Executive Summary

The report is prepared by the field action project: I Access Rights Mission of The Centre for Disability Studies and Action, School of Social Work, Tata Institute of Social Sciences as part of field action project and in availing the SIPDA scheme to receive 6.7 crore rupees for SIPDA for TISS Mumbai campus and Tuljapur Campus. The report is prepared with utmost care by implementing the Harmonized guidelines of space standards and barrier free built in environment for PWD and elderly persons of CPWD Dept of Government of India. The unique element of the report is that it highlights and builds awareness about the 21 types of disability mentioned on cover page as well as beginning pages to make the university stakeholder aware about them. Also the I-Access project was instrumental to release 2 GR on students with disability that are attached at the end which is now implemented in state universities. The access audit report is process to identify barriers in each academic buildings and recommendations as per guidelines are mentioned accordingly. The report represents efforts of identifying structural barriers and provides solutions by giving architectural maps with accessible design solutions with expert recommendations.

ACCESS AUDIT REPORT 2018-19

This report has been prepared as per the ‘Harmonised Guidelines and Space Standards on Barrier Free Built Environment for Persons with Disability and Elderly Persons’.

PROPOSAL FOR THE FINANCIAL ASSISTANCE TO IMPLEMENT SIPDA SCHEME, GOVT. OF INDIA

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Publisher:
Center For Disability Studies and Action
TISS, Deonar Mumbai.

Printed By:
I-Access Rights Mission

I-Access Team:

Designed By:
Megha Wasnik and Navjit Gaurav

Image Source: I-Access archive
DEFINITIONS

Accessible design – Design focussed on principles of extending standard design to people with some type of performance limitation to maximize the number of potential customers who can readily use a product, building or service.

Access route – Any route in an internal or external environment whether it is level, gently sloped, ramped or stepped that is available and understandable for a person to use. In external environments, access routes comprise paths, pavements and other pedestrian routes, such as a right of way through a public space.

Building – A permanent or temporary structure of any size that accommodates facilities to which people have access. A building accommodating sanitary facilities may include a toilet block in a public park or shower facilities at a campsite. A temporary building may include portable toilet facilities such as those provided at outdoor events.

Building user – A person regardless of age, size, ability or disability using facilities in a building or associated external environment.

Designated car parking – Car parking spaces reserved for the use of car users with disabilities, whether as motorists or passengers.

Dropped kerbs – A lowered section of kerb between a pavement and carriageway forming a level or flush crossing point. Also referred to as dished kerbs.

Grille or grill – An opening of several slits side by side in a wall or metal sheet or other barrier, usually to let air or water enter and/or leave but keep larger objects including people and animals in or out.

Laid to fall – Paving and drainage that relies on fall to carry away water. Fall may also be referred to as slope or, more correctly, gradient. By making one part of the pavement higher than another, gravity will cause the water to move in a preferred direction.

Park and ride – The formal provision of car parking linked with either bus or rail services.

Path – A pedestrian route that has no adjacent vehicle carriageway and includes paths in countryside locations as well as paths in urban and residential environments.

Pavement – A pavement is the part of a roadway used by pedestrians and is adjacent to the vehicle carriageway.

Setting-down point – A designated area close to a building entrance or other facility where passengers can alight from a car or taxi.

Soffit – The underside of any construction element, the underside of a flight of stairs.

Step nosing – The leading edge of a step or landing.

Street furniture – Items located in street and other pedestrian environments such as lamp posts, litter bins, signs, benches, and post boxes.

Tactile paving surface – A profiled paving or textured surface that provides guidance or warning to pedestrians with visual difficulties.

Universal Design = Useable = Understandable - Understanding user needs – For example an older person may require many resting places due to discomfort when walking for long distances.

Coir matting – A coarse kind of carpet made from coconut fibre usually used as a floor mat in matwells at building entrances.

Matwell – Entrance Door Matting Systems set into a frame in the floor.

Vision panel – A fixed, glazed panel set into a door that enables people to see through from one side of the door to the other. May also be termed 'viewing panel.'

Door ironmongery – A collective term for components including hinges, handles, locks and self-closing devices, which are used to facilitate the correct functioning of a door. May also be termed 'architectural ironmongery' or 'door furniture.'

Transom – A horizontal crosspiece across a window or separating a door from a window over it.

Accessible Facilities – Facilities that are designed for all users of a building or external environment, including the young and old, and those of all sizes, abilities, and disabilities.

Acoustics – Characteristics relating to sound.

Reverberation – The reflection of sound within a room or space.

Wayfinding – A collective term describing features in a building or environment that facilitate orientation and navigation.
DEFINITIONS

Accessible – With respect to buildings, or parts of buildings, means that people, regardless of age, size, ability or disability, are able to both access and use the building and its facilities.

Bathroom – A room comprising a bath, WC, washbasin, and associated accessories.

Communal – An area that a group of individual people will share for a common purpose. A communal changing area will be a room for people to change and will typically comprise an open area with minimal privacy.

Family toilets – A toilet compartment or washroom designed to meet the needs of a family group or adults supervising young children, which provides a range of facilities including baby-changing area, children’s and adult WCs, in a single room.

Handed – Referring to the layout of a room, this term means the provision of both left- and right-handed arrangements in a building.

Person with mobility difficulties – A person who is able, either with or without personal assistance, and who may depend on prostheses (artificial limbs), orthoses (callipers), sticks, crutches or walking aids, to walk, provided that particular design features are installed or available.

Sanitary facilities – A collective term for toilet, shower, bathing and changing facilities in buildings.

Self-contained – A single facility, such as a shower or changing area that is enclosed by walls or cubicle partitions. A self-contained facility will provide greater privacy than communal facilities.

Shower room – A room comprising a shower, WC, washbasin, and associated accessories, such as en-suite facilities in residential accommodation.

Transfer arrangement – The technique adopted by wheelchair users to transfer from a wheelchair to a WC or shower seat and back. The technique will depend on individual preference and the layout and size of the toilet or shower compartment. Common terms for describing transfer arrangements include lateral (side) transfer, angled (oblique) transfer, frontal, or rear transfer. Transfer may be assisted or unassisted. A left-hand transfer means that a person transfers to their left when seated in a wheelchair. See Figure 5.1.

Unisex – Facilities that are usable by males and females. Unisex toilets or changing areas may be located adjacent to single-sex washrooms or changing areas but have an independent access. Unisex accessible toilets may be accessed by a person with an assistant, carer, or companion of the opposite sex.

Visual contrast – Colour and/or tonal contrast between surfaces and fixtures, designed to improve visual clarity.

Washroom – The term for a room or area accommodating toilet cubicles and associated facilities, such as washbasins, hand dryers, and urinals (in facilities for males).

Waterless WC – A WC that does not use water to flush and is not connected to traditional water supply pipes or a waste drainage system. Waterless WCs may be used in remote areas, such as forestry sites, fairgrounds, car parks, and construction sites.

Wet room – A shower room in which the floor and walls are all waterproof. The shower area can be accessed without crossing a threshold or stepping into a shower tray.

RPWD Act- Rights of Persons with Disabilities act is an act to give effect to the United Nations Convention on the Rights of Persons with Disabilities and for matters connected therewith or incidental thereto.

Universal Design- Universal Design is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability.

Barrier-free Environment- Barrier-free environment is one which enables people with disabilities to move about safely and freely and use all facilities within the built environment, roads, parks, gardens and other places.

Barrier-free Design- Design for those with physical or other disabilities, involving the provision of alternative means of access to steps (e.g. ramps and lifts (elevators) for those with mobility problems).
Who are Students with Disability?

Students with disabilities are categorized into 21 categories as per RPWD Act, 2016 and the University has to work towards all these types of Students with Disability. There are visible aspects of disability and invisible or hidden aspects of disability. University has to be sensitive and take steps to include the students with disability by working on their admission policy, orientation, adjustment and augmentation as per their needs, creation of accessible curriculum, and pedagogical processes for enabling equal access to students with disabilities. A necessary step in examination and assessment patterns has to be taken to include students with disability. Moreover, the university has to be sensitive to both visible and invisible disabilities. The major research and facilities are recommended in the area of Visual impairment, Hearing impairment, and locomotor disability today. There is a need to work with students with blood related disorders like Sickle Cell disease, Haemophilia, and Thalassemia. Also, Acid attacks, Dwarfism, Multiple disability, and Chronic Neurologic conditions and all 21 types of disability.

BACKGROUND

The emerging issues of students with disabilities in higher education are multifaceted. It needs human & interactive communication to bridge the gaps of teaching and learning. The starting point is access to university & higher education institutes from admission process, orientation to academic environment, campus navigation, access to classrooms, class notes, books & academic resources, exams, assignments and research, library, hostels, food and recreation etc.

Inclusion in higher education is about facilitating bottom up approach by including the voices of students with disability. It can be further studied by user centric design approach to ease accessibility of students with or without disability. The question is how our university/higher education institutions are prepared to include students with disabilities promoting equal opportunities & accessible provisions.
21 TYPES OF DISABILITY

I-Access Rights Mission-
a TISS Initiative for Inclusion & Accessibility of Students with Disability in Higher Education
I Access Mehfil: Disability Awareness

All Art forms: Poetry, Music, Dance, Theatre, Debate, Story Telling and creative expressions to facilitate Inclusive Culture. Dialogue on Disability & Differences to Celebrate Diversity.

I-Access Rights Mission: TISS Initiative for Inclusion

Mehfil
Music of the Soul

Presented By: Centre for Disability Studies and Action

Students performing in an all inclusive cultural night (MEHFIL)
"I ACCESS RIGHTS MISSION" aims to facilitate a dialogue in all academic disciplines on the issue of disability & enabling an inclusive & accessible education for students with disability in higher education.

Mission
The "I-Access rights mission" has been initiated as Disability & accessibility mission at the Center for Disability Studies. This aims towards taking Reasonable Accommodation & affirmative action on education & accessibility issues of students with disability in University campus. This initiative is towards facilitating inclusive culture and social cohesion with reference to students with disabilities in higher education and promoting their living with dignity.

Objectives
1. To take steps for accessibility issues at university level regarding Students with Disabilities
2. To understand the emerging issues and challenges of students with disabilities in higher education.
3. To create awareness and sensitization programmes to promote an inclusive culture among all students in campus using various art forms like media, painting and theater and all forms of art.
4. Developing guidelines for teachers and peers regarding Students with Disabilities and work towards designing a academic activities & curriculum on Universal Design and Accessibility for inclusion.

Activities
1. I Access: Classroom - Teaching & Learning Process towards inclusion
4. I Access: Buddy - Peers volunteer programme as buddies for day to day functioning towards independence.

Key Areas
The key areas of focus include fostering a culture of inclusion in higher education through awareness & sensitization programs, accessibility, use of Information & Communication Technologies (ICTs), understanding emerging issues & challenges faced among students with disability.

Field Action Project, Centre for Disability Studies & Action, SSW
The "I-Access rights mission" is a Field Action Project initiative that enables accessibility & inclusion of students with disability in higher education. Initiated by the Center for Disability Studies & Action (CDSA) at TISS in 2013, the project seeks to develop an inclusive & accessible education policy framework that employs a bottoms-up approach, builds awareness & sensitizes stakeholders in the field of higher education to create an environment conducive to the growth & participation of students with disability, eliminate barriers to help develop a culture of inclusion and take affirmative action to ensure access to information, communication, education, mobility, technology & accommodation.

Context
The project seeks to imbibe the principles enshrined in the UNCRPD as well as the Marrakesh Treaty to make books and academic resources into accessible format for inclusive education in higher education for students with disability.

"ACCESS ABILITY 2015: Celebrating Diversity" International Day of persons with disabilities observed every year on the 3rd of December adopted the theme "Inclusion matters: access & empowerment for people of all abilities".

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A Pioneer initiative of TISS

TISS to help state varsities reach out, improve access for disabled students

Barrier-Free Access On Campus Is Aim

Yogita.Rao@timesgroup.com

Mumbai: The Tata Institute of Social Sciences (TISS) will help public universities in Maharashtra to be disabled-friendly. The state has directed universities to collaborate with ‘1 Access Rights Mission’—a field action project of TISS—to successfully offer barrier-free access to disabled students on their campuses, to address their needs in pedagogy and to offer equal opportunities. TISS will conduct needs assessment study in public universities and frame guidelines that will be unique to each university.

Since the state does not have a machinery to conduct an audit of the facilities universities’ boast about, the department of higher and technical education has sought expert help from TISS. The team from the institute which has been successfully running the 1 Access mission since 2013, will be meeting representatives of disabled students from across universities to understand their requirements.

Vaiishali Kolhe, project director of the mission and an associate professor at TISS’ Centre for Disability Studies and Action, said they have observed that students with disabilities find it tough to pursue higher education. “If they do not get the required infrastructure, aid and appliances, it will affect their overall academic development. We wish to assist each of the non-agricultural students with disabilities in the next two years,” said Kolhe. While the university is expected to bear the funding, the team of 1 Access will provide the action-based work.

In a government resolution (GR) passed in 2017, the state identified 21 disabilities for the first time to be considered for offering concessions/facilities in educational institutions. In another GR passed in August this year, based on Supreme Court’s directive, the state made it compulsory to offer barrier-free accessibility on campuses and monitoring of these facilities. The mission’s ‘call for action’ guidelines has already been circulated to all non-agricultural universities in the state.

“While we have been issuing directives, the state does not have the machinery to monitor the progress in colleges and universities. Experts from TISS understand the problem in depth and they are empathetic to the issue. We, therefore, are asking universities to collaborate with them. The university will have to ensure the guidelines are implemented in affiliated colleges as well,” said joint secretary of higher and technical education department, Siddharth Khairat.

A conference held recently at TISS highlighted issues on disabilities, accessibility in the light of legislation and policies in the context of higher education. Experts also opined that the many disabled students, who seek admissions under reserved categories tend to drop out after a few months as they are unable to cope up, as there is a lack of awareness about the facilities.
Universal Design & Each one has Abilities infinite: Strengths, Courage, Creativity, Art and Talent has no boundaries

Our Education System

“Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid.”

- Albert Einstein

Albert Einstein was a German-born theoretical physicist who developed the theory of relativity, one of the two pillars of modern physics. He had Dyslexia.
THOMAS EDISON
I have not failed. I've just found 10,000 ways that won't work.

Thomas Alva Edison was the most prolific inventor in American history. He invented the light bulb. Ear infection left him with hearing difficulty in childhood and he acquired deafness in both ears in adulthood hence developed hearing impairment.

The best and most beautiful things in the world cannot be seen or even touched - they must be felt with the heart.

– Helen Keller

Helen Adams Keller was an American author, political activist, and lecturer. She was the first deaf-blind person to earn a Bachelor of Arts degree.

Images Source: azquotes.com
Stephen William Hawking was an English theoretical physicist, cosmologist, and was director of research at the Centre for Theoretical Cosmology at the University of Cambridge. He had amyotrophic lateral sclerosis.

Abraham Lincoln was an American statesman, politician, and lawyer who served as the 16th president of the United States. He had major depression.

Images Source: azquotes.com
It's a lie to think you're not good enough. It's a lie to think you're not worth anything

Nick Vujicic

Nicholas James Vujicic is an Australian Christian evangelist and motivational speaker born with tetra-amielia syndrome, a rare disorder characterized by the absence of arms and legs.

“IF YOU CAN DREAM IT, YOU CAN DO IT. REMEMBER THAT THIS WHOLE THING STARTED WITH A DREAM AND A MOUSE.”

Walter Elias Disney was an American entrepreneur, animator, voice actor and film producer. He had learning disability.

Images Source: azquotes.com
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INTRODUCTION

The Tata Institute of Social Sciences (TISS) was established in 1936 as the Sir Dorabji Tata Graduate School of Social Work. In 1944, it was renamed as the Tata Institute of Social Sciences. The year 1964 was an important milestone in the history of the Institute, when it was recognized Deemed to be a University under Section 3 of the University Grants Commission Act (UGC), 1956.

TISS is a pioneer institute in the field of Social Work and Social Sciences in India. The institute envisages the vision of transforming society from its roots by transforming lives of the most vulnerable sections of society. It believes in transformation in the social sector through social change and empowerment of the marginalised people in India. The various academic programs of the institute is geared towards facilitating the core value of dignity of an individual and inclusion of all in the society. Presently TISS is offering 49 Post graduate programs in the country with focal point being the development of social sector. TISS in coordination with the Prime Minister’s Office grants Prime Minister Rural Development Fellowship to the students, with the aim of working toward social transformation and setting in change from grass-roots to the policy level.

As an academic Institution of excellence in higher education, it has played a key role in developing academic programs in social sciences and promoting societal development through developing skill based courses. The application of the academic programs helps in re-structuring of the developmental sectors from micro, mezzo and macro policy level by adhering to human rights framework. Disability is one of the social sector among them. The Centre for Disability Studies and Action established in 2006 under the School of Social Work aiming to develop the cadre of professionals to work with adequate competency and knowledge to work in disability and rehabilitation sector.

1.1 Creating National Model on Accessibility for Students with Disability in Higher Education.

The Access Rights Mission is an initiative towards exploring emerging issues of student with disability & facilitating their inclusion in higher education. For example key issues range from everyday mobility within campus, internet accessibility, admission process, classroom accessibility, library accessibility, hostel accessibility, Dining hall accessibility, student loan accessibility, teachers accessibility and peers attitude, complicity during exams, teaching and learning processes in the classroom, fieldwork, placements, and securing degree. Disability access is one of the right of the student’s with disability as per UNCRPD which specifically recognizes (under Articles 9 and 21) that access to information, communications and services, including the Internet, is a human right. Article 8 ensures awareness building and article 20 on Personal mobility as a human right. One of the most significant issues still to be addressed is the accessibility of the PWD to new and emerging information technologies through computer literacy as per UNCRPD 2008.

UNCRPD Article 9 - Accessibility

1. To enable persons with disabilities to live on one’s own volition and engage themselves in all aspects of life, States Policies must take appropriate measures to ensure that persons with disabilities gain access on an equal basis to, to the physical environment, transportation, information and communications, and other facilities and services that caters to the public, both in urban and in rural areas. These measures, which shall include the identification and elimination of obstacles and barriers to accessibility, that caters, inter alia:
   a) Buildings, roads, transportation and other indoor and outdoor facilities, including schools, housing, medical facilities and workplaces;
   b) Information, communications and other services, including electronic services and emergency services.
UNCRPD Article 21 - Freedom of expression and opinion, and access to information

States Policies must take all appropriate measures to ensure that persons with disabilities can exercise the right to freedom of expression and opinion, including the freedom to seek, receive and impart information and ideas on an equal basis with others and through all forms of communication of their choice, as defined in article 2 of the present Convention, which includes the following:

- Providing information intended for the general public to persons with disabilities in accessible formats and technologies appropriate to different kinds of disabilities in a timely manner and without additional cost;
- Accepting and facilitating the use of sign languages, Braille, augmentative and alternative communication, and all other accessible means, modes and formats of communication of their choice by persons with disabilities in official interactions;
- Urging private entities that provide services to the general public, including through the Internet, to provide information and services in accessible and usable formats for persons with disabilities;

Way to School of Social Work

![](image)

Level difference at regular interval restricts horizontal movement (in this picture the steps)
1.3. Initiative of TISS "I-Access Rights Mission"

The "I-Access rights mission" as initiated by Center for Disability Studies & Action is an action plan towards creating a platform for affirmative action & reasonable accommodation of students with disability in higher education. This initiative is towards facilitating a dialogue in all academic about the issues of disability. The idea is to begin with a small step towards building inclusion an inclusion process of students with disability in higher education. Access audit is one of the step towards it. Using a "Bottom up approach" to evolve a rights based framework to empower all.

Each student with disability is having a unique set of problems & issues of concerns ranging from classroom teaching & learning, research, field work issues, identity issues, non academic and social issues faced in campus hence one needs to be sensitive towards the needs of the students at higher education else it leads to numerous levels of adjustment problems at the day to day life. The student with Disability group along with me from the Center for Disability Studies and Action has initiated various events of sensitization through inclusive dialogue & pedagogy like Street play, Theater, Art and painting Workshop and also conducted Access Audit of the TISS campus in Mumbai. We aim to make TISS campus inclusive by conducting Disability audit to facilitate Inclusion. The project also aims to work towards developing an academic curriculum in Universal design and accessibility at the institute level.

Key objectives of "I-Access Rights Mission" initiative:

- To take steps for accessibility issues with in Mumbai campus regarding Students with Disabilities
- To understand the emerging issues and challenges of students with disabilities in higher education.
- To promote an inclusive culture among all students in campus using various art forms like "media, painting and theater"

Today the major barriers disability inclusion are of four types e.g institutional, architectural, attitudinal, informational barriers. All across the world these barriers are interfering in the day to day functioning of the academic work, social and educational networking and overall development of students with disability. This can be ranging from admission of PWD students, regular classroom study as well as classroom interaction, passing out of college, getting employment/livelihood for independent living.

Corbett and Slee (2000) suggest, "it requires continual proactive responsiveness to foster an inclusive educational culture" (p. 134) and teachers play a key role in this process. By developing an inclusive pedagogy, teachers are able to connect individual learners and their own way of learning to the curriculum and the wider school community (Corbett, 2001).
Chapter 2: METHODOLOGY
BROAD BASED METHODOLOGY AT FOUR LEVELS

Level I: Initiate student level work with an interactive discussion and identifying the needs of students with disabilities.

Level II: Conducting the field based investigation with pre-audit involvement of students with disability in the Audit process.

Level III: Involvement of Experts and field level investigators for the identification of barriers. Consultative meeting with institute, architecture and civil engineer for examining, identifying and removing and eliminating the restraints.

Level IV: Using universal design and barrier free environment. Preparation and compilation of Access Audit Report with identification of barriers and recommendations. Before the commencement of the audit, the campus was divided into 11 logical zones for systematic and uncomplicated identification of the barriers. The audit also incorporated the inputs of students with disability.

Conceptual Framework

Definition of Universal Design:
According to Ronald Mace "Universal Design is the design of products and environment to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design."

Principles of Universal Design:
The seven principles of Universal Design, developed by the Center for Universal Design, North Carolina State University, with a consortium of universal design researchers and practitioners from across the United States are as follows.

1. Equitable Design
   The design is useful and marketable to people with diverse abilities.

2. Flexibility in Use
   The design accommodates a wide range of individual preferences and abilities.

3. Simple and Intuitive
   Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills or current concentration level.

4. Perceptible Information
   The design communicates necessary information effectively to the users, regardless of ambient conditions or the user's sensory abilities.

5. Tolerance for Error
   The design minimizes hazards and the adverse consequences of accidental or unintended actions.

6. Low Physical Effort
   The design can be used efficiently and comfortably and with a minimum of fatigue.

7. Size and Space for approach and use Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.
Chapter 3: ACCESS AUDIT OF TISS

The Mumbai TISS campus is situated topographically with lush green surroundings adding to the ambiance of the campus. Treating everyone with dignity is an ideology followed by being connected to one's own roots is in culture of TISS. People centered development towards creating an ecological habitat and sustainable living for a just society. The academic work of TISS promotes dignity, equality, social justice, and human rights for all.

TISS & Its Geographic Topography:

Located in the North zone in Deonar village with postal address of Deonar village, Sion Trombay Road, Opposite Deonar Bus Depot, in M West Ward, Municipal Corporation of Greater Mumbai. The Tata Institute of Social Sciences is spread out over a sprawling 43753.9 sq. meters. Deonar Bus Depot is opposite of TISS main campus. Govandi railway station is nearest used by students and staff alike to reach the campus.

BUA as per FSI (Excluding satire cases, podium/basement etc.) is having the total existing area is 21761.45 sq. meters. The surrounding area of the site is slum area in the south and north and western express highway is in the east. Deonar village road is located in the west.

Deonar Bus Depot is just opposite of TISS main campus as a landmark for bus route. Govandi local train railway station is nearest for the public local rail route used by faculty and staff on daily basis to reach at the campus. The total build up area permissible is 67340.04 sq. meter. The plinth area of the main campus is total 8499.94 sq. meter with number of parking for total 140 Cars with one vehicle parking for Persons with disability. The number of trees in recreation ground is 563 numbers and area cover is 11227.50 sq. meter. The number trees is open spaces is total 420 numbers of trees covering net area plot in sq. meter is 21050.57. Trees proposed to be transplanted are 116 numbers.
ACCESS AUDIT REPORT 2018-19

TISS Main Campus Lay Out Map:
Detailed lay out plan of existing structures at TISS Main Campus
**ACCESS AUDIT REPORT 2018-19**

**Existing Buildings in Main Campus : 17 Buildings + 2 (SMS Canteen & Health Center)**

The main campus consists of 17 + 2 buildings which houses Administration building, Girls and Boys hostel, Gymkhana, Director's bungalow, PhD. Hostel, Staff Quarters, Teacher's Hostel, Dining Hall, Teaching Block, Security Cabin, Social Service Center, Health Center and a Library.

<table>
<thead>
<tr>
<th>SR. NO</th>
<th>COMPONENT</th>
<th>No of building &amp; Floors</th>
<th>No. of flats/ shops / offices/ seats/ rooms/No. of beds</th>
</tr>
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<tr>
<td>A</td>
<td>Existing Buildings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Admin Building</td>
<td>Gr + 1</td>
<td>3 class rooms, 100 each, meeting room 1, admin Block of 60 staff, Director's Office, Deputy Directors Office, Faculty Offices 45 Nos</td>
</tr>
<tr>
<td>2</td>
<td>Girls' Hostel</td>
<td>Gr + 1</td>
<td>4 beds 6 rooms, 2 beds 12</td>
</tr>
<tr>
<td>3</td>
<td>Boys' Hostel</td>
<td>Gr + 1</td>
<td>4 beds 6 rooms, 2 beds 12</td>
</tr>
<tr>
<td>4</td>
<td>Gymkhana</td>
<td>Gr + 2</td>
<td>4 halls and badminton court</td>
</tr>
<tr>
<td>5</td>
<td>Director's Bungalow</td>
<td>Gr</td>
<td>3beds, hall, kitchen +1 Servants room</td>
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<tr>
<td>6</td>
<td>Ph.D. Hostel</td>
<td>Gr + 6</td>
<td>60 rooms</td>
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<tr>
<td>7</td>
<td>Staff Quarters</td>
<td>Gr + 6</td>
<td>12 flats</td>
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<tr>
<td>8</td>
<td>Teacher's Hostel</td>
<td>Gr + 2</td>
<td>9 flats</td>
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<tr>
<td>9</td>
<td>Dining Hall</td>
<td>Gr</td>
<td>500 capacity</td>
</tr>
<tr>
<td>10</td>
<td>Toilet</td>
<td>Gr</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Ladies Hostel</td>
<td>Gr + 1</td>
<td>24 rooms</td>
</tr>
<tr>
<td>12</td>
<td>Teaching Block</td>
<td>Gr + 2</td>
<td>6 classrooms of 30 each, 60 faculty offices</td>
</tr>
<tr>
<td>13</td>
<td>Security Cabin</td>
<td>Gr</td>
<td>2 rooms</td>
</tr>
<tr>
<td>14</td>
<td>Service Staff Quarters</td>
<td>Gr + 7</td>
<td>30 flats</td>
</tr>
<tr>
<td>15</td>
<td>Social Service Centre</td>
<td>Gr + 1</td>
<td>4 rooms,</td>
</tr>
<tr>
<td>16</td>
<td>Guest House</td>
<td>Gr + 6</td>
<td>30 rooms</td>
</tr>
<tr>
<td>17</td>
<td>Library</td>
<td>Gr + 6 / Gr + 4</td>
<td>5 book stack rooms, 5 reading halls, 1 conference</td>
</tr>
</tbody>
</table>
Entrance & Security Cabin:
The entrance of TISS is adjacent to Sion-Trombay Road. The security cabin is located at the entrance with an area of 32.70 sq. meters.
Building No. 1 is the Administrative Building GR + 1 with a built up area of 3604.9 sq. meters. The focal point of the building is the Quadrangle i.e. a square shape structure in the middle of the building which is a hub for students for effecting the tasks assigned by the faculty. The extreme end of this building is at lower level of 3 Bay Plinth-level of 8.78 meters and accommodates the Director’s office with four office rooms and a lobby for the visitors.

The entrance of the Director’s office is easily accessible and do not hinder movement of the wheelchair bound students. However the absence of Tactile Pavement and Sensory Cues is a deterrent for the visually impaired students and must be installed. The doors are accessible to students with disability. The switch board must be shifted to 1200 mm or 4 feet height. The lobby requires a hand railing which will ease mobility of person with orthopedic problem or visual disability. Wheelchairs should be made available in times of emergency. The ‘floor matrices’ of the passages outside the office need to be immovable and fixed for prevention of fall by anyone. The light arrangement is adequate and do not require alteration of any kind.

The acoustic and sound arrangement should be upgraded to the prescribed standards i.e. using ICT technology with advance auditory signal for Person with Visual Impairment.

The Directorate project office consists of 8 cubicles for a staff of 15. The office has limited space for persons who are compelled to use wheelchairs hindering their effortless movement. The accessible corridors should have a minimum width of 1800 mm which would aid in untroubled access for the wheelchair bound students. The office is also recommended to have anti-skid flooring along with colour contrast textures for sensory cues to aid orientation.
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The cubicles may act as a barrier hence there is a need for tactile pavements within the entrance of the office cubicles and the main entrance of the project office in order to avoid discomfiture to persons with disability. There should not be any protruding objects along the corridors. One must also ensure strict compliance with the Code of Accessibility (2007, Clause 3.7.4.5.1).

