

# DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institute)



Approved by A.I.C.T.E & Permanently affiliated to JNTU GV  
Accredited by NAAC with 'A' Grade and Inclusion u/s 2(f) & 12(B) of UGC Act  
An ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Institute.  
NH-16, Anakapalle - 531002, Visakhapatnam, A.P.

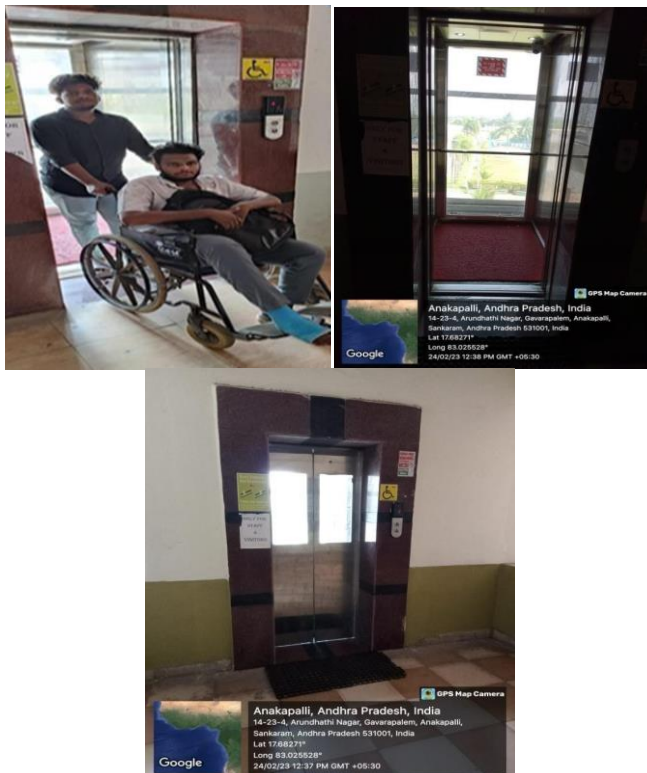
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## CRITERIA- 7

**7.1.7 - The Institution has a disabled- friendly and barrier-free environment: Ramps/lifts for easy access to classrooms and centers Disabled-friendly washrooms Signage including tactile path lights, display boards and signposts Assistive technology and facilities for persons with disabilities: accessible website, screen- reading software, mechanized equipment, etc. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading materials, screen reading, etc.**

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

The Dadi Institute of Engineering and Technology (DIET) provide an accessible environment that facilitates safe and unrestricted movement for both staff and students with disabilities across the campus. The facilities are specifically designed to promote the autonomy of individuals, allowing them to engage in daily activities independently.



Operational Lifts in the Institute

Ramps, which are inclined planes, are built alongside staircases at the DIET Institute. The ramps are designed according to Indian Standard specifications to make the Institute disabled-friendly.



Ramps in the Institute

## 2. Divyangjan-friendly washrooms

At DIET, significant emphasis has been placed on ensuring that washrooms are accessible for individuals with disabilities. This facility is available in both men's and women's washrooms, which are equipped with support rails.



Washrooms for disabled persons

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

To foster an inclusive environment on campus for individuals with disabilities, tactile pathways, appropriate lighting, display boards, and various signposts have been implemented to enhance accessibility throughout the campus.

