has now improved to a reasonable degree of confidence.

As indicated, the computer training had a tremendous significant impact on my knowledge about the use of the computer. I can now use the computer with ease without any major impediment. 99

- Mohammed Salifu, XRCVC Computer Training student,
Ghana

What XRCVC meant to me goes beyond words and expression in any form. The computer skills I gained at XRCVC have infused confidence, sense of independence and evergrowing ambitions in me. It opened up the limitless horizon of knowledge before me. Proficiency (to some extent) acquired because of XRCVC is still serving me in all areas of my studies, profession and social life. Moral support by XRCVC at all time and of all kind has stabilized me from within. I could have the idea of pursuing civil service as a career option because of support system provided by XRCVC. I have achieved the success in Civil Services Examination because I transformed greatly in XRCVC as a confident person. The personality of Prof. Sam Taraporevala always serves as a role model for me on how a leader should be.

- Pranjal Patil, IAS Batch of 2018

- - XRCVC is a resource centre which along with all the resources provides us a way to use those resources in the most effcient way possible. Any service without proper guidance to use it is useless, and XRCVC totally eliminates such instances. I have always wanted to become an IT professional, though the world tries to dissuade me. Each time it does, XRCVC helps me break the barriers. XRCVC is like my best friend, whom I trust to hold me if I fall, to hold my hand if I can't find a way, and hence my driving force to live my life just like any other person without disability.
    - Ronak Shah, PhD candidate, Cybersecurity department,
       Technical University of Delft in the Netherlands
  - The Faculty Development Programme (FDP) really helped me enhance my knowledge about students with disabilities and how we as teachers can play a very important role in making the college more inclusive. Please continue to organize such programmes. Looking forward to more such events.
    - Suraj Agarwal, Assistant Professor, Gargi College, Delhi (FDP Participant)



- I thank XRCVC for helping me during my Graduation...I also came to know about the college fest Antarchakshu and I volunteered in the fest. XRCVC also helped me by alloting a buddy to help me. I also wish to thank Xavier's college as I learnt the basics of stone painting during ECC hours and I'm following my passion of making and selling stone arts.
  - Nehal Tiwari, Associate Consultant Technology
     Consulting, E&Y India
  - Antarchakshu... changes your outlook completely and helps remove barriers in terms of limiting [persons with disabilities] to certain jobs and roles only".
    - Angelica Desiree Pinto, Manager Talent Acquisition,
      Hindustan Unilever
  - When I was a student at St. Xavier's, XRCVC extended all kind of support and assistance to me. They arranged a motorised wheelchair for me to use within the college premises.
    - Ibrahim Parkar, Associate Software Engineer, Deloitte



# **Our Publications**

#### 2020-2024

- ★ Accessible ATMs in India A Retrospective and Prospective View A case for enhancing accessibility of ATMs for persons with visual impairment
- → Building Blocks of Inclusion: Policy Paper for Physiotherapy Education and Practice for Persons with Blindness and Low Vision in India
- ★ Regulatory Gaps in Physiotherapy Education and Practice in India: A Ground-Level Challenge – A Policy Paper for Upholding the Rights of Education and Equality for Persons with Blindness and Low Vision
- → Off to School VI Go A Report on XRCVC's Inclusive Education Project
- ★ Accessible E-Content Creation Standards and Guidelines
- → Banking On Accessibility A Case for Accessible Banking for Persons with Disabilities (PwDs)

#### 2015-2020

- → Degrees of Accessibility A 360° User Perspective Report on Existing Accessible Geometry Construction Kits for Students with Blindness with Disabilities (PwDs)
- → ABC of Inclusive Publishing

#### 2010-2015

- ★ Equip Your World A Synoptic View of Access Technologies for the Visually Challenged
- ★ 'I' for Inclusion A Handbook on Mainstreaming Education for Students with Blindness and Low Vision
- → Numbers and Reactions A Report on How Maths and Science Can be Made Accessible for the Visually Challenged
- → Bankers Guide to Inclusive Banking
- ★ Limitations of the Licensing System to Create Accessible Copies for the Print Impaired: A Policy Paper
- → Write-Right: Understanding Homonyms Better

# **Our Journey**



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2003

XRCVC is set up as an Assistive Technology Centre for students with visual impairment

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 2006

Started Advocacy Programs to build inclusion in wider systems and processes

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2012

Started Inclusive STEM Research and intervention  $\mbox{Trademarked Antarchakshu}^{\mbox{\scriptsize $\mathbb{R}$}}$ 