After the Director's Project office is 2 Bay, Plinth level of 9.40 meters where the restroom for the staff is situated with the corridor leading to reception and Media and Cultural Studies school. Both the sexes restroom are not accessible to wheelchair bound people. The entrance of the toilet is narrow and hence the wheelchair cannot go inside. Tactile tiles are required for persons with visual impairment. The sensory warning cues with auditory signals must also be installed. This portion coupled with corridor must have tactile tiles which should be continued till Class Room No. 5., which is the other side of the quadrangle. The conference hall located on the first floor requires the provision of elevator and other appropriate accessible options. The passage leading to conference hall has no provision of ramp hence it is recommended with adequate provision of handrails with middle gradient and tactile pavement provisions as per the prescribed standards. This ramp will lead to the boy’s hostel and new library building. Installation of auditory signals may aid towards better accessibility and orientation.
Pre Access Audit process:
Elements of accurate relationship between persons with disability and barriers faced were established by pre audit process and access audit process by involving students with disability and understanding their needs on day to day basis. They were involved in pre audit processes to assess barriers on their way after each 10 steps and this helped us in identifying the smallest of obstacles that come on their way. This was done on 15 August, 2013 with i access buddies. In 2018-19 as barriers were almost the same as no major changes were undertaken except flooring and few ramps. In 2018-19 various individual and group meetings with students with disability were taken and CDSA class were also involved. Students with disability were involved in pre audit process and they gave feedback on barriers faced by them on day to day basis. Students with visual impairment emphasised on need of tactile pavement across campus to be more independent. Student using a wheelchair had to face problems to travel to classroom from hostel and lack of washrooms services near classroom so i access coordinated with civil engineer to construct accessible washroom. Students with hearing impairment primarily required required sign language interpreters, classnotes in advance and CART services in terms accessibility services in classroom or conferences. The individual needs of students with disability were taken into consideration as part of access audit. Tactile workshop were taken for students with visual impairment on subjects as part of their curriculum requirement. Students with Sickle cell disease as they are prone to severe pain and joint pains so they are unable to walk and get serious cramps. Students with learning disability were also engaged in pre access audit. Students with low vision had major problem in seeing clearly at night as they are unable to see contrast backgrounds to see things in day light and night. As per their need assessed bright light in dark areas in campus were done near both dining halls and library. On same day of their needs assessment halogen lights were installed behind and next to dining hall of both Mumbai campus and near library. Students with multiple disability suggested that they require adaptations with timings and curriculum accessibility. Students with mental health issues or mental illness were involved in pre audit process and their identity were kept confidential. They were referred for counselling services of Tiss. Students with locomotor disability's feedback were taken regularly and changes were made in washroom and hostel and necessary places with help of section officer of the hostel and maintance officer with required authorities permission. The preaudit and audit process also action oriented processes were immedicate action were taken by i access. In lack zero liesure facility to students with visual impairment i access has gifted one Blind Chess board and one Blind cricket ball to the students with visual impairment Students with chronic neurological condition's needs assessment were carried out and needful treatment were carried out by i access.

Access Audit process:

ZONE I: Reconnaissance and Survey of Each Zone
The Entire Campus is sequentially and logically created into 11 Zones with identification of Barriers and recommendations.

Zone 1
This Zone consists of:
1. Main Entrance & Street Junction
2. Signage board of TISS /icon/logo
3. Entrance gate of TISS
4. Security Entrance chamber
5. Side Walks
6. Road Side Services
7. 2 Wheeler Parking
8. 4 Wheeler Parking

Main Entrance & Street Junction:

Photograph by: Navjit Gaurav
Barriers

- Safety of PWD becomes a major issue as there are no Sensory Cues for PWD (Diverse sensory impairments) about potential hazards warning about full-time traffic highway.
- Unstructured route for mobility impairments and Wheel chair users.
- The main street junction is located next to full-time traffic oriented Sion-Trombay highway hence the crossing over becomes difficult for PWD.
- There is no smooth transition from highway to the main street junction.
- A barrier is centrally divided in the main junction.
- Absence of dropped kerb or slope to connect zebra crossing to sidewalk to main entrance.

Recommendations:

- Alternative route plan/ Navigation route plan to access to the entrance of TISS campus needs to be identified and created for ease in movement by diverse disability stake holders.
- Following recommendations can be implemented following consultation with relevant roads authority.
  - A Safe and convenient crossing points accessible by PWD’s should be located and level surface with recommended width of 1200 mm should be constructed.
  - Dropped kerbs at both sides of rear of level surface should be formed with following recommendations in figure below.

![Diagram of crossing points](image)

**Key**

A. Rear of pavement
B. Dropped kerb to be flush with the carriageway, or subject to a max 6mm level difference and a rounded kerb edge. Buff blister paving to full width of dropped kerb
C. Ramped section of pavement perpendicular to crossing to be 1 in 20 (max 1 in 12)
D. Flared sides or ramp to be max 1 in 11
E. L-shaped stem of blister paving to guide people to crossing point

**Note:**
- Buff blister paving to full width of dropped kerb
- All dimensions in millimetres
Location of dropped kerbs should match on both sides of roads to give correct direction of crossing point to visually impaired.
Level surface of crossing should have zebra lines and should be visually contrasted to guide people with partial vision.
Provision of audible crossing signals can be beneficial for people with vision impairment.

**Sidewalks**

**Barriers**
- It has electrical junctions, poles and low maintenance of manhole cover which creates obstructions in path as it does not have a sign board or tactile pavement surface indicating hazard warning.
- Low maintenance and uncombed pavement (complete uneven surface with no kerbs, no guiding strips).
- Absence of tactile and sensory blocks on the pathways.
- Absence of adequate curb/kerbs cuts to indicate the entrance zone to visually impaired.
- No edge protection at change in level of path.
- No provision of setting down point (plz refer to section of recommendations same page)

**Recommendations**
- All the services of sidewalks need to be coordinated in a way that the access route on sidewalks is clear from those obstruction, electric junctions and pools and man holes.
- The services of sidewalk need to be coordinated in a way that the access route on sidewalks is clear from those obstruction.
- Sidewalks can be built meticulously as access route to TISS main entrance gate with properly constructed even surface and implementing tactile warning and guiding blocks by demarcating the TISS campus boundary.
- Access routes should be laid down evenly so as to allow proper drainage, which in turn would prevent formation of puddles during rainy season.
- Cross-fall gradients should be constructed to avoid surface becoming slippery during rainy season.
- Edge of sidewalk should be visually contrasted from normal road.
- Edge protection should be provided by upstand kerb of recommended 150mm height to prevent visual confusion which may create accidental falls (specially who have partial/poor visual impairment).
- Adequate curb/Kerb cuts should be provided seamlessly connecting to the entrance zone of TISS campus.
- This could be done by change in surface alternative surface materials.
- Curb cuts could be highlighted with buff blister surfaces as accessibility provisions of sidewalks.
- Vertical clearance of 2300mm from overhanging branches of trees, is recommended however over they should be cut back to provide a clearance of 3000mm to allow room for new growth.
- Provision of Setting down points.
  - **Setting-down points** provide a suitable location for passengers to alight from a car close to the principal entrance of a building. People who need to be dropped off as close as possible to a building might arrive via taxi, a local transportation service, or in another person's car. A setting-down point will enable this to happen.
  - Wherever possible, setting-down points should be covered to provide protection from the weather. A canopy height of 2600mm to the underside of the canopy facilitates access for most passenger vehicles.
  - Setting down areas should be easily located. If necessary, signage should be provided.
  - Setting-down points should be flush with the roadway surface to enable easier transfer to and from cars and taxis. Where the road and footway surfaces are flush, the appropriate tactile markings should be used for the benefit of people with visual difficulties. Setting-down points should be level with a firm, even surface. Where grilles or mesh covers are laid, the mesh size should be maximum 10mm x 20mm.
Signage board of TISS /icon/logo

Barriers
- Existing and current TISS logo is absent from the current signage.
- TISS Icon plays an important role for all visitors and stakeholders.
- Visual contrast of current signage is low and gets merged into the green background.
- Current signage is placed at higher level which may create inconvenience for people with lower vision level (for example wheelchair bound people).

Recommendations
- TISS logo should be placed at the main entrance.
- Easy recall and reorganization is important.
- The overall contrast value of signage needs to be enhanced by means of a sharpened color scheme.
- During nighttime low visibility of signage would acts as a deterrent in getting easy access to the institute. Adequate lighting should be ensured around the signage.
- Back light signage is a potential option.
- Drawing solutions would be recommended for greater visibility.
- Pruning of trees would ensure that the signage remains in clear view.
- Cutting of overhanging branches of tree for better maintaining the clear view of signage.
- Extra signage with TISS logo should be put up at a lower level for people partial vision.

Entrance Gate

Barriers
- Mobility barriers like hazardous rough surface slope where wheelchair maneuvering requires extra muscular efforts (daunting task for the handicapped) to pass through the inclined slope.
- The small passageway leading to the entrance gate for pedestrians might be inconvenient for wheelchair users or people with ambulatory assistive devices.
- Temporary sitting arrangement of security on the height.
- Absence of guiding strips as well as tactile pathway route from main entrance.

Recommendations
- Provisions of sensory cue at the entrance for diverse disability groups.
- Tactile blocks set up from the entrance zone to coordinate with the internal sidewalks of TISS campus.
- Security room arrangement could be made in such a way that the need for temporary sitting arrangement could be aligned with specific modifications done to the windows.
- Smooth and even surface should be developed for easy maneuvering of wheelchair without extra muscular efforts on inclined slope to the main gate with necessary tactile pavement indicating the connection to entrance gate.
- Widening of pedestrians passageway to the recommended width of 1500mm for convenient transition of wheelchair users and people with ambulatory assistive devices.
Security Chamber

Barriers
• Absence of tactile path.
• The window height is too high for diverse PWD
• Reception Window: At higher height – lower is a one window site. (3 feet (900 mm) ideal)
• Signage about directions to reception, important offices, and other important areas is located at inconvenient height as well as place with obstruction of water cooler in front of it.
• Green background of signage may be confounding to people with partial visual impairment as it tend to merge with the background of trees.

Recommendations
• Recover the Sill height of the window.
• One window should be covered so that it becomes easy for wheelchair users to access.
• Temporary sitting arrangement for outside security office becomes a temporary barrier for easy mobility.
• Signage about directions to reception, important offices, and other important areas should be located at clear view and can be easily touched without any obstruction in it with pictorial forms for those who have difficulties in reading and braille forms for visually impaired people with recommended inclination of surface between 45 and 60 degrees above the horizontal in the direction of the user as most people will find it easier to read signs by touch if they are mounted on an inclined surface.
• Green colored background should be changed to alternate dark bright color to make it clearly visible and avoid confusion.
• Signage should be illuminated with enough light to read.

Parking

Barriers
• The parking zone is not clearly demarcated for two wheelers and four wheelers.
• During the rainy season it becomes very difficult to park as it becomes very muddy.
• Absence of unambiguous and categorical signage of two and four wheeler parking.
• Two wheelers parking is having no signage for PWD.
• Absence of international logo for accessibility on signage.
• Absence of proper signages for designated vehicle parking space to indicate the reserved parking space for PWDs.
• Green color of background of signage should be changed as it may create visual confusion with green tree background.
• Absence of tactile cues for parking for PWD for both four and two wheeler.
• Absence of clear cut demarcation of obstructive objects like trees and electric pole in parking space.
Recommendations

- Provide clear signage to highlight location of designated parking spaces within the car park.
- International sign for accessibility should be implanted on signage.
- Ensure the route between the car park and the entrance to the building or facility is accessible and easy to understand.
- Car parking should be arranged so that designated spaces are located as close as possible to the building entrance or facility they serve and preferably within 25m.

Fig. Examples of an accessible/designated car parking space sign.

Fig. Possible accessible parking signage that could be used in conjunction with the pole-mounted version.
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- The surface of the parking zone should not accumulate water it need to be cemented with proper drainage to avoid forming puddles in rainy season.
- Smooth transition for parking zone to the pavements and main road.
- Electric pool and water man holes should be avoided or maintain properly.
- Illuminated walking and parking signage for parking in the night for two and four wheelers.

Fig. Example of enclosed parking space. Image shows an example of why side space is needed for accessible parking spaces.
3.1.8.7. Street Signage and Campus Map

Barriers
- Absence of clearly demarcated pedestrian and walking zones.
- The campus map is diminutive for visibility and cognitive reorganization.
- Current color scheme of map is visually confusing.
- Map is mounted at inappropriate height which may be inconvenient for people having lower vision level.
- Map is located at inconvenient place with some obstructions in front of it like stones, n gravels which may limit the accessibility of map to PWDs.
- Background finish is of satin texture which gives glare effect in sunlight at some areas of map.
- Map is not accessible at all for people with visual impairment.

Recommendations
- Redesigning of map should be considered with specific demarcation of pedestrian and walking zone with proper visually contrasting color theme to avoid confusion for people with partial or poor vision.
- Map should be installed at an appropriate height taking into consideration the accessibility of people with lower level visual sight (wheelchair bound people).
- Map should be installed at safe and convenient place free of minor surface obstructions.
- Satin textured background of map should be replaced with mat finish surface to give more clarity and visibility during daytime.
- Tactile sensory cues and flora and fauna can play an important role in providing the sensory cues through olfactory/ smelling fauna at the campus map which will enhance the reorganizations of sight for visually impaired.

Tactile maps
- Tactile maps are a particularly useful way of representing the internal layout of a building and can be produced in a form that can be easily carried by a person as they move around.
- The basic principle of tactile maps is to present a simple version of a visual image that can be read by touch.
- Maps should be uncluttered and designed to enable clear differentiation between lines, symbols and other features. The provision of explanatory and contextual information, such as a symbol key, bar scale, north arrow or other reference point should be provided. Audible instructions explaining how to use the map or model may be appropriate in some circumstances.
- Please Find the images on following page of tactile maps.
Fig: Example of tactile Map with Braille of Building Plan
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**Signage of Taxi Halting Zones**

**Barriers**
- Absence of demarked zones and signage for auto, taxi and private vehicle, halting zones.
- No signage on main gate about adjacent taxi rank.

**Recommendations**
- Provision of halting zones for various Para transact and private vehicles need to be provided with explicit demarcation and signage.
- Signage about adjacent taxi rank should be displayed on main gate.

**Access Routes**

**Barriers**
- Pathways are wider than 1800 mm and clear but has parking space on one side which becomes an obstruction in case of absence of tactile pavements on the sidewalks for visually impaired persons.
- Surface of pathways are uneven, undulated and do not have smooth transition with road.

**Recommendations**
- The width of an access route should be sufficient to enable people to move in both directions and pass each other with ease.
- A clear width of 2000 mm is recommended to enable people to walk alongside each other and for two wheelchair users or parents with strollers to pass comfortably. The width should be increased where there is simultaneous use by a large number of people.
- Where a clear width of 2000 mm is not possible, such as where there are existing obstacles, a width of 1500 mm is acceptable. This will enable a wheelchair user or parents with a stroller and another person to pass each other.
- Where the clear width of an access route is less than 2000 mm, passing places should be provided. Passing places should be 2000 mm wide x 2500 mm long, at a reasonable frequency and located within sight of another passing place, subject to a maximum distance of 25 m. This will allow groups of people to pass each other, particularly on busy routes. On long routes, level resting places should be provided off the path of travel at intervals of no more than 30 metres.
- Where the clear width of an access route is constricted, such as by existing trees or walls, the width may be reduced to 1200 mm for a distance not exceeding 2000 mm.
- A 1200 mm wide path is too narrow for people to pass each other, so passing places should be provided either side of the constricted section.

Please find picture on next page regarding the instructions.
Key
A. 2000mm minimum to allow two wheelchairs to pass each other
B. Width reduced to 1200mm minimum for not more than 2m in length around existing obstructions
C. Gradient should either be level along its length or should be gently sloping or incorporate ramp or ramps in accordance with building standards
D. Crossfall gradient not more than 1:50
E. Drainage gratings offset from access route where possible
Note: All dimensions in millimetres
Zone II
Zone II consists of following elements:
1. Path Towards Directors Office
2. Pathway and Ramp
3. Childrens Park
4. Directional Signages
5. Main Lobby
6. Reception
7. Quadrangle
8. Corridors

1. Path Towards Directors Office

Barriers
- It’s an onerous task for a wheelchair bound person to go to the classroom from the director’s office as there are two level of staircases. Hence a ramp has been proposed.
- Round Rocks present a hazards specially for people with visual impairment.
- Rough and uneven surface prevents a smooth transition.

Recommendations
- All the mentioned barriers need to be resolved.

Proposed Ramp Site
Ensure that the maximum gradient of a ramp is 1 in 20, maximum rise 450mm and maximum length 9000mm.
Make the gradient of a ramp slope constant and consistent with consecutive ramp slopes.
Ensure the cross-fall gradient is no greater than 1 in 50.
Design surfaces to drain water effectively.
Avoid curved ramps.
Ramp slopes must be straight.
Provide clear width to suit expected level of use, but not less than 1500mm.
Plan for top and bottom landings to be 2400mm x 2400mm and intermediate landings 2000mm long (multiplied by) ramp width.
Place handrails on both sides of the ramp and continuously around intermediate landings, as given in figures.
Provide a kerb upstand or guarding to the side of ramp where adjacent ground is at a lower level.
Illuminate ramp and landing surfaces to 150 lux.

Fig: External Ramp

Ramp Surface and Edge Protection
- The surface of the ramp must be anti-skid in wet and dry conditions.
- The ramp slopes should contrast visually with landing surfaces to highlight the change in plane to people with visual difficulties.
- Where the ground level to either side of a ramp is different to that of the ramp slope and landings, a kerbed upstand or other form of edge protection should be provided.
- A kerbed upstand must be 100mm high (above the ramp and landing surface) and contrast visually with the ramp surface. If a balustrade or guarding is provided to the side of a ramp, this is able to provide appropriate edge protection, as long as the gap between the ramp surface and lower edge of the balustrade or guarding is no more than 50mm.
Note:
- Clearance to the wall may be 50mm where the wall surface is smooth and 75mm where it is rough.
- Upper rail 40 - 50 diameter.
- Lower rail 25 - 32 diameter.

Note: All dimensions in millimetres.

Fig: Handrails Details
Pathway and Ramp

Barriers
- Ramp is built up with handrails along with it to protect edge of ramp but handrails are not extended throughout the path connected to ramp, even though pathway surface level is raised enough to risk the movement of wheelchair to accidental falls.
- Blue arrows shown in figures indicates the hazardous raised surface level without any edge protection of pathways.
- Absence of tactile kerbs/cues about flight and landing location of ramp.
- No signage for accessible ramp.

Recommendations
- Handrails should be extended throughout the pathways connected to the ramp up to its ending point to avail safe and convenient transition of wheelchair bound person.
- Handrails can also be beneficial for people with visual impairment and people with limited mobility as it can be used as support as well as guide to directions.
- There should be a provision of tactile pavement/kerbs to indicate top and bottom landing locations of ramp.
- There should be provision of signages for ramp.

Presence of gravels and stones at side of landing location of ramps limits the accessibility of space for wheelchair bound.
- These gravels and stones present precarious and risky situation for people with visual impairment.
- Blue arrows shown in the figure indicates rocks.
For the convenience of everyone, the provision of both the ramp and stairs must be made available.

Some people with mobility difficulties find steps easier to use than ramps, while ramps are beneficial for people using wheelchairs. The route of a ramp should be as direct as possible and easy to use. Wherever possible, the top and bottom of a ramp should be adjacent to the top and bottom of an associated flight of steps.

External Ramp

- Ramps at gradient of 1:20, with a clear width of 1200mm and individual flights no longer than 9.0m
- Landings to be as long as the clear width of the ramp or 1300mm which ever is the greater
- Provide continuous handrails on both sides of the ramp, to finish 900 - 1000mm over the ramp surface and 900 - 1100mm over landing. Hand rails to turn into supporting wall as shown, or turn down for min 150mm
- A second handrail is desirable, finishing 600 - 750mm over ramp surface
- 1800 x 1800 turning space at top and bottom of ramp
- Always provide stairs as an alternative
- 75mm raised kerb on open sides
- Slip-resistant surface
- Tactile strips to be located at top and bottom landings

Note: All dimensions in millimetres

Fig: An example of an external ramp with adjacent steps
Children’s Park

Barriers

- Safety of children playing in children’s park becomes a major issue as it has lots of barrier specially the edges of park are at high level and children had fall and had fractures.
- Absence of resting places along with picnic tables.
- Sensory cue is missing from the park hence a sensory park is recommended for children with disability of any staff, student or faculty member.

Recommendations

Sensory park is recommended for children with disability of any staff, student or faculty member with Tactile pavement and edges needs correction as per the standards of safety

Photograph by: Navjit Gaurav
Directional Signanages

Barriers
Directional Signage very old and traditionally put in various outdated places since more than two decades

Recommendations
Appropriate Signage with contrast colour and font size with enlarged & clear directional Signage has to be put in entire campus with cognitive map keeping in mind diverse disability group. (please refer to the general guidelines section signanges for further details).

Photograph by: Navjit Gaurav
Main Lobby and Corridors

Barriers
- Absence of accessible entry path specially for wheelchair users.
- Big stones are kept there for aesthetic purpose can catch toes and person may fall,
- Displays are not at reachable heights, may produce glare effect.
- No reserved seats for PWDs.
- Absence of matwells for the entrance
- No display about directional guidance of building or circulation routes of building.

Recommendations
- Audio clues like small fountain can be installed to indicate entry specially for visually impaired people.
- Artificial lighting is needed to highlight entrance in night.
- All overhung branches of trees to be cut off to give clear view of entry
- For the safety/security/emergency purposes list of all emergency numbers like nearest police station or hospital etc should be displayed.
- Intercom with all official extensions can be beneficial and convenient for those with mobility impairment or those who are less mobile.
- Visually contrasting labeled seats for PWDs can be installed.
- Provision of circulation routes of building should be displayed with proper visually contrasting background to give more clarity.
- Signages should be displayed to highlight key facilities.

Reception

Barriers
- Reception desk is not easily identifiable with no signage about it.
- Lighting system in reception area is not appropriate to illuminate.

Recommendations
- Reception desks should be strategically placed, preferably in clear view of entrance doors, well signed and easily identifiable by using materials that provide good colour and tonal contrast with the immediate surroundings.
- Reception desks should not be placed in front of external windows, since this can silhouette reception staff, obscuring facial detail with enough lighting system to illuminate.
- The background behind the reception staff should be plain in a darker colour to highlight gestures.
Zone III
Zone III consists of following elements
This zone consists of building number 1 of main campus cited in the architectural drawings, the administration block, directors office to quadrangle and classroom of media studies, publication unit, 3 sets toilet.

Wing 1
Directors office

Barriers
- Horizontal Circulation is the main issue of this area as there change in surface level twice which makes it difficult for wheelchair users or person with limited mobility to use it.
- Blue arrows in picture shows the changes in surface levels.
- Handrails are only upto stairs which is inconvenient for people with visual impairment.
- Absence of corduroy hazards tactile warnings about change in surface level, which is hazardous specially for people with visual impairment.
- Absence of corduroy hazards warnings about uneven surface and intruding pipeline.
- Blue arrow shows the uneven surface n intruding pipeline.
- Absence of signage of directors office.
- Absence of braille nameplate.
- Nameplate is at inappropriate height.
- Absence of Vision panel in door.
- Unfixed door mats

Recommendations
- Ramp with appropriate gradients must be constructed along with the staircases.
- Tactile pavement with change in texture of surface must be installed to indicate the change in surface level which is beneficial for people with visual impairment.
- Handrails must be continued throughout the length of the wall to give support and security to people with visual impairment. It can also be valuable to provide directional guidance to people with visual impairment.
- Visually contrasting tactile pavement with a corduroy surface must be installed to highlight hazardous uneven surface.
- Braille plaque at reachable height must be displayed which would be convenient for people with visual impairment who require to read by touching the plate.
- Vision panels must be provided with door.
Barriers

- Notice boards and bookshelves display are placed at inconvenient height specially for people with lower vision level.
- Book shelves display produces glare effect.
- Lockers and cupboards are set up on the passageway in the vicinity creating obstruction for the easy transition of PWDs.
- Limited space for wheelchair maneuvering.
- There is no tactile pavement or other sensory cues to warn/indicate the shrunken passageway due to presence of obstacles like lockers and pillars which is drawback for people with visual impairment.
- Blue arrows shows the presence of lockers and cupboards which limits the space available in the passageway.
- Absence of edge protection on passageways specially on corners of passageways which may make which make people with visual impairment susceptible to fall.

Recommendations

- Noticeboards and bookshelves displays need to be shifted at a lower height so that it becomes accessible for people with lower vision like wheelchair users.
- Bookshelves displays needed to be illuminated with appropriate light to give better visibility with use antiglare glasses.
- Lockers must be shifted to the suitable area so that passageway becomes clear and available for smooth transition of wheelchair users as well as other PWDs.
- Tactile pavement is needed to implicate to indicate the shrunken passageways due to pillars.
- Upstand kerbs or handrails must be installed for the edge protection of passageways to prevent any accidental fall.
Wing II
Faculty Building

Barriers

- This area presents many barriers to PWDs which are as follows.
- Passageways is cramped with the presence of cupboards and lockers making mobility of the PWDs an onerous task.
- No tactile warning to indicate the obstacles present in passageways.
- Absence of edge protection of passageways.
- No provision of seats in front of faculty rooms if in case if faculty is busy in some meeting person may have to wait for long, which will make a person with less mobility uncomfortable.
- No signages to indicate faculty rooms.
  - Name plates are fitted at an inappropriate height making it difficult for a person with lower vision to read it. Braille plaque has been left out.
  - Doors of Faculty rooms are inaccessible.
  - Services/facilities of faculty rooms are not accessible.

- Layout of faculty rooms specially door entry is inconvenient are not accessible and uncomfortable for wheelchair maneuvering.
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- Services/ facilities of faculty rooms are not accessible like curtain controls, lower desks, upper shelves, switches,

**Recommendations**
- Passageways and lobbies must be made clear and free of obstacles to enable smooth transition of PWDs.
- Tactile pavement to warn/indicate about limited passageways due to presence of pillars in passageways.
- Upstand Kerbs must be installed to provide edge protection of passageways as there is change in level surface.
- Provision of seats in passageways of faculty building must be considered to avoid discomfort to PWDs when they are waiting outside faculty room for their faculty.
- Signage must be put up to highlight layout or location of faculties according to department.
- Visually contrasting nameplates with braille plaque must be installed at a reachable height to enable the reading nameplate by touching for people with visual impairment.
- Vision panel must be installed in doors.
- Install window and curtain controls that are accessible, useable, understandable, and positioned between 800mm and 1000mm above floor level.

![Diagram showing accessibility features](image)

- Visually contrasting Switches and sockets with adjacent background of wall surface must be installed at no higher than 1000mm above floor level where a knee space is provided.

**Note:**
- A. Socket on rear wall above knee access
- B. Socket on return wall or side of unit above fixed base unit
- C. Isolating sockets on rear wall above fixed base units

**Note:** All dimensions in millimetres
Conference Hall and Saksham Office
Barriers

Recommendations
Wing III
Secretariate Office

Wing 4
Publication Unit
Health Studies Liberay
Community Room

Photograph by: Navjit Gaurav
Classrooms

Barriers

- Classrooms doors are inaccessible with no vision panels
- No reserved seating arrangement for PWDs.
- No special seating arrangement for people with partial/lower vision.
- There is lack of accessible writing tables mainly for wheelchair users.
- Classrooms don't have voice enhancement systems for people with hearing impairment.
- Electrical sockets and switches are not situated at a reachable height specially by wheelchair users.

Recommendations

- Accessible doors with vision panel must be installed with light door-closer systems so that minimum force is required to open the doors.
- There must be reserved seating arrangement for PWDs which is nearer to door with proper accessible writing table installed.
- There must be reserved seating arrangement for people with lower/partial vision and people with hearing impairment near to the blackboard or in the front rows of every classroom.
- Electrical switches and sockets must be installed within reachable height by people who have lower vision level.
Hearing enhancement systems

- Hearing enhancement systems enable people with hearing loss to receive amplified sound via their hearing aid or other device, without interference from background noise. They are an essential provision in areas of buildings where audible communication is an inherent aspect of the space, meeting rooms, lecture rooms and classrooms.

- Specialist advice must be sought prior to the specification and installation of any hearing enhancement system.

Sanitary Facilities

Toilets

Barriers

- Absence of clear signage on doors of toilet.
- Colors of walls inside toilet may create confusion with tiles colors.
- There is lack of space for wheelchair maneuvering.
- Floor of toilet is smooth and prone to accidental fall.
- No enough passing space for wheelchair users through the door.

Recommendations

Clear Visually Contrasting signage must be displayed on doors of toilets. (please refer to the general guidelines section - sanitary facilities for further details).
Library

Access routes to Library

Barriers
- Internal access routes in the campus to the library laid with metallic pore speed breakers at intermittent intervals which makes wheelchair maneuvering difficult.
- There is no directional signages or guiding strips along the access routes to the library.
- No Corduroy hazards warning about the speedbreakers which might be inimical for people with visual impairment.

Recommendations
- Clear, Visually contrasted, easily understandable and readable directional signages alongwith braille must be put up along the access routes to the library.
- Metallic speed breakers must be replaced with regular speedbreakers with tactile corduroy hazardous warning along with it to indicate speed breakers.

Internal Environment of Library

Barriers
- Doors of the library requires extra force than normal to open.
- Computers tables are little inconvenient for wheelchair users.

- Magazine display section is not completely accessible by wheelchair users as they can not get convenient veiw of the upper section of the magazine display.
- Blue arrow indicates steps which are is starting right where the magazine display is kept. This causes inconvenience to the wheelchair users.
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- Lift to the library is inconvenient to use for people with wheelchair or limited mobility.
- There is not enough space to maneuver the wheelchair comfortably.
- Absence of intercom.

Recommendations
- Finger touch sliding doors with requirement of minimum force to open must be installed.
- Computer tables must be reserved and specially designed for wheelchair users with clear and free knee spaces beneath keyboard.
- Specially designed computers must be labelled as reserved for PWDs only.
- Magazine display must be lengthened to make accessible to people with lower vision levels/reach levels.
- Alternative route to stair must be arranged and if unavoidable then clear cut signage about the magazine display must be incorporated.

