

**POLICY  
DOCUMENT FOR  
BARRIER FREE &  
DISABLED  
FRIENDLY  
ENVIRONMENT**

## **PREAMBLE**

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The main objectives of the “Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1996 enacted by the Government of India on January 1, 1996 are to create barrier free environment for persons with disabilities and to make special provisions for the integration of persons with disabilities into the social mainstream.

It enjoins upon the institution to ensure within their economic capacity provision for installation of facilities for the benefit of persons with visual handicaps, kerbs and slopes to be made in pavements for the easy access of wheel chair users, devising appropriate symbols of disability and warning signals at appropriate places. In regard to non-discrimination in the built environment, provisions have been made for ramps in Academic buildings, adaptation of toilets for wheel chair users, Braille symbols and proper signage and elevators.

### **RECOMMENDATION:**

- Adequate space for persons using mobility devices like wheelchairs, crutches and walkers, as well as those walking with the assistance of other persons. The range of reach (forward and side; with or without obstruction) of a person in a wheelchair should be taken into consideration Attention should be given to dimensions of wheelchairs used locally.
- To build barrier free environment for disabled and physically challenged persons in the form of Ramps with railing facility, provision of Lifts in each and every academic building and in Restrooms.
- To provide necessary signage including tactile path, lights, display boards and signposts for the easy movement of the disabled persons.
- To provide scribe facility for the person who required human assistance during the course of examination and academic activities.
- To augment screen reading software and braille facility for the needy person.
- To adopt and implement the necessary facilities as per the guidelines of Govt. of India as on when required.

## Institutional Values And Best Practices

### 7.1.7 - The Institution has disabled-friendly, barrier free Environment

#### 1. Built environment with ramps/lifts for easy access to classrooms.

Dadi Institute of Engineering and Technology provides barrier-free environment where staff/students with disabilities can move about safely and freely and use the facilities within the built environment. The environment at DIET supports the independent functioning of individuals so that they can participate without assistance in everyday activities within the campus.



Operational Lifts in the Institute

Ramps which are inclined plane, are built in addition to staircases in the DIET Institute. The ramps are carefully designed as per Indian Standard specifications to make the Institute to be disabled friendly.



Ramps in the Institute

## 2. Divyangjan friendly washrooms

At DIET, care has been taken to provide the washrooms especially that are Divyangjan friendly. This kind of facility is provided at both gents and ladies washrooms. The washrooms have rails to give support for holding.



Wash rooms for disabled persons

### 3. Signage including tactile path, lights, display boards and signposts

To create a conscious environment in the campus for disabled persons the tactile paths, lights, display boards and various signposts are provided which helps in making the campus disabled friendly.



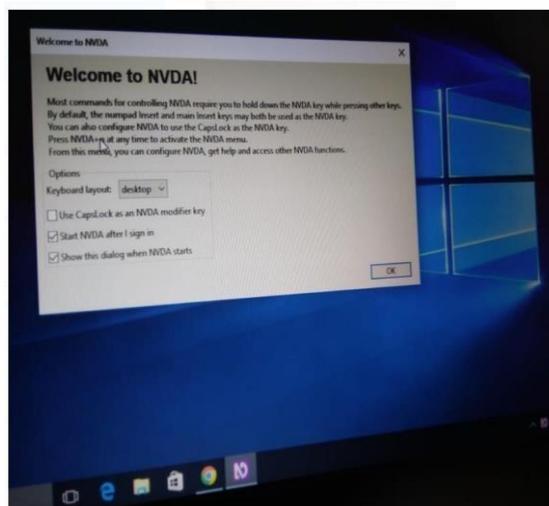
Facilities provided at DIET Campus for Disabled Friendly Environment

#### 4. Assistive Technology and facilities for persons with disabilities (Divyangjan) assessable website, screen reading software, mechanised equipment

##### Details of the Software procured for providing the assistance:

##### NVDA (NONVISUAL DESKTOP ACCESS)

**Non Visual Desktop Access (NVDA)** is a free and open-source, portable screen reader for Microsoft Windows. The project was started by Michael Curran in 2006. NVDA is programmed in Python. It currently works exclusively with accessibility APIs such as UI Automation, Microsoft Active Accessibility, IAccessible2 and the Java Access Bridge, rather than using specialized video drivers to "intercept" and interpret visual information. It is licensed under the GNU General Public License version 2.



