



SUBBAIAH INSTITUTE OF DENTAL SCIENCES

(A Unit of Tadikela Subbaiah Trust[®])

Recognized By Dental Council of India, New Delhi, DCI No. V.I2017/5/2019-DE

Affiliated to Rajiv Gandhi University of Health Sciences, Bangalore

Ref,

Date :.....

The institution has been actively involved in the research and innovations. The following details of innovations are provided and documents are attached accordingly:

1. Digital Library
2. Digital Evaluation Center
3. Innovation of Software called "**Dentogenus**" in the field of Forensic Odontology.
4. Fabrication of Semiautomatic tooth brush "**Dentocure**" for specially abled Kids.



B.S. Sankar

Principal

Subbaiah Institute of Dental Sciences
NH-13, H.H. Road, Purle
SHIVAMOGGA-577 222, Karnataka





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LIBRARY AND INFORMATION CENTRE

HELINET HOME PAGE

The screenshot shows the HELINET Home Page in a web browser. The page features a navigation menu with links for Home, The Library, Digital Resources, and Contact Us. A welcome message is displayed for Mr. NAVEEN K S, with buttons for Log Out and Change Password. The main heading is "Welcome to HELINET Consortium" followed by "Gateway of Library Digital Resources". A section titled "Remote Access Services" explains that the gateway is designed for the academic community of RGUHS HELINET Consortium to provide off-campus and anytime-anywhere access to digital resources. A photograph of a modern building is shown on the right side of the page.

E-BOOKS PUBLISHERS

The screenshot displays the E-Books Publishers page, which lists various digital resources available through the library. The resources are organized into a grid of boxes, each representing a different publisher or database. The publishers listed include CABI Global Health Database, CBS Dentistry eBooks, CBS Medical eBooks, CBS Nursing eBooks, CBS Pharmacy eBooks, Ebook Central, Jaypee Digital eBooks, Jaypee Digital Videos, Nature Medicine Textbooks, Thieme eBooks List, and Wolter Kluwer Books List. A green signature is visible in the bottom right corner of the page.

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SCIENCE DIRECT

The screenshot shows the ScienceDirect website interface. At the top, there are navigation links for "Journals & Books", "Register", and "Sign in". The main heading reads "Showing 4,746 journals". Below this, there is a search bar and a filter section. The filter section is titled "Refine publications by" and includes "Domain" and "Subdomain" dropdown menus. A list of journals is displayed, including "AAACE Clinical Case Reports" and "AASRI Procedia". A vertical alphabetical index (A-E) is visible on the right side. The Windows taskbar at the bottom shows the date as 2/9/2023 and the time as 11:52 AM.

E-JOURNALS PUBLISHERS

The screenshot displays the "Digital Resources" page. Under the "e-Journals" section, there is a grid of eight publisher tiles. Each tile contains a logo and the name of the publisher or resource. The publishers shown are: Annual Reviews (Annual Reviews Journal List), Bentham Science (Bentham Science), Evidence-Based Medicine Guidelines (EBM Guidelines), MedOne (Education), ScienceDirect (ScienceDirect Journal List), ProQuest (Health Research Collection), Jaypee Digital (Jaypee Digital eJournals), and MedOne (MedOne Ophthalmology). The Windows taskbar at the bottom shows the date as 11/23/2022 and the time as 12:39 PM.



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E-JOURNALS PUBLISHERS

The screenshot shows a web browser window with the following content:

- Browser tabs: MapMyAccess | RGUHS -heliner, JaypeeDigital | Pediatric Dentist
- Address bar: rguhs.mapmyaccess.com
- Search engines: Google, Gmail, Welcome to Hospitxys
- Grid of publisher tiles:
 - MedOne Otolaryngology (with MedOne logo)
 - Nature (with Nature logo)
 - Neurosurgery Clinical Staff (with Neurosurgery Clinical Staff logo)
 - UTP Physiotherapy, Canada (with UTP Physiotherapy, Canada logo)
 - MedOne Plastic Surgery (with MedOne logo)
 - MedOne Radiology (with MedOne logo)
 - SAGE JOURNALS Sage Journals Title List (with SAGE JOURNALS logo)
 - Springer Springer Journal Titles (with Springer logo)
 - The Bone & Joint Journal Bone and Joint Journal (with The Bone & Joint Journal logo)
 - Thieme Thieme Journals List (with Thieme logo)
 - WILEY Wiley Online (with WILEY logo)
- Navigation menu:
 - > e-Books
 - > e-Multimedia
- Taskbar: Windows logo, search, and icons for Edge, File Explorer, Chrome, and Word. System tray shows 12:51 PM on 11/23/2022.