Sanitary Services in Library

Barriers
- Passageway to the accessible toilet has inadequate light.
- Electrical switch is not at reachable height by wheelchair users.
- Electrical switches inside toilet are not at reachable height by wheelchair users.
- No accessible mirror for wheelchair users.
- White colored switches, washbasin and WC may create confusion with background of white colored tiles as well as walls.
- Tap controls are not highlighted.
- Absence of pull chord alarms.
- Uneven surface makes wheelchair maneuvering difficult.
- There are no grab bars installed in the toilet for the transfers to WC.
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**Recommendations**
- Passageways to accessible toilet needs to be illuminated to suggest clear directional view.
- Electrical switches in the passageways as well as within the accessible toilet need to be relocated at reachable height by wheelchair users.
- Tilted mirrors must be installed in the toilet to make it accessible by wheelchair users.
- Tap controls must be visually highlighted and washbasin sinks, switches and WC must be well highlighted from the background of walls and tiles.
- Grab bars must be installed in toilet to avail easy transfers to the WC. (please refer to the general guidelines section- sanitary facilities for further details.)

**Barriers**

- Absence of signage of emergency alarm.
- Alarm is installed at an inconvenient height specifically for the wheelchair users.
- Potential obstructions make it difficult to access to alarm.

**Recommendations**
- Visually contrasting necessary signage showing the location of the alarm must be set up.
- It must be relocated at accessible height to wheelchair users.
- All other potential obstructions like dustbin etc must be removed to make it accessible easily.

**Drinking Water Facility**

**Barriers**
- Signage about drinking water facility is missing.
- Tap controls are not accessible to wheelchair users.

**Recommendations**
- Visually contrasting clear directional signage about showing the way to drinking water facility must be put up.
- Water cooler must be set up at a lower height to make it accessible to the wheelchair users.
Boys Hostels

External Environment
Barriers
- Lack of clear signages/No clear directional guidance about route to hostels.
- Window on outer wall of hostels which opens outward which may create barrier to people with visual impairment who take walls as support and guidance to entrance.

Recommendations
- Visually contrasting clear signages with proper directional guidance on access routes should be installed (specially green background of directional boards should be replaced with some other color as green color tend to merge with green tress background which may be confusing sometimes for people with partial/poor vision.
- Outer walls of hostels specifically those who are adjacent or connected to the access routes of campus should be kept barrier free. All protruding objects should be removed.
- Visually contrasting guiding strip along with the outer walls of hostels can be helpful for people with partial/poor vision as directional access routes.
- Tactile warnings about windows which are opening outward should be provided to prevent accidental collision.

Internal Environment

Entrance
Barriers
- No tactile pavements to indicate the entrance of hostel.
- No tactile warnings about change in surface level at the entrances.
- No corduroy warnings about the projections which covers almost half areas of entrance of hostel 3 which may lead to sudden collision specially with people with visual impairment.
- Broken, poorly managed ramp at entrance of hostel no. 2
- Absence of hand rails on right side of entrance,
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Recommendations

- Tactile pavements to indicate the entrance of hostel as well as to warn about the change in surface level would be convenient for people with visual impairment.
- Projection which covers almost half of the entrance of hostel 3 should be colored with visually contrasting theme to signal about the barrier.
- Broken ramp should be repaired and redesigned which is located at entrance of hostel 2. (Plz refer to the general guideline section)
- Handrails should be provided on both sides of ramp to provide ideal edge protection of ramp.
- Entrance to hostel 3 should be made accessible for wheelchair users by providing ramp.

Corridors

Barriers

- Corridoors are full of protruding objects like sofa, almirah and watercooler and furniture which not user-friendly for people with limited mobility/assisted mobility, wheelchair users or people with partial/poor vision.
- Corridors size is less than the standard size.
- Lack of intercom facility.

Recommendations

- All the protruding objects should be removed from the corridor to make it accessible for people diverse group of disabilities. If anything necessary like watercooler can not be removed from corridors should be placed at one corner with proper signage.
- Corridors should have a unobstructed width of 1500 mm-1800 mm.
- If less than 1500 mm, turning spaces should be located at intervals of 30 metres.
- Level differences should be beveled.
- Threshold should not be more than 12 mm.
- Plz refer to the general guideline section for further details.
- Intercom facility should be provided with its installation at reachable height with all necessary extension numbers and numbers of all nearest emergency services displayed by side.

Horizontal Circulation

Barriers

- Lack of sufficient lighting to illuminate passageways, corridors and internal lobbies.
- Switch controls and electrical sockets are not at reachable height by the wheelchair users.
- Potential obstructions are not guarded and no tactile warnings to indicate hazards.

Recommendations

- Internal passageways, corridors and internal lobbies should be illuminated enough to make it clearly visible in night.
- Switch controls and electrical sockets should be visually contrasted from the background of walls and located at within reachable height.
- Potential obstruction like lockers etc. should be visually highlighted if can not be removed with tactile warnings about it.
Internal Doors

Barriers
- Doors hardware are inappropriate to handle by visually impaired and wheelchair user.
- Doors are at higher level and have two stairs so this door entrance need ramp.
- Door has handles with difficult for wheelchair person to handle.
- Doors colours are dull without any contrast of colours and signage.
- Door controls are of same colors

Recommendations
- Door hardware should be positioned between 900 mm and 1200 mm above floor.
- Door hardware should preferably comprise a contrasting finger plate on the push side of the door and “D” or “L” handles of circular section on the pull side.
- Door ironmongery should be manufactured from a material which is warm to touch and provides good grip.

Vertical Circulation

Barriers
Absence of Lift in G+1 building hence one lift is recommended.
No corduroy hazards warning about steps.

Recommendations
- Lift locations should be clearly signposted from the main pedestrian route and recognisable through design and location.
- The colour and tone of the lift doors should contrast with the surrounding wall finish to assist in their location.
- Lift doors with metallic finishes such as steel grey and silver should be avoided as they are difficult to identify by persons with low vision.
- A clear landing area in front of the lift doors of minimum dimensions 1500 mm * 1500 mm should be provided.
- Visually contrasting corduroy hazards warning should be implanted at the places where steps starts and ends.

Internal Environment and Services

Barriers
- Signage about room numbers are not clear and easily visible.
- Electrical Switches and sockets are not located at reachable height by wheelchair users.
- Multipurpose writing desks in rooms are not completely accessible for wheelchair users.
PATHWAYS

Recently constructed pathway leading to School of Social Work has been modified as per the accessibility guidelines given by the experts under the supervision of I-Acess Rights Mission.

Recommendation

There is need of a handrail on wither sides of the pathway,

Photographs by: Navjit Gaurav
Recommendations

- Separate accessible toilet and bathing room should be built up for the use of PWDs. (plz refer to the general guidelines section for further details.)
- Following recommendations can make the present sanitary facilities accessible by PWDs.
- Electrical switches should be reinstalled at at 800 mm from floor level height to make it accessible for wheelchair users.
- Slight slope with tactile pavement can be installed at entrance to make easy passing of wheelchair.
- Tilted mirrors should be installed to avail easy view to the people with lower reach/vision level like wheelchair users.
- Washbasins, soap dispensers and tap controls should installed at lower height for the convenience of wheelchair users.
- Washbasins, soap dispensers and tap controls should be visually contrasted from the background colors of tiles.
- Bathing accessories and shower controls should be visually contrasted from the color of background walls to avail clear view for people with limited vision.
- Separate commode should be installed for the convenience of wheelchair users.

Pull Chord Alarms

- Pull Chord alarms provide a means of summoning assistance from outside the room and should be provided in accessible toilet, bathroom, shower room, and changing facilities designed for independent use.
- In accessible bathrooms and shower rooms, two alarm pull-cords should be provided; one positioned within reach of a person using the bath or shower and the other within reach of the WC. The cord within reach of the WC should also be reachable by a person who has fallen to the floor.
- All alarm pull-cords should be coloured red and extend to within 100mm of the floor. They should have two red bangles, 50mm diameter, one at the end of the cord and one at a height of 800 to 1000mm.
- Once the alarm cord has been pulled, there should be visible and audible indication within the room that the alarm has been activated. Visible indication may be in the form of an indicator light adjacent to the reset button and audible indication in the form of a buzzer or alarm sounder. Any sounder within the room should be set at a level that will not cause discomfort.
- A reset button should be provided within the room and be reachable from both a wheelchair and the WC. An additional reset button may be provided outside the room for use by the person responding to the call for assistance.
- A visual and audible indicator should be provided outside the room where it can be seen and heard by people able to respond.

- Photo shows an example of accessible toilets. the sink and WC are white colored and in good contrast with floor and walls. the toilet is modern looking well appointed and the red alarmed pull chord is shown in correct position besides the toilet.
Storage lockers and cubards are not completely accessible by wheelchair users.

- Lower height of wooden beds makes bed transfers quite uncomfortable for people with limited mobility or wheelchair users.
- Placement of other potential obstructions like almirah, wooden desks etc. is not accessible and limits the maneuvering of wheelchair.
- Uneven surface level at entrance is inconvenient for wheelchair to pass on.

Recommendations
- Visually contrasting and easily readable signage about the room numbers should be displayed with braille at reachable height.
- All electrical switches and sockets should be reinstalled and fitted at reachable height of 800 mm from the surface level for the convenience of people who have lower reach like wheelchair users.
- All electrical switches should be installed at accessible reach height and reachable place without any obstruction in front of it.
- Multipurpose writing desks should be considered to redesign according to the height of wheelchair users specially in room of wheelchair users.
- Only lower reachable height storage cupboards should be reserved or allocated to people with limited mobility or wheelchair to avoid any inconveniences to them.
• Height of wooden beds should be increased to facilitate convenient bed transfers to people with limited mobility or even it will be beneficial for diverse group of people with disability.
• Placement of other potential obstructions should be at safe corner and should be visually highlighted to warn about it.

Sanitary Facilities

Barriers
• There is NO separate accessible toilet for PWDs.
• Following are the barriers of current toilets.
• Electrical switches are not at reachable heights.
• Inconvenient entrance which limits wheelchair maneuvering comfortably.
• Uneven surface level at entrance.
• Mirror of the toilets are installed at unsuitable height which are not accessible by with lower level/reach for example wheelchair users.
• Washbasins are situated at little higher height which makes it uncomfortable for wheelchair users to use it.
• Same color of washbasins with color of wall background may be confusing for people with limited vision.
• There is commode toilet installed in washrooms.
• Bathroom accessories and controls are not guarded and visually highlighted in bathing/changing rooms.
**Girl’s Hostels**

**External Environment**

**Barriers**
- Lack of clear signages/No clear directional guidance about route to hostels.
- Window on outer wall of hostels which opens outward which may create barrier to people with visual impairment who take walls as support and guidance to entrance.

**Recommendations**
- Visually contrasting clear signages with proper directional guidance on access routes should be installed (specially green background of directional boards should be replaced with some other color as green color tend to merge with green tress background which may be confusing sometimes for people with partial/poor vision.
- Outer walls of hostels specifically those who are adjacent or connected to the access routes of campus should be kept barrier free. All protruding objects should be removed.
- Visually contrasting guiding strip along with the outer walls of hostels can be helpful for people with partial/poor vision as directional access routes.
- Tactile warnings about windows which are opening outward should be provided to prevent accidental collision.

**Internal Environment**

**Entrance**

**Barriers**
- No tactile pavements to indicate the entrance of hostel.
- No tactile warnings about change in surface level at the entrances.
- No corduroy warnings about steps of entrance of hostels.
- Entrances of hostels are not accessible by wheelchair users.
- Absence of hand rails on both side of entrance,
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- Tactile pavements to indicate the entrance of hostel as well as to warn about the change in surface level would be convenient for people with visual impairment.
- Projection which covers almost half of the entrance of hostel should be colored with visually contrasting theme to signal about the barrier.
- Ramp should be designed entrances of both hostels to make it accessible by wheelchair users. (Plz refer to the general guideline section)
- Handrails should provided on both sides of ramp to provide ideal edge protection of ramp.

Corridors

Barriers
- Coridoors are full of protruding objects like sofa, almirah and watercooler and furniture which not user-friendly for people with limited mobility/assisted mobility, wheelchair users or people with patial/poor vision.
- Corridors size is less than the standard size.
- Lack of intercom facility.

Recommendations
- All the protruding objects should be removed from the corridor to make it accessible for people diverse group of disabilities. If anything necessary like watercooler can not be removed from corridors should be placed at one corner with proper signage.
- Corridors should have a unobstructed width of 1500 mm-1800 mm. If less than 1500 mm, turning spaces should be located at intervals of 30 metres.
- Level differences should be beveled.
- Threshold should not be more than 12 mm. (please refer to the general guidelines section-corridors for further details.
- Intercom facility should be provided with its installation at reachable height with all necessary extension numbers and numbers of all nearest emergency services displayed by side.

Horizontal Circulation

Barriers
- Lack of sufficient lighting to illuminate passageways, corridors and internal lobbies.
- Switch controls and electrical sockets are not at reachable height by the wheelchair users.
- Potential obstructions are not guarded and no tactile warnings to indicate hazards.

Recommendations
- Internal passageways, corridors and internal lobbies should be illuminated enough to make it clearly visible in night.
- Switch controls and electrical sockets should be visually contrasted from the background of walls and located at within reachable height.
- Potential obstruction like lockers etc. should be visually highlighted if can not be removed with tactile warnings about it.
Internal Doors

Barriers
- Doors hardware are inappropriate to handle by visually impaired and wheel chair user.
- Doors are at higher level and have two stairs so this door entrance need ramp.
- Door has handles with difficult for wheel chair person to handle.
- Doors colours are dull without any contrast of coloures and signage.
- Door controls are of same colors.

Recommendations
- Door hardware should be positioned between 900 mm and 1200 mm above floor.
- Door hardware should preferably comprise a contrasting finger plate on the push side of the door and “D” or “L” handles of circular section on the pull side.
- Door ironmongery should be manufactured from a material which is warm to touch and provides good grip.

Vertical Circulation

Barriers
- Absence of lift in G+1 building hence one lift is recommended.
- No corduroy hazards warning about steps.

Recommendations
- Lift locations should be clearly signposted from the main pedestrian route and recognizable through design and location.
- The colour and tone of the lift doors should contrast with the surrounding wall finish to assist in their location. Lift doors with metallic finishes such as steel grey and silver should be avoided as they are difficult to identify by persons with low vision.
- A clear landing area in front of the lift doors of minimum dimensions 1500 mm * 1500 mm should be provided.
- Visually contrasting corduroy hazards warning should be implanted at the places where steps starts and ends.

Internal Environment and Services

Barriers
- Signage about room numbers are not clear and easily visible.
- Electrical Switches and sockets are not located at reachable height by wheelchair users.
- Multipurpose writing desks in rooms are not completely accessible for wheelchair users.
- Storage lockers and cupboard are not completely accessible by wheelchair users.
- Lower height of wooden beds makes bed transfers quite uncomfortable for a people with limited mobility or wheelchair users.
- Placement of other potential obstructions like almirah, wooden desks etc. is not accessible and limits the maneuvering of wheelchair.
- Uneven surface level at entrance is inconvenient for wheelchair to pass on.
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Recommendations
- Visually contrasting and easily readable signage about the room numbers should be displayed with braille at reachable height.
- All electrical switches and sockets should be reinstalled and fitted at reachable height of 800 mm from the surface level for the convenience of people who have lower reach like wheelchair users.
- All electrical switches should be installed at accessible reach height and reachable place without any obstruction in front of it.
- Multipurpose writing desks should be considered to redesign according to the height of wheelchair users especially in room of wheelchair users.
- Only lower reachable height storage cupboards should be reserved or allocated to people with limited mobility or wheelchair to avoid any inconveniences to them.
- Height of wooden beds should be increased to facilitate convenient bed transfers to people with limited mobility or even it will be beneficial for diverse group of people with disability.
- Placement of other potential obstructions should be at safe corner and should be visually highlighted to warn about it.

Sanitary Facilities
Barriers
- There is NO separate accessible toilet for PWDs.
- Following are the barriers of current toilets.
- Electrical switches are not at reachable heights.
- Inconvenient entrance which limits wheelchair maneuvering comfortably.
- Uneven surface level at entrance.
- Mirror of the toilets are installed at unsuitable height which are not accessible by with lower level reach for example wheelchair users.
- Washbasins are situated at little higher height which makes it uncomfortable for wheelchair users to use it.
- Same color of washbasins with color of wall background may be confusing for people with limited vision.
- There is no commode toilet installed in washrooms.
- Bathroom accessories and controls are not guarded and visually highlighted in bathing/changing rooms.

Recommendations
- Separate accessible toilet and bathing room should be built up for the use of PWDs. (please refer to the general guidelines section - sanitary facilities for further details).
- Following recommendations can make the present sanitary facilities accessible by PWDs.
- Electrical switches should be reinstalled at at 800 mm from floor level height to make it accessible for wheelchair users.
- Slight slope with tactile pavement can be installed at entrance to make easy passing of wheelchair.
- Tilted mirrors should be installed to avail easy view to the people with lower reach/vision level like wheelchair users.
- Washbasins, soap dispensers and tap controls should installed at lower height for the convenience of wheelchair users.
- Washbasins, soap dispensers and tap controls should be visually contrasted from the background colors of tiles.
- Bathing accessories and shower controls should be visually contrasted from the color of background walls to avail clear view for people with limited vision.
- Separate commode should be installed for the convenience of wheelchair users.
- **Pull Chord Alarms**
  - Pull Chord alarms provide a means of summoning assistance from outside the room and should be provided in accessible toilet, bathroom, shower room, and changing facilities designed for independent use.
  - In accessible bathrooms and shower rooms, two alarm pull-cords should be provided; one positioned within reach of a person using the bath or shower and the other within reach of the WC. The cord within reach of the WC should also be reachable by a person who has fallen to the floor.
  - All alarm pull-cords should be coloured red and extend to within 100mm of the floor. They should have two red bangles, 50mm diameter, one at the end of the cord and one at a height of 800 to 1000mm.
  - Once the alarm cord has been pulled, there should be visible and audible indication within the room that the alarm has been activated. Visible indication may be in the form of an indicator light adjacent to the reset button and audible indication in the form of a buzzer or alarm sounder. Any sounder within the room should be set at a level that will not cause discomfort.
  - A reset button should be provided within the room and be reachable from both a wheelchair and the WC. An additional reset button may be provided outside the room for use by the person responding to the call for assistance.
  - A visual and audible indicator should be provided outside the room where it can be seen and heard by people able to respond.
Gym Khana

External Environment

Barriers

- Access routes to the gymkhana doesn't have smooth, even surface level which makes it difficult to maneuver wheelchair.
- Surface of access route is visually confusing.
- Absence of handrails throughout access route to gymkhana.
- Absence of signages and directional guidance to gymkhana.

Photographs by: Navjit Gaurav
Recommendations

- Surface of access route to the gymkhana needs to be smoothen and gravels should be removed from the route to aid smooth wheelchair maneuvering.
- Guiding strips on access route can be proved of a great convenience to people with limited vision.
- Visually contrasting from background handrails should be incorporated throughout access route to gymkhana.
- Clear, easily understandable signages must be incorporated.

Internal Environment and Services

Barriers

- Entrance to the recreational room is constricted and narrowed which makes a wheelchair maneuvering problematic.
- Uneven surface level is another issue on the entrance of the recreational room for wheelchair users as it is uncomfortable to wheelchair users and requires extra force to pass on.
- Electrical switches and sockets are situated at unreachable height for people with lower reach like wheelchair users.

Recommendations

- Entrance to the recreational room needs to be widened with leveled and even surface to aid smooth and comfortable transition of wheelchair users.
- Electrical switches and sockets should be relocated to a lower height no lower than 800mm from surface level.
- All the recreational facilities should boldly labeled with visual contrasting background to make clear and easy to read.
- There should be reserved seating arrangement for PWDs.

Sanitary Facilities

At least one unisex compartment accessible toilet should be provided in the building. (Please refer to the general guidelines section - accessible toilets for further details).
Directors Bungalow

- As such this area would be used by authorised person for personal use only. But in case of emergency when authorised person needed to be contacted immediately waiting area should be allocated for people to wait outside.
- Intercom facility should be provided in that waiting area.
- Waiting area should be illuminated enough to highlight in night time.
- Suitable seating arrangement with necessary facilities like drinking water cooler should be incorporated.

Photographs by: Navjit Gaurav
Dining Hall

External Environment

Barriers
- Access routes to dining hall are not well defined with rough and uneven surfaces forming major chunk in front of it.
- No tactile warnings about the protruding electrical poles and tress while heading toward the dining hall to indicate potential hazards.
- Absence of directional signage showing the way to dining hall.
- Absence of wide display about dining hall.

Recommendations
- Categorical, easily identifiable and easily comprehensible signages about the dining hall must be set up at key points in access routes.
- Objects like electric poles, trees etc. which acts as a deterrent must be strategically placed to avoid inconvenience to the PWDs. If this is unavoidable, the tactile warnings must be installed.
- Signages that are comprehensible and legible must be put up.
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**Entrance**

**Barriers**
- Passageways to the entrance of dining hall is incapacious as compared to the frequency of people using this area.
- The passageway causes inconvenience to the wheelchair users.
- Absence of edge protection.
- Absence of handrails as well as edge protection on right side of passageways.

**Recommendations**
- Passageway to the entrance of the dining hall needs to be widened to 2000 mm minimum to facilitate easy comfortable transition of wheelchair users along with the current frequency of people use this area.
- Handrails must be visually contrasted from the background.
- Visual guiding strips on floors and on sidewalls would be an great asset for people with visual impairment as well as for people with partial or lower vision.
- Hand rails must be installed on right side of the passageways to guard that passageway.

**Internal Environment and Services**

**Barriers**
- The serving counters are not effortlessly reachable by PWDs.
- The serving counter is common. This makes taking food a strenuous task for PWDs as they have to remain in queue with everyone else.
- There must be a separate counter to taking meals for PWDs as taking meals from normal counters along with crowded people would be more strenuous for PWDs.

- No separate provision of seating arrangements for PWDs,
- Tap Controls of sinks are not reachable by wheelchair users.
- Drinking facilities are not comfortably reachable by wheelchair users.
Recommendations

- There should be a separate serving counter for PWDs at accessible height by people who use wheelchairs.
- There must be provision of reserved labelised seating arrangement specially for diverse group of disabilities.
- Tap control of the washbasins and drinking water facility must be placed strategically, so as to make it easier for the wheelchair bound person to use it.
- Drinking water cooler must be laced at lower height to make it accessible by wheelchair users.

Photograph by: Navjit Gaurav
Service Staff Quarters

Staff quarters houses the faculty and staff of TISS and is meant for their use. So modifications or alternations to promote the accessibility of the areas would be completely dependent on type of user of that particular quarter. Somehow some basic modifications can be suggested as follows:

- Reserved labelised parking must be allotted if any PWDs is allocated the quarter.
- Provision of 'Reserved' seating arrangement in the waiting area for the PWDs.
- Clear easily identifiable and readable, visually contrasting display about the current occupants of quarters must be incorporated at waiting area.
- Display must illuminated enough to give better vision and clarity in night.
Barriers
- Absence of directional signages on access routes to guest house.
- Absence of tactile warning pavements cautioning about bifurcation of access routes.
- Absence of corduroy hazards warnings about the unguarded protruding tress in between access routes.
- Absence of any signage about bifurcation of access route and indicating presence of steps /way to steps.
- No tactile warning strips about steps.
- No tactile warnings about vas with plants kept on steps and entrance.

Recommendations
- Visually contrasting clear signages on access routes to guest house must be incorporated.
- Visually contrasting signage along with guiding strips along with the tactile pavement to warn about the bifurcation of access route to guest house must provided.
- Tactile pavement cautioning the presence of obstruction in the form of trees and poles must be set up.
- Tactile warning strips must be provided to warn about steps.
- Vas with plants kept on steps must be removed from the steps as they narrow down the access route.
Internal Environment and Services

- One room must be kept reserved for the PWDs. It must be designed in a manner deemed appropriate for the accommodation of the PWD.
- All the necessary changes about placement of furniture, bed, switches electrical sockets must be taken into account.
- Washroom must also be taken into account while redesigning the room.
- Lifts does not have Auditory devices installed and also there is absence of grab bars inside lifts

Photograph by: Navjit Gaurav
Health Center

Barriers
- Entrance of health center isn’t accessible by wheelchair users.
- No warning about the vas plants kept at the edge of steps.
- Absence of handrails on edge of steps make it hazardous specially for people with visual impairment. this kind of steps are also inconvenient for the people with limited mobility as they don’t get any support from the handrails while using steps.
- No tactile warning strips at initiation ending of steps.

Recommendations
- Ramp at entrance must be built to make way for the wheelchair users.
- Vas plants must be removed from the steps as they creates potential hazards to people with visual impairment and also norw down the entrance to health center,
- Handrails must be incorporated at the edges of the steps to form a protection and support system at edges of steps.
- Tactile warning strips at starting and end of the steps to indicate the potential hazards.
SMS Canteen

External Environment

Barriers

- There is no defined access route to sms canteen.
- The path that leads to sms canteen which is the only access route consists of uneven surfaces, couples with gravels and stones. This is a drawback for wheelchair users.
- No tactile warnings about the presence of tress on the pathway leading to sms canteen. This again causes difficulty to people visual impairment.

- No tactile warnings for the change in surface level.
- Absence of tactile pavements about unprotected edge step, and change in surface level which is hazardous for people with visual impairment and are inaccessible to people with wheelchair users.
- Absence of tactile pavement cautioning about the presence of iron poles supporting the roof and seating arrangement.
- Other protruding objects and uncoordinated seating arrangements may create inconvenience to diverse group of PWDs due to high usage frequency of this area.

Recommendations

- Properly defined and cemented access route to the sms canteen must be formed. (please refer to the general guidelines section - access routes for further details)
- A uniform slope must be built to meet the changes in surface levels.
- Canopy poles intruding into the seating areas should be highlighted visually along with tactile warning about it.
- The canteen is frequently visited by students, staff and faculty alike and remain crowded for most part of the day. There should be a provision of ‘Reserved’, uniform seating arrangements for the PWDs.
The New Campus/Naoroji Campus

The New Campus/Naoroji Campus is located in site address of village Deonar next to BARC sion trombay road Deonar, M West Ward Municipal corporation of Greater Mumbai. The total plot area is 45785.7 sq. meters with net plot area of 38909.98 sq. meters. The green cover area on ground is 11444.11 sq. meters. The total ground coverage of existing building is 5349.32 sq. meters with terrace area of 4352.73 sq. meters. The parking numbers as per local norm is 87 four wheelers. The parking area is 1197 sq. meters. The B.U.A. as per F.S.I. (Excluding satire cases/ podium/basement etc.) is 20804.15 sq. meters.

The Naoroji Campus existing buildings comprises of four sections. First sections comprises of seminar hall with 500 capacities which is also known as convention center which is having total ground coverage of 1437.05 sq. meters. The second section is comprises of institution building, class rooms and faculty offices with total ground coverage of 2131.33 sq. meters. The third section comprises of service staff quarters with total ground coverage of 77.05 sq. meters. The forth section comprises of hostel and new hostel for students having a total ground coverage of 1703.89 sq. meters.

The surrounding of Naoroji Campus is having BARC at South and East direction and Deonar village road at North and Nala and private property in the west direction. The total area of plot (C.T.S. NO. 421/1, 2 & 3) is 45785.70 sq. meters. Floor Space Index (1.33) is 51750.27 sq. meters. The total built up area permissible is 69862.86 sq. meters. The total built up area of all the four categories of existing buildings is 20804.15 sq. meters. The Naoroji Campus existing building with the above four categories having the plinth area of 5349.32 sq. meters. The net area of plot is 25520.37 sq. meters. The number of trees in recreation ground is 576 numbers. Area in centimeters is 11465 sq. meters. The number of trees required 5 numbers per 100 sq. meters is 576 numbers. The total number of trees required 1087. Trees proposed to be transplanted 76 numbers. Trees to be retain 593 numbers.

Total 8 building are existing in new campus under the four sections which involves Seminar Hall cum Convention Centre, Teaching Block/Disaster Management Center G+1, f

Four Category of Institutional Buildings:
first type of building is Seminar Hall Gr +1 with 500 capacity with built up area of 2429.21 sq meters, the second type for teaching and classroom category which involves Institution building with office of disaster Management center with 3 classrooms with 100 student capacity each, Staff Meeting Room 1, Another level of building is Administration block with 60 Staff Gr +3 which has 4 Classroom with 120 capacity, Classroom buildings St+ 5 and with 8 Rooms of 60 capacity, Faculty office building Gr+10 with 25 Offices and 112 Faculty Offices with built up area of 9313 sq meters. Service staff building is Gr+1 with built up area 0154.19 sq meters. Hostel Gr+3 and new hostel Gr+7 with built up area of 8907.65 Sq
Security and Main Entrance

Barriers

- Security chamber don’t proper lighting system. Which may be inconvenient for the people with low vision or partial vision specially in night.
- Does not have any voice enhancement system.
- Security chamber don’t have any front cover protection and road passes nearby to it both of these factor lead to interference in using ones full hearing capability because of background noise.
- No Corduroy warning about change in surface level in front of counter desk.

Recommendations

- Proper lighting system with changeable level as per need should be incorporated to adjust level of lights according to the need to avoid confusion in night/evening time.
- Voice enhancement system like loop induction system should be installed. (please refer to the general guidelines section induction loop system for further details).
- Security chamber should have front cover protection so as decrease interference of background noise and to enable full use of hearing capacity of a person.
- Tactile warning should be provided to warn about the hazardous change in surface level in front of counter desk.

Main Entrance Roads and Parking Areas

Barriers

- The road ending up at campus gate is too steep.
- There is no signage about the bends, turnings etc.
- The roads are uneven and in some places there are pits and are not leveled.
- Also the main boundary of entrance gate and where road terminates is not leveled and tends to get mucky during the rainy weather,

- It makes it difficult for wheelchair users to transit smoothly inside the gate.
- The absence of signages makes it difficult to locate the main entrance of gate at both campuses.
- The uneven roads could be more dangerous for wheelchair users as well as forepoes with visual impairment and could be misleading for them.
- Protruding trees in roads are not guarded which makes it prone to accidental collision specially for people with visual impairment.
Recommendations

- Visually contrasting, clear easily identifiable, readable signages about the directional guidance along with braille language should be incorporated on the roads.
- Roads should be leveled.
- Ends of roads should be marked by prominent boundary.
- Auditory signals and alarms should be fitted at the main gate, to indicate how far is main gate and necessary details for visually challenged.
- Roads should have a footpath to ensure the safety of all.
- Tactile path along with guiding strips leading towards the campus will facilitate smooth movements.
- Junction and turns to be made less steep.
- Protruding trees at corner of roads should be guarded and visually highlighted to avoid accidental collision by people with visual impairment.