NVDA (Non visual desktop Access)  
Non Visual Desktop Access

##### **Features and accessibility API support**

NVDA uses eSpeak as its integrated speech synthesizer. It also supports the Microsoft Speech platform synthesizer, ETI Eloquence and also supports SAPI synthesizers. Output to Braille displays is supported officially from Version 0.6p3 onward.<sup>[19]</sup> Besides general Windows functionality, NVDA works with software such as Microsoft office applications, WordPad, Notepad, Windows Media Player, web browsers such as Mozilla Firefox, Google Chrome, Internet Explorer, and Microsoft Edge. It supports most email clients such as Outlook, Mozilla Thunderbird, and Outlook Express. NVDA also works with most functions of Microsoft Word, Microsoft PowerPoint and Microsoft Excel.<sup>[20]</sup> The free office suites LibreOffice and OpenOffice.org are supported by way of the Java Access Bridge package. Since early 2009, NVDA supports the

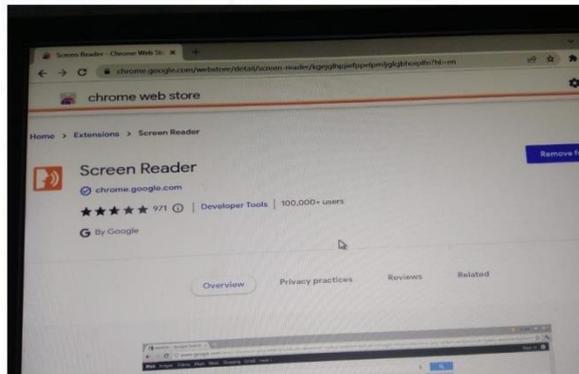
WAIARIA standard for Accessible Rich Internet Applications, to facilitate better accessibility of web applications for blind users.<sup>[19][21]</sup> In 2021 the screen reader user survey by WebAIM found NVDA to be the second-most popular screen reader worldwide, having previously assumed the number one position in their 2019 survey; 30.7% of survey participants used it as a primary screen reader, while 58.8% of participants used it often. Screen readers can be used to test the accessibility of software and websites. NVDA is the primary screen reader of choice by accessibility practitioners.

### **EMACSPEAK**

Emacspeak is a speech interface that allows visually impaired users to interact independently and efficiently with the computer. Audio formatting, a technique pioneered by AsTeR and full support for W3C's Aural CSS (ACSS) allows Emacspeak to produce rich aural presentations of electronic information. By seamlessly blending all aspects of the Internet such as Web-surfing and messaging, Emacspeak speech-enables local and remote information via a consistent and well-integrated user interface. Available free of cost on the Internet, Emacspeak has dramatically changed how the author and thousands of blind and visually impaired users around the world interact with the personal computer and the Internet. A rich suite of task-oriented tools provides efficient speech-enabled access to the audio desktop and evolving semantic WWW. When combined with Linux running on low-cost PC hardware, Emacspeak/Linux provides a reliable, stable speech-friendly solution that opens up the Internet to visually impaired users around the world.

### **CHROMEVOX**

ChromeVox is a screen reader created by Google that allows users to browse the Internet. ChromeVox is built into any computer running Chrome OS including every Chromebook. It can also be added to both Windows and Mac OS and used with Google Chrome.



Chromevox

### **5.Provisions for enquiry and information, Human assistance reader, Scribe, softcopies and reading material screen reading**

The institute is having its policy for differently abled persons in line with AICTE.

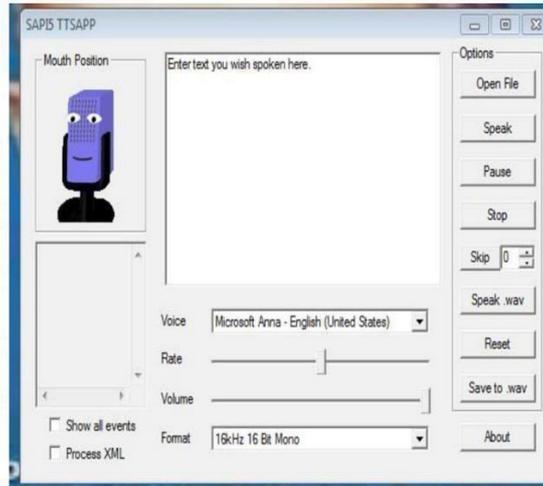
1. Provide guidance and counselling to differently abled individuals
2. Creating awareness about the needs of differently abled persons issues concerning to general and learning
3. To assist them, to gain successful employment opportunities
4. Facilitate admission in various courses as per the norms of the affiliating university

1. The Constitution of India ensures equality, freedom, justice and dignity of all individuals and implicitly mandates an inclusive society for all including persons with disabilities. In recent years, there have been vast and positive changes in the perception of the society towards persons with disabilities. It has been realized that a majority of persons with disabilities can lead a better quality of life if they have equal opportunities and effective access to rehabilitation measures.
2. According to the Census 2001, there are 2.19 crore persons with disabilities in India who constitute 2.13 percent of the total population. This includes persons with visual, hearing, speech, locomotor and mental disabilities. Seventy-five percent of persons with disabilities live in rural areas, 49 percent of disabled population is literate and only 34 percent are employed. The earlier emphasis on medical rehabilitation has now been replaced by an emphasis on social rehabilitation. There has been an increasing recognition of abilities of persons with disabilities and emphasis on mainstreaming them in the society based on their capabilities. The Government of India has enacted three legislations for persons with disabilities viz.