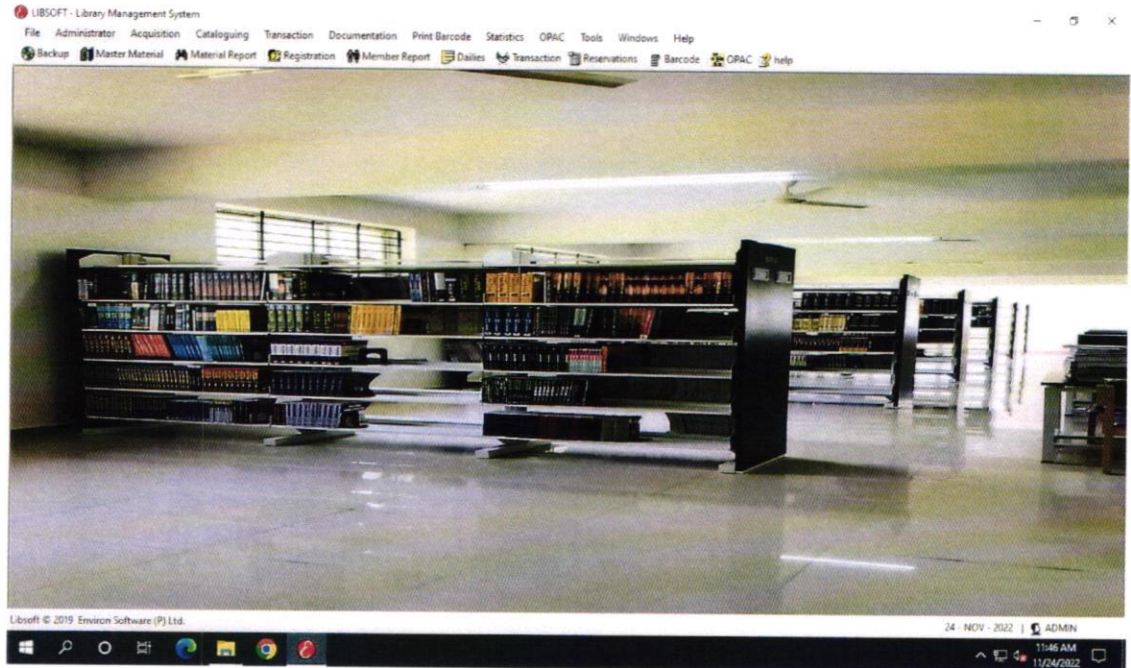


SUBBAIAH INSTITUTE OF DENTAL SCIENCES

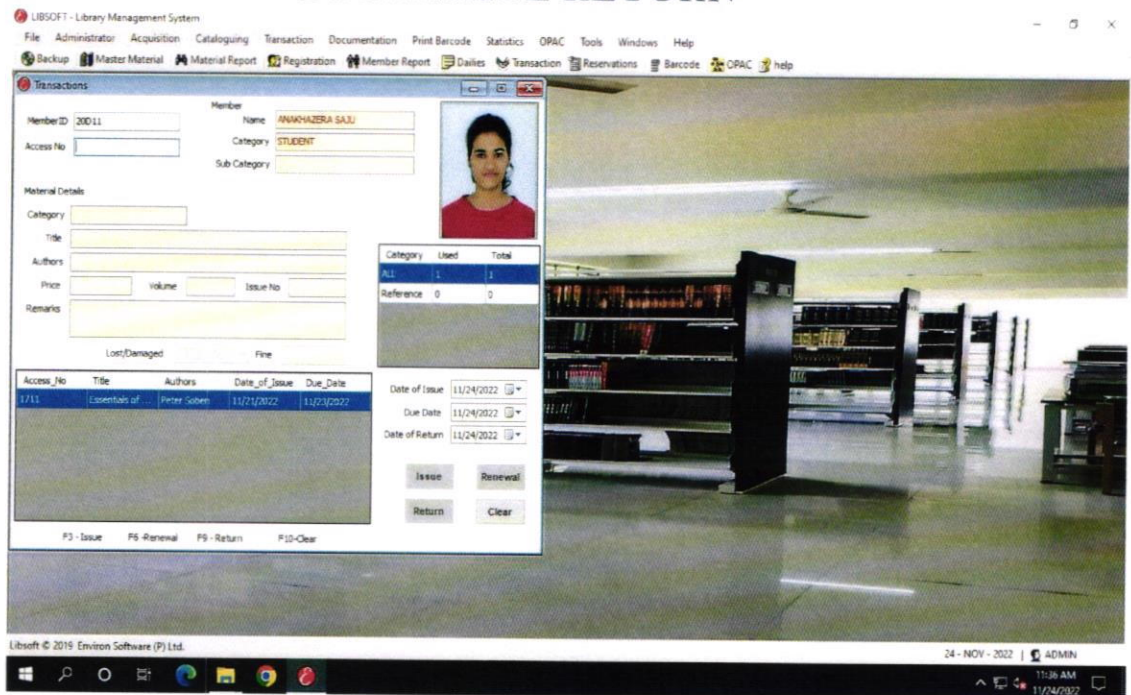
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SOFTWARE HOME PAGE



BOOK ISHUE RETURN





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STUDENT REGISTRATION

LIBSOFT - Library Management System

File Administrator Acquisition Cataloguing Transaction Documentation Print Barcode Statistics OPAC Tools Windows Help

Backup Master Material Material Report Registration Member Report Dailies Transaction Reservations Barcode OPAC help

Member Registration

Member ID: 21015

First Name: BI BI Middle Name: Sur Name: ANNA

Category: Student

Sub Category: BDS 2021

ID Card No:

Email: bbianna2019@gmail.com Sex: Female

Off. Phone: SCST Cards: 0 BB Cards: 0

Res. Phone: BB Validity: 11/18/2022

Mobile: 9110256414 Reg. Date: 5/1/2021

Present Address: 2nd cross o t road Musad Nagar Shimoga Permanent:

Cancel Date: 11/24/2022

Valid Date: 5/1/2026

Password: library

Buttons: Add, Modify, Delete, Clear, Exit

Libsoft © 2019 Emerson Software (P) Ltd. 24 - NOV - 2022 | ADMIN 11:42 AM 11/24/2022

STUDENT ID CARD

Print preview

Close

Page 1/6

<p>SUBBAIAH INSTITUTE OF DENTAL SCIENCES SHIMOGA</p> <p>Library Card</p> <p>Name: ANNA BI BI Category: Student Validity: 11/2026 Batch: BDS 2021</p> <p>Chief Librarian</p>	<p>Instructions:</p> <ol style="list-style-type: none"> This card is NON-TRANSFERABLE. This card enables the member to borrow one book from the library at a time and he / she will be responsible for the book for the card. Condition of the book should be checked at time of borrowing, loss or damage of books in any way should be compensated to the librarian. Book should be returned within the due date otherwise Rs. 5 - per day will be collected. In case of loss of the library card, the member should make to the chief librarian immediately. Chief Librarian may recall the books any time in case of emergency.
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<p>SUBBAIAH INSTITUTE OF DENTAL SCIENCES SHIMOGA</p> <p>Library Card</p> <p>Name: ANNA BI BI Category: Student Validity: 11/2026 Batch: BDS 2021</p> <p>Chief Librarian</p>	<p>Instructions:</p> <ol style="list-style-type: none"> This card is NON-TRANSFERABLE. This card enables the member to borrow one book from the library at a time and he / she will be responsible for the book for the card. Condition of the book should be checked at time of borrowing, loss or damage of books in any way should be compensated to the librarian. Book should be returned within the due date otherwise Rs. 5 - per day will be collected. In case of loss of the library card, the member should make to the chief librarian immediately. Chief Librarian may recall the books any time in case of emergency.