Parking

Barriers

- There is NO reserved parking for PWDs in new campus.
- The general parking area is barren, uneven, poorly accessible for anyone.
- It gets mucky in raining season.
- Absence of drop off area and so setting down points.
- There is no appropriate signages to indicate parking space.
- Protruding potential hazards like trees are not guarded.
- Parking space merges with pedestrian path which may be harmful and accident prone specially with people who had partial or complete visual impairment.

Recommendations

- Reserved labelised accessible parkings space should be provided. (please refer to general guidelines section - accessible car parking for further details).
- This reserved parking area near to the elevators in the academic building two, so that its accessible for PWDs to enter the building which will save their time and energy.
- Provision of setting down point should be there. (please refer the general guidelines section - setting down points for further details).
- Parking space need to be defined, guarded by boundaries with edge protection from the pedestrian path to avoid confusion.
- Provide a tactile marking at least 60 mm wide to separate the pathway from the vehicular area.
- Potential hazards like trees should guarded and visually highlighted along with tactile warning to avoid accidental collision by people with visual impairment.
- Use precast wheel stops.
Barriers

- Narrow entrance door makes it difficult for diverse group of disability to transit smoothly with frequency of current usage of building users.
- Lacking of well illuminated lighting system which may create confusion for people with partial/lower vision level in absence of day light.
- Color of door is quite dull n light which is confusing for people who have partial or lower vison impairment.
- Potential obstructions vas plants are kept in front of notice boards which may interfere the accessibility of notice boards specially by diverse group of PWDs.

As you enter the building 2 there is no ramp, which makes the primary entrance to the building highly inaccessible and almost impossible.
- The approach to entrance is not free of stairs and steps. and even to access elevators there is no accessible entrance to permit access to it.
- Also there is no signage to indicate the location of elevator and the surface is slippery.
- Also pathways doesn't have a different color and texture than the adjacent surfaces.
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Recommendations
- Entrance door needed to be widened to avail smooth, easy and comfortable transition of diverse group of people with disability as frequency of usage of building by users is high.
- Well illuminated light system should be incorporated at the entrance to avail clear view even in absence of sunlight and avoid confusion to the people with partial/lower vision.
- Visually contrasted easy to handle doors should be incorporated to highlight potential hazards about it and make it comfortable to handle.
- Potential obstructions like vas plants should be removed in front of notice boards should be removed completely to make notice board accessible by people with diverse group of disabilities.
- Redesigning of entrance needed to be considered inclusive of ramp building to make it accessible by people with limited mobility/assisted mobility.
- Provide an accessible route towards elevator.
- Add slip resistant finish.
- Tactile pavements along with guiding strips to provide directional guidance towards locations of key features of access like ramps, stairs.

Braille plate signage at appropriate height (1000mm) to indicate classrooms and lecture halls

As we move towards Clifford Manshardt hall
- There is no signage across whole campus, no braille plate to indicate class room.
- There are two classrooms on the ground floor. While entering towards schools of habitat studies there is a slope which is steep, slippery and makes it tough to be used by wheelchair user or crutch, cane user and should be leveled with non slippery finish.
- Classrooms have huge doors but closer and tight hinge makes it fairly accessible to people with orthopaedics problems.
- Though the classrooms are big the number of chairs would pose a hindrance to a person on wheelchair or one who is using as assistive motor device.
- The french windows are an excellent infrastructure and allow for adequate lighting and ventilation.

Lecture Halls
- The movement space in between the podium and seats is congested and is not accessible for wheelchair user.
- Also there is no space to accommodate wheelchair in the lecture hall.
- 60 inches is the ideal width of door which is 53 inches and can deter the wheelchair maneuvering.
- First half row can be removed for accommodating the orthopaedically impaired students.
- Stair case width is also less it should be minimum 9 inches.
- The podium for teachers and stairs attached are too narrow and not according to the fixed standards, which will make it tough for any PWD teacher, students or staff to climb up. The stair case could be extended along the whole length of podium.
- Hand rails across the hall is essential while climbing up the stair case.

Sanitary Facilities
Barriers
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- There are two restrooms for girls and boys on the left side corridor (facing towards lecture halls). There is NO separate accessible toilets for the PWDs.
- The existing public toilets are accessible only to those who are not wheelchair bound as well as for those who require assistance.
- The entrance to the restroom is too narrow to access by wheelchair person.
- Also door hinges are tight and it has door closer which makes it tough for a crutch user to enter in and hold the door while simultaneously he/she has to enter.
- Also toilets are inaccessible for wheelchair user to use.
- Wash basins are 2.9 ft. high from the surface of the ground and they do not have grab bars.
- The mirrors is at about 4.2 ft above the surface of the ground.
- The washroom floor is not slip resistant.
- The toilet doors are pivoted opening from inside and have an ordinary latch for a lock.
- The door handles are not appropriately placed.
- There is no pull chord emergency alarm for PWDs.
- Absence of any signage on the toilet rooms which may confuse to first time users about the location of toilets.

Recommendations
- There should be separate accessible toilets for PWDs provided. (please refer to the general guidelines section - accessible toilets for further details).
- The entrance of the washrooms should be widened to to 900 mm width.
- Wash basins should be at a height of 700mm-800 mm from the floor. It should have knee space of approximately 760mm wide by 200 mm deep by 650 mm high. Lever type handles taps are recommended.
- The mirrors should be at about 900 mm - 1000 mm from the floor and at an inclined angle.
- Western style toilets with commode system installed in it should be provided.
- Heights of latches, switches should be corrected.
- The space within the washroom for easy manoeuvring must be 1500 * 1500 mm. Sliding doors would be preferable for even doors that open from the outside.
- Pull chords emergency alarms should be provided in toilets. (please refer to the general guidelines section - pull chords)

Classrooms

Barriers
- There are 4 classrooms on the first floor. However there is no braille or tactile informative system outside the classrooms for the students with disability.
- The faculty offices are congested and small. The thresholds at the entrance of each office are a hindrance to a person using wheelchair and also to people with visual impairment.
- The brown name plates with white writing is not visible to person with low vision and neither to a person with wheelchair as nameplates are paced at higher level.
- Since there are no tactile indicators or braille instructions on the doors of the classrooms as well as the faculty offices, it becomes difficult to find the correct classroom or faculty office. It becomes difficult to find the correct classroom or faculty office.
- There is dangerous gap between the steps is there on 1-5 th floor with no coverage and can trap foot, and highly hazardous.
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Recommendations
• There should be enough space to allow wheel chair bound persons to occupy space.
• The chairs should be simple without the writing desks attached to it.
• The writing board on the wall should be black in color and white chalks should be used for writing as it helps persons with low vision to read easily.
• Also the color of the walls should be in contrast with the board.

Drinking Facilities
Barriers
• The water taps are not of proper height.
• The mechanism to utilize the facility is quite strain, requires more than normal force.
• Absence of signage.
• The height makes it difficult to wheelchair users.
• People with poor hand function will not be able to use this facility.

Recommendations
• The tap should be placed at the height of 900 - 1000 mm.
• Lever or push type handle is recommended.
• Floor of the drinking area should be slip resistant and dry.
• There should be signage at the drinking water facility.
• Also drinking water tank should be placed in area where it doesn't get crowded easily.

Convention Center
Barriers
• The convention center has the optimally potentially to be fully accessible.
• Absence of grab bars throughout the walls and guiding strips.
• There is no space provided in the hall to accommodate the wheelchair.
• The stage and the podium on the stage are not accessible.
• The door of the toilet opening inside prevents closing of the door once a person with his/her wheelchair is inside.
• No grab bars are there to aid the transfers within toilet rooms.
• No guiding strip provided on the floor thus the visually challenged may need assistance to move around in absence of guiding strip.

Recommendations
• As the convention hall has toilet designed for the challenged, they should change the direction of the door and provide grab bars.
• The stage should have proper ramp and side bars to support the individual.
• The door width is not according to the standards, and should be approximately 900 mm.
• The thresholds at the doors are unnecessary and should be removed.
• The doors should have lever action locks and D- handles between 850 mm and 1100 mm from the floor.
• The color of the door should be contrast with the surrounding wall.
• A distance of 450 - 600 mm to be provided beyond leading to edge to enable wheel chair users to maneuver and to reach handles.
• The faculty offices should have braille plates.
• Signs to be mounted between 1000 mm to 1500 mm from the door level.
• Unnecessary furniture and clutter should be 13 mm to 50 mm and should be raised by 1.5 mm and should be in contrast with the background.
General Guidelines To Achieve Accessible Campus Using Universal Design Approach

Follwing are some checklist to be followed while designing Accessible Environments

- Consider access routes, levels, gradients and site layout at earliest design stage.
- Locate car parks and access routes to promote safety and convenience.
- Ensure pedestrian environments are logical and clear to understand.
- Match dished kerbs on opposite sides of the road at crossing points.

Parking Areas

- For buildings not normally visited by the public, such as offices and other places of work: 5% of the total car parking capacity. Premises used by a high proportion of people with disabilities need a larger than required number of designated spaces. The parking requirement for such building types should be calculated in relation to the anticipated demand.
- Provide designated car parking spaces for people with disability° as close as possible to building entrance or facility.
- Ensure the route between the car park and the entrance to the building or facility is accessible and easy to understand.

![Signages for car parking](image)

- Provide clear signage to highlight location of designated parking spaces within the car park.

- Possible accessible parking signage that could be used in conjunction with the pole-mounted version.

- Include roadway marking and wall- or post-mounted signs for all designated spaces.
- Be careful that no street furniture or any is obstructing the pavement side.
- Supply level or flush access route away from vehicles.
- Provide firm and level surface with cross-fall gradient not exceeding 1 in 50.
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- Ensure off-street spaces are 2400mm (min) x 4800mm (min) with 1200mm-wide access zones to both sides and end of space.
- Provide on-street spaces 3600mm wide x 7000mm long.

![Diagram]

**Key**

A. Space for wheelchair access at the rear of the vehicle
B. Full width door opening provides flexibility in positioning the car within the space and therefore allows wheelchair transfer from either driver or passenger side

**Note:**
- An increase in width of 750mm is required if both driver and passenger are wheelchair users
- All dimensions in millimetres

**Fig:** Example of enclosed parking space. Image shows an example of why side space is needed for accessible parking spaces.

**Setting-Down-Point**

- Setting-down points provide a suitable location for passengers to alight from a car close to the principal entrance of a building. People who need to be dropped off as close as possible to a building might arrive via taxi, a dial-a-ride service, or in another person's car. A setting-down point will enable this to happen.
- Provide setting-down point close to building entrance.
- Ensure a canopy height clearance of 2600mm.
- Make sure the road surface is flush with the path or pavement, with the appropriate tactile surface.
- Avoid dished gullies, grilles and manhole covers.
Taxi Ranks
- Taxi ranks should be provided to all the major tourist attractions and recreational places. The taxi ranks must be specifically instructed to drop the PWDs to a point which is in close proximity to the point of visit and easily accessible by the PWDs.
- Taxi ranks should be orientated so that passengers can alight and board on the nearside of the taxi. Pavements should be at least 4040mm wide to allow adequate space for a wheelchair user to manoeuvre and for a wheelchair ramp, which can extend 2000mm from the side of the vehicle.
- When designing a taxi rank, consideration should also be given to guide dog users; people with visual difficulties; and those with walking aids when designing a taxi rank.
- A pedestrian crossing-point with dropped kerb and the appropriate tactile markings should be provided close to the taxi rank.
- Wherever possible, queuing areas should be undercover and incorporate seating, or provide seating close by.

Access Routes
- The width of an access route must be sufficient to enable people to move in both directions and pass each other with ease.
- A clear width of 2000mm is recommended to enable people to walk alongside each other and for two wheelchair users to pass comfortably. The width should be increased where there is simultaneous use by a large number of people.
- Where a clear width of 2000mm is not possible, such as where there are existing obstacles, a width of 1500mm is acceptable. This will enable a wheelchair user and a person to pass each other.
- Where the clear width of an access route is constricted, such as by existing trees or walls, the width may be reduced to 1200mm for a distance not exceeding 2000mm.
- A 1200mm wide path is too narrow for people to pass each other, so passing places should be provided on either side of the constricted section.
Guardrails or barriers should be 1200mm high and should visually contrast with the surrounding surfaces so that they are readily identifiable by all pedestrians and road users.

Include resting places at intervals on long routes in campus.

Ensure width is not less than 1200mm on short constricted sections of an access route.

Use firm, smooth and even surface on access routes, with maximum cross-fall gradient of 1 in 50.

Avoid gaps and vertical deviations between paving slabs greater than 5mm.

Any form of break in surface or gap such as a drainage gulley must not be greater than 10mm and perpendicular to line of travel.

Prevent accidents at changes in level to side of access route with kerb upstands, barriers or guardrail.
Changes in level

- Changes in surface level frequently pose challenges to designers. In adapting to an existing environment, it is appropriate to consider the impact on the general environs, rather than a piecemeal approach. It may be possible to adjust ground levels more broadly to eliminate the need for a ramp or steps altogether.

- Arbitrary changes of level should be avoided. For instance, in creating a sense of importance for a building approach, a change in the quality of paving or street furniture can have the desired effect, rather than introducing a level change. When a terrace or steps or podium becomes a necessity for a designer, however, the result need not always be an obstruction for people with functional difficulties if the design is well considered.

External Ramp

- Ramps at gradient of 1:20, with a clear width of 1200mm and individual flights no longer than 9.0m
- Landings to be as long as the clear width of the ramp or 1300mm which ever is the greater
- Provide continuous handrails on both sides of the ramp, to finish 900 - 1000mm over the ramp surface and 900 - 1100mm over landing. Hand rails to turn into supporting wall as shown, or turn down for min 150mm
- A second handrail is desirable, finishing 600 - 750mm over ramp surface
- 1800 x 1800 turning space at top and bottom of ramp
- Always provide stairs as an alternative
- 75mm raised kerb on open sides
- Slip-resistant surface
- Tactile strips to be located at top and bottom landings

Note: All dimensions in millimetres

- Fig: An example of an external ramp with adjacent steps.

- Ensure the routes between site entrance and building entrance, or from the on-site car parking and between buildings is accessible.
- Design access routes in such a manner that they are understandable, easy to use, and offer choice.
- Provide inclined routes with a gradient between 1 in 33 and 1 in 25 with level landings at regular intervals.
- Ensure ramped and stepped routes are clearly visible or well signed.
External ramps and handrails

- Design access routes with a gradient exceeding 1 in 25 as a ramp.
- Ensure the maximum gradient of a ramp is 1 in 20, maximum rise 450mm and maximum length 9000mm.
- Make the gradient of a ramp slope constant and consistent with consecutive ramp slopes.
- Provide an alternative means of access where the overall rise of a ramp exceeds 2000mm.
- Ensure the cross-fall gradient is no greater than 1 in 50.
- Design surfaces to drain water effectively.
- Avoid curved ramps. Ramp slopes must be straight.
- Provide clear width to suit expected level of use, which must not be less than 1500mm.
- Plan for top and bottom landings to be 2400mm x 2400mm and intermediate landings 2000mm long (multiplied by) ramp width.
- Locate handrails on both sides of the ramp and continuously around intermediate landings, as figures.
- Provide a kerb upstand or guarding to the side of ramp where adjacent ground is at a lower level.
- Illuminate ramp and landing surfaces to 150 lux.

Figure 1.9 Handrail details

Note:
- Clearance to the wall may be 50mm where the wall surface is smooth and 75mm where it is rough
- Upper rail 40 - 50 diameter
- Lower rail 25 - 32 diameter

Note: All dimensions in millimetres
Clear Floor or Ground Space for Wheelchairs.

Size and Approach.
The minimum clear floor or ground space required to accommodate a single, stationary wheelchair and occupant is 30 in by 48 in (760 mm by 1220 mm). The minimum clear ground space for wheelchairs must be provided to aid forward or parallel approach to an object. Clear ground space for wheelchairs may be part of the knee space required under some objects.

Relationship of Maneuvering Clearance to Wheelchair Spaces.
One full unobstructed side of the clear floor or ground space for a wheelchair must adjoin or overlap an accessible route or adjoin another wheelchair located in an alcove or otherwise confined on all or part of three sides, additional maneuvering clearances must be provided as shown in Fig. 4(d) and (e).
(a) Clear Floor Space

(b) Forward Approach

(c) Parallel Approach

(d) Clear Floor Space in Alcoves

NOTE: if $x \leq 24$ in (610 mm), then an additional maneuvering clearance of 6 in (150 mm) shall be provided as shown.

NOTE: if $x \leq 15$ in (380 mm), then an additional maneuvering clearance of 12 in (305 mm) shall be provided as shown.

(e) Additional Maneuvering Clearances for Alcoves

Fig. 4
Minimum Clear Floor Space for Wheelchairs
Surfaces for Wheelchair Spaces.

Clear floor or ground spaces for wheelchairs must comply with 4.5mm. **Forward Reach.** If the clear floor space only allows forward approach to an object, the maximum high forward reach allowed must be 48 in (1220 mm) (see Fig. 5(a)). The minimum low forward reach is 15 in (380 mm). If the high forward reach is over an obstruction, reach and clearances must be as shown in Fig. 5(b). **4.2.6 Side Reach.** If the clear floor space allows parallel approach by a person with wheelchair, the maximum high side reach allowed must be 54 in (1370 mm) and the low side reach must be no less than 9 in (230 mm) above the floor (Fig. 6(a) and (b)). If the side reach is over an obstruction, the reach and clearances must be as shown in Fig 6(c).
NOTE: x shall be ≤ 25 in (635 mm); z shall be ≥ x. When x < 20 in (510 mm), then y shall be 48 in (1220 mm) maximum. When x is 20 to 25 in (510 to 635 mm), then y shall be 44 in (1120 mm) maximum.

(b)
Maximum Forward Reach over an Obstruction

Fig. 5
Forward Reach
Fig. 6
Side Reach

(a) Clear Floor Space  Parallel Approach

(b) High and Low  Side Reach Limits

(c) Maximum Side Reach over Obstruction
Horizontal & Vertical Circulation:

- At least one accessible route within the boundary of the site must be provided from public transportation stops, accessible parking, and accessible passenger loading zones, and public streets or sidewalks to the accessible building entrance they serve. The accessible route meant for the PWDs must concur with the route meant for the general public.
- At least one accessible route must connect accessible buildings, facilities, elements, and spaces that are on the same site.
- At least one accessible route must connect accessible building or facility entrances with all accessible spaces and elements and with all accessible dwelling units within the building or facility. (4) An accessible route must connect at least one accessible entrance of each accessible.
- **Slope.** An accessible route with a running slope greater than 1:20 is a ramp and must comply with 4.8. Nowhere must the cross slope of an accessible route exceed 1:50. **4.3.8 Changes in Levels.** Changes in levels along an accessible route must comply with 4.5.2. If an accessible route has changes in level greater than 1/2 in (13 mm).
- Then a curb ramp, ramp, elevator, or platform lifts (as permitted n 4.1.3 and 4.1.6. Shall be provided that complies with 4.7, 4.8, 4.10, or 4.11, respectively. An Accessible route does not include stairs, steps, or escalators. See definition of Egress, means of in 3.5 4.3.9 Doors. Doors along an accessible route must comply with 4.13.
Protruding Objects.

4.4.1 General. Objects extruding from walls (for example, telephones) with their leading edges between 27 in and 80 in (685 mm and 2030 mm) above the finished floor must protrude no more than 4 in (100 mm) into walks, halls, corridors, passageways, or aisles (see Fig. 8(a)). Objects mounted with their leading edges at or below 27 in (685 mm) above the finished floor may protrude any amount (see Fig. 8(a) and (b)). Free-standing objects mounted on posts or pylons might be placed 12 in (305 mm) maximum from 27 in to 80 in (685 mm to 203 mm) above the ground or finished floor (see Fig).

![Diagram](image-url)
Fig. 8 (c) Free-Standing Overhanging Objects

Fig. 8 (c-1) Overhead Hazards

Fig. 8 (d)
Objects Mounted on Posts or Pylons

Fig. 8
Protruding Objects (Continued)
(a) 90° Turn

(b) Turns around an Obstruction

(c) Changes in level

(d) Changes in level

NOTE: Dimensions shown apply when x < 48 in (1220 mm).

Fig. 7 Accessible Route
Tactile paving surfaces
- Use tactile paving surfaces sparingly and after consultation with groups representing people with visual difficulties.
- Use tactile paving consistently and strictly in accordance with detailed recommendations.
- Use blister tactile surfacing to highlight the absence of a kerb.
- Use red blister surfaces at controlled crossings.
- Use buff blister surfaces at uncontrolled crossings.
- Use corduroy hazard warning surface at top and bottom of external steps.

Internal Environment
Corridors

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Dimensions:
- Public buildings 2000
- Other corridors min 1500
- Door width
- Min 1200
- 2000
- 1800
Key

A. Outward opening doors such as doors to accessible toilets to be recessed. The door recess to equal to the width of the door
B. Corridors in public buildings to be 2000mm wide. Other corridors to be minimum 1500mm wide with passing places
C. Radiators and other wall mounted items to be recessed
D. Duct or store; doors that are normally locked may open outwards, but should be clearly signed and protected when in use
E. Projections such as column or pipe ducts should be permanently guarded
F. Passing places to be provided to corridors less than 1800mm wide and to be minimum 2000mm long and 1800mm wide

Note: All dimensions in millimetres

• Ensure recommended 2000mm clear width for corridors and if this is not feasible, then it must not be less than 1500 mm.
• Provide passing places of 2000mm long x 1800mm wide in corridors less than 1800mm wide.
• Make sure short constrictions in width are not be less than 1200mm.
• Recess wall-mounted items wherever possible.
• Ensure any projections are into the clear width and are guarded.
• Consider using handrails for certain building types and in all cases where corridors are over 20m long.
• Provide seats at no more than 20m intervals on long corridors.
Entrance Doors

Fig: Recommended unobstructed space that should be provided for different door configurations and for different directions of approach.

Note: All dimensions in millimetres

Door widths may vary – the important dimensions to refer to are the unobstructed spaces.
• Ensure entrance doors to new buildings have clear opening of 1000mm.
• Ensure existing building entrance doors are not less than 850mm.
• Provide adequate clear space on both sides of doors, in accordance with Fig.
• Provide 600mm clear space adjacent to the handle-side of doors.

Note: All dimensions in millimetres

Fig: Vision panels

• Incorporate vision panels into all entrance and entrance lobby doors.
• Incorporate visually contrasting markings at two levels on all glazed doors and screens.
• Make sure entrance doors contrast visually with adjacent walls or screens.
• Include a highly contrasting strip on all edges of frameless glass doors.
• Provide door protection to the lower 400mm of glass doors.
Door Ironmongery

Hinges
- Use low friction hinges to minimise door opening and closing forces.
- Consider rising-butt hinges for doors not fitted with self-closing devices.
- Use swing-clear hinges to maximise clear opening width where space is limited.

Handles, latches and locks
- Handles to contrast visually with door leaf and be easy to reach.
- Avoid the use of knob handles.
- Position locks above handles, or with a vertical clearance of at least 72mm.
- Use large winged or lever-thumb turns instead of knob thumb turns.
- Choose handles on external doors that are not cold to touch.
- Consider the use of a modified strike plate for internal self-closing doors.

Fig: Door Ironmongery

Key
A. Vertical pull handle
B. Glazing
C. Finger plate
D. Lever handle
E. Horizontal pull handle
F. Kick Plate

Note: All dimensions are in millimetres
Pull handles and rails
- Configure pull handles as depicted in the above figure.
- Provide pull handles to double-swing doors.
- Use full-height tubular handles only where clear opening width is increased to compensate for the handle projection.
- Provide horizontal rails on the closing face of outward-opening doors. Finger plates and kick plates.
- Install finger plates on the push side of doors that do not have handles, as Fi.
- Provide kick plates to full width of doors and to height of 400mm.

Door-closing devices
- Use door-closing devices only where necessary.
- Ensure all self-closing devices have controlled action.
- Make sure door opening forces are within the limits set for each stage of the opening cycle.
- Consider delayed-action door closers for room doors.
- Consider improving accessibility with the use of electromagnetic hold-open devices and swing-free door-closing devices. Emergency exit door ironmongery.
- Ensure emergency exit door ironmongery is accessible. Other ironmongery.
- Position letter plates 900mm above ground level.
Vertical Circulations

Internal Stairs

- Ensure step dimensions and profile are consistent with as shown in fig.
- Make sure each step edge is visually highlighted.
- Incorporate clear width of steps to suit expected level of use, but not less than 1200mm.
- Ensure that total rise of flight between landings is no more than 1800mm or 12 steps.
- Install consistent number of steps in consecutive flights. Avoid single steps on an access route.
- Provide clear landings at top and bottom of steps, with the length equivalent to the step width.
- Use tactile hazard warning surface at top and bottom of flight, only if deemed appropriate following risk assessment.
Fig: Handrails details for internal steps.

- Provide handrails on both sides of the steps and continuous around intermediate landings, as given in fig above.
- Provide an additional central handrail where the stairs are more than 2000mm wide.
- Protect any area below stairs that has headroom less than 2200mm.
- Illuminate step and landing surfaces to 150 lux.
- Ensure that time-delay timings accommodate the needs of all users.

**Internal Ramps**

- Ensure maximum gradient of a ramp is 1 in 20, maximum rise 450mm, and maximum length 9000mm, as fig.
- Make sure the gradient of a ramp slope is constant and consistent throughout and between consecutive ramp slopes.
- Install ramp with a clear width to suit expected level of use, but not less than 1300mm.
- Incorporate top and bottom landings of 2440mm x 2440mm and intermediate landings 2000mm long x ramp width.

![Diagram showing clearance to the wall, clear width, and handrail details.](image)

Fig: Handrail details for internal ramps.

- Provide handrails on both sides of the ramp and continuous around intermediate landings, as given in fig above.
- Provide a kerb upstand or guarding to the side of ramp.
- Illuminate ramp and landing surfaces to 150 lux.
Lifts:
- Set up passenger lift adjacent to an accessible flight of stairs.
- Provide conventional enclosed lift as an alternative to glass-walled lifts.
- Ensure lifts are clearly signed from building entrance and other key areas.
- Install lifts with the size and capacity to suit building type and occupancy.
- Ensure that all lifts are accessible, where more than one lift is provided.

![Diagram of lift details]

Note: All dimensions in millimetres

Fig. Lift details.

- Keep to recommended minimum internal dimensions of 1800mm x 1800mm, as given in the fig above.
- Incorporate clear door opening width of 950mm.
- Ensure lift doors remain open for a minimum of eight seconds.
- Design a lift door arrangement that is consistent and logical.
- Incorporate 'light curtain' safety device, extending 25mm to 1800mm above floor level.
- Include clear landing space of 1800mm x 1800mm.
- Provide visual and tactile floor numbers at each landing.
- Position landing and lift car controls within reach of all users.
- Install control buttons that are easy to use, as given in fig above.
- Ensure the lift signalling system is both visual and audible.
- Provide an emergency communication system that is suitable for all users.
- Design lift interior to minimise glare and reflection.
- Use even level of illumination of 100 lux.
- Provide half-height mirror to rear wall.
- Install handrails on all walls without doors.
- Consider the provision of a tip-up seat.
- Locate evacuation lifts in fire-resisting enclosure with independent electrical supply and additional controls.
Sanitary Facilities

Toilets are necessary provisions that should be included as part of the facilities in public buildings. It is important to place toilets discreetly and yet easily identifiable and accessible.

- At least one accessible compartment in both male and female toilets or one accessible common individual washroom should be provided at every level.
  
  **Code on Accessibility 2007, Clause 4.1.1**

- All corridors leading to accessible toilets should have adequate manoeuvring space for wheelchair access.
  
  **Code on Accessibility 2007, Clause 4.1.8a**

- Signage at accessible washroom entrances should be of tactile finish, clearly visible and be of contrasting colour.
  
  **Code on Accessibility 2007, Clause 4.1.8a**

- Entrance layout, where possible, should be designed without doors and yet able to provide users with privacy.

- All accessible toilets should have non-slip floor finish and be provided with adequate lighting.
- Corridors leading to the accessible compartment within a toilet should be at least 1200 mm wide.

Unisex Accessible Toilet

A unisex accessible toilet (also termed as wheelchair accessible toilet) is designed to meet the needs of independent wheelchair users but is also equipped to suit persons with mobility difficulties and may be used by other people who require, for example, additional space, the support of grabrails, or integral hand-washing facilities.

---

**Key**

| A. Vertical grabrail 35mm | J. Paper towel dispenser |
| B. Horizontal grabrail 35mm | K. Soap dispenser |
| C. Drop down rail 35mm | L. Hot-air hand dryer |
| D. Flat-topped close-coupled cistern | M. Shelf for personal use |
| E. Special WC pan | N. Sanitary dispenser with controls P. between 750 and 1200 |
| F. 950 high shelf for colostomy bags | O. Horizontal rail to assist door closing |
| G. Alarm reset button | P. Mirror from 600 - 1600 |
| H. Toilet paper dispenser | Q. Two clothes hooks within range 1050 - 1700 |
| I. Alarm pull-cord | R. Wash basin |
Fig: Unisex accessible toilet – right-handed transfer.
Fig: Unisex accessible toilet – Left-handed transfer.

Key
A. Vertical grabrail ○ diameter 35mm
B. Horizontal grabrail ○ diameter 35mm
C. Drop down rail ○ diameter 35mm
D. Flat-topped close-coupled cistern providing a back rest
E. Special WC pan
F. 950 high shelf for colostomy bags
G. Alarm reset button •
H. Toilet paper dispenser
I. Alarm pull-cord ●
J. Paper towel dispenser
K. Soap dispenser
L. Hot-air hand dryer
M. Shelf for personal use
N. Sanitary dispenser with controls between 750 - 1200
O. Horizontal rail to assist door closing
P. Mirror from 600 - 1600
Q. Two clothes hooks within range 1050 - 1700
R. Wash Basin

Note: All dimensions in millimetres
Wheelchair Users
Accessible toilets are meant to cater specially to wheelchair users. Therefore, the design should take into consideration their special needs. The layout of the sanitary equipment and other fittings should facilitate wheelchair users who use them.

- The internal clear dimensions of an individual accessible toilet should be at least 1750 mm x 1750 mm.
  
  **Code on Accessibility 2007, Clause 4.9.1a**
- The water closet should be located at 460 mm to 480 mm from the centre line of the water closet to the adjacent wall and have a minimum clear dimension of 750 mm from the front edge of the water closet to the rear wall to facilitate side transfer.
  
  **Code on Accessibility 2007, Clause 4.7.1a**
- The flip-up grab bar mounted on the wide side of the compartment adjacent to the water closet should be 280 mm to 300 mm above the top of the water closet seat. It should extend not more than 100 mm from the front of the water closet seat and be 380 mm to 400 mm from the centre line of the water closet.
  
  **Code on Accessibility 2007, Clause 4.3.1d and Clause 4.3.2**
- One vertical bar is to be provided on the side wall closest to the water closet. If possible, one horizontal grab bar, at least 700 mm long, should also be mounted on the wall behind the water closet.
  
  **Code on Accessibility 2007, Clause 4.3.1e and f**
Toilet roll dispensers should be mounted below the grab bars and not more than 300 mm from the front edge of the seat and at 50 mm to 250 mm above the top of the water closet seat.

* Code on Accessibility 2007, Clause 4.10.1f

Fig: Example of a urinal with wall mounted grab bars for adults

**Urinals**

Besides the provision of standard urinals, there is a need for the installation of vertical grab bars on top of the urinal to assist the ambulant disabled. Urinals for children should also be provided.

- Urinals should be of wall-hung type with a rim not more than 400 mm from the floor. There should be an unobstructed minimum floor space of 750 mm wide by 1200 mm deep and no change in levels in front of the urinals.

  * Code on Accessibility 2007, Clause 4.8.1a and b

- Privacy shields should not extend beyond the front edge of the urinal rim unless they allow a clear width of 750 mm or more.

  * Code on Accessibility 2007, Clause 4.8.1c

- Wall-mounted grab bars with a gap of 120 mm from the walls and at 1000 mm to 1500 mm above the finished floor level should be provided on both sides of the urinal.

  * Code on Accessibility 2007, Clause 4.8.2

- Flush controls should be located not more than 1200 mm above the floor.

  * Code on Accessibility 2007, Clause 4.8.3

**Accessories**

Toilet accessories are essential components for the functioning of toilets. Therefore they should be installed at appropriate positions to ensure universal usage.

- Towel and soap dispensers, hand dryers, waste bins and sanitary bins should be in contrasting colours and tones. They should be positioned such that the operable parts and controls are 1000 mm to 1200 mm above the floor.

  * Code on Accessibility 2007, Clause 4.4.1b

- Accessories should be placed in close proximity to the accessible wash basin so that a wheelchair user does not have to wheel the wheelchair with wet hands.

  * Code on Accessibility 2007, Clause 4.4.1 Note 1
All accessories installed should not hinder the main circulation path within the toilet.

All compartments should be equipped with a coat hook mounted on a side wall not more than 1300 mm above the floor and projecting not more than 40 mm from the wall.

Code on Accessibility 2007, Clause 4.10.1g

At least one compartment should be fitted with a child protection seat.

Code on Accessibility 2007, Clause G.3.2.2

Half-height mirrors should be positioned at not more than 1000 mm from the bottom edge of the mirror to the An additional body-length mirror should be provided.

Code on Accessibility 2007, Clause 4.4.1a

Wash Basins
Wash basins are important components in toilets. They are normally installed outside water closet compartments for the convenience of users. The arrangement should be extended to suit wheelchair users and children alike.

Wash basins should be of a standard size with dimensions of approximately 520 mm by 410 mm.

Code on Accessibility 2007, Clause 4.6.1a

It should be mounted such that the minimum distance between the centre line of the fixture and the side wall is 460 mm and the top edge is 800 mm to 840 mm above the floor.

Code on Accessibility 2007, Clauses 4.6.1b and 4.6.1c

Wash basins should have a knee space of at least 750 mm wide by 200 mm deep by 680 mm high, with an additional toe space of at least 750 mm wide by 230 mm deep by 230 mm high. It should also have a minimum clear floor space of 750 mm wide by 1200 mm deep, of which a maximum of 480 mm in depth may be under the basin.

Code on Accessibility 2007, Clauses 4.6.1d and 4.6.1e

Grab bars at 800 mm above the finished floor level should be provided on both sides of the wash basin.

Fig: Example of wash basin
Chapter 6

Accessibility recommendations from the students of TISS with disability

2. Braille scripts/plates and Auditory signals at entrance of class rooms, toilets, stair cases, entrances of side gates (main and back gate) and lifts.
3. Research software and SPPS for Students with Visual Impairment
4. Better quality Scanning facility for students with Visual Impairment
5. MK Tata Library for the students with Visual Impairment can be more advanced by making available latest softwares, phonetics/speech document can be converted into text/script.
6. Braille campus maps can be provided near the main gate/entrances for students with visual impairments.
7. Upgrading MK Tata Library with quality braille printers.
8. Wheelchairs at all hostels, entrances, main and back gate & classrooms at main and new campus.
9. Dogs in the campus poses a serious threat to the visually impaired students. There have been cases of dog bites in the past. Measures must be taken to lessen their numbers on the campus.
10. Sensitization of banks regarding providing loans for students with disability should be done with greater emphasis.
11. Classroom and examination specific arrangement pertaining to accessibility issues must be addressed with regard to the availability of the writers and integration of teaching aids etc.
12. Making campus accessible by people with disability with wireless auditory signals and advanced ICT technology.
13. Tactile maps of campus with classroom directions and strategically positioning notice boards to make them accessible by people with disabilities.
14. Urgent issues on MK Tata Library: The students with Disability are highly competent and a considerable amount of their time is taken away by manual scanning which is cumbersome. Besides old the earlier purchased scanners are faulty and dysfunctional as reported by students. Currently only one scanner is functional which is too time consuming. Is it possible for Lib to have a provision to send the required scanned material by e-mail in short notice of 3 days as exams are nearer. The new model is inaccessible to Students with Disability and SPSS current version is also inaccessible creates a barrier to do research. It will be useful, if such version of SPSS is attached to all PC solving with accessibility issues. If TISS could distribute free laptops to students with visual impairment and orthopaedic configured to suit their needs, it would immensely benefit the students.
15. Conducting Access Audit on TISS campus at regular intervals campus on regular basis to create the barrier free environment and develop curriculum on Universal Design and Accessibility in Inclusive Education
17. Creating an "In Campus Accessibility App" using necessary software and Mobile Technology for moving freely and independently within campus for students with Visual Impairment.
18. All the government schemes of UGC and Higher Education to be implemented for students with All the ICT devices and aids and appliances must be made available for the academic development of students with disability.
The ATM inside the campus has been made accessible to Students with Disability based on the expert guidelines for accessibility and barrier-free environment under the supervision of I-Access Rights Mission.
The stage inside the Convention Center is not accessible to a wheelchair user or person having mobility issues.
The stage inside the Amphitheater is not accessible to a wheelchair user or person having mobility issues.
A Proposal of Installation of Braille & Talking ATM with Accessibility for Persons with Disability in TISS main campus.

Accessibility to all basic resources is important and a key to equitable distribution of resources to all including the persons with disability in the TISS campus. ATM services is one of them. The regular complaint from visually impaired students regarding bank's harsh attitude towards them and trouble faced in getting ATM details and secret account from banks has become an issue of concern and equitable accessibility too. Several times writing letters to the banks at nearby vicinity on behalf of students has not solved the problem and advocating to each new bank officer becomes a tough job.

I-Access team has identified a bank and details of installing ATM through Union Bank with Mr Naik who is a visually impaired employee working in this area of installing accessible ATM.

We would like to propose to install an Braille and accessible ATM in our main campus. The major criteria for installation is the provision of place/ Site. This site can be provided by TISS as an accessible site for installation with consultation of PWD.

A brief consultation and observation was done by I access team members with visual impairment and a prime location/site was identified at the middle of TISS campus. This consulted site a rectangular area of 10 x 8 square feet is before the health center and opposite library where a temporary locked cabin is kept as a landmark to identify this site. This site is accessible and at a prime location to all the student and faculty as dinning hall, heath center, library, girls, boys and PhD hostels and classrooms are nearby of less than 100 meters distance. The another important advantage of this site is that it is geographically next to the main road within campus. Any other site is also acceptable to us provided it is through the consultation with PWD.

Cost involved: No cost for installation
Benefit: It will accessible to persons with orthopedic ally impairment and visually impairment.
The Union Bank of India has designed this ATM with ramps and Braille and they will also provide a guard if required.
Cost: Minimal cost to make it accessible-ramp
The details of minimal cost can be sent to you, once we get an approval from you for installation.

Kindly permit the I- Access team to work towards the Installation of ATM in TISS campus and it will be for entire Tiss staff and faculty including PWD.

The meeting with you and the respective authorities can be scheduled in TISS for further action and communication for purpose of responsibility and accountability.

Thanking You.

Yours Sincerely

Dr. Vaishali Kolhe and Kailish Tandel
"I-Access Rights Mission"
## ACCESS AUDIT REPORT 2018-19

### ACCESS AUDIT CHECK LIST
GENERAL-EXTERNAL AND INTERNAL ENVIRONMENTS

### EXTERNAL ENVIRONMENT

Name of the building: .........................................................................................................................
Address: ...........................................................................................................................................
Date of Survey: ....................................................................................................................................
Name of Surveyor: .................................................................................................................................

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>PARKING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Is there any accessible parking for PWDs?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Is the accessible parking enough?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Is the no. of accessible parking within 30 meters of the entrance?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Is the international symbol of access imprinted on the parking ground?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Is there a vertical, visible signboard indicating that the lot is for use by a disabled driver only?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Do curb ramps connect accessible parking spaces with the side curb?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Are there pre-cast wheel stoppers or bollards to separates pathway from the parking?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Is the size of the parking 3600 mm * 4800 mm?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Is the drop off area marked by signage and curb ramp?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Does the drop off area have warning signs for vision-impaired people?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## ACCESS AUDIT REPORT 2018-19

### 1. TAXI STAND

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is there a taxi stand near the building?</td>
<td>There is no Taxi Stand within Campus</td>
</tr>
<tr>
<td>2. If there is a curb at the taxi stand, then is there a curb ramp leading to the pathway?</td>
<td></td>
</tr>
</tbody>
</table>

### 2. PATHWAYS

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is the pathway clear of all obstructions?</td>
<td>There are many obstacles landscape features</td>
</tr>
<tr>
<td>2. Is the pathway clear of steps and stairs?</td>
<td></td>
</tr>
<tr>
<td>3. Are there tactile guiding blocks, installed along the line of travel?</td>
<td></td>
</tr>
<tr>
<td>4. Are there warning blocks around any obstruction?</td>
<td></td>
</tr>
<tr>
<td>5. Is the Path at least 900 mm wide?</td>
<td></td>
</tr>
<tr>
<td>6. Is the surface level, smooth and non-slippery?</td>
<td></td>
</tr>
<tr>
<td>7. Does the pathway have a different colour and texture than the adjacent surface?</td>
<td></td>
</tr>
<tr>
<td>8. Are all manholes places outside the pedestrian path of travel?</td>
<td>It is Not Guided</td>
</tr>
<tr>
<td>9. Are the grating opening narrow, not more than 12 mm?</td>
<td>No greetings</td>
</tr>
<tr>
<td>10. Are the grating perpendiculares to the direction/path of travel?</td>
<td>NA</td>
</tr>
<tr>
<td>11. Is there an edge protection along the pathway, 13 mm minimum?</td>
<td>Not Needed</td>
</tr>
</tbody>
</table>
## 1. CURB CUTS

<table>
<thead>
<tr>
<th>Question</th>
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<th>No</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are curb ramps provided at all level differences, between the road surface and pathway level?</td>
<td></td>
<td></td>
<td>Not Given</td>
</tr>
<tr>
<td>Pedestrian crossings?</td>
<td></td>
<td></td>
<td>Not Applicable</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessible parking space?</td>
<td></td>
<td></td>
<td>Space is available</td>
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</table>

<table>
<thead>
<tr>
<th>Question</th>
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<th>No</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building entrance?</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are curb ramps located at each corner of street intersections?</td>
<td></td>
<td></td>
<td>N.A.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
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<td>N.A.</td>
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</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is every curb ramp faced by another curb ramp on the opposite side of the street?</td>
<td></td>
<td></td>
<td>N.A.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the slope of the curb ramp no less than 1:12?</td>
<td></td>
<td></td>
<td>N.A.</td>
</tr>
</tbody>
</table>

## 2. PEDESTRIAN CROSSINGS

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the road surface even and slip resistant at pedestrian crossing?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are pedestrian traffic lights installed?</td>
<td></td>
<td></td>
<td>N.A.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do traffic lights have both audible and visual signals?</td>
<td></td>
<td></td>
<td>N.A.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do traffic islands (zebra crossings) have street-level pathways cut through them with a minimum width of 1500 mm?</td>
<td></td>
<td></td>
<td>N.A.</td>
</tr>
</tbody>
</table>
## ACCESS AUDIT REPORT 2018-19

### 1. GENERAL OBSTRUCTION

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Are there any protruding objects within the path of travel, not detectable by a vision-impaired person with white cane?</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Are the protruding objects marked with tactile warning at least 60 mm beyond the projection area of the obstruction?</td>
<td>There is not tactile guiding</td>
</tr>
<tr>
<td>3</td>
<td>Are all overhanging obstructions with the path of travel marked with contrasting colour?</td>
<td></td>
</tr>
</tbody>
</table>
## INTERNAL ENVIRONMENT

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. MAIN ENTRANCE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Is the main entrance of the building accessible?</td>
<td></td>
<td></td>
<td>In the entrance there is a Durbin holder</td>
</tr>
<tr>
<td>2. Are there any steps at the entrance?</td>
<td>?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Do the steps have a handrail?</td>
<td></td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>4. Are there handrails on both the sides?</td>
<td></td>
<td></td>
<td>N.A.</td>
</tr>
<tr>
<td>5. Is there a ramp?</td>
<td></td>
<td></td>
<td>Needed</td>
</tr>
<tr>
<td>6. Does the ramp have a railing?</td>
<td></td>
<td></td>
<td>N.A.</td>
</tr>
<tr>
<td>7. Are there handrails on both the sides?</td>
<td></td>
<td></td>
<td>N.A.</td>
</tr>
<tr>
<td>8. Is the clear door width at least 900 mm?</td>
<td></td>
<td></td>
<td>If only two panels open then ok, if one then not</td>
</tr>
<tr>
<td>9. Can the entrance door be operated independently?</td>
<td></td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>10. Is the height of the door handle between 900 mm and 1100 mm?</td>
<td></td>
<td></td>
<td>Bottom is on 1000</td>
</tr>
<tr>
<td>11. Does the accessible entrance permit access to an elevator?</td>
<td></td>
<td></td>
<td>N.A.</td>
</tr>
<tr>
<td>1. Is the accessible entrance clearly identifiable?</td>
<td></td>
<td></td>
<td>Not visible to Visually impaired</td>
</tr>
<tr>
<td>2. Is the landing surface non-slippery?</td>
<td></td>
<td>?</td>
<td></td>
</tr>
</tbody>
</table>
## ACCESS AUDIT REPORT 2018-19

<table>
<thead>
<tr>
<th><strong>1. DOORS</strong></th>
<th><strong>YES</strong></th>
<th><strong>NO</strong></th>
<th><strong>REMARK</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Are there any automatic doors at the entrance?</td>
<td>?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Can the doors be operated without much effort?</td>
<td>?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Do automatic doors have sufficient long opening intervals?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Are push buttons for automatic doors located at maximum height of 1200 mm?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Is there sufficient space beside the latch side of the doors (400-450 mm)?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Are accessible doors placed adjacent to the revolving doors and turnstiles?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Are glazed doors marked with a colour band at eye level?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. For double leaf doors, is the width of one of the leaves at least 900 mm?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Do doors fitted with spring closers have an extra pull handle?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Is manual door accessories/hardware (handles, locks, pull, etc.) located no higher than 1200 mm - 1300 mm?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Are doormats flush with the floor surface and secured to the floor at all edges?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Is the threshold, no more than 200 mm high and bevelled?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## ACCESS AUDIT REPORT 2018-19

<table>
<thead>
<tr>
<th>1. CORRIDORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is the minimum unobstructed width of corridors at least 900 mm?</td>
</tr>
<tr>
<td>2. Does the corridor width allow manoeuvring through doors located along its</td>
</tr>
<tr>
<td>length?</td>
</tr>
<tr>
<td>3. Are differences in level, bridged with ramps or lifts?</td>
</tr>
<tr>
<td>4. Can a sightless person with cane detect all protruding objects within the</td>
</tr>
<tr>
<td>corridor?</td>
</tr>
<tr>
<td>5. Are all overhanging obstructions mounted above minimum height of 2000 mm?</td>
</tr>
<tr>
<td>6. Can a person with low vision, identify all obstacles in the corridor?</td>
</tr>
</tbody>
</table>

### ELEVATORS/ LIFTS

| 1. Is there an accessible path leading to the elevator?                     |
| 2. Is the clear door opening width 900 mm or more?                          |
| 3. Are the minimum internal dimensions of the elevator 1400 mm * 1400 mm?  |
| 4. Is the control panel placed at a height between 900 mm and 1200 mm from  |
|     the floor level?                                                        |
| 5. Is there an audio and video system installed in the lift indicating      |
|     arrival at a floor?                                                     |
| 6. Are there Braille/raised numbers on the control panel?                   |
| 7. Is the elevator provided with a handrail on the three sides?             |
| 8. Are the handrails mounted at a height between 800 mm and 900 mm?         |
## ACCESS AUDIT REPORT 2018-19

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>REMARK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Are there tactile or Braille instructions for the communication system?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Is the emergency intercom usable without the voice communication?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Is the door opening/closing interval long enough?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Is the finish of the elevator floor skid-resistant?</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1. STEPS/STAIRS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>State the locations of the steps?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Is the minimum width of the stairs 900 mm?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Are there continuous handrails, on both sides, at a height between 800 mm and 900 mm?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Is the handrail installed in the centre of the stair width is more than 3000 mm?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Is there a landing located after the stairs, cover a level difference of more than 2500 mm?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Is the landing length not less than 1200 mm?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Do the stairs have a nosing?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Are the step edges of a different colour or texture easily identifiable by low-vision &amp; vision impaired person?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Is the location of emergency (fire escape) stairs clearly identifiable?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Does the height of the tread is 250 mm &amp; risers 300 mm?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Access Audit Report 2018-19

### Ramps

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Is there a ramp next to the stairs?</td>
<td>?</td>
<td>One Ramp near Director's Office</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Is the location of the ramp clearly identifiable?</td>
<td>?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Is the ramp gradient no steeper than 1:12?</td>
<td>?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Is there a landing of at least 1200 mm of length, at 10,000 mm intervals?</td>
<td>?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Is there a landing at every change in direction?</td>
<td>NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Is there a landing at the top and bottom of every ramp?</td>
<td>?</td>
<td>Not Marked</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Is the minimum width of the ramp 900 mm?</td>
<td>?</td>
<td>150 cm</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Are there continuous handrails, on both sides, at a height between 800 mm and 900 mm?</td>
<td>?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Is the surface of the ramp non-slip?</td>
<td>?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Is there an edge protection on both sides of the ramp?</td>
<td>?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Handrails

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>Are handrails mounted at a height between 800 mm and 900 mm?</td>
<td>?</td>
<td>98 cm</td>
</tr>
<tr>
<td>12.</td>
<td>Are Handrails easy to grip?</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Are handrails securely attached?</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Do handrails extend horizontally between 300 mm and 450 mm at the top and bottom of every staircase or ramp?</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Are the ending of the handrails grouted in the ground or turn downward?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOILETS</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>---</td>
<td>------------------------------------------------------------------------</td>
<td>-----</td>
<td>----</td>
</tr>
<tr>
<td>1</td>
<td>Are there separate toilets for PWDs?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Are the toilets easily identifiable?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Is there sufficient space inside the toilets to manoeuvre a wheelchair?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Do individual washrooms have clear dimensions between opposite walls of not less than 1750 mm?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Are water closets (WC) and bidets mounted at a height between 460 mm and 490 mm?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Is the space between the WC and the toilets adjacent wall, fitted with a grab bar is between 450 mm 500 mm?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Is the accessible wash basin mounted at a height between 800 mm and 850 mm?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Is the lower edge of the mirror positioned at a height not exceeding 1000 mm?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Are the accessible showers provided with a folding seat?</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

|   | GRAB BARS INSTALLATION NEAR WC AND SHOWERS AT A HEIGHT BETWEEN 850 MM AND 900 MM? |     |    |        |
| 1 | Are all the grab bars installed near WC and showers at a height between 850 mm and 900 mm? |     |    |        |
| 2 | Do grab bars have a diameter of 40 mm?                                  |     |    |        |
| 3 | Do wall mounted grab bars have knuckle space 40 mm?                      |     |    |        |
| 4 | Are grab bars non-slippery?                                             | NA  |    |        |
| 5 | Can the grab bars withstand the load?                                   | NA  |    |        |
| 6 | Are faucets easy to grip and operate with one hand?                    | ?   |    | It is 110 cms high |
### ACCESS AUDIT REPORT 2018-19

#### 1. EATING OUTLETS

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is the eating outlet accessible to PWDs?</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>2. Is there a circulation path of at least 900 mm wide to allow a wheelchair user to move around the eating outlet?</td>
<td>?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>REMARK</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1.5 m</td>
</tr>
</tbody>
</table>

| 3. Are the cash and service counter height below 850 mm? | ? | 1.5 m |

| 4. Is the table accessible with a height of 750 mm to 850 mm and knee space of 750 mm wide and 480 mm deep? | ? | 1.5 m |

| 5. Do the table with fixed stools have accessible spaces for wheelchairs? | ? |   |

#### 2. PUBLIC TELEPHONES

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Are there public telephones accessible to wheelchair users?</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>7. Is there at least one telephone in the building equipped with a loop induction unit?</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>8. Are the numerals on the telephone raised to allow identification by touch?</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>9. Is there proper signage directing to the public telephone?</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>10. Are the heights of the operable parts of the telephone between 800 mm and 1200 mm?</td>
<td>?</td>
<td>1.5 m</td>
</tr>
<tr>
<td>11. Is there a clear knee space of more than 750 mm?</td>
<td>?</td>
<td></td>
</tr>
</tbody>
</table>
## Access Audit Report 2018-19

### 1. Resting Facilities

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Where there are large spaces are resting facilities provided between 100 meters and 200 meters?</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>2. Is there an adjoining space for wheelchair next to benches and public seats?</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>3. Are public seats with a height of 750 mm to 850 mm and knee space of 750 mm wide and 480 mm deep?</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

### 2. Reception & Information Counters

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Are the counters easily identifiable?</td>
<td>?</td>
<td>Not accessible</td>
</tr>
<tr>
<td>7. Is the counter between 750 mm and 900 mm height?</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>8. Is a part of the counter lowered to accessible height?</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>9. Is a loop induction installed unit at the counter?</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>10. Are there tactile pictographic maps of the building near the counter?</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>11. Is the counter well illuminated?</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>
Ground Floor Plan

Faculty Building, Naroji campus

ACCESS AUDIT REPORT
Tata Institute of Social Sciences, Mumbai.
(Based on the guidelines given by Dr. Gaurav Raheja)

LEGEND

Accessible Passage
Accessible Lift
Accessible Ramp
Accessible Toilet

Tactile Path
First Floor Plan

Faculty Building, Naroji campus

ACCESS AUDIT REPORT
Tata Institute of Social Sciences, Mumbai.
(Based on the guidelines given by Dr. Gaurav Raheja)

LEGEND

- Accessible Passage
- Accessible Lift
- Accessible Ramp
- Accessible Toilet
- Tactile Path
Third and Seventh Floor Plan

Faculty Building, Naroji campus

ACCESS AUDIT REPORT
Tata Institute of Social Sciences, Mumbai.
(Based on the guidelines given by Dr. Gaurav Raheja)
Typical Floor Plan
(THIRD, FOURTH, FIFTH, SIXTH, EIGHTH & NINTH FLOOR PLAN)

Faculty Building, Naroji campus
ACCESS AUDIT REPORT
Tata Institute of Social Sciences, Mumbai.
(Based on the guidelines given by Dr. Gaurav Raheja)
Ground Floor Plan

Hostel Number 05, Naroji campus

ACCESS AUDIT REPORT
Tata Institute of Social Sciences, Mumbai.
(Based on the guidelines given by Dr. Gaurav Raheja)
First Floor Plan
SANS REVISIONS ON TYPICAL FLOOR
Hostel Number 05, Naroji campus
ACCESS AUDIT REPORT
Tata institute of Social Sciences, Mumbai.
(Based on the guidelines given by Dr. Gaurav Raheja)
Second and Third Floor Plan
SAME REVISIONS ON TYPICAL FLOOR
Hostel Number 05, Naroji campus
ACCESS AUDIT REPORT
Tata institute of Social Sciences, Mumbai. (Based on the guidelines given by Dr. Gaurav Raheja)
ACCESS AUDIT REPORT 2018

Aim: Facilitating Disability Sensitive Environment in Higher Education

TATA INSTITUTE OF SOCIAL SCIENCES,
TULJAPUR CAMPUS

PREPARED BY:
Dr. Vaishali Kolhe
Centre for Disability Studies and Action (CDSA)
I-Access Rights Mission, Field Action Project, CDSA,
School of Social Work, TISS Mumbai.
CDSA Students Incharge:
Ms Shazia Qureshi, Ms Shbhalaxmi Barura
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<td>4-6</td>
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<td>7-10</td>
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<td>10. Requirements</td>
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</table>
1. Introduction:

The Tata Institute of Social Sciences (TISS) was established in 1936 as Sir Dorabji Tata Graduate School of Social Work; and aimed to create human service professionals to work with and enable people overcome poverty, deprivation and unemployment.

TISS continues to produce committed high quality human service professionals in a range of social and human development sectors: health, mental health, social epidemiology, clinical psychology; education and vocational skill development; human resources management, media and cultural studies, rural and urban development, livelihoods and social entrepreneurship, climate change, disaster management, regulatory governance, focused work on women, children, adolescents, youth, aged; disability studies; etc. The aim of the institute has been to provide socially relevant education that feeds into government policies in various public service sectors; such as nutrition, prisons, skill building and micro-business enterprise, shelter homes and welfare institutions, and disaster relief. With an innovative curriculum TISS education stays relevant in the highly competitive higher education sector in an increasingly globalised world. A consistent effort is to develop the skills relevant in the new economy that can strengthen government initiatives in the social sector.

Tuljapur Campus

TISS Tuljapur in Osmanabad district of Maharashtra was set up with support from the Government of Maharashtra in 1986. The campus houses the School of Rural Development with several centres. The TISS Tuljapur campus houses the School of Rural Development with several centres. It is a 100-acre campus located in the outskirts of Tuljapur. The campus has commenced offering the Five Year Integrated Masters programme since 2012. It has a computer centre, library, gymnasium, girls and boys hostels, guest house, and faculty and staff quarters. The initial focus of the Institute on rural development projects and field action has widened to include academic activities with grass root level involvement both by faculty and students in the last 7 years. The campus was established with the goals of promoting initiatives for sustainable, eco-friendly and equitable socio-economic development of rural communities, with a focus on gender and social justice. Through its programs, the School of Rural Development (SRD) seeks to contribute to the
revival of the rural Economy, Society and polity by promoting alternatives in development. In order to achieve this, SRD evolved a four-dimensional program comprising teaching, training, field action and research & documentation. The cooperation between teaching, research, field action and extension has enabled this campus to continue to shape planning, policy and programmed formulation, foster critical rethinking and development of people centred interventions. Between 1986 to 2004, it mainly served as a centre for research and field action.

Today, it has evolved into a full- edged campus with graduate, post-graduate and training programmes with focus on equity, justice and sustainable development. Being located in the Tuljapur Tehsil headquarters, its proximity to rural communities, and closely working with the Central, State and District development administrations, TISS Tuljapur has started playing a significant role. Not only is it influencing local self-governance, but also contributing in strengthening the overall capacities of the marginalised and vulnerable communities to access state programmes, live with dignity, and participate and negotiate with the State and other communities in the decision-making processes.

**Purpose of the report**

To conduct an accessibility audit in contexts of persons with disability and their unique needs. The purpose of this report is to ascertain from students what difficulties they come across when accessing the TISS Tuljapur. This includes any physical difficulties with accessing the campus resources of the Tuljapur campus as TISS University has to offer.

2. **Architectural Structures of Buildings:**
   - **Maps of Tuljapur TISS Campus**
Tuljapur as Rural and Eco-friendly Campus.

TISS Tuljapur is an eco-friendly Campus and makes all eorts to protect and enhance the greenery and tree cover there. TISS has always offered path-breaking programmes and courses with innovative curriculum and pedagogy. Its research has been cutting edge and its outreach focussed and sustained.

The Tuljapur OCampus contributes to knowledge, policy, and practice in the same tradition. It has been focussed about the diversification of academic programmes, by centreing, and recentreing on the developments taking place in a fast-changing and globalising world. The TISS Tuljapur Campus is a centre of regular discussions, debates, colloquia and invited lectures (outside the classroom) providing both faculty and students with unlimited scope for self-expression, assertions and contestations on the conviction that education is about critical inquiry. Both the intrinsic and instrumental roles of education inform such exercises and processes. Care is taken to ensure that in teaching and research, updating of knowledge is consciously done; even as equity, diversity and inclusive excellence are unswervingly adhered to. Special care is taken to see that campus ambience is not overlaid with retrograde values and practices. The Tuljapur Campus is a lively centre of academic discourse and activities and is fast turning into an academic paradise. The TISS Tuljapur Campus is in a consolidation phase; a phase of infusing quality into every functioning aspect on a regular and sustained basis.

Spread over 100 acres of land, the TISS Tuljapur Campus is known for its eco-friendly environment and development. The Institute has attempted to protect and enhance the greenery and tree cover in the Campus. It has well developed housing, hostels, 24-hour electricity supply, high-speed internet connection, water supply and other amenities for its faculty, staff and students. The Campus is located about 3 kilometres to the west of Tuljapur town and is well connected with all weather road. There is a bus service between the Campus and Tuljapur town to ease travel of students and staff. At present, there are 5 hostel buildings which can accommodate about 550 students. The construction of one wing of a new hostel is in progress and will be completed in next three months. Expansion of the Dining Hall is also under progress.
3. Accessibility and Barrier free Environment Guidelines and Specifications:

**Background of Access Audit**

An accessible built environment has been recognised as a core element of an inclusive society. An accessible environment provides citizens with autonomy and the means to pursue an active social and economic life (EC Expert Group on Accessibility, 2003).

Many people with disabilities are faced with barriers that exclude them from participating as equal citizens. These barriers can be attitudinal and societal as well as physical and affect people with different impairments at different times of their lives.

The case for making our society more accessible is a compelling one on many fronts. It is not only an issue of justice but it makes good business and social sense. In addition to contributing to the development of a more inclusive and equal society an accessible environment offers the following advantages:

- An accessible environment increases the pool of potential new workers that an employer can tap into. It also helps organisations retain existing employees who may acquire a disability;
- An accessible building enables more people with disabilities to enter the premises and/or use the services;
- Accessibility improves overall safety of buildings, which has a direct impact on the number of accidents taking place and therefore the cost of insurance premiums;
- An accessible environment gives greater customer and staff satisfaction and can improve public perception and recognition of a Department or Agency.

**Why carry out an access audit?**

An access audit is one of the first of many steps that can help to improve accessibility and provides the basis for an access improvement plan or strategy (see section 6 for other steps). According to Sawyer and Bright (2004) there are a number of reasons for carrying out an audit including: legislation; funding conditions (such as Government Departments/Offices funding through the Office of Public Works’ Universal Access Programme); to gather data on buildings for comparison or analysis; to check compliance with certain standards and regulations; company policy on equal opportunities; public relations/company image; conservation by use of historic buildings; pressure from lobby groups and awareness of particular problems.
Carrying out an access audit will identify a number of features including:

- the current accessibility of the building/property/site;
- areas for improvement (e.g. no accessible car spaces in the car park or the door in the accessible toilet on the ground floor is incorrectly located and therefore the WC is inaccessible);
- good/bad practice in relation to facilities management that an organisation has in place; positive accessibility features (e.g. counter loop at reception, good use of lighting and colour throughout building, signage);

**Who are these guidelines for?**

This guide offers best practice advice on how to carry out an access audit. It is envisaged that these guidelines will be of interest to all those involved in access auditing including building surveyors, architects, building designers, facility managers, occupational therapists, building control officers, local access groups, persons with disability and all those who deal with the construction and use of buildings.

**3.4. What is an access audit?**

To many, an access audit is a checklist of guidelines that need to be adhered to. However an access audit of the built environment is much more than that. Audits of the built environment need to consider the day to day running of the building, the building type, management issues, maintenance and safety as well as the checklist of building design criteria. An access audit should also encompass egress and needs to consider access and safety in emergency situations (safety zones, routes, signage, emergency equipment etc.)

There are a number of definitions available for access audits. These include:

- An access audit rates an existing building against given criteria for usability and accessibility. It involves not only the issue of ready movement to and around the building, but also the use by people with sensory or intellectual disabilities of the services, which the building provides (NDA, 2002);
- The purpose of an access audit is to establish how well a particular building or environment performs in terms of access and ease of use by a wide range of potential users, including people with disabilities, and to recommend access improvements (Bright and Sawyer, 2004);
3.5 Types of Access Audits

Along with the standard access audit there are 3 types of audits that could take place.

3.5a. Walk and talk audits/Route appraisals:
A walk and talk audit/route appraisal is a simplified version of an access audit and is usually carried out accompanied by the client. As the walk and talk audit/route appraisal takes place the auditor discusses the main positive and negative accessibility features and a short report will be sent to the client after the meeting. For example; an organisation may wish to carry out a walk and talk audit/route appraisal if they are holding a seminar in a new hotel or if a small organisation (such as local shop, garden centre, hairdressers etc.) wants to investigate their accessibility.

While carrying out a walk and talk audit/route appraisal the auditor should be making the client aware of general ease of use of premises; provisions in place for people with various disabilities; obstacles/hazards; means of escape provided; wayfinding systems in place; circulation (horizontal and vertical, level changes) and quality of fixtures, surfaces lighting etc.

b. Design Appraisals
A design appraisal looks at the proposed design of a building and assesses the potential usability/accessibility of the finished building. The report should make recommendations on improvements, highlight positive accessibility features, provide information on accessibility features that may have been missed and advise on any relevant changes that need to take place.

A design appraisal is only one step in the process of designing a new building. It is worth noting that professionals with accessibility experience should be involved in all stages of the design process including:

- design appraisals at all stages throughout the project;
- advising during the construction (what fixtures and fittings to use, ensuring equipment is placed in correct position, etc.);
- post-occupancy evaluation (ensuring signage in correct position, loop systems in working order, revising safety statement, etc.).

While design appraisals are beyond the scope of these guidelines further details can be obtained in section 8.2.

3.6.b. Acquisition Audit
For any organisation considering the leasing or purchase of a property an acquisition audit will identify any physical adjustments that may be required. Typically this information is useful when negotiating terms with freeholders, managing agents or
4. Guidelines from Manual for Barrier free Environment

- **Accessible**
  A site, building, facility, or portion thereof that complies with this manual and that can be approached, entered and used by people with disabilities.

- **Accessible Route**
  A continuous unobstructed path connecting all accessible elements and spaces in a building or facility that can be negotiated by a severely disabled person using a wheelchair and that is also safe for and usable by people with other disabilities. Interior accessible routes may include corridors, ramps, elevators, lifts, and clear floor space at fixtures. Exterior accessible routes may include parking, access aisles, curb ramps, walkways and ramps

- **Ambulatory Disabled**
  A person who is able, either with or without personal assistance, and who may depend on prostheses (artificial limbs), orthoses, (calipers), sticks, crutches or walking aids to walk on level or negotiate suitably graded steps provided that convenient handrails are available.

- **Automatic Door**
  A door equipped with a power operated mechanism and controls that open and close the door automatically upon receipt of a momentary signal. The switch that begins the automatic cycle may be photo electrical device, floor mat, sensing device, or manual switch mounted on or near the door itself. Bevelled Smooth, slanted angle between two surfaces; for example, a slant or inclination between two uneven surfaces to allow easier passage of a wheelchair

- **Circulation Path**
  An exterior or interior way of passage from one place to another for pedestrians, including walkways, hallways, courtyards, stairways and stair landings.

- **Reach Range**
  - Forward Reach for wheelchair users
  - Without obstruction
The maximum forward reach is 1200 mm from the floor and the minimum forward reach is 400 mm from the floor as shown in the figure below.

- Over Obstruction

The maximum reach over an obstruction 500 mm deep is 1100 mm from the floor as shown in the figure below.

- Side Reach for wheelchair users Without Obstruction

The maximum side-reach without obstruction is 1300 mm from the floor and the minimum side reach is 250 mm as shown in the figure below.

Over-obstruction
The maximum side reaches over an obstruction 860mm high x 500mm deep is 1200mm from the floor as shown in the figure.

- **White Cane Range**

- **Common Reach Zone**
Wheelchair Dimensions

The figures illustrate some of the typical dimensions of a standard wheelchair. Electric wheelchairs may be of a larger dimension, much heavier and do not have the same maneuverability/capability as manual wheelchairs.
- **Walkway Width for People Using Crutches**

Although people who use walking aids can maneuver through door openings of 900mm clear width, they need wider passageways for comfortable gaits as shown in the figure. Crutch tips, often extend down out at a wide angle, are a hazard in narrow passageways where they might not be seen by other pedestrians.
• Circulation Dimensions

Although the minimum required turning radius is 1500 mm but it is ideal to provide for a 1800 mm turning radius.

• Vision Zone
- Heights of People
- Wheelchair Users

The average height of a person seated on a wheelchair is generally less than 1200 mm

- Standing Person

The average height of a standing person is generally less than 2000 mm

**Fundamental Needs**

The target group is composed of four major categories:

- People with impaired mobility
- People with visual impairment
- People with hearing impairment
- People with Learning Disabilities and Mental Retardation
- **People With locomotor disability**

**Wheelchair Users**

The main problem of wheelchair users are about moving and working from a sitting position; thus many requirements are associated with the dimensions and other aspects of wheelchairs. The length of the wheelchair varies generally between 1100mm and 1200mm. The user’s feet add approximately 50mm to the overall length.

The width of the wheelchair varies between 600mm and 700mm. To propel a chair manually by operating the rims of the main wheels, a clearance of not less than 50mm, and preferably 100mm is needed. Over longer travel distances, additional space is needed.

Space requirements for maneuvering are always related to the activities to be performed. Different users act in different ways, depending on individual performance and the type of chair used.

When planning spaces in buildings to cater for wheelchair turning, a guide is to impose on the plan to provide a circle of 1800mm diameter. If this space is dear, the plan arrangement will normally be satisfactory. However, spaces in doorways, niches and under worktops, desks or furniture can often be used when turning. Where a high degree of accessibility is required, such as in hospital buildings, spaces should be more generous.

Considerable energy is required to propel a wheelchair manually up ramps, over changes in level or over soft or uneven surfaces. Thresholds and changes in level should be avoided. Ground and floor surface should be hard and even.

Most wheelchairs have a seat height of about 500mm. The reach of a wheelchair user is constrained by his seated position. Access to room corners, work benches with base units, etc., is limited by the wheels of the chair and the footrest extension. The reach of wheelchair user is confined to a zone 700mm to 1200mm above floor level and not less than 400mm from room corners.

For wheelchair access to a workbench, washbasin or table, a dear space for knees and footrests is needed. This should be at least 800mm wide, 480mm deep and 750 mm high.
**Ambulant People With Disability**

For ambulant disabled people to move securely, ground and floor surfaces should be even and slip resistant. Handrails should be provided on stairs and ramps. Resting places, such as benches, should be provided along travel routes.

Where there is a change of ground or floor surfaces, these should have similar friction, to decrease the risk of stumbling. Benches and chairs should have a seat height of approximately 450mm and they should have armrests approximately 700mm above floor level.

- **People With Visual Impairment**

For people with impaired vision, orientation can be aided by marking with the use of color, illumination and, in certain cases, the texture of material. Design and plan arrangement should be simple and uncomplicated. Contrasting colors and warning blocks should be used to aid the identification of doors,
stairs, ramps, passageways, etc. Surfaces can be varied to indicate pathway, changes of directions etc. Orientation cues should be specially illuminated. Handrails can be used as a location aid.

To minimize the risk of falls and injuries, hazards such as posts, single steps and projections from walls should be avoided wherever possible. Hazards should be emphasized by means of illumination and by contrasting colors and materials. If unavoidable, the projections should be placed higher than 2000mm from the floor.

People with impaired vision are often sensitive to glare. Unwanted mirroring effects and reflections may be avoided by attention to the location of windows and illumination, and the choice of floor and wall surface.

People with impaired vision often have difficulty reading signs and other printed information. Blind people are restricted to tactile reading (some can read Braille as well). Visual information in, for example, railway stations and airports should be supplemented with audible inform.

- **People with Hearing Impairment**

  People with impaired hearing have a particular difficulty in comprehending sounds and words in the environment. Rooms should be acoustically well insulated.

  In public buildings, loud-speaking systems should be clearly audible. Supplementary visual information should be provided in, for example, railway stations and airports.

  People with impaired hearing may rely on lip reading; this is helped if there is good overall light that is non-reflective. They may have difficulty using telephones, etc. Audible signals may, in certain cases, be supplemented with visual signals.

  Loop induction units may be installed in auditoria, theaters, meeting rooms, etc., to improve reception for people using hearing aids. Infrared sound
reinforcement system may also be provided in multiplex auditoria to avoid sound overspill from one area to another.

![Diagram showing multiplex auditoria]

- **People with Learning Disabilities & Intellectual Disability**

There are many different types of disabilities in this group. In addition to congenital deficiencies and various kinds of central nervous system diseases and brain disorders, it covers disabilities caused by an accident or a cerebral haemorrhage.

A considerable number of persons among the mentally impaired are paralytics. In addition to being mentally disabled they may have difficulties in coordinating and controlling their movements.

When moving about outdoors, persons in this group are confronted with the special problem that they find it difficult to perceive, comprehend, or interpret information such as signs. They may stumble easily over even minor bumps and fall heavily. They may also have spatial orientation difficulties and in some cases lack the ability to distinguish color or to differentiate between left and right.

It may be difficult to meet all their needs but minimum provisions would include:

- Clear and easy-to-grasp information as an aid to orientation
5. THEORETICAL FRAMEWORK

**Universal Design for Learning (UDL)**: UDL is a set of principles for curriculum development that give all individuals equal opportunities to learn. UDL provides a blueprint for creating instructional goals, methods, materials, and assessments that work for everyone--not a single, one-size-fits-all solution but rather flexible approaches that can be customized and adjusted for individual needs. The purpose for designing curricula based on UDL principles is not simply to help student’s master specific content, but to help them become expert learners who know how to learn. Expert learners typically develop three broad characteristics; they are (a) strategic, skilful and goal directed, (b) knowledgeable, and (c) motivated to purposefully learn more. Designing curricula using UDL removes potential barriers that could prevent learners from meeting this important goal and helps them master subject-area content.

Three primary principles, which are based on neuroscience research, guide UDL and provide the underlying framework for the Guidelines:

- **Principle I: Provide Multiple Means of Representation (the “what” of learning)**

  Learners differ in the ways that they perceive and comprehend information that is presented to them. For example, those with sensory disabilities (e.g., visual impairment or hearing impairment); learning disabilities (e.g., dyslexia); language or cultural differences, and so forth may all require different ways of approaching content. Others may simply grasp information quicker or more efficiently through visual or auditory means rather than printed text. Also learning, and transfer of learning, occurs when multiple representations are used, because it allows students to make connections within, as well as between, concepts. In short, there is not one means of representation that will be optimal for all learners; providing options for representation is essential.

- **Principle II: Provide Multiple Means of Action and**

  Learners differ in the ways that they can navigate a learning environment and express what they know. For example, individuals with significant movement
impairments (e.g., cerebral palsy), those who struggle with strategic and organizational abilities (executive function disorders), those who have language barriers, and so forth approach learning tasks very differently. Some may be able to express themselves well in written text but not speech, and vice versa. It should also be recognized that action and expression require a great deal of strategy, practice, and organization, and this is another area in which learners can differ. In reality, there is not one means of action and expression that will be optimal for all learners; providing options for action and expression is essential.

- **Principle III: Provide Multiple Means of Engagement (the “why” of learning)**

  Affect represents a crucial element to learning, and learners differ markedly in the ways in which they can be engaged or motivated to learn. There are a variety of sources that can influence individual variation in affect including neurology, culture, personal relevance, subjectivity, and background knowledge, along with a variety of other factors presented in these guidelines. Some learners are highly engaged by spontaneity and novelty while other are disengaged, even frightened, by those aspects, preferring strict routine. Some learners might like to work alone, while others prefer to work with their peers. In reality, there is not one means of engagement that will be optimal for all learners in all contexts; providing multiple options for engagement is essential.

6. **Access Audit Checklist for creating accessible environment**

   **Vertical circulation**

Vertical circulation is how people move up and down within the building, so includes things like stairs, lifts, ramps, ladders and escalators which allow us to move from one level to another.

**Stairs**

- Stairs should stand out from pedestrian.
- It should be adequately and uniformly illuminated during day and night.
- The level of illumination should be preferably between 150 to 200 lux.
- Lighting system in staircase should be designed to create a slight
contrast between threads and risers, while providing a uniform overall level of illumination.

- Stair flights should be straight.
- The direction of the stairs should change, a series of landings is recommended.
- The rise of a flight between landings must not be more than 1200mm.
- The stair covering and nosing should be slip-resistant, non-reflective, firmly-fixed and easy to maintain.

**Handrails**

- A suitable continuous handrail should be provided on each side of the flight and each side of any landings.
- Handrails on ramps should be mounted between 865 mm and 965 mm, and provide a smooth continuous surface from the top to bottom of the ramp, without breaking the handhold.
- Handrails should extend a minimum distance of 300 mm beyond the top and bottom of the ramp. Handrail ends must be turned down or curved into an adjacent wall as an aid to persons with visual impairments.
- For all flights of stairs or steps that are 2200 mm wide or greater, an intermediate (middle) handrail is recommended, as an aid to persons with limited mobility or vision.
- Paving surfaces at the top and bottom of all flights of stairs or steps should include a cane-detectable and textured walking surface, a minimum of 915 mm deep, (forward of the first riser and continuous from the top of stair), as an early warning of an impending level change to persons with visual impairments.

**Ramps**

- Ramps are one of the important structure in any environment to make it accessible. Ramps should not be much steeper. There should be handrails to allow persons using mobility aids to move easily and to grasp the handrails. Ramps are required for persons with visual impairment also. Level landings at top and bottom of the ramp should be
there. An up-stand curb or a solid barrier is recommended on either side of ramps for persons using mobility aids, in order to act as a safety stop for the front wheels of wheelchairs.

- Gentle slope- 1:12 minimum
- Landings: every 750 mm of vertical rise
- Width- 1200 mm or above
- Handrails on the ramps should be on both the sides at a height of 850 mm-900mm; both end to be rounded and grouted extend 300mm beyond top and bottom of ramp
- Surfaces (ramps +landing): should be slip resistant.
- Wherever possible a ramp should be accompanied by a flight of easy going steps.

**Lifts** - Where needed, elevators and passenger platform lifts should be designed to be useable independently by and accessible to persons using wheelchairs.

- Lift locations should be clearly signposted and recognizable through design and location.
- The color and tone of the lift should contrast with the surrounding wall finish to assist in their location.
- A clear landing area in front of the lift doors of minimum dimensions 1500mmX1500mm should be provided.
- The clear opening width of the doors should be a minimum of 900mm, but 950 mm or wider is preferable.
- The lift button should be wall- mounted adjacent to the lift and should contrast with wall finish
- The call buttons should be located within the range of 900-1200mm above floor finish.
- Buttons should ideally be large enough to be operated by the palm of the hand if required.
• The controls buttons should contrast with their surroundings and illuminate when pressed.
• Lifts should have both visual and audible floor levels indicators.
• Audible systems are also usually capable of incorporating additional messages such as door closing or in the case of an emergency, reassurance.
• A yellow or light green or black display is preferred to a red on black display as it is easier to read.
• The door opening time should be set to allow unhurried movement in and out.
• Door closing should be controlled by a photo cell or infra-red device to ensure doors do not make physical contact with persons standing in their path.

**Horizontal circulation**  Horizontal circulation might include hallways, atria, paths, entries and exits. It is also affected by the furniture layout, or other objects in the space such as columns, trees, or topographic changes. This is why architects usually furniture as part of a concept design, because it is critically linked to the flow, function and feeling of the space.

**Corridors**-
• They should incorporate landmarks which may be one or a combinations of features such as visible clues, tactile indicators, sounds etc.
• Corridors should be left unobstructed and features such as fire extinguishers heaters recessed.
• If handrails are provided along corridors they should convey information asa well as maintain a line of travel.
• The end wall of a corridor should be highlighted by, for example, good color and tone contrast between walls floor coverings and a change in lighting.
• Directional signage should be repeated in long corridors to prevent disorientation.
• In long corridors, considerations should be given to the provision of
resting places or support rails.

- Corridors should be wide enough to allow two persons to pass.
- The floor should be slip-resistant, easy to clean and waterproof.

**Door dimensions**:

- The entrance should be if possible be 1200 mm wide to allow easy access for a visually impaired person accompanied by a person without disability.
- One accessible entrance is required for buildings having 1 to 3 entrances and 2 accessible entrances for buildings having more than 3 to 5 entrances.
- No "less than 50 percent accessible entrances are required for buildings having more than 5 entrances. User specific situations would be evaluated in a case by case basis.
- Where pairs of doors are utilized, at least one leaf should provide a clear opening of 810 mm wide
- Door hardware should be positioned between 900mm and 1200mm above floor.
- Lever handles should be manufactured from a material which is warm to touch and provides good grip
- Also be fitted with vision panels at least between 900mm and 1500mm from the floor level.
- Be color contrasted with the surrounding wall and should not be heavier than 22N to open.
- Glass doors must have a bright, colored motif at eye level.
- Where revolving doors or turnstiles are used, an alternative wheelchair-accessible entrance must be provided.

**Windows**:

- A window should have handle/controls at 1200mm.
- It should have an unobstructed viewing zone for wheelchair users 600mm-1450mm
- Curtain or venetian blind controls/ropes should be at 1200mm.
Washrooms and toilets-

- Water closet compartment dimensions- the dimension of unisex toilet is critical in ensuring access. The compartment should be atleast 1750 mm wide and 2000 mm long.

- Water closet (WC) fittings-
  - A standard WC unit with a pan should be fitted 460-475 mm above finished floor level.
  - An unobstructed space 900 mm wide should be provided one side of the WC for transfer, together with a clear space 1200 mm deep in front of the WC.
  - WC should be centered 500 mm away from the side wall, with the front edge of the pan 750 mm away from the back wall.
  - Have a back support.
  - The WC should not incorporate a lid, since his can hinder transfer.
  - The seat should be sturdy.
7. **Access audit Findings:**

An access audit is regarded as the first step towards improving accessibility. An Access audit is an important tool to identify barriers, within a building and also external areas such as play spaces, car parking etc. The audit provides a "base-line" assessment against which initial recommendations can be made. With the results of the access report, service providers are better equipped to make short and long-term access improvement action plan. The elements covered in an access audit depend on the type and nature of the environment and services under consideration. Buildings and sites vary considerably and, although there will be common elements between particular types, no two will be exactly the same.

**Purpose of the access audit:**

1. The purpose of the access audit is to assess how the TISS Tuljapur campus performs in terms of access and ease of use by a wide range of actual and potential users, including person with disabilities and to recommend access improvements. The aim of the access audit and its follow-up are to:

2. Identify the extent of the problem of access to the campus and recommend changes additions to make the environment accessible

3. To create awareness of the importance of the concept of barrier-free environments for persons with disabilities

4. To enforce the inclusion of accessibility for persons with disabilities in the campus. The report includes observations, measurements, sketches and photographs covering all parts of the public building audited including the external and internal environment as well as the services provided in the building.

**Steps**

- Getting to the premises - access from road or car park, lighting, signage, surfaces and street furniture
- Getting into the premises – entrance, steps, thresholds, doors, lobby/reception area, seating, and lighting
- Getting around the premises – corridors, doors, stairs, lifts, signage, floor surfaces, tonal contrasts and lighting
• Using the services in the premises – toilets, washrooms, changing and bathrooms, bedrooms, eating areas, bar, room layout, lighting, heating, switches, handles, seating, furniture, telephone, alarm, health and safety issues, management and staff attitudes

• Exploring alternative ways of providing access to services – where a physical feature makes it impossible or unreasonably difficult for a service to be accessed. For example, offering a home service, installing a call bell for help at an approved height, providing a piece of equipment or offering extra assistance from trained staff

• Getting out of the building in an emergency – fire exits, emergency routes, lighting and warning systems and safe refuge

• Marketing and communication materials – publicity materials both printed and websites, menus, training materials and manuals, instruction sheets, suggestion forms etc.

• Policies, Procedures and Practices

Majority of the access is through steps and this limits the horizontal as well as vertical circulation of person with disability. (Image Source: TISS Archive)
Identification of Key Barriers by Photo narratives

Amphitheatre: An amphitheatre is an open-air space used for entertainment, performances purpose where different cultural programmes are being held like fest, musical shows etc. Therefore, it is very important that the amphitheatre is accessible so that the students with disabilities can also be a part of it.

- These stairs leads to the amphitheater of the college. The stairs are not required as it makes the amphitheater completely inaccessible. Ramps should be made instead of these stairs.
- This is the entry to the amphitheater. Inaccessible routes due to differences in level. The level of entry is not equal to the ground, it is not a flat surface.
• Inside the amphitheater is also not accessible. Ramps should be build so that SWD can at least go up and sit.

**Barriers**

• Stairs are too high.

• No seats for wheelchair users.

• Entrance is not of equal level with the ground.

**Requirements**

• The amphitheatre should be build in such a way that everyone can access it. Amphitheatre should include seating areas that are accessible to persons using wheelchair.

• There should be also ramps if possible. Stairs should be clearly marked with either a brightly painted non-slippery finish.

• Handrails should be provided on both sides of stairs.
**Dining Hall:** A room where meals are available for all students like breakfast, lunch and dinner.

- This is the entry towards the dining hall. Though there are ramps here but these ramps are not the correct ones.
Moreover, the entire floor is way too slippery which is very dangerous especially for SWD.

**Barriers**

- Absence of tactile path.
- Incorrect design of ramps.
- Utensils kept are kept at a higher height – lower is a one window site. 3 feet (900 mm) ideal.

**Requirements**

- Recover the Sill height of the window.
- One window should be overed to easy access for wheel chair.
- Sitting arrangement at outside area for ease in mobility.
**Director's office:** Office of the head of the institute.

- There is no signage which will represent that it is the director's office.
• This is the entry towards the directors office which has a door seal again making it difficult for SWD to enter.

**Barriers**

• No signage.

• Inaccessible entrance.
Requirements

- Main entrance doors and other accessible entrance and exit doors should allow safe passage of persons with disability.
- Door frames should be clearly colour differentiated to aid in locating the entrance.
- There should be signage everywhere especially in braille as well. Signs are to provide information. They can inform the user about route or a facility. Signs increases a person’s awareness of their surrounding and their environment.

**Girls Hostel:** A place where the girls studying in the institute reside.

The entry towards girls hostel also has stairs and it makes the hostel inaccessible for the girls with disability.
• These surface of the ramps are improper. In such surface there is not grip over the wheelchair.

**Barriers**

• The entrance of the hostel has stairs.

• The design of the ramps are not correct.

**Requirements**

• Ramps should not be much steeper. There should be handrails to allow persons using mobility aids to move easily and to grasp the handrails.

• Ramps are required for persons with visual impairment also. Level landings at top and bottom of the ramp should be there. An up-stand curb or a solid barrier is recommended on either side of ramps for persons using mobility aids, in order to act as a safety stop for the front wheels of wheelchairs.
**Guest House:** A place in the institute where the guest lecturers or any other person visiting the institute for any institute related official work is given accommodation.

- The entry towards the guest house also has the door seal which is not required.

**Barriers**
1. No signage.
2. The entrance of the room is not accessible for persons using wheelchair.
**Requirements**

- There should be signage in braille for persons with visual impairments. Signs are to provide information. They can inform the user about route or a facility. Signs increase a person’s awareness of their surrounding and their environment.
- Main entrance doors and other accessible entrance and exit doors should allow safe passage of persons with disability. Door frames should be clearly color differentiated to aid in locating the entrance.

**Health centre:** A building that provides medical services available for the institute which has a group of doctors.

- This the entry towards the health center and there are ramps but the ramps are not in the correct form. Improper design of ramps.
**Barriers**

- The surface of the ramps are improper. In such surface there is not grip over the wheelchair.

**Requirements**

- Ramps should not be much steeper. There should be handrails to allow persons using mobility aids to move easily and to grasp the handgails. Ramps are required for persons with visual impairment also. Level landings at top and bottom of the ramp should be there. An up-stand curb or a solid barrier is recommended on either side of ramps for persons using mobility aids, in order to act as a safety stop for the front wheels of wheelchairs.

**Hostel**

- This is the entry towards the hostels and the just like the health center ramps, that is the design is improper.
- These designs of ramps are improper. These kinds of entry makes the hostel inaccessible
- The water from the washing rooms come out which is very dangerous and the floor becomes very slippery.
**Barriers**

- The design of the ramps are not correct. The surface of the ramps are improper. In such surface there is not grip over the wheelchair.

- The floors are very slippery.

**Requirements**

- Ramps should not be much steeper. There should be handrails to allow persons using mobility aids to move easily and to grasp the handrails. Ramps are required for persons with visual impairment also. Level landings at top and bottom of the ramp should be there. An up-stand curb or a solid barrier is recommended on either side of ramps for persons using mobility aids, in order to act as a safety stop for the front wheels of wheelchairs.

**Library**

- This is the entry towards the library. The ramp over here is too small, its needs to be extended
• The front of the library also has stairs. Ramps should be made front the front so that its accessible.

• This is inside the library an the books are in the first floor, there is no ramps, these makes the library inaccessible.
**Barriers**

The ramps in the library are not proper and the inside of the library is completely inaccessible because there is no ramps or escalators inside the library.

**Requirement**

- Ramps should not be much steeper. There should be handrails to allow persons using mobility aids to move easily and to grasp the handrails. Ramps are required for persons with visual impairment also. Level landings at top and bottom of the ramp should be there. An up-stand curb or a solid barrier is recommended on either side of ramps for persons using mobility aids, in order to act as a safety stop for the front wheels of wheelchair.

The Counter inside the library does not having different heights as per the accessibility guidelines for the ease of use by the person with disability.

(Image Source: TISS Archive)
**Media and computer centre:** A place where all the computer and media related works are done.

- The gap in the door is too big and there is no grab bar making it difficult for SWD to enter the centre.

**Barriers**
- The entrance door is too big and there are no rails as well.
- There are no handrails as well.

**Requirements**
- The door should not be too big and there should be handrails that will act as a support for persons with visual impairment.
- There should be tactile flooring making it easier for persons with visual impairment to move around.
**Office Block:** A block where all the institute related work is being carried out, it is basically the administration block.

- Firstly there should be signage for PWD everywhere and the there are stairs in the entry towards the office block rather than ramps.

**Barriers**
- The ramps are not proper
- No signage.

**Requirements**
- Ramps should not be much steeper. There should be handrails to allow persons using mobility aids to move easily and to grasp the handrails. Ramps are required for persons with visual impairment also. Level landings at top and bottom of the ramp should be there. An up-stand curb or a solid barrier is recommended on either side of ramps for persons using mobility aids, in order to act as a safety stop for the front wheels of wheelchairs.
• There should be signage everywhere especially in braille as well. Signs are to provide information. They can inform the user about route or a facility. Signs increases a person’s awareness of their surrounding and their environment.

**Ramps:** A sloping surface joining two different levels, as at the entrance or between floors of a building.

**Barriers**

• The ramp is steep and the surface does not have grip which makes it difficult for wheelchair users. The ramps in the institute are designed in an incorrect way. **Requirements**

◆ Ramps are one of the important structure in any environment to make it accessible. Ramps should not be much steeper. There should be handrails to allow persons using mobility aids to move easily and to grasp the handrails. Ramps are required for persons with visual impairment also. Level landings at top and bottom of the ramp should be there. An up-stand curb
or a solid barrier is recommended on either side of ramps for persons using mobility aids, in order to act as a safety stop for the front wheels of wheelchairs.

- Gentle slope- 1:12 minimum
- Landings: every 750 mm of vertical rise
- Width- 1200 mm or above
- Handrails on the ramps should be on both the sides at a height of 850 mm-900mm; both end to be rounded and grouted extend 300mm beyond top and bottom of ramp
- Surfaces (ramps +landing): should be slip resistant.
- Wherever possible a ramp should be accompanied by a flight of easy going steps.

**Roads**
Barriers

- The roads are sloppy without any grip, the roads are also inaccessible for a PWD.
- Absence of Any sensory Cue for PWD (Diverse sensory impairments).
- Unstructured route for mobility impairments and Wheel chair users.
- Access route to the other side should be created.

The road network inside the campus is not well maintained and also at some places there is no flooring material which makes it challenging to walk over.

(Image Source: TISS Archive)
**Requirements**

- Alternative route plan/ Navigation route plan to access to the entrance of TISS campus needs to be identified and created for ease in movement by diverse disability stakeholders.

**8. Barriers Specifications and Needful Recommendations using Checklist as Instrument to bring out modifications**

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Elements</th>
<th>Barriers</th>
<th>Recommendations</th>
</tr>
</thead>
</table>
| 1      | Main Street Junction    | 1. Absence of Any sensory Cue for PWD (Diverse sensory impairments).  
2. Unstructured route for mobility impairments and Wheel chair users.  
3. Access route to the other side should be created.  
4. There is no smooth transition from highway to the main street junction.  
5. This should resolve in such a way that the person should be able to go and come back.  
6. A barrier is central divided in the main junction. | 1. Alternative route plan/ Navigation route plan to access to the entrance of TISS campus needs to be identified and created for ease in movement by diverse disability stakeholders. |
<table>
<thead>
<tr>
<th>2</th>
<th>Signage board of TISS/icon/logo</th>
<th>1. Existing and current TISS logo is absent from the current signage.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2. TISS Icon plays an important role for all visitors and stakeholders.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Visual contrast of current signage is low and gets merged into the green background.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. TATA logo should be placed at the main entrance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Easy recall and reorganisation is important.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. The overall contrast value of signage needs to be improving through a better colour scheme.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. At night elimination of signage in dark hours would become an important icon and necessity to improve visibility for access.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Back light signage can be another option.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Drawing solutions would be recommended for greater visibility keeping in mind diverse.</td>
</tr>
</tbody>
</table>
| 3 | Side Walks | 1. It has electrical junctions, polls and low maintenance of manhole cover.  
2. Low maintenance and uncombed pavement  
3. Absence of tactile and sensory blocks on the pathways.  
4. Absence of adequate curb/kerbs cuts near the entrance zone | 1. All the services of sidewalks need to be coordinated in a way that the access route on sidewalks is clear from those obstruction, electric junctions and pools and man hols.  
2. Adequate curb/Kerb cuts should be provided seamlessly connecting to the entrance zone of TISS campus.  
3. This could be done by change in surface alternative surface materials.  
4. Curb cuts could be highlighted as accessibility provisions of sidewalks  
5. Tactile warning and guiding blocks need to be provided in the obstruction free zone on the sidewalks by putting the TISS campus boundary. |
| 4 | Entrance Gate | 1. Mobility barriers  
2. Temporary sitting arrangement of security on the height.  
2. Tactile blocks implanted right from the entrance zone to coordinate with the internal sidewalks of TISS campus.  
3. Security room arrangement can be making in such way that the need for temporary sitting arrangement could be rearrange with the specific modifications to the windows. |
|---|---|---|---|
| 5 | Dinning Hall | 1. Absence of tactile path.  
2. The window height is too high for diverse PWD  
3. Utensils kept At higher height – lower is a one window site. 3 feet (900 mm) ideal | 1. Recover the Sill height of the window.  
2. One window should be overed to easy access for wheel chair.  
3. Sitting arrangement at outside area for ease in mobility. |
<table>
<thead>
<tr>
<th></th>
<th>Parking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The parking zone is not clearly demarcated for two wheelers and four wheelers.</td>
</tr>
<tr>
<td>2.</td>
<td>During the rainy season it becomes very difficult to park as it becomes very muddy.</td>
</tr>
<tr>
<td>3.</td>
<td>Absence of clear cut signage form the parking of two and four wheelers.</td>
</tr>
<tr>
<td>4.</td>
<td>Two wheelers parking is having no signage for PWD.</td>
</tr>
<tr>
<td>5.</td>
<td>Absence of tactile cues for parking for PWD for both four and two wheeler</td>
</tr>
</tbody>
</table>

|   | 1. The parking area should have clear signage with adequate colour contrast reorganisation elements. |
|   | 2. The surface of the parking zone should not accumulate water |
|   | 3. Smooth transition for parking zone to the pavements and main road. |
|   | 4. Electric pool and water man holes should be avoided or maintain properly. |
|   | 5. Illuminated walking and parking signage for parking in the night for two and four wheelers. |
| 7 | Street Signage and Campus Map | 1. Absence of clearly demarcated pedestrian and walking zones.  
2. The campus map has to be is too small for visibility and cognitive reorganisation.  
3. No auditory or acoustic signal for mobility for Visually impaired | 1. All the mentioned barriers have to be created.  
2. Tactile sensory cues and flora and fauna can play an important role in providing the sensory cues through all factory/smelling fauna at the campus map which will enhance the reorganisation of sight for visually impaired. |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Health centre and classrooms</td>
<td>1. Absence of demark able zones and signage for health centre and classrooms</td>
<td>• Provisions of halting zones for students needs to be provided with clear demarcation and signage</td>
</tr>
</tbody>
</table>
9. Ramps measurements and Fitments (as discussed with Campus Engineer)
Hostel I / Hostel II Dining Room

Top level entry – entrance from side of the dining hall with reaching the side ramp.

First floor entrance to the dining hall.

Suitable ramps with good rail guidance.

Dining Table – wheelchair accessible.

Wheelchair access from lower level to higher level.

Parking Accessible car park.

Reason: Slope too steep, too narrow long to travel.
- Slope - Consistency of height
- Railings - Corner railings halway
- Pathway
- Planform - Accessible Badminton Court
- Grab rails for flexible torches
- Wash basin Amphitheatre
- Computer Center
- Gymnasium

[Diagram of a slope with labels for slope, lower to head, and steps.]

Page 3
Class Room X 11

& Gymkhana Club Health Centre

Class Room X 11

Side door to be made on L.H. of classroom.

86" x 5' 4" Door

New 11' 10"

New 16' 3"

New 14' 4"

New 9' 5"

8" step 8"
Office Block:

6 Steps 6" each.
36" 22" 58"
15° + 4° 11"
22° 27°

New 27'8"

Library:

6'10" 6'10"

To be made proper.
LIBRARY
Entrance to stairs from I & II
* Handles to be provided on opposite wall or in continuation on single wall
* Way to upper floor hand rail at 12' H.S. Centred for the step at 9' 4 1/2. If possible it is on the
1st with a break.
* Way to wash room handrail...
**Key Requirements**

- Provide ramps in the institute.
- Provide proper signage for ramp in all internal building.
- Provide reception counter with sign language interpreter in the entrance foyer.
- Implement immediately to eliminate a serious barrier or hazard to access and use of the internal premises of all buildings.
- Plan adaptation work to be implemented to suit identified building users requiring adaptations to be made.
- Provide directional signage’s for activities Horizontal & vertical circulations.
- Provide handrails & grand bars in corridors, staircase & landings as per the PWDs guidelines.
- Provide beveling to cater to level differences at each doors & Remove Channel gate barriers at floor level.
- Vision glass of door panel should be at accessible level for the wheel chair users.
- No hurdle / obstruction should be there in foyer & corridors such as air cooler, window panels, potted plants, electrical wires & pipes.
- Handrails & grab bar should be as per the standards.
- Provide elevators for free accessibility of PWDs at every staircase locations.
- Provide accessible website proving information about the building/service complies with web accessibility standards.
- Provide the curriculum in alternate accessible formats such as:
  - Braille
  - Large Print
  - Audio
  - Pictorial (wherever possible)
  - Easy-to-read
  - Accessible Electronic formats that can be shared over email or mobile.
- Provide printed service related documents such as forms, menu cards, etc. are in accessible formats.
- Need to train the staff members in basic Indian sign language.
  Sign language interpreters should available on call.
- Need to train the staff to assist persons with disabilities, including persons with learning disabilities.

Common alternative formats can be used to assist people with visual impairments who are best able to interpret information through hearing or touch, embossed letters with Braille (Audio/ Visual information, Maps and models).

Accessible Website of Tuljapur Campus will be useful.
GR 01: Accessibility, Barrier-free Environment & Curriculum Accessibility in Higher Education

उच्च व तंत्र शिक्षण विभागाच्या अधिपत्याखालील सर्व अकृष्ठ विद्यापीठेचे व संलग्न गहनाविद्यालयांचा
केंद्र शासनाचा "The Rights of Persons with Disabilities Act, 2016" च्या तरसजवानीत वापरून कायदाची बांधणी करणारा.

महाराष्ट्र शासन
उच्च व तंत्र शिक्षण विभाग
शासन निर्णय क्रमांक- संकीर्ण-2016/प.क.302/विभि-3
मादाम कमाचर भवन, हुताला राजमुरु चौक,
मंत्रालय, मुंबई - 400 032
दिनांक - 27 ऑक्टोबर, 2016

वाचा :-
2) शासन निर्णय क्रमांक - संकीर्ण-2018/प.क.231/तांत्रि-4, दिव्या-25, जुन, 2018.
3) शासन निर्णय क्रमांक - संकीर्ण-2018/प.क.28/नक्स-2, दिव्या-23, ऑक्टोबर, 2018.

प्रस्तावना:-
राज्यातील उच्च शिक्षण देखभाल सर्व संस्थानांचे विशेष गरजा असणार्‌या (दिव्यां) विद्यार्थ्यांचे अवयन, अध्यापन व मुक्तमानाने पदार्थ कसं कसंची असणे आवश्यक आहे. विशेष गरजा असणार्‌या (दिव्यां) विद्यार्थ्यांना रैकेशन मुक्तमानाना बरोबरपर्यंत सोऱे सूचनातील सुचवा मिळणे करावावर आहे. या संदर्भात केंद्रसरकारसाठी The Rights of Persons with Disabilities Act, 2016 हा अधिनियम दिव्या-28, डिसेंबर, 2016 रोजी राजपत्रांत प्रस्तुत करून तर सर्व शासकीय संस्थानांना लागू केला आहे. राजस्थानीत नाम असलेल्या संस्थानांना विकास विभागाने The Rights of Persons with Disabilities Act, 2016 लागू केल्यास असून उच्च शिक्षण संस्थानांच्या सुचवा प्रस्तुत केल्या आहेत.

याच विषयाच्या अनुसार Disable Rights Groups and Others रिट पीटीसी इण. (Civil) 292/2006 ग्रंथे मां. सर्वांच्या याध्यायासाठी दिव्या- 95, डिसेंबर, 2017 रोजी ऐलियसिक आदेश दिले असून The Rights of Persons with Disabilities Act, 2016 नुसार उच्च शिक्षण संस्था आणि विद्यापीठांमध्ये आराध्य, सुलभता व अध्यापन संबंधी शासक इत्यादी बाबत अमंत्रावर्गीणी करणारी निर्देश आहेत.

केंद्रसरकारसाठी The Rights of Persons with Disabilities Act, 2016 हा अधिनियम दिव्या-28, डिसेंबर, 2016 रोजी राजपत्रांत प्रस्तुत करून तर सर्व शासकीय संस्थानांना लागू केले आहे. या अधिनियमसाठी कलम 32 मध्ये पुढील प्रमाणे तरसजवान आचे.
GR 01: Accessibility, Barrier-free Environment & Curriculum Accessibility in Higher Education

Section 40 - Accessibility -

This is with reference to laying down the standards for accessibility for the physical environment, transportation, information and communication, including appropriate technologies and other services provided to the public in urban and rural areas.

Section 44 -

Mandatory observance of accessibility norms -

a) No establishments shall be granted permission to build any structure if the building does not adhere to the rules formulated by Central Government.

b) No establishment should be issued a certificate of completion or allowed to take occupation of the building unless it has adhered to the rules formulated by the Central Government.

From the record placed before us, we find that several instructions were issued from the Director of Higher Education for creating necessary facilities for barrier-free access to handicapped persons in the establishments like universities, colleges, classrooms, canteens, staff rooms, ladies common room and washrooms etc. A reference has been made to National Building Code which needs to be complied with.

The State and the Director of Education shall issue instructions to all the Universities to call for compliance report from the educational institutions. In case any completion certificate in respect of the structures, institutions, establishment/buildings as
GR 01: Accessiblity, Barrier-free Environment & Curriculum Accessibility in Higher Education

required by the Act are pending with the authorities then necessary compliance be sought for before issuing the occupancy or completion certificates. In case the occupancy or completion certificate of such buildings was already granted, then such authorities would take necessary steps for creating basic facilities like ramp, washrooms, barrier free access for handicapped persons in such buildings.

The Rights of Persons with Disabilities Act, 2016. The rights of persons with disabilities include the right to live a life of dignity and worth in the community. The Act aims to ensure that persons with disabilities have equal opportunities to participate in all aspects of society, including education, employment, and health care. The Act also seeks to eliminate discrimination against persons with disabilities and to provide for their rehabilitation and empowerment.

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Shasana Nirmaya: -

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1) Pravesh Sulambta va Vinna Abadghal Parivahan: -

GR 01: Accessibility, Barrier-free Environment & Curriculum Accessibility in Higher Education

2) अध्यापन शास्त्र व अध्यापकग्राममधील सुलभता:–

दिवांग दिवाश्यासाठी शिक्षणविषयात येणार अध्यापक दिवांग सुलभ असावी. दिवांग दिवाश्याना त्यांचे शिक्षण परिणामकारकता होणारी त्यांचे व्यावसायिक वर्गभाग, संस्थान व प्रयोगशाला इत्यादीमध्ये अध्यापन शास्त्र व इतर तोंडेही सुविधा उपलब्ध करून देयावलय येणावत. दिवांगाच्या दिवांग दिवाश्याना त्यांचे शिक्षण परिणामकारक रिच्यां पूर्ण करण्यासाठी त्यांना आवश्यक असलेली सुलभ सापडेच उपलब्ध करून देयावलय यावीत.

The Rights of Persons with Disabilities Act, 2016 म्हणजेच, महाराष्ट्र न्यायालयांचे रिट पिटीशन क्रमांक २२२/२००६ म्हणजेच आदेश व म. महाराष्ट्र न्यायालयांना जनतेच वाचित क्रमांक १०५/२०१९ म्हणजेच आदेश विचारात घेण्यासाठी संचालक, उच्चशिक्षण व संचालक, तंत्रशिक्षण वाच्यांची उच्च शिक्षण संस्थानांमध्ये दिवांगांना सर्व प्रकारच्या सोड्या व सावतीबाबतचा आदेश घेण्यासाठी कार्यक्रम तयार करता.

सदर शासन निर्णय महाराष्ट्र शासनाच्या www.maharashtra.gov.in या संकेतस्थानासारखा उपलब्ध करण्यात आलेला असुरूप त्याच्या संकेतस्थानांक २०१८०५७९२५४४६३३५ असा आहे. हा आदेश डिटीलर्स वाळार्यांना साक्षात्कार करून कार्यक्रम तयार करता.

महाराष्ट्राचे राज्यपाल यांचा आदेशानुसार व नावाने,

(सिंहार्द्ध खरात)
सह सचिव, महाराष्ट्र शासन

प्रति,
1. म.राज्यपाल यांचे सचिव, राजभवन, मुंबई.
2. म. मुख्यमंत्री यांचे अपर मुख्य सचिव, मंत्रालय, मुंबई.
3. म. मंत्री, उच्च व तंत्रशिक्षण यांचे विशेष कार्य अधिकारी, मंत्रालय, मुंबई.
4. म. राज्यमंत्री, उच्च व तंत्रशिक्षण यांचे विभाजनी सचिव, मंत्रालय, मुंबई.
5. प्रमुख सचिव, नगरकारक विभाग, मंत्रालय, मुंबई.
6. प्रमुख सचिव, सामाजिक न्याय व विशेष सहाय्य विभाग, मंत्रालय, मुंबई.
7. सर्व अकृती विद्यापीठांचे कुलगुरु / कुलसचिव.
GR 01: Accessibility, Barrier-free Environment & Curriculum Accessibility in Higher Education

शासन निर्णय क्रमांक संख्या-2016/प्र.सं.302/विशि-3

8. सर्व स्वयंसेवक सहाय्यीत विद्यापीठांची अध्यक्ष/कुलसचिव, महाराष्ट्र.
9. संचालक, उच्चशिक्षण व संचालक,तंत्रशिक्षण, महाराष्ट्र.
10. सर्व सहसंचालक, उच्च व तंत्रशिक्षण, महाराष्ट्र राज्य.
11. उप सचिव (विशिष्ट) (महिला) (तारी), उच्च व तंत्र शिक्षण विभाग,मंत्रालय, मुंबई.
12. निवड नस्ती – कार्यालय विशि-3.
GR 02: Twenty One Types of Disability (RPWD Act of 2016)

1. ग्रुःङ्गः (Blindness)
2. अवासः (Low vision/ Partial Blind)
3. कृप्तेसः (Leprosy Cured Persons)
4. कंचः (Hearing Impairment - deff and hard of hearing)
5. लोकोमोटिवः (Locomotor Disability including Orthopedic disability)
6. शारीरिकः (Dwarfism)
7. बौद्धिकः (Intellectual Disability – Mentally challenged/Slow Learners)
8. मानसिकः (Mental Illness)
9. बाॅम्बः (Autism Spectrum Disorder)
10. सेसेबलः (Cerebral palsy)
11. रासायनिकः (Muscular Dystrophy)
12. माजः (Chronic Neurological Conditions)
13. अध्यायः (Specific Learning Disabilities)
14. बुधिवः (Multiple Sclerosis)
15. भाषा (Speech and Language Disability)
16. बृंहस्पतिसः (Thalassemia)/ कृष्णाः (Cancer)
17. रूढः (Hemophilia)
18. विकलः (Sickle Cell Disease)
19. बुधिविकलः (Multiple Disabilities)
GR 02: Twenty One Types of Disability (RPWD Act of 2016)

20. Acid Attack Victim
21. Parkinson's Disease

9) Up to two persons suffering from limb disabilities/visual impairment/learning impairment, suffering from any physical or mental illness, shall be admitted to the school.

30. Persons suffering from a chronic illness as specified in Schedule 1 or Schedule 2 of the RPWD Act, 2016, shall be admitted to the school.

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2. Type of Blindness:
1. Total Blindness
2. Partial Blindness
3. Low Vision

3. Type of Hearing Impairment:
1. Total Deafness
2. Partial Deafness
3. Mixed Hearing Impairment

4. Type of Speech Impairment:
1. Total Speech Impairment
2. Partial Speech Impairment
3. Mixed Speech Impairment

5. Type of Intellectual Impairment:
1. Total Intellectual Impairment
2. Partial Intellectual Impairment
3. Mixed Intellectual Impairment

6. Type of Motor Impairment:
1. Total Motor Impairment
2. Partial Motor Impairment
3. Mixed Motor Impairment

7. Type of Cognitive Impairment:
1. Total Cognitive Impairment
2. Partial Cognitive Impairment
3. Mixed Cognitive Impairment

8. Type of Multiple Impairment:
1. Total Multiple Impairment
2. Partial Multiple Impairment
3. Mixed Multiple Impairment

9. Type of Developmental Impairment:
1. Total Developmental Impairment
2. Partial Developmental Impairment
3. Mixed Developmental Impairment

10. Type of Physical Impairment:
1. Total Physical Impairment
2. Partial Physical Impairment
3. Mixed Physical Impairment

11. Type of Psychological Impairment:
1. Total Psychological Impairment
2. Partial Psychological Impairment
3. Mixed Psychological Impairment

12. Type of Social Impairment:
1. Total Social Impairment
2. Partial Social Impairment
3. Mixed Social Impairment

13. Type of Behavioral Impairment:
1. Total Behavioral Impairment
2. Partial Behavioral Impairment
3. Mixed Behavioral Impairment

14. Type of Emotional Impairment:
1. Total Emotional Impairment
2. Partial Emotional Impairment
3. Mixed Emotional Impairment

15. Type of Sensory Impairment:
1. Total Sensory Impairment
2. Partial Sensory Impairment
3. Mixed Sensory Impairment

16. Type of Neurological Impairment:
1. Total Neurological Impairment
2. Partial Neurological Impairment
3. Mixed Neurological Impairment

17. Type of Environmental Impairment:
1. Total Environmental Impairment
2. Partial Environmental Impairment
3. Mixed Environmental Impairment

18. Type of Economic Impairment:
1. Total Economic Impairment
2. Partial Economic Impairment
3. Mixed Economic Impairment

19. Type of Educational Impairment:
1. Total Educational Impairment
2. Partial Educational Impairment
3. Mixed Educational Impairment

20. Type of Employment Impairment:
1. Total Employment Impairment
2. Partial Employment Impairment
3. Mixed Employment Impairment

21. Type of Housing Impairment:
1. Total Housing Impairment
2. Partial Housing Impairment
3. Mixed Housing Impairment

22. Type of Transportation Impairment:
1. Total Transportation Impairment
2. Partial Transportation Impairment
3. Mixed Transportation Impairment

23. Type of Communication Impairment:
1. Total Communication Impairment
2. Partial Communication Impairment
3. Mixed Communication Impairment

24. Type of Access Impairment:
1. Total Access Impairment
2. Partial Access Impairment
3. Mixed Access Impairment

25. Type of Privacy Impairment:
1. Total Privacy Impairment
2. Partial Privacy Impairment
3. Mixed Privacy Impairment
GR 02: Twenty One Types of Disability (RPWD Act of 2016)

9) Pariyagcha kee Garjunsuvar aniksa na bhumiye sakhita sanghnaacha vapar karita yeech. 
Aakraay, nakaro, takte m. n. kaDaanyachi sakaruta vapar rahiite, vapar guun va visayaayala 
va paraananta dhaavat yeechil aakraay nakaay, takte m. praasaattiyi praya prash 
dhaavat yahite.

10) Praasaattiyi parikshayi ji va visayaayala va vishayaayi todyi prishasa/pariprisyaat 
yunte asatelleli 
lekhayi prishasa (praasaattiyikar aamaryi) dhaavta yeech. Todyi parikshayi praasaattiyikar aamaryi 
prash vikharta jaavete.

11) Jye aavachya visayaayala sanghnaacha dharayi pariya diswacht samrntye 
Sriyaaam rindaa visyaayala sanghnaach- NVDA Software/taksam ekta sanghnaa prashantyaa vapar 
karita yeech. Parante laasati visyaayi saamayi purt parvani gayee aadvayak rahiite.

12) Visayaayala aavachya prash dhaavat yahite Aayi prashana diilleli jyaunte 
Aavachya parikshayi rikhjay prashan yahite va tayyaas parishayi satnaat vayaayaka 
asayi.

13) Jyaayaa hargaan mukti bavachya vishayapun bavmave vihite aavachat 
Aayi ymujte tayyaas 
vaanak aavatat aavachya laas kahite kahit visayaayi dhaavat yahite, tayyaayi hie ve 
sawalyatya ekraay aamaryi yakhane yamaasayi.

14) Jyaayaa veletavan, lekan chayi aavacet aavachya bavichyanit Praasaattiyi 
vaanak guun karite, tatey 
sawalyat yahite Aayi parikshayi miskik phalitayan prashantye uunte vishachya 
vayash karita karyam karital 
yahite yahite ymujte. Viyaa/Aakraay/Nakaro jayee aavachat 
prash dhaavat yahite.

15) Parikshayi kraa chaasak parash aavate Aayi te parash bavmave vihite aavachat 
Aayi sada parash 
vaanak guun karita uunte mukti parashyit diihaalye aahaye m. n. paata mukti muktya (Key Points) 
yvaanak yahite. Mahavistayit veveaasayi chaavate chayi parishayit sasak yahite aavayakte. 

16) Prakalpaar aamaryi lekhayi parikshayi todyi prishasa yahite yahite.

(3) Kuchchro Nrinavisattit (Leprosy Cured Persons) visyaayi saavatit :

1. Jya mahavistayit vevaasayit vaanak prash sadaa aavate te cyma chakalke mahavistayit ya 
va visyaayi prishasa prishasa prishasa parishayit kahite sawal karite yahite.

2. Diikat asataatte mahavistayit yahite Aayi srichayi yeechit prashan 
vyavayaayi aavchya 
vyavayaayi aavchya Abhiti mukti bavachya, bm. phaalitayan prashantye yahite aavchya 
vyavayaayi karyam karital 
yahite yahite ymujte. Aayi swanit mukti mahavistayit veveaasayi visyaayi prashan 
vyavaasit toggle.

3. Acchanoa bavachya jayaakshi jaatriit prishitit vaanak prashantye 
prishasa prishasa hoteheel sawal dhaavat karite yahite karite jo aavachat 
vyavayaayi prshanta bhavishya 
vyavayaayi karyam karital 
yahite yahite ymujte. Aayi swanit, 
vyavayaayi prashantye var jailedi va prishasa bhavishya aavchya yahite aavachat 
vyavaasit sawalyat.

4. Vyavayaayi prshanta bhavishya prishitit karite yahite veveaasayi prashantye 
vyavaasit toggle, prishit, veveaasit, 
vyavayaayi vyavayaayi vyavayaayi veveaasit sawalyat.

5. Garjuna prashate lekhitak prishit karite yahite yahite.
GR 02: Twenty One Types of Disability (RPWD Act of 2016)

(8) कर्णधिरिविद्याध्यात्मिक (Hearing Impairment—deaf and hard of hearing) सवलति :-
   1) प्रथम उत्तर अपेक्षित रावणमर्यादा कभी रावण मनोज्ञता छित्रित गई। दूसरी प्रश्नाची उत्तरे मुख्यमत्ता छित्रित गेली, दधातु प्रश्नाचे मुख्य व्याख्या अनुसार रेखांतर मुख्यमत्ता अनुसार माती/उत्तरे दिली आहेत का ते भाषातून गुणधर बनवते.
   2) या मुनांसाठी संहारी, ख्यातनाथ, विशेषतः विशेषतः वा भाषातून गुणधर कभी कार्य अड़कले नवेन.
   3) तर्फ विधायक प्रश्नांत्रमधील प्रश्नाची शंकरमर्यादा सरल व सूची असावी. मूलक मुख्यसाधनांतील लेखरी व वाङ्ग साधन.
   4) आवश्यकता असल्यास आशा विधायकांचे वाणीकर्ता/प्रोटेस्ट (Prompter) वेढण्यात यावा.
   5) गर्दने नुसार विधायकाचा ल्याया हवा त्या भाषेत प्रेमी तिथिविधियाची प्रस्तुती वेढण्यात यावा.