- (i) Persons with Disability (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, which provides for education, employment, creation of barrier-free environment, social security, etc.
  - (ii) National Trust for Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disability Act, 1999, has provisions for legal guardianship of the four categories and creation of enabling environment for as much independent living as possible.
  - (iii) Rehabilitation Council of India Act, 1992, deals with the development of manpower for providing rehabilitation services.
3. In addition to the legal framework, extensive infrastructure has been developed.

### **Human assistance reader, Scribe**

1. Diet institute provides the facility of scribes to assist differently able and visually impaired students during examination. As per the Government Circular ED 5 UNE 2004, dated 5.3.2004 and ED 5 UNE 2004, dated 22.3.2004, the following guidelines are to be strictly followed:
  - a) The blind student may select the scribe.
  - b) The scribe need not have a qualification lower than that of the student, provided that the scribe should not have the qualification (with the same optional and languages) pertaining to the examinations, which the student is writing (for ex: a student who has completed B.A. or M.A. can be a scribe for the student who is taking B. Sc. Examinations)
  - c) A physically disabled / blind / hearing impaired candidate and the scribes for such a candidate shall be allowed an extra time of 20 minutes per hour.
  - d) As the hearing-impaired students are having language problems, possibilities of grammar mistakes, mistakes in building the sentences are there. Hence, the answer papers shall be identified separately and evaluated with additional care.
2. Institute has the provision to provide Software facility for Visually Impaired students and the students who suffer from low vision issues or partial blindness etc. The software can easily convert speech to text and text to speech. The visually impaired students can speak to convert voice into text. The students would be provided with an assistant to read the text and convert as audio source for their future reference. The text material can also be converted to speech or voice and the recordings can be used by the student to attain the concepts clearly.



Text to Speech

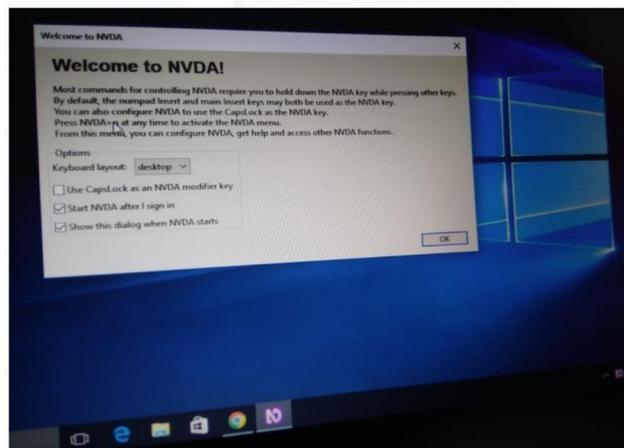
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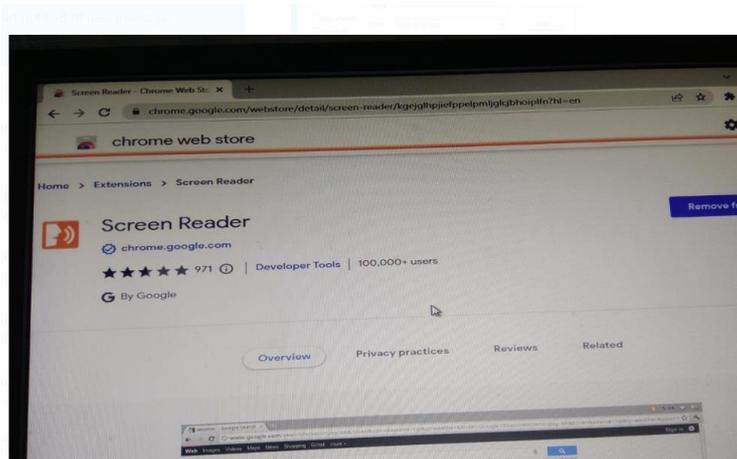
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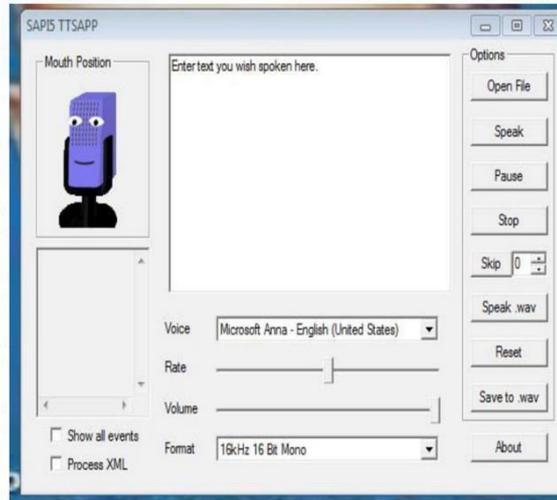
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**ANAKAPALLE - 531 002**