**Q** 2

2015

Set up our new facility at Viviana Mall, Thane XRCVC-Viviana Extension

Started school level intervention based on STEM learnings

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2016

Expanded work to other disabilities

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2022

Scaling through Consultancies and Trainings

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2024

National Award 2024 conferred by the Government of India Divyang Sashaktikaran Hetu Sarveshrestha Sansthan (Inclusive Education)



Special skills training for special educators of Muskan Foundation



Antarchakshu® Workshop at a corporate office





Honourable CM of Goa at an Assistive Technology exhibition by XRCVC at Purple Fest, Goa 2023



Launch of the Accessible Menu created by XRCVC for Bombay Blue Restaurant which has found mention in the Limca Book of Records

# **Awards and Recognition**



National Award 2024 - Divyang Sashaktikaran Hetu Sarveshrestha Sansthan (Inclusive Education)
Government of India.



Sarojini Trilok Nath National Award of the National Association for the Blind, Delhi - Best Institution - 2023



Nipman Foundation Microsoft Equal Opportunity Award Enabler Category (Inclusive Schools - Higher Education) to St. Xavier's College, Mumbai recognising the work of the college and the XRCVC - 2018



Louis Braille Award by the Shree Pragna Chakshu Mahila Seva Kunj, Surendranagar, Gujarat to Dr. Sam Taraporevala - 2016





Dr Sam Taraporevala, Executive Director – XRCVC awarded the "Angels of Mumbai" by the Free Press Journal – 2023



Dr Sam Taraporevala, Executive Director, XRCVC was awarded the 11th Shell Helen Keller Award by the NCPEDP - 2009



Dr Sam Taraporevala conferred NCPEDP Mphasis Universal Design Awards 2010 for impact in the area of accessibility and universal design (For Banking and accessible ATMs)



Dr. Sam Taraporevala, Executive Director, XRCVC was awarded CNN-IBN's citizen journalist award - 2008



Dr. Sam Taraporevala, Executive Director, XRCVC was nominated and recognized by Hindustan Times as part of their 'Spirit of Mumbai' campaign - 2008

# XRCVC at National and International Policy-Making Bodies

#### **★ XRCVC, St. Xavier's College, Mumbai**

 XRCVC was granted observer status by the World Intellectual Property Organization (WIPO), Geneva, Switzerland.

#### **→ Dr. Sam Taraporevala (Executive Director – XRCVC)** was

- Member, Braille Council of India
- Member, General Council of the National Institute of the Visually Handicapped (NIVH)
- Member, Indian Banking Association's Sub-Committee on ATM systems for Visually Challenged Persons
- Member of the Expert Committee to decide and list out modern Assistive devices for all categories of PWDs under revised ADIP Scheme, Department of Disability Affairs, Ministry of Social Justice and Empowerment, Govt of India.
- Member, Civil 20 (C20) Working Group on Education and Digital Transformation the official engagement group under India's G20 Presidency to bring forth civil society organizations (CSOs) voices to the G20 leaders

- Member, Sub-group on Accessibility, Mobility, Research & Innovation to give inputs for the 12th Five-year Plan
- Vice president and Chair Policy implementation for the Daisy Forum of India (DFI).
- Member of Sub-Committee of Experts constitute by the Ministry of Education for drafting Guidelines for the Development of e-Content for Children with Disabilities

# ★ Ketan Kothari (Managing Consultant – Programs, XRCVC) was

- Member, Rehabilitation Council of India Expert committee on revision of syllabi for Diploma in Education (Visual Impairment) and Diploma in Computer Education (Visual Impairment)
- Member, Rehabilitation Council of India Expert committee on revision of syllabi for graduate and post-graduate courses for special educators
- Subject Matter Expert at brainstorming seminar held by the Cell for National Centre for Literacy for conversion of NCERT resource materials into Braille format
- Member, Civil 20 (C20) Working Group on Education and Digital Transformation the official engagement group under India's G20 Presidency to bring forth civil society organizations (CSOs) voices to the G20 leaders

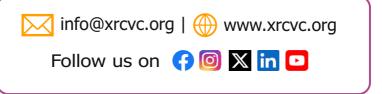
### **Contact**



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Our services can be availed by all persons with disabilities.

We also provide services to educational institutions, financial institutions, corporates, any other service provider, group, organization interested in knowing more about inclusion and making their services and products accessible.

Please feel free to contact us for any support you may require.



Brochure QR Code