(9) लोकोमोटर लिस्टिभिद्गत अखिलाध्यायी (Locomotor Disability Including Orthopedic Disability),
बहुविकलंगता (Multiple Disabilities) व सेंरेबल पाल्मी (Cerebral Palsy) विधायकांची सवलति :-
   1) या महाध्यायात येत विधायक विषय संबंधित संबंध संवाद तसेच महाध्यायाच्या संबंधात त्याची स्थानी आणि विधायकाची संबंधी अनुभवी, असेल ते त्याचा संबंध तयार करते. दाटंच, दाटंच आणि अनेकंतीची वाणी विधायकांच्या व्यवहारात कार्य करते. पाल्मी, विधायकांची सत्यरूप विधायकाच्या मान्यता/पूर्व पर्यावरणी धारणा.
   2) या विधायकाची आवश्यकता असेल त्यात उत्तरप्रश्नांतर प्रश्नांतराच टॉप करण्याचा किंवा दिशीविधित्त करण्याची पूर्व प्रश्नप्रश्न कार्य करण्याची महाध्यायाळी विधायकांपूर्व वेढण्यात येईल. जर हे विधायक स्वत: प्रश्नप्रश्न कोरिच्या असताना मोठे रुपांतर; पुढे प्रश्नप्रश्न कोरिच्या असतील तर व्याधिविश्लेषणाची संबंध नसेली कीमती प्रश्नप्रश्न नवेन देता येईल. हा कर्मचारी या विधायकांच्या नोतेलेची भाषा सापडणाऱ्या चार, या लेखाविकाची कार्यानिर्देशन निवड करवली हा लेखाविकाची बहुविकलंग, सेंरेबल पाल्मी, लोकोमोटर लिस्टिभिद्गत विधायकांच्या कार्य साधते ते समजून हिंदू शकले असावी.
   3) आकृत्या, नकाता, तसेच हे न कार्यसाधनसाठी सवलत देने यादीत, याची त्याची विधायकाला त्याचे प्रणालीदर्शन वेढण्यात यावेत.
   4) प्रश्नप्रश्न प्रश्नांतरी या विधायकांचा तत्त्वातील राहताने अस्तित्वाचा मोठ्या रूपात विधायकांची विधिविधिक आवश्यकता वेढण्यात येईल. तो विधिविधिकांच्या आवश्यकतेनुसार प्रश्नांतराच प्रश्नप्रश्न करते.
   5) या मुंडता अनेकविषयविषय फसला किंवा संकेतातील गरज मासूले, तत्त्वातील प्रश्नप्रश्न व तत्त्वातील वेढण्यात यावी.
   6) अनेक विधायकांना प्रश्नांतरांना तात्काळिक प्रस्तुतींचा वापर करण्यात यावे (उदा. संग्रहण व संग्रहण प्रणाली Voice Synthesizer)
   7) प्रश्नाची प्रश्नप्रश्न प्रश्नांतरी, मातीखाली प्रश्नांतरी संप्रेषण बोर्ड (Communication Board) चा वापर करते.
   8) अनेकांतरील सात्तेद्वारे आणिक उपकरणाचा वापर करण्यात यावा, उदा. पेनसिल व शेल.
   9) हे विधायकांच्या जातांनी दाखवून दिशीविधित व्याख्यानांची आवश्यकतेनुसार कागद/उत्तरप्रश्नांतरांच्या जास्त पानाची वेढण्यात यावी.
GR 02: Twenty One Types of Disability (RPWD Act of 2016)

(5) शारीरिक बाधां (Dwarfism):-
1) ज्या महाविद्यालयात हे विद्यार्थी शिक्षण घेत आहेत तेच महाविद्यालय या विद्यार्थ्यांना परीक्षेसाठी परीक्षा केलेले महणून देयलेले घेतेले. विभेद असलेल्या महाविद्यालयातन, शिक्षणाची वीणी सिमित आणि व्यवस्थेच्या अनुकूल तयार केलेले टेक्ट, टॅपिंग मशीन, चुंबकीय वाढी व विद्यार्थ्यांनी वापर करावी. तथापि, यासाठी संबंधित महाविद्यालयाच्या विद्यार्थीला गण्यमान्याच्या परीक्षा परिचालनाची नियमांकनाची दर्जा देण्याची आवश्यकता म्हणून, पारचूत वेळ येऊ नाही.
2) लेखातील घेण्याची पर्यावरणी देयलेले याचा.
3) आवश्यकता असेल तर वैचारिक व सुविधा घेण्याची पर्यावरणी असेल.

(6) बौद्धिक अवसर (मततंत्र/गतिरत्न) (Intellectual Disability—Mentally challenged/ Slow Learners):-
1) विद्यार्थ्यांना आकृती, नक्कडे, तक्कडे हा काही परीक्षेत तयार नाही ज्यामुळे विद्यार्थ्यांना देयलेले परीक्षा प्रमाण पाहून देयलेले येतें.
2) विद्यार्थ्यांना उपायांनी दिलायला घेवून या असलेल्या परीक्षेसाठी प्रवेश केलेले यासाठी विद्यार्थ्यांना परीक्षा प्रवेश केलेले येतें. व्याख्या पूर्ण प्रश्नपत्रका व उत्तर देखील विद्यार्थ्यांनी तयार केलेला परीक्षा परिचालनाची वेळ वेलीले.
3) विद्यार्थ्यांना त्यांच्याच असलेल्या दिशेंच्या असाठी महत्त्वपूर्ण बाबते व त्यांच्याच प्रश्न असलेल्या महत्त्वाच्या बाबतींतून वेलीले.
4) विद्यार्थ्यांना त्यांच्या असलेल्या दिशेंच्या प्रश्नांच्या असाठी महत्त्वाच्या बाबतींतून वेलीले.
5) आवश्यकतेनुसार प्रवेश लेखातील देयलेले याचा.

(7) मानसिक आळज (Mental Illness):-
1) ज्या महाविद्यालयात हे विद्यार्थी शिक्षण घेत आहेत तेच महाविद्यालय अथवा घराजवरुन विद्यार्थ्यांना परीक्षेसाठी परीक्षा केलेले महणून देयलेले येतें.
2) या विद्यार्थ्यांची परीक्षा वेगळी व तयार घेतली याचा.
3) विद्यार्थ्यांना अर्जित क्रमांक/मिसाळ क्षेत्रात परीक्षेही हातातून राखलेल्या असाठी वर्तवून नेमावा.
4) लेखातील परीक्षेविद्यार्थी आंकडे/वैदिक ओंटों रोक्केंट वेपूर्ण मानसिक अवसर घेण्याची पर्यावरणी देयलेले याचा.

(8) स्वास्थ्य (Autism Spectrum Disorder) विद्यार्थ्यांसाठी स्वतत्त्वीकरणी :-
1) ज्या महाविद्यालयात हे विद्यार्थी शिक्षण घेत आहेत तेच महाविद्यालय या विद्यार्थ्यांना परीक्षेसाठी परीक्षा केलेले महणून देयलेले येतें. व्याख्या महाविद्यालयात या मुलांसाठी शिक्षण तयार केलेले टेक्ट, टॅपिंग मशीन, संगणक, गणकबंदी, चुंबकीय वाढी वापर करण्याचा याचा.

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2) विद्यालयों उत्तरपत्रिका दर्पण देना नहीं होता देखने देखने परवानगी देखने वेळा, त्याग पूर्ण उत्तरपत्रिका किन्हें उत्तरपत्रिका कहाँ वाणी विद्याप्रमाणी देखने परवानगी देखने वाणी, जब हे विद्यार्थी स्वत: प्रश्नमुद्रा वाणी देखने व्यक्त प्रकाशित होकर, पुढे प्रश्नमुद्रा वाणी शक्त नाही असे बालिकांत, त्याने महाविद्यालयाच्या प्रश्न अष्टवपत्रणी संयं नसलेली कोणतीही कर्मचारी विद्यालयाच्या प्रश्नमुद्रा नवीन में बसता वेळा. हा कर्मचारीया विद्यालयाच्या वोल्टेजकेल्वी शास्त्र समाज शक्त असावा. या वेळीकाळी कार्याली पुनरोपवार नवीन कार्य सांतोती ते शिक्षा पंजीकरण अस्तित्व आवश्यक.
3) विद्यार्थीया सुरक्षिततेसाठी त्याला खाती बालक असे व्यक्ती परीक्षा वगैरह उपस्थितने रहणारी परवानगी देखणे वाणी.
4) विद्यार्थीया आकृती, नकाशे/वस्तु इ. न काढण्याची स्वतंत्र देखणे वेळा, त्याचे गुण या विद्यालयाचा ता प्रमाणण देखणे वेळा.
5) प्राध्यापक आणि प्रक्रिया परीक्षणाच्या विद्यार्थी संस्था कर्मचारी विद्यार्थी या विद्यार्थी तोडी परीक्षा/वॉल्टेजकेल्वी उद्याने अंतर्निही लेखी परीक्षा (प्राध्यापकांक आवश्यक) देता वेळा. तोडी परीक्षण प्राध्यापकांक आवश्यक प्रश्न विचाराचे जवळ.
6) मूल्यांकन मुख्याधिकारीकडे नीतीच प्रमिती असावा.
7) आकृतिकेनुसार प्रौढ लेखनाचे देखणे वाणी.
8) आकृतिकेनुसार लेखनाचे प्रौढ नीतीच प्रमाणण देखणे वाणी.
9) प्रश्नपत्र उत्तर अपेक्षित वाणी रेखांतः कर्म वाणी महिलेवर निळीत होईल. दिखावली प्रश्नमुद्रांत उत्तर मुद्रणारे (Key Points) निळीत होईल. दिखावली प्रश्नमुद्रात उत्तर मुद्रणारे विद्यार्थी अनुमित अनुमित उत्तर, विद्यार्थी अनुमित अनुमित का ते वाणी गुणवत्ता करते.
10) या विद्यार्थी परीक्षा वेगळ्या वगैरह देखणे वाणी.
11) अन्यक उत्तराधिकारी कर्मचारी स्वतः उत्तर काल्पनिक प्रश्नमुद्रा किंवा परीक्षणाच्या काल्पनिक परीक्षणाच्या हॉस्ट्सटेट्समध्ये दाखल करवा लगणतास असा विद्यार्थीया धिश्विकाच्या विचार करत लागेचा रून-रूंची च (Re-Exam) परवानगी देखणे वाणी. विषय शिक्षक, महाविद्यालयाचे प्राध्यापक व परीक्षेची विद्यार्थी वाणीमाहिती प्रमुख वाणी यासाठी समस्तीच सावधान.
12) या गटाच्या चालणार अनेक विद्यार्थी संस्था कार्यालय अविचारशी असतात. या विचार करत त्याच्या वेळेच्या प्रकाशी पेसील, पेसी, प्रीपर, गणकप्रमाण वापर्याच्या परवानगी देखणे वाणी.
13) अन्यांचे विद्यार्थी त्यांचे (साधारण, गणित इ.) विद्याप्रमाण त्याला देणावा असा विषय नियमची विद्यार्थी परीक्षा परवानगी देखणे वाणी.

(10) स्नायूची विकृती (Muscular Dystrophy)/ मेंदू व मॅज्जेपॅसी कांडीश (Multiple Sclerosis) विद्यार्थीसाठी स्वातः:-

1) ज्ञा महाविद्यालयात हे विद्यार्थी स्वतः होत आहेत ते किंवा जवळही महाविद्यालय या विद्यार्थीया परीक्षेसाठी परीक्षेसाठी प्रक्षेपण केल्यास हुतात देखणे वाणी.
2) अनेक प्रश्नपत्र, कार्यालयात असी स्वतः उत्तर ज्ञात करता काल्पनिक उत्तराधिकारी हॉस्ट्सटेट्समध्ये दाखल करत नवीन असा विद्यार्थीया धिश्विकाच्या विचार करत त्याच्या पुन:प्रकाशी (Re-Exam) परवानगी देखणे वाणी. विषय शिक्षक, महाविद्यालयाचे प्राध्यापक व परीक्षेची विद्यार्थी वाणीमाहिती प्रमुख यासाठी समस्तीच सावधान.
GR 02: Twenty One Types of Disability (RPWD Act of 2016)

2) विद्यायश्वरार्थना उत्तरपत्रिका टाइप करून व तितून देशायाची परवानगी पर्यावरण उपकर. व्यायाम पूर्ण उत्तरपत्रिका किवा उत्तरपत्रिकेचा काही भाग विद्यायश्वरार्थना लेखानिक प्रेषणारी परवानगी पर्यावरण येईल. जर हे विद्यायश्वरार्थना सोबत असता, म्हणून तर, पुढे विद्यायश्वरार्थना सोबत उठाव नाही, असे वाटल्यास, त्याना महाविद्यालयातील प्रत्येक अध्यापनाची संवेदना नसलेलें कोणताही कर्मचाऱ्याचे लेखानिक म्हणून घेता येईल. हा कर्मचाऱ्याचे व विद्यायश्वरार्थना म्हणून भाषा समजून उठाव असावा. या वेळीनिर्धारी काव्यपीय प्रवर्तन करावी. हा विद्यायश्वरार्थना काळातील व्यक्तीतून दिल्यास असावा.

3) विद्यायश्वरार्थना सुरक्षिततेसाठी त्याचा खात्री नागद अथा स्वतन्त्र व्यक्ती पर्यावरण वारा जवळ पर्यावरण उपस्थित रहायो रानारायण पर्यावरण येईल.

4) विद्यायश्वरार्थना आकृती, नकाराठी तालुका स. न. कारणार्थी सर्वत्र देशाय येईल. त्याबरोबर त्या विद्यायश्वरार्थना व त्याने पर्यावरण येईल.

5) प्राथमिक आणि प्रवीण परिक्षेत विद्यायश्वरार्थना या विद्यायश्वरार्थना अध्यापकाचे तंत्री पर्यावरणात आहे. त्याचे पर्यावरण प्राथमिक आहे त्याचे पर्यावरण आहे.

6) मैत्रीक मूलय रूपांतरणाची तेलीची पर्यावरण असावा.

7) आवश्यकतेनुसार प्रोफ पर्यावरण येईल.

8) आवश्यकतेनुसार वाच्यातील/प्रवर्तक (सुरक्षित) देशाय येईल.

9) प्राथमिक उपरोक्त उद्देश्यातील तीन मूल म्हणून तिथित येईल. तिथिती प्राथमिक उपरोक्त मुख्य विद्यायश्वरार्थना अनुप्रयोग उपरोक्त उद्देश्यातील तीन मूलकारण विद्यायश्वरार्थना अनुप्रयोग मानात/उतरे दिली आहेत का हे तापसून गुणाने करावे.

10) या विद्यायश्वरार्थना पर्यावरण व वाहन देशाय येईल.

11) अतिनक उपरोक्त करतील अर्क तिथितील उपरोक्त ज्ञानास किंवा परिक्षेत्राची कालान्तरच सुरक्षित उपरोक्ताची हॉस्टेलमध्ये वाहतूक करता अशा देशाय अशा विद्यायश्वरार्थनाचा भविष्याचा विचार करून त्याचा पुन:परीक्षेत (Re-Exam) पर्यावरण पर्यावरण येईल. विषय शिक्षक, महाविद्यालयाच्या वाराणसी व परीक्षा विभागाचे प्रमुख नाही, वाराणसी समावेश पाचाव.

12) या गटान मोहनाच्या अनेक विद्यायश्वरार्थना कारक विद्यायश्वरार्थना पर्यावरणाचे दिली असावे. या विचार करून त्याचा मोहनाचा प्रमुख प्रारंभिक त्रितीय, पॅन, प्रीपर, तिथिती, वाराणसी पर्यावरण देशाय येईल.

13) अनिवार्य विश्वासेकरी (सावन, गणेश इ.) विद्यायश्वरार्थना त्याचा झोपेल अता विषय निवेदन परीक्षा विभागाचे प्रमुख नाही, वाराणसी समावेश पाचाव.

(१०) स्नायुचिक्रिया (Muscular Dystrophy)/ मेंदू व मज्जपाची कादिय (Multiple Sclerosis) विद्यायश्वरार्थना साठी:

1) ज्या महाविद्यालयात हे विद्यायश्वरार्थना शें आहे ते किवा ज्या महाविद्यालय विद्यायश्वरार्थना परीक्षेत्राची परीक्षा केलेला म्हणून देशाय येईल.

2) अतिनक उपरोक्त करतील अर्क तिथितील उपरोक्त ज्ञानास किंवा परीक्षेत्राची कालान्तरच सुरक्षित उपरोक्ताची हॉस्टेलमध्ये दिली असावे त्याचा ज्ञानास त्याच्या भविष्याचा विचार करून त्याचा पुन:परीक्षेत (Re-Exam) पर्यावरण पर्यावरण येईल. विषय शिक्षक, महाविद्यालयाचे वाराणसी व परीक्षा विभागाचे प्रमुख नाही, वाराणसी समावेश पाचाव.

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3) या विद्याध्यायी बैठक व्यवस्था वेगवान गर्ने कारकी, वेछ प्रस्तुते स्पेशल पर्यावरणकारी नेमणूक करारी. परीक्षा विधान मुख्य, महाविद्यालय अधिकारी याचा प्रवर्तन गर्ने आवश्यकता असेल तर परीक्षा हाउसिलेवर अभ्यर्थी विद्याध्याया घरी देखायत यावी.
4) लेखी परीक्षेदृष्टी ऑडिओ/वीडियो रेकॉर्ड वापरन मौसमिक परीक्षा घेण्याची परवरणी देखायत यावी.

(11) मुख्यसेवाचे तीन आंक (Chronic Neurological Conditions) :-

1) ज्या महाविद्यालयात हे विद्याध्यायी हिस्से पृथक आहेत ते किंवा जवळचे महाविद्यालय या विद्याध्यायाना परीक्षेदृष्टी परीक्षा केला महत्त्व देखायत येईल.
2) अपनकार पर्यावरण लागतील अशी शिक्षा उपचार ज्ञानासाठी किंवा परीक्षेदृष्टी कारणीयता आधारित उपवासातील हॉस्पिटलमध्ये दाखल करावे लागतील आशा तर विद्याध्यायेच्या शिक्षणाचा विचार करून लाग्ने पुनरायोगिकी (Re-Exam) परफॉर्मेण्ट देखायत यावी. विषयवर शिक्षक, महाविद्यालय व प्रादेशिक बोर्डाचा मतांतर यांनी यासाठी समान ध्येयात.
3) या विद्याध्यायी बैठक व्यवस्था वेगवान गर्ने कारकी, वेछ प्रस्तुते स्पेशल पर्यावरणकारी नेमणूक करारी. परीक्षा विधान मुख्य, महाविद्यालय अधिकारी याचा परवरणी गर्ने आवश्यकता असेल तर परीक्षा हाउसिलेवर अभ्यर्थी विद्याध्याया घरी देखायत यावी.
4) लेखी परीक्षेदृष्टी ऑडिओ/वीडियो रेकॉर्ड वापरन मौसमिक परीक्षा घेण्याची परवरणी देखायत यावी.

(12) अध्ययन अक्षम (Specific Learning Disabilities) विद्याध्यायासाठी संबंधी :-

1) विद्याध्यायाना आकृत्ती, नकाशे, तपास इ. न कादंबरवासाने सवलत देखायत यावी. सवरले गुण त्या विद्याध्यायासाठी सवलत देखायत येईल.
2) विद्याध्यायाना उत्तरपत्रिका ठारी कारकी संदर्भात देखायत येईल. लागा पूर्ण उत्तरपत्रिका किंवा उत्तरपत्रिकेचा काही माणूस लेखिकासाठी लेखिकांकडून देखायत प्रवरणी प्रवरणी देखायत येईल. जर हे उत्तरपत्रिका प्रश्नपत्रिका, प्रश्नपत्रिका बोर्ड ते असेल, त्यामुळे प्रश्नपत्रिका प्रश्नपत्रिका संदर्भात असेल. या विद्याध्यायाने मुख्य मूल्यांकन घेतेच येईल. हा कार्याची संदर्भात असेल. आध्यात्मिक प्रश्नपत्रिके नेपाली ते असेल. या विद्याध्यायाने आध्यात्मिकसने लेखिकासाठी प्रश्नपत्रिका देखायत येईल.
3) विद्याध्यायाना प्रश्नपत्रिका प्रश्नपत्रिका या विद्याध्यायाचे देखायत येईल. तो प्रश्नपत्रिका प्रश्नपत्रिका उपरोक्त असेल. लेखी परीक्षा (प्रत्यक्षप्रवरण आधारित) देखायत येईल. तो प्रश्नपत्रिका प्रश्नपत्रिका अध्ययन अक्षम प्रश्नपत्रिका जास्तीत जास्तीत जास्तीत.
4) या तत्त्वानुसारला अनेक विद्याध्यायी संस्था कीलांचा अनुभवीत असेल. त्याचा विचार करून त्याच्या वेगवान प्रारंभिक प्रश्नपत्रिका देखायत येईल. प्रश्नपत्रिका प्रश्नपत्रिका रेटिङ्ग, प्रेरणा, गणकात्मक विद्याध्यायाची प्रवरणी देखायत येईल.
5) लेखी परीक्षेदृष्टी ऑडिओ/वीडियो रेकॉर्ड वापरन मौसमिक परीक्षा घेण्याची परवरणी देखायत यावी.
6) आवेदकांमध्ये प्रांत लेखाकार देखायत येईल.
7) प्रश्नपत्रिका उपरोक्त (उत्तर प्रश्न पत्रिका) कुणाकडून विद्याध्यायी उत्तर मुख्यांकन (Key Points) विशेषता मूल्यांकन. अशा विशेषता प्रश्नपत्रिका मुख्य मूल्यांकन
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(15) हिमोफिलियाह (Hemophilia):

1) ज्या महाविद्यालय हे विद्यार्थी शिक्षण पेटें आहेत ते किंवा जवळचे महाविद्यालय या विद्यार्थ्यांना परीक्षेसाठी परीक्षा केंद्र मागणून देयावलेले विमंडल. त्यास, महाविद्यालयात या मुलांसाठी विविध तंत्र टेबल, टायपीन मशीन, सूचिचे प्रयोग करून परीक्षा होती (Re-Exam) पर्यावरणाने देयावलेल्या विद्यार्थ्यांना विभागात विचार करून त्यांना पुनर्रीतिक (Re-Exam) पर्यावरणनी देयावलेल्या. प्रश्न शिक्षक, महाविद्यालयाचे विद्यार्थी व परीक्षा विभागाचे प्रमुख यांनी सामन्याने टेस्तविधान ठेवण्यासाठी शिक्षक, प्रश्न, ग्रीपर, समग्र देयावलेल्या व्यवस्था उपलब्ध करावा.

(16) सिक्कल सेल (Sickle Cell Disease):

1) ज्या महाविद्यालय हे विद्यार्थी शिक्षण पेटें आहेत ते किंवा जवळचे महाविद्यालय या विद्यार्थ्यांना परीक्षेसाठी परीक्षा केंद्र मागणून देयावलेले विमंडल. त्यास, महाविद्यालयात या मुलांसाठी विविध तंत्र टेबल, टायपीन मशीन, सूचिचे प्रयोग करून परीक्षा होती (Re-Exam) पर्यावरणाने देयावलेल्या विद्यार्थ्यांना विभागात विचार करून त्यांना पुनर्रीतिक (Re-Exam) पर्यावरणानी देयावलेल्या. प्रश्न शिक्षक, महाविद्यालयाचे विद्यार्थी व परीक्षा विभागाचे प्रमुख यांनी सामन्याने टेस्तविधान ठेवण्यासाठी शिक्षक, प्रश्न, ग्रीपर, समग्र देयावलेल्या व्यवस्था उपलब्ध करावा.

2) अवधारणा उच्चार करते गरजाच्या असीमित उच्चार आयुष्य किंवा परीक्षेच्या काळाच्या उपरांत नर्सिंग स्थायी होस्पिटलमध्ये याच्याचा विचार करून परीक्षा होती (Re-Exam) पर्यावरणाने देयावलेल्या विद्यार्थ्यांना विभागात विचार करून त्यांना पुनर्रीतिक (Re-Exam) पर्यावरणानी देयावलेल्या. प्रश्न शिक्षक, महाविद्यालयाचे विद्यार्थी व परीक्षा विभागाचे प्रमुख यांनी सामन्याने टेस्तविधान ठेवण्यासाठी शिक्षक, प्रश्न, ग्रीपर, समग्र देयावलेल्या व्यवस्था उपलब्ध करावा.

3) इन्टरमिशन शिक्षण तंत्र लागू केल्यास त्याचा विविध तंत्र आयुष्य किंवा परीक्षेच्या काळाच्या उपरांत नर्सिंग स्थायी होस्पिटलमध्ये याच्याचा विचार करून परीक्षा होती (Re-Exam) पर्यावरणाने देयावलेल्या विद्यार्थ्यांना विभागात विचार करून त्यांना पुनर्रीतिक (Re-Exam) पर्यावरणानी देयावलेल्या. प्रश्न शिक्षक, महाविद्यालयाचे विद्यार्थी व परीक्षा विभागाचे प्रमुख यांनी सामन्याने टेस्तविधान ठेवण्यासाठी शिक्षक, प्रश्न, ग्रीपर, समग्र देयावलेल्या व्यवस्था उपलब्ध करावा.
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6) विद्यालयाच्या सुरक्षिततेसारी त्यांचा खात्री वातेल असेल व्यक्ती परीक्षा वर्गार्जविक उपलब्ध हजारायाची परवानगी देण्यात येआहे.
7) गर्भाशायी वेगळ्या सोयी हस्ताक्षर असताना तर पालक विषय शिक्षक, प्राचार्य व परीक्षा विभाग प्रमुख गांवाचा समस्यांच्या दरविषयक योग्य.

(16) असिटड ऑटेक हिंकटीम (Acid Attack Victim) विद्यार्थ्यांची सवरूपता:--

1) ज्ञा महाविद्यालयात हे विद्यार्थी शिक्षण पेट्रेंट आहे. ते किंवा जकमध्ये महाविद्यालय या विद्यार्थ्यांना परीक्षेसाठी परीक्षा केंद्रेत म्हणजे परीक्षेत येतात.
2) किंवा असलेल्या महाविद्यालयाच्या असराच्या योग्य शिक्षक आणि कार्यकर्ते अनुसूचीत असेल तर त्यांचा केलेला पेट्रेंट, तारापिंड महार, खुल्ले लाई व विद्यार्थ्यांसाठी व्यवसाय करण्यात येतात. त्याने, वासाची संबंधित महाविद्यालयाचे विद्यार्थी अभ्यासाचे माध्यम/पूर्ण परवानगी व्यावहार.
3) अंतर्गत उपचार करताना दाखल असेल शिक्षक ते किंवा परीक्षेच्या काळाकारीतपर्यंत उपचारासाठी हासिलस्वतः दाखल करताना लागू विधानाच्या विभागाचे विविध रोजगार मुळे परीक्षेचा (Re-Exam) परवानगी देण्यात येतील.
4) विद्यार्थ्यांची शिक्षा व सुद्धा कार्यक्रम पेट्रेंट, पेन, प्रीप, संगणक देण्याचा व्यवसाय उपलब्ध करण्यात येतील.
5) गरज असल्यास त्यांना लेखसेवाचे परवानगी देण्यात येतील.

(19) पार्किंसन्स (Parkinson's Disease):--

1) व्यक्तीला विद्यार्थी चांगल्या अंतर्गत अशांतीसाठी सदर प्रमाणक गुणदान करतात. उद्देश्य मोठ्या प्रमाणता स्थिरवादूचे आहे हे न पाहता मुख्य मुख्य(Key Points) कर्ते देण्यात येते. महाविद्यालयाचे याविकायचा पत्रविधान विद्यापीठातील कार्यस्थलात प्रमाणता आहे.
2) विधानाच्या आकृती, नकारात्मक, तत्काळ न न कार्यक्रमाच्या सवरूपता देण्यात येतील. त्याचे गुण त्याच्या विधानाच्या चांगल्या प्रमाणता म्हणून देण्यात येतात. अशा अस्थायी पर्यायी प्रमाणता चांगल्या देण्यात येते.
3) त्यांची परीक्षा त्यांच्या सवरूपातील परवानगी देण्यात येतील.

उपरोक्त नमुद वर्गांची दिव्यांग विद्यार्थी ज्ञा महाविद्यालयाच्या शिक्षण पेट्रेंट आहे त्याच्या महाविद्यालयाच्या प्राप्तीची शिक्षण परीक्षा असली हे साधन निर्णयांमध्ये नमुद केलेल्या सर्व सवरूपातील व सुविधा व विशेष गरजा अस्थायी विधानाच्या वहांतील म्हणून त्याच्याच देण्यात येतील. सदर शासन निर्णय राज्यातील उच्च व तंत्र शिक्षण विभागांतर्गत शेंडून शिक्षण व त्यांचा संवेदनशील असमाविष्ट असमाविष्ट या महाविद्यालयाच्या तत्त्व राज्यातील अभ्यासाचे वर्गांपेक्षा उपस्थित अभ्यासाचे मापदंड प्राप्त करण्यात आलेल्या सर्व स्तर अभ्यासाच्या विधानांना गूळु राहिल. सदर आवेदनाची प्रमाणी अभ्यासाची अभ्यासाची आवेदन केलेल्या घोषित हे पाहण्याची जबाबदारी सर्व उपरोक्त नमुद विद्यापीठाची राहिल.

सदरहून शासन निर्णयांच्या तत्काल प्रभावावरील अभ्यासाची करण्यात गेलेले आहे. 

पृष्ठ ११ पैकी ९०
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(सिद्धार्थ खरात)
उप सचिव, महाराष्ट्र शासन

प्रति,

१. म.राज्यपाल यांचे राजमंत्री, राजभवन, मुंबई.
२. म.मुख्यमंत्री यांचे अपर राजमंत्र, मंत्रालय, मुंबई.
३. म. मंत्री, उच्च व तत्त्वाधीन यांचे विशेष कार्यावतार, मंत्रालय, मुंबई.
४. म. राजमंत्री, उच्च व तत्त्वाधीन यांचे अधिकारी, मंत्रालय, मुंबई.
५. म. अपर राजमंत्र, उच्च व तत्त्वाधीन यांचे स्वीकार, मंत्रालय, मुंबई.
६. सर्व अकृती विधानपालंग मुंबई / कुलगुरु.
७. राज्यातील सर्व वित्त एवं सार्वजनिक विधानपालंग मुंबई / कुलगुरु.
८. सर्व सार्वजनिक, उच्च व तत्त्वाधीन यांचे, महाराष्ट्र राज्य.
९. उप सचिव, (विशिष्ट) (राजशी) उच्च व तत्त्वाधीन यांचे स्वीकार, मंत्रालय, मुंबई.
१०. निवड नस्ती- विशिष्ट-३.

शासन निर्णय क्रमांक: संकीर्ण-2016/प्र.क्र. ३०२/विशिष्ट-३
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22. Disability Commissioner office Manual on Barrier Free Environment
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"I-Access Rights Mission"

"I - Access Rights Mission" is an initiative to facilitate inclusion of students with disability in higher education at TISS. The field action project initiating by the Center for Disability Studies and Action with the students with disabilities towards facilitating accessibility, affirmative action and reasonable accommodation. The idea is to stimulate a disabled friendly environment at the institute level encouraging symbiosis of disabled and non disabled group. The idea is to initiate an inclusive dialogue within TISS community with a “bottom up approach” to evolve a framework in congruence with UNCRPD. As “Accessibility” is a human right under article 9 of the UNRPPD.

Access audit is a step towards creating a barrier free environment at TISS as the deemed university, using universal design, user centric and space enhancement concepts.