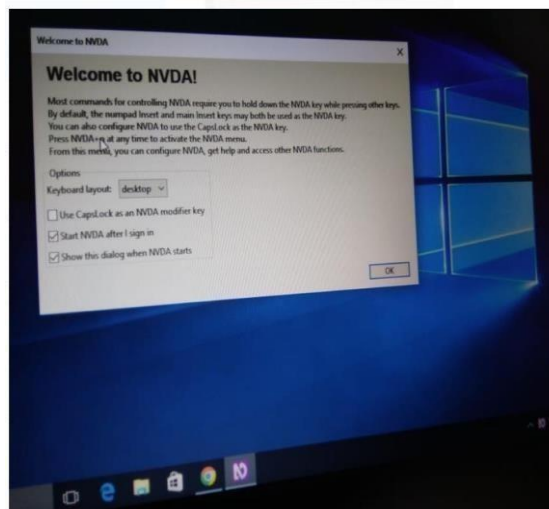


Facilities provided at DIET Campus for Disabled Friendly Environment

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

##### **Details of the Software procured for assisting: NVDA (NON VISUAL DESKTOP ACCESS)**

NonVisual Desktop Access (NVDA) is a free and open-source portable screen reader designed for Microsoft Windows. The project was initiated by Michael Curran in 2006. NVDA is developed in Python and operates exclusively with accessibility APIs, including UI Automation, Microsoft Active Accessibility, IAccessible2, and the Java Access Bridge, instead of relying on specialized video drivers to intercept and interpret visual information. It is licensed under the GNU General Public License, version.



NVDA (Non visual desktop Access)  
NonVisualDesktop Access

## 2. Features and accessibility API support

NVDA (NonVisual Desktop Access) utilizes eSpeak as its integrated speech synthesizer. It also supports the Microsoft Speech Platform synthesizer, ETI Eloquence, and various SAPI synthesizers. Official support for output to Braille displays has been available since Version 0.6p3.

In addition to providing general Windows functionality, NVDA is compatible with applications such as Microsoft Office (including Word, PowerPoint, and Excel), WordPad, Notepad, and Windows Media Player. It works well with web browsers like Mozilla Firefox, Google Chrome, Internet Explorer, and Microsoft Edge, as well as most email clients, including Outlook, Mozilla Thunderbird, and Outlook Express. The free office suites LibreOffice and OpenOffice.org can be accessed through the JavaAccess Bridge package.

Since early 2009, NVDA has supported the WAI-ARIA standard for Accessible Rich Internet Applications, improving web application accessibility for blind users. According to a 2021 screen

reader user survey conducted by WebAIM, NVDA was the second most popular screen reader worldwide. It had previously held the number one position in their 2019 survey, with 30.7% of participants using it as their primary screen reader and 58.8% using it frequently.

Screen readers like NVDA can also be employed to test the accessibility of software and websites, making it the preferred choice among accessibility practitioners.

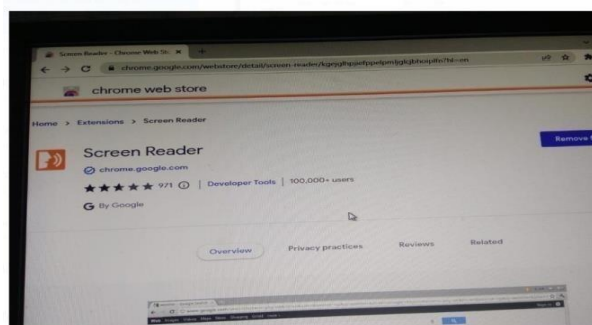
## **EMACSPREAK**

Emacspeak is a speech interface designed to help visually impaired users interact with computers independently and efficiently. It utilizes audio formatting techniques, originally developed by AsTeR, and fully supports W3C's Aural CSS (ACSS) to create rich aural presentations of electronic information. By seamlessly integrating various aspects of the Internet, such as web surfing and messaging, Emacspeak enables users to access both local and remote information through a consistent and well-designed user interface.

Available for free online, Emacspeak has significantly transformed how the author and thousands of blind and visually impaired users worldwide interact with personal computers and the Internet. It offers a comprehensive set of task-oriented tools that provide efficient speech-enabled access to an audio desktop and the evolving semantic web. When paired with Linux on low-cost PC hardware, Emacspeak/Linux presents a dependable and stable speech-friendly solution that opens up the Internet to visually impaired users around the globe.

## **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, soft copies and reading material screen reading**

The institute has established its policy for individuals with disabilities in accordance with AICTE guidelines.