11:35 AM 11/24/2022

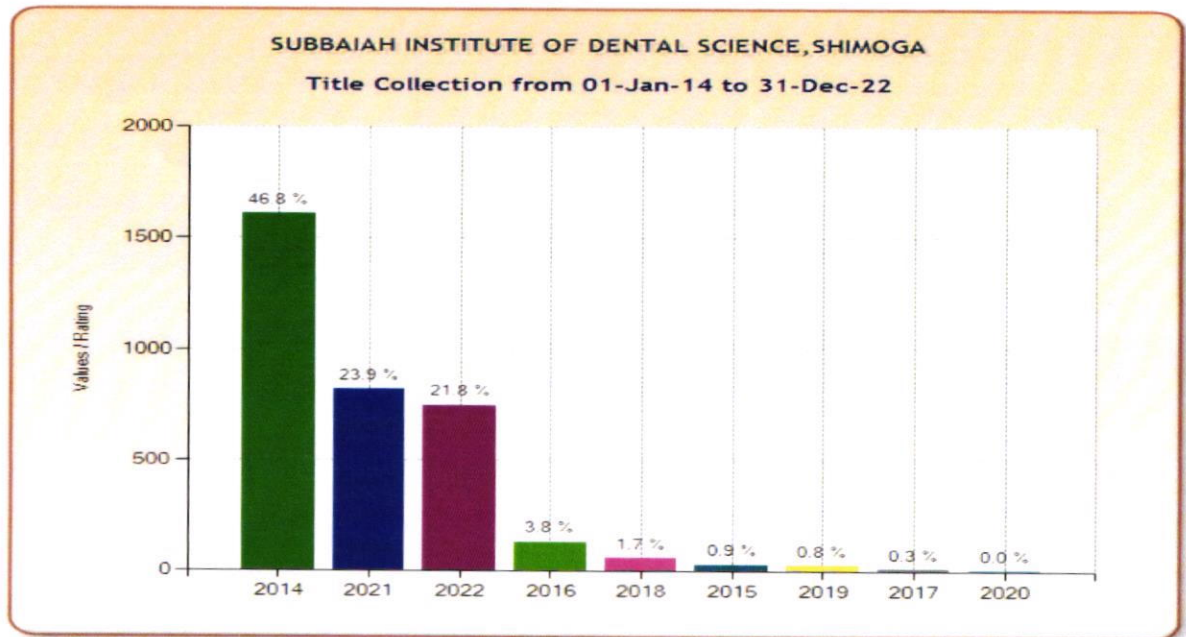


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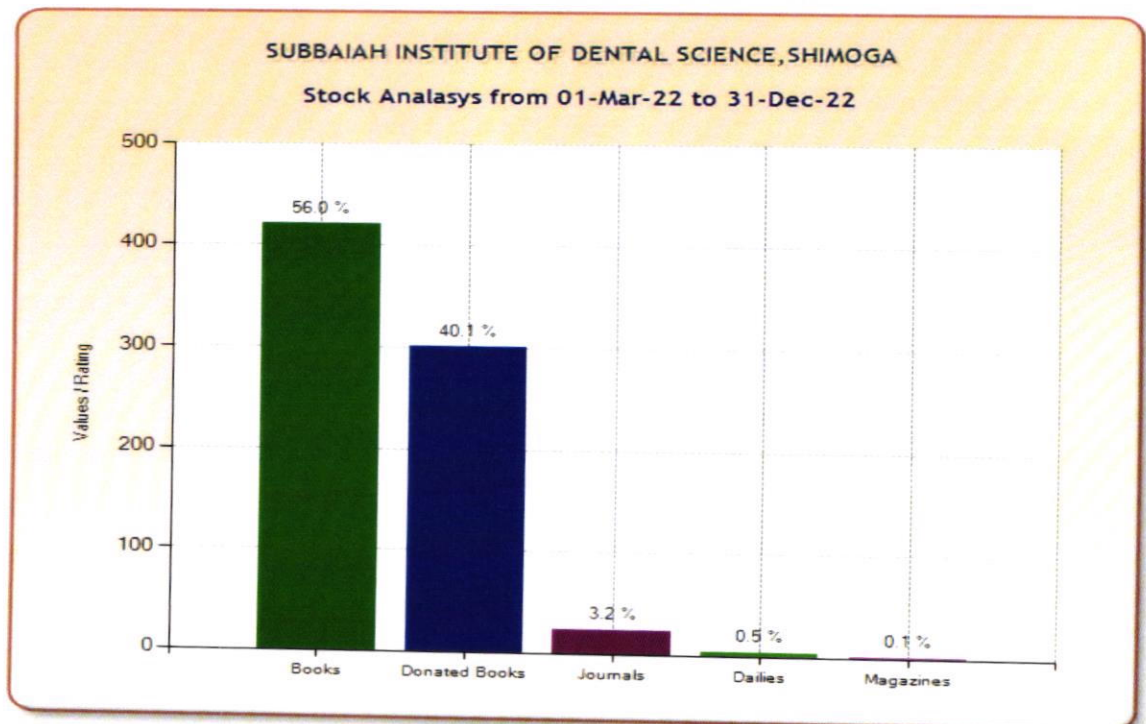
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TITLE COLLECTION



LIBRARY STOCK ANALYSIS



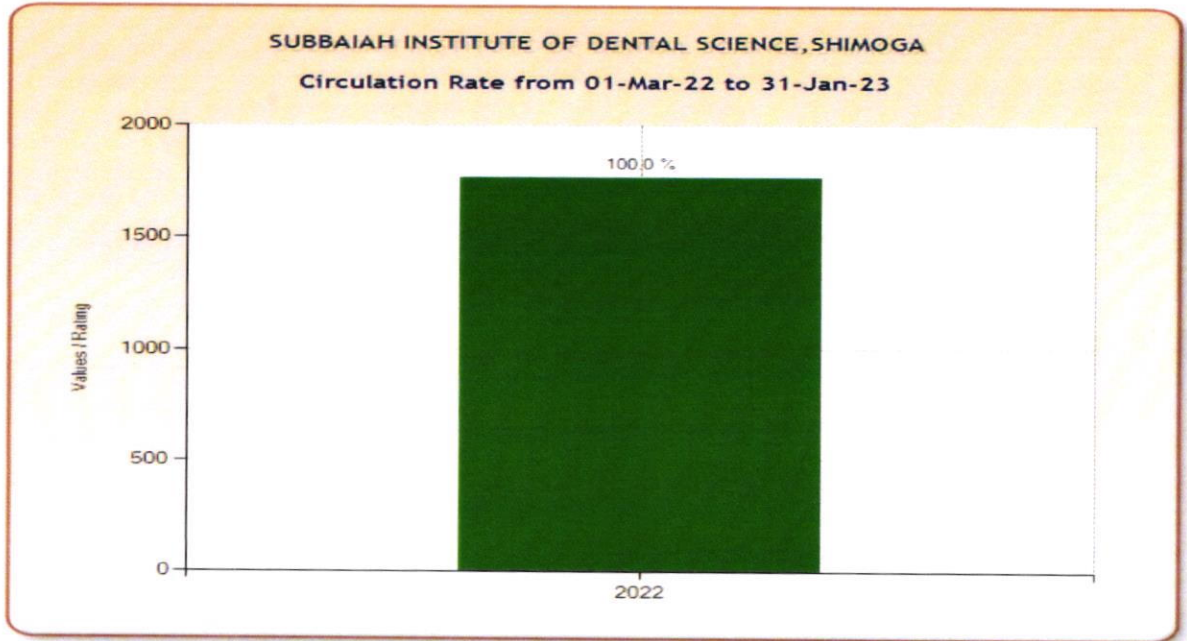


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CIRCULATION RATE



CIRCULATION COUNT

LIBSOFT - Library Management System

File Administrator Acquisition Cataloguing Transaction Documentation Print Barcode Statistics OPAC Tools Windows Help

Backup Master Material Material Report Registration Member Report Dishes Transaction Reservations Barcode OPAC help

Circulation Count

Start Date: 2/1/2023
End Date: 2/17/2023

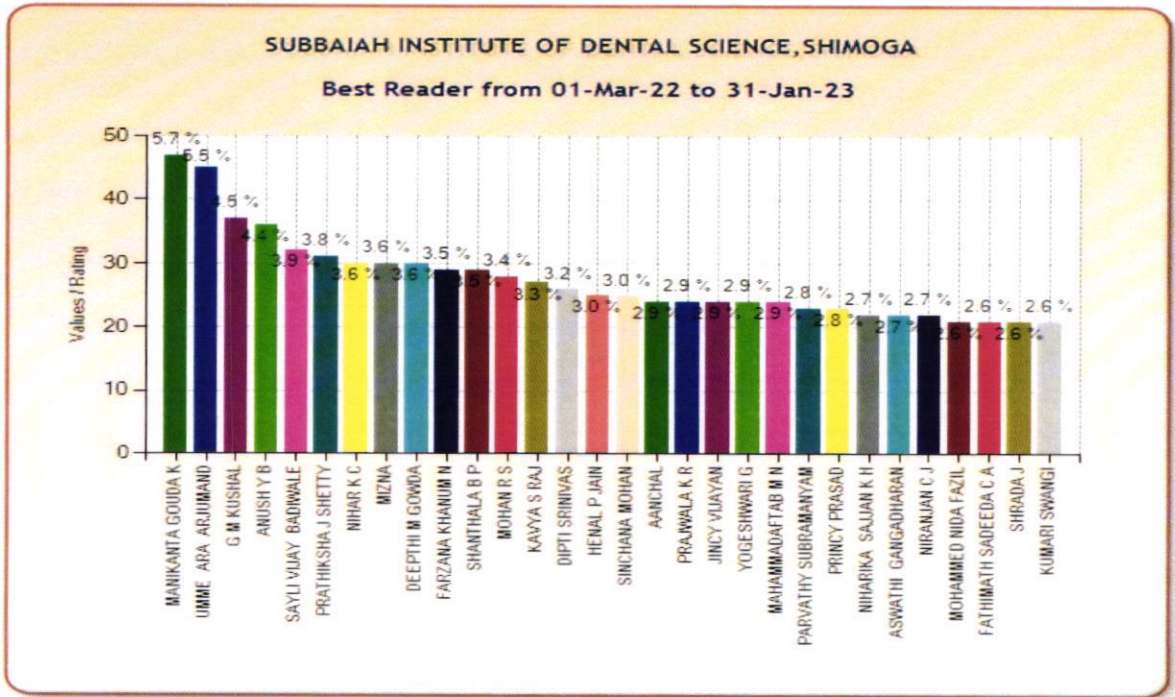
Search Preview Print
Export Clear

T_DATE	No_of_Issue	No_of_Return
01-Feb-23	24	29
02-Feb-23	21	12
03-Feb-23	23	29
04-Feb-23	19	17
06-Feb-23	39	40
07-Feb-23	24	19
08-Feb-23	23	25
09-Feb-23	18	18
10-Feb-23	20	26
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14-Feb-23	23	20
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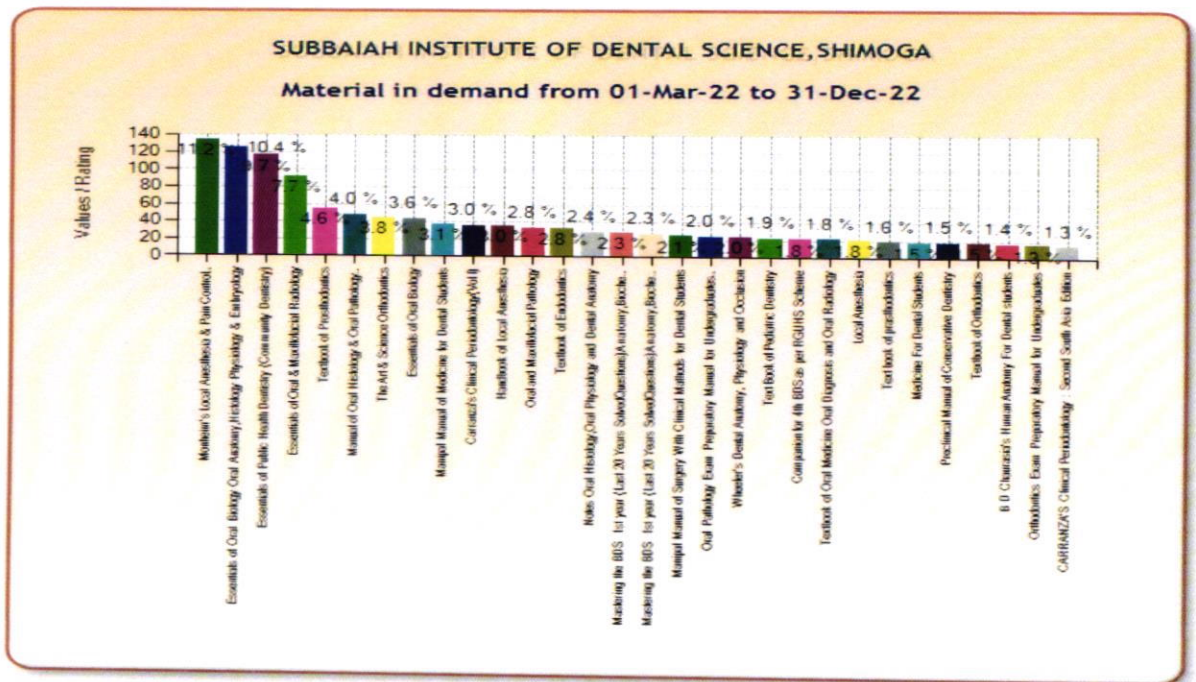
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17 - FEB - 2023 | ADMIN
10:25 AM
17/2/2023

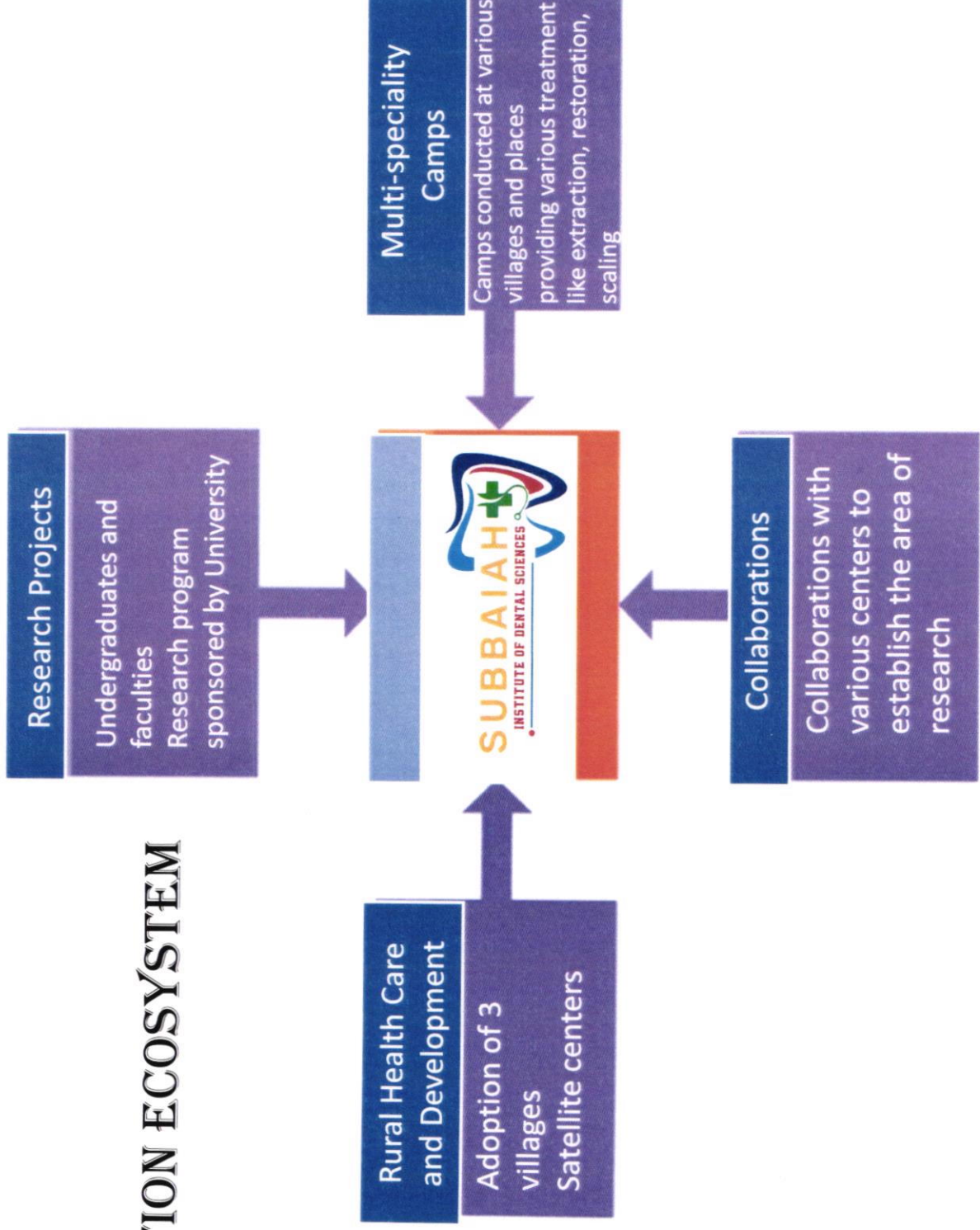
BEST READER



HIGHLY USAGE OF BOOKS



INNOVATION ECOSYSTEM

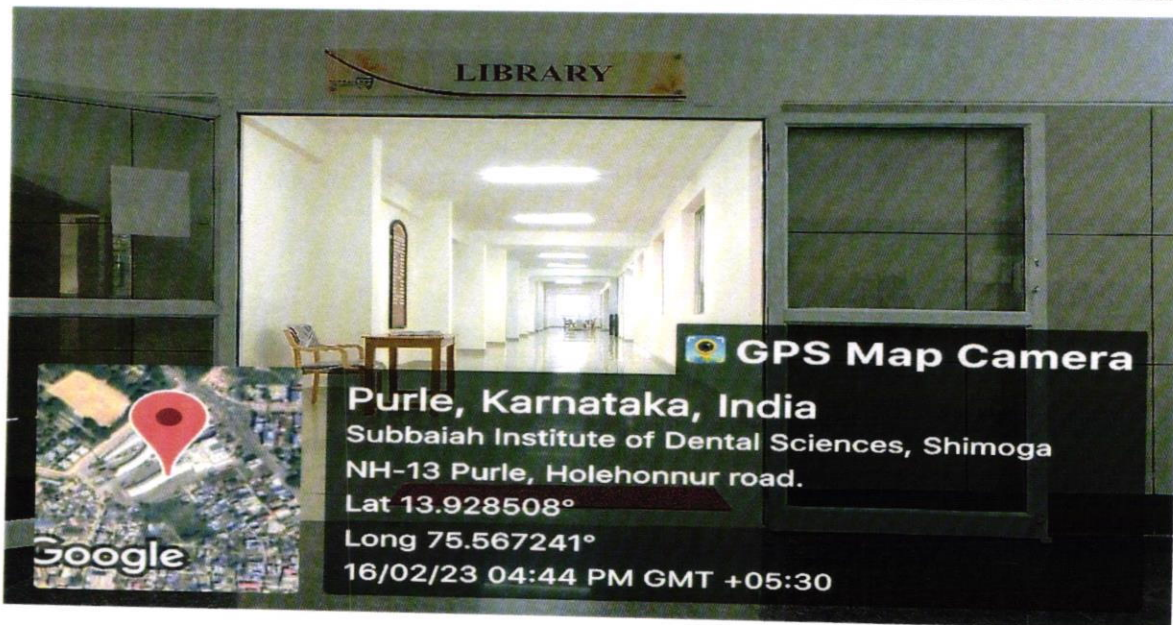
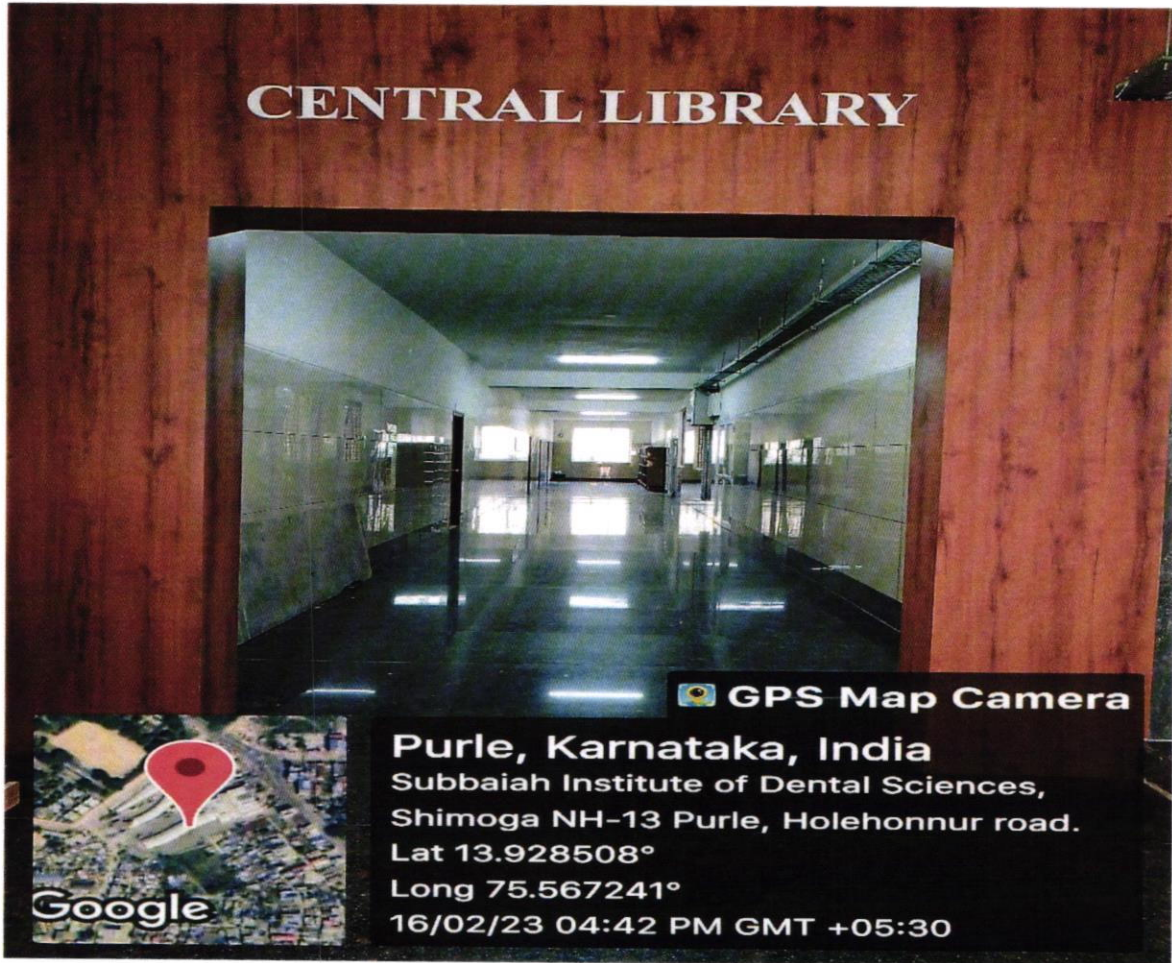




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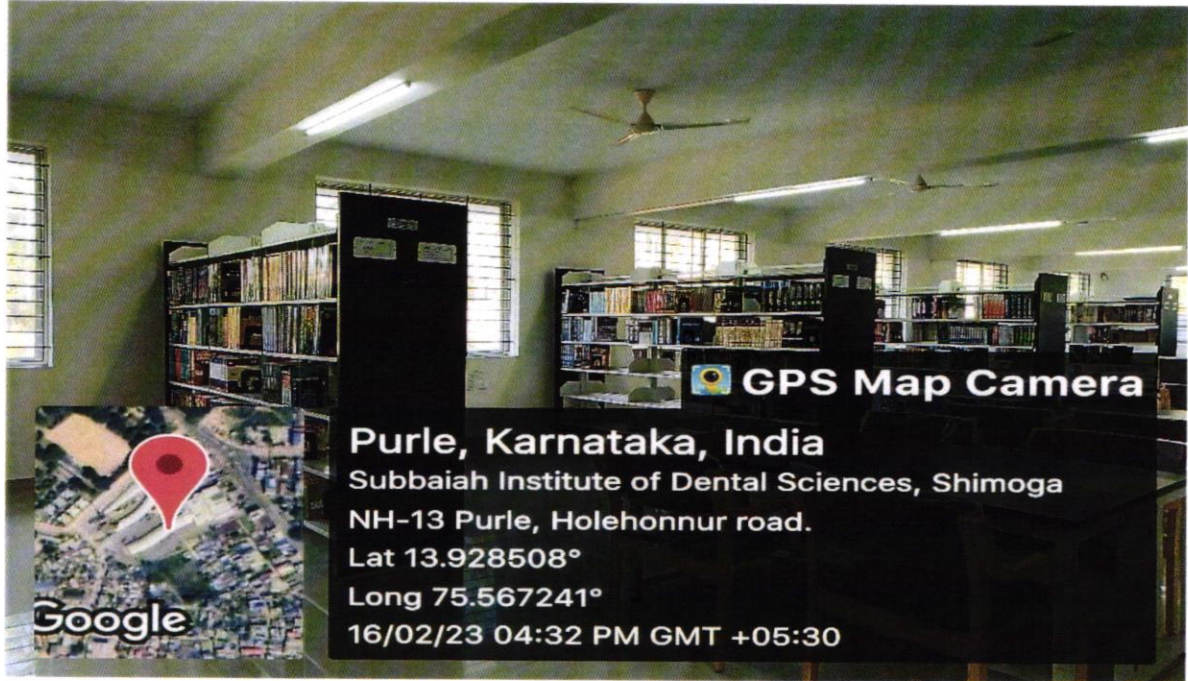


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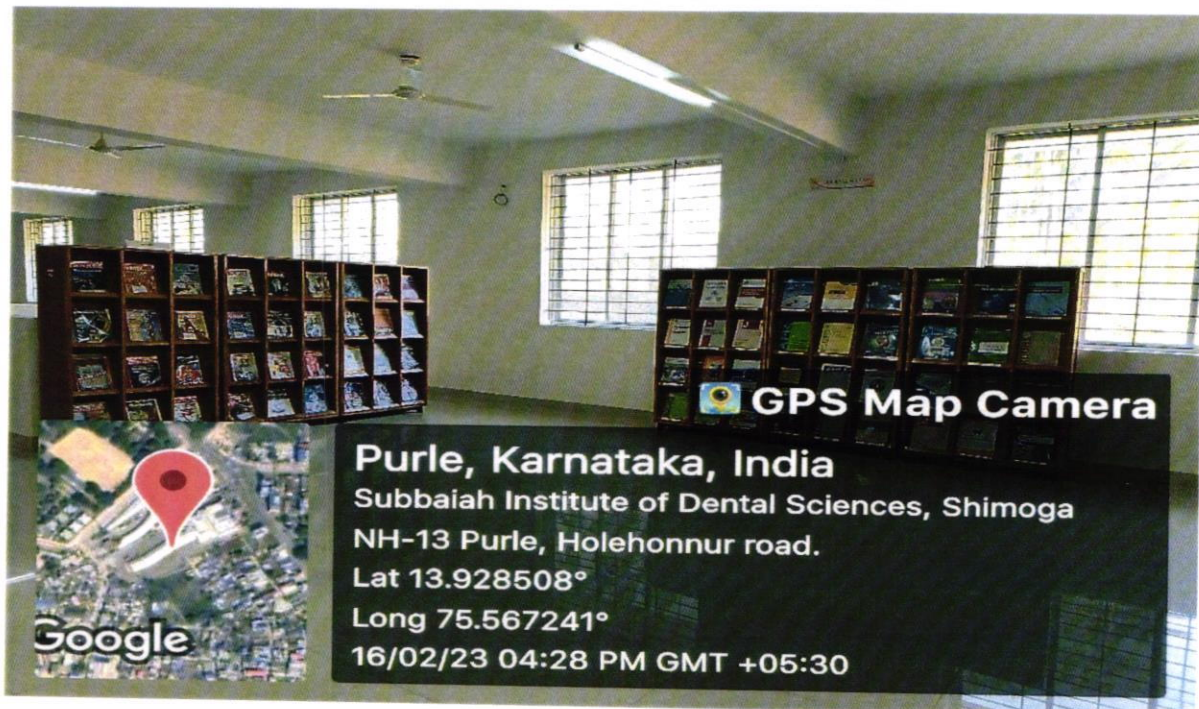
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STOCK SECTION



JOURNAL SECTION



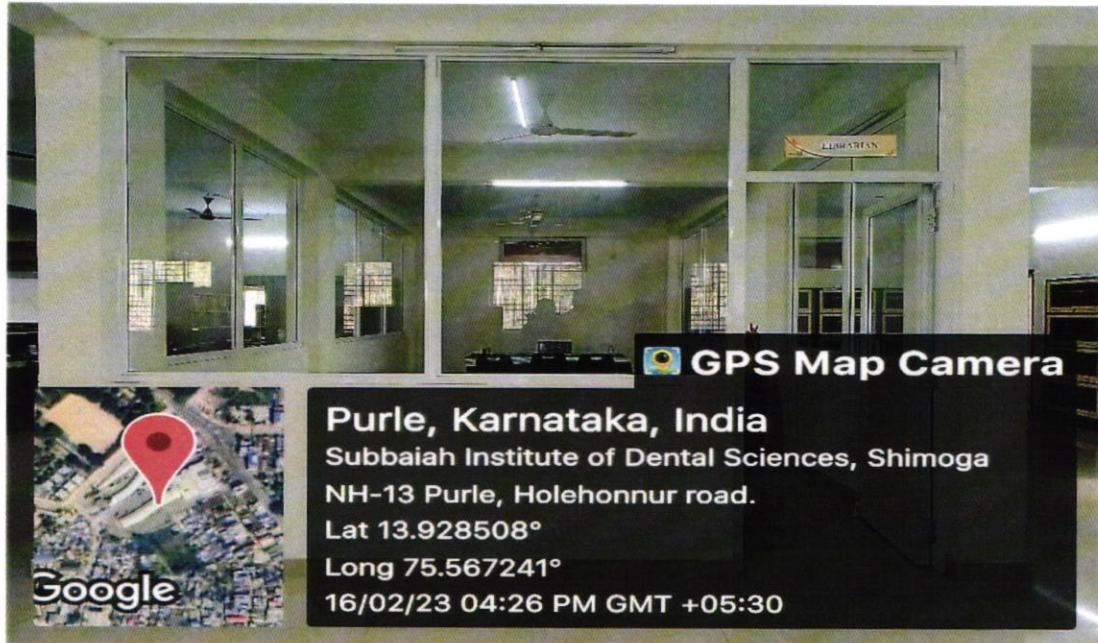


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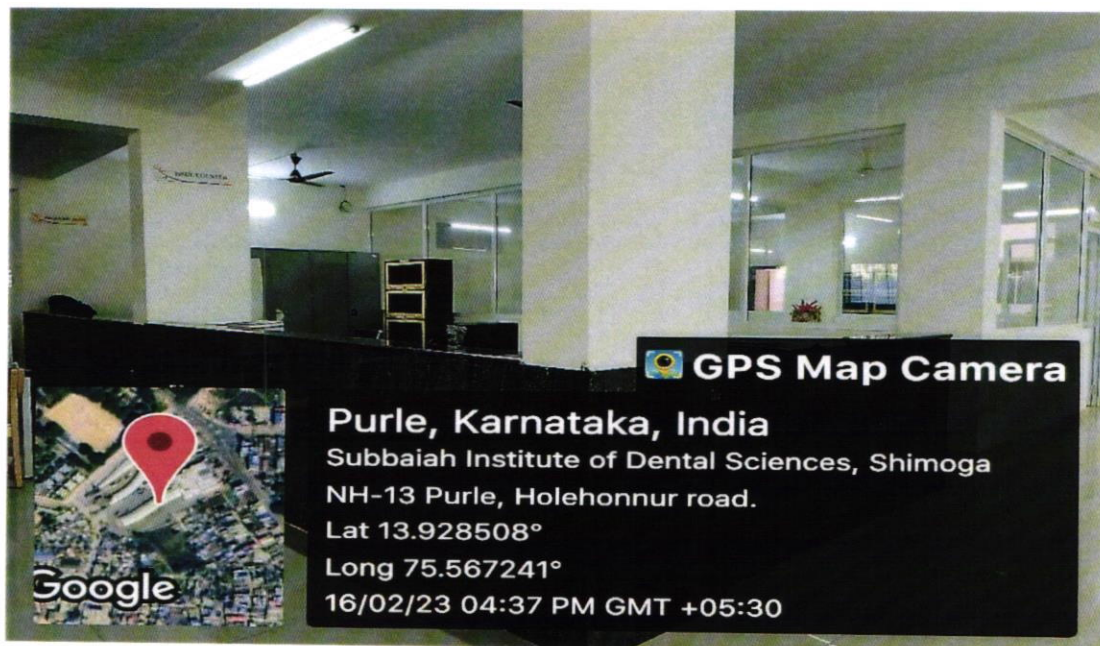
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CHIEF LIBRARIAN



CIRCULATION COUNTER



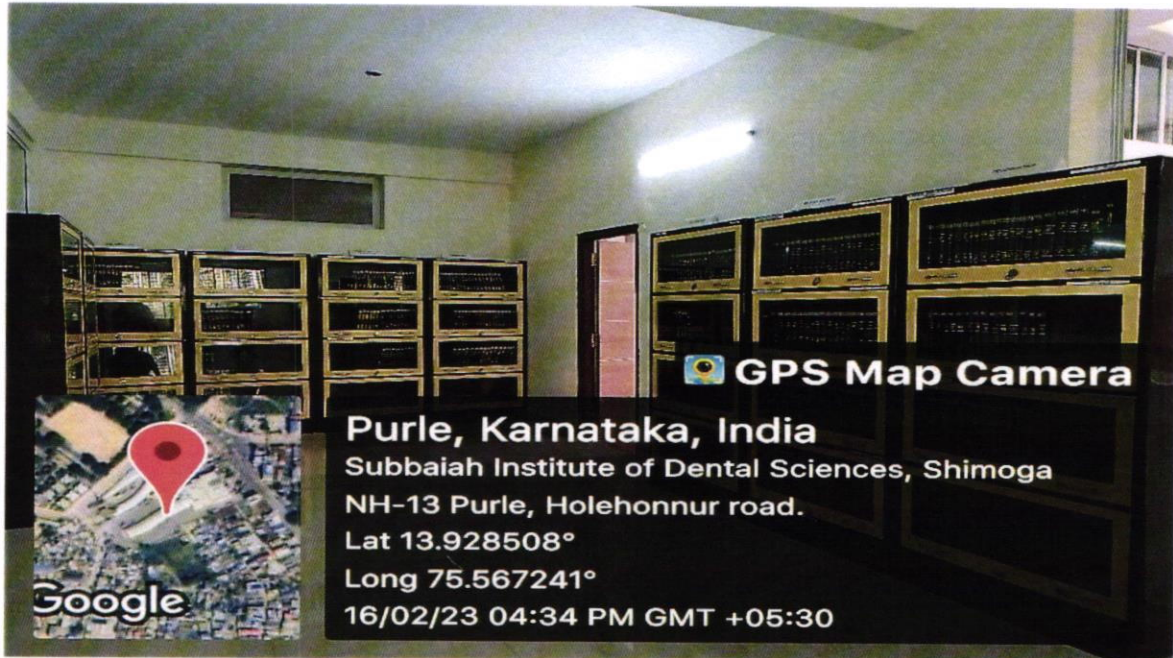


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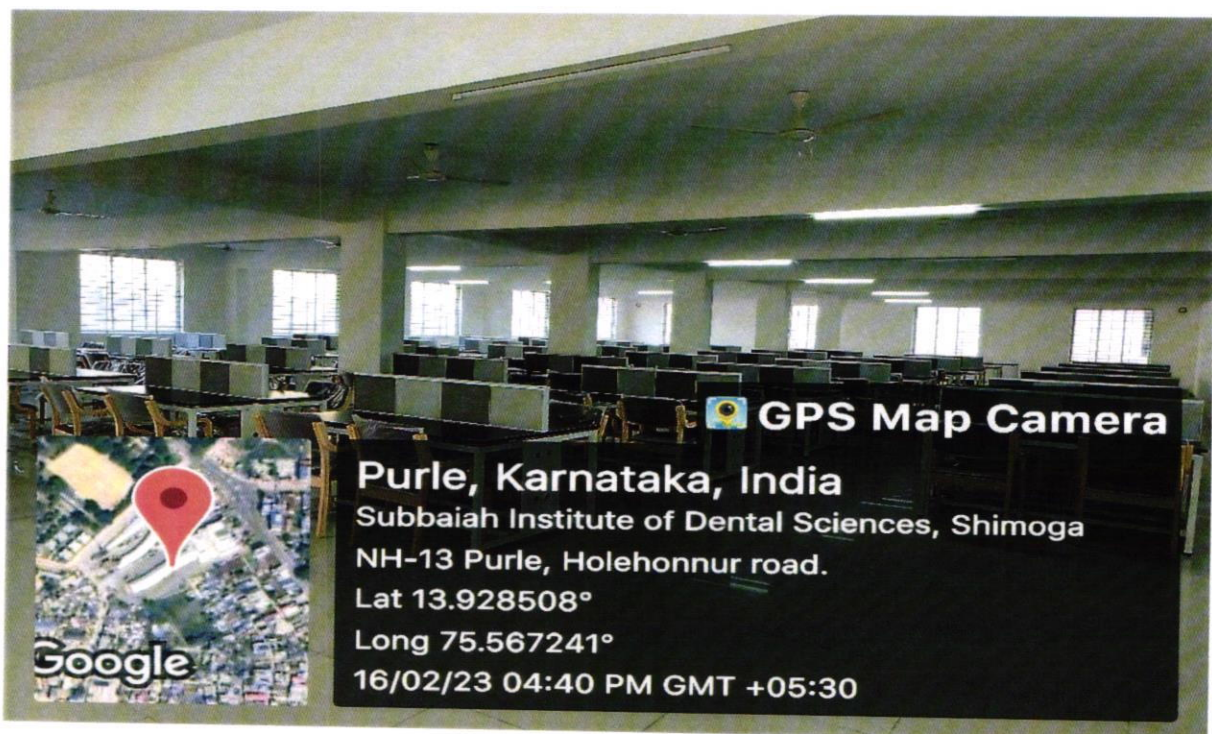
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BACK VOLUME SECTION



STUDENTS READING SECTION



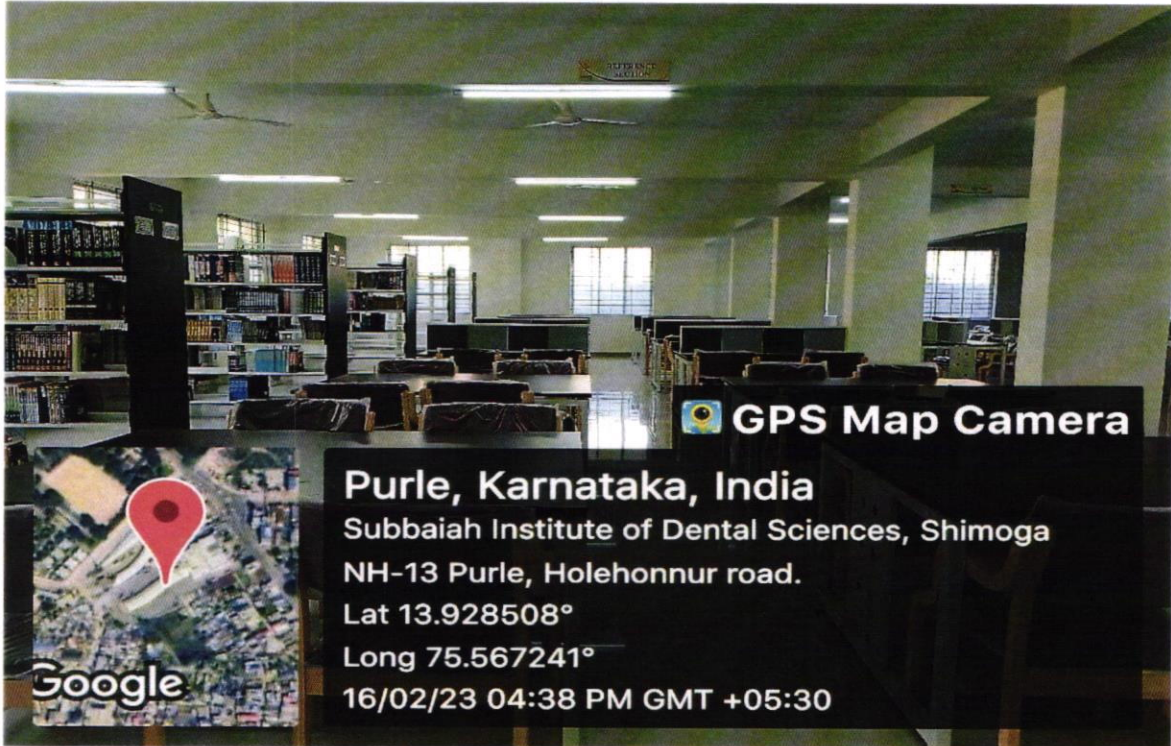


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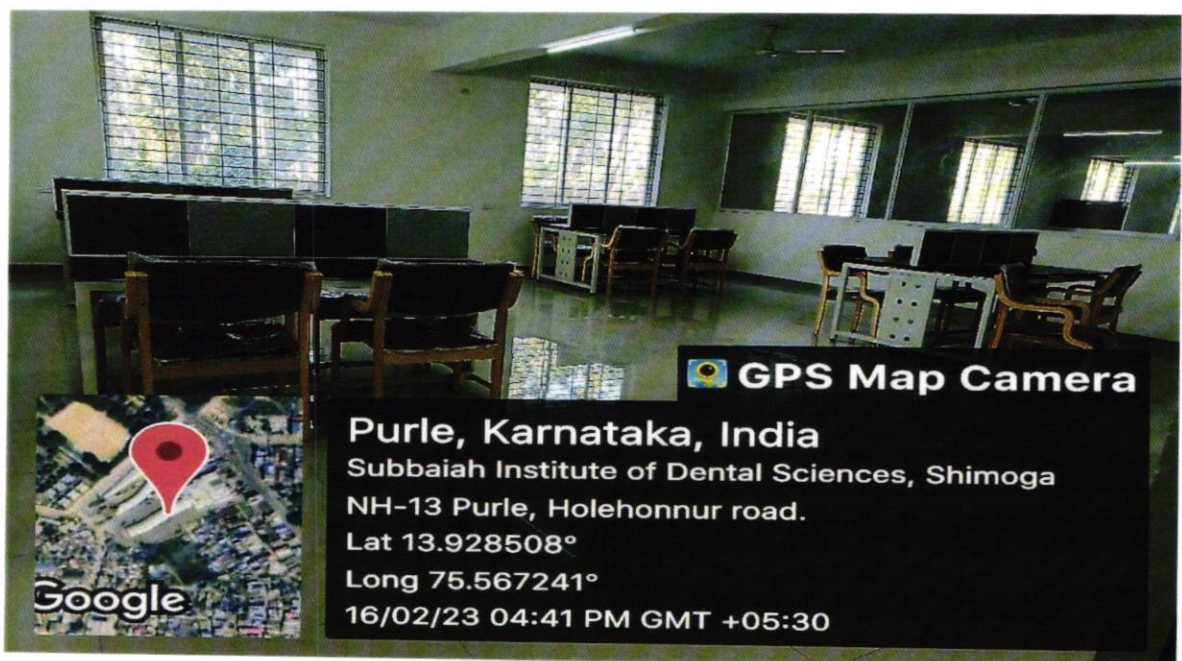
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REFERENCE SECTION



STAFF READING SECTION