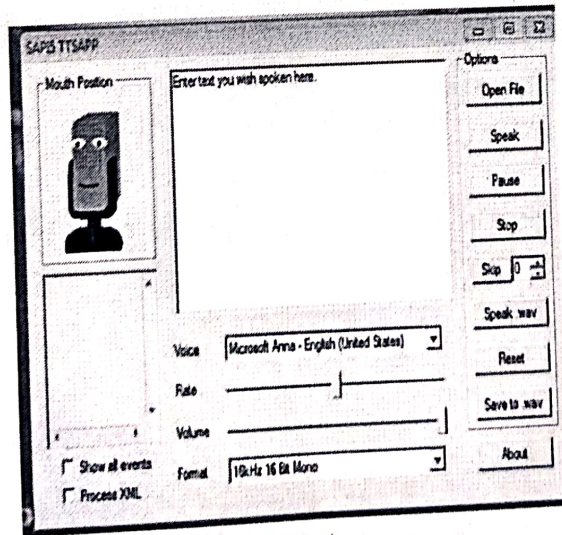
1. Offer guidance and counseling services to individuals with disabilities.
2. Raise awareness regarding the needs and issues faced by individuals with disabilities, both in general and in learning contexts.
3. Support them in securing successful employment opportunities.
4. Assist in facilitating admissions to various courses in line with the standards set by the affiliating university.

1. The Constitution of India guarantees equality, freedom, justice, and dignity for all individuals, implicitly advocating for an inclusive society for everyone, including persons with disabilities. In recent years, there have been significant and positive changes in societal perceptions of individuals with disabilities. It has become evident that most persons with disabilities can lead a better quality of life when provided with equal opportunities and effective access to rehabilitation measures.
2. According to the 2001 Census, there are approximately 2.19 crore persons with disabilities in India, constituting 2.13 percent of the total population. This group includes individuals with visual, hearing, speech, locomotor, and mental disabilities. Notably, 75 percent of persons with disabilities reside in rural areas. Among them, 49 percent are literate, while only 34 percent are employed. The earlier focus on medical rehabilitation has shifted towards social rehabilitation. There is an increasing recognition of the capabilities of persons with disabilities and a growing emphasis on integrating them into society based on their abilities. To support this, the Government of India has enacted three key legislations for persons with disabilities.
  - i. The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act of 1995 aims to ensure equal opportunities in education, employment, the creation of a barrier-free environment, and social security for individuals with disabilities.
  - ii. The National Trust for Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation, and Multiple Disabilities Act of 1999 includes provisions for legal guardianship for these four categories and seeks to create an enabling environment to support as much independent living as possible.
  - iii. The Rehabilitation Council of India Act of 1992 focuses on the development of human resources dedicated to providing rehabilitation services.

3. In addition to the legal framework, extensive infrastructure has been developed.

## Human assistance reader, Scribe

1. The Diet Institute offers scribe assistance for differently-abled and visually impaired students during examinations. According to the Government Circular ED 5 UNE 2004, dated March 5, 2004, and another from March 22, 2004, the following guidelines must be strictly adhered to:
  - a) The blind student may select the scribe.
  - b) The scribe need not qualify lower than that of the student, provided that the scribe should not qualify (with the same optional and languages) on the examinations, which the student is writing (for example: a student who has completed a Diploma or Intermediate. can be a scribe for the student who is taking B.Tech. 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, and mistakes in building the sentences are there. Hence, the answer papers shall be identified separately and evaluated with additional care.
2. The institute provides software designed for visually impaired students and those with low vision or partial blindness. This software can easily convert speech to text and vice versa. Visually impaired students can speak to convert their voice into text. Additionally, each student will receive assistance to read the text and convert it into an audio format for future reference. Furthermore, text materials can be converted to speech, allowing students to use recording to enhance their understanding of the concepts.



Text to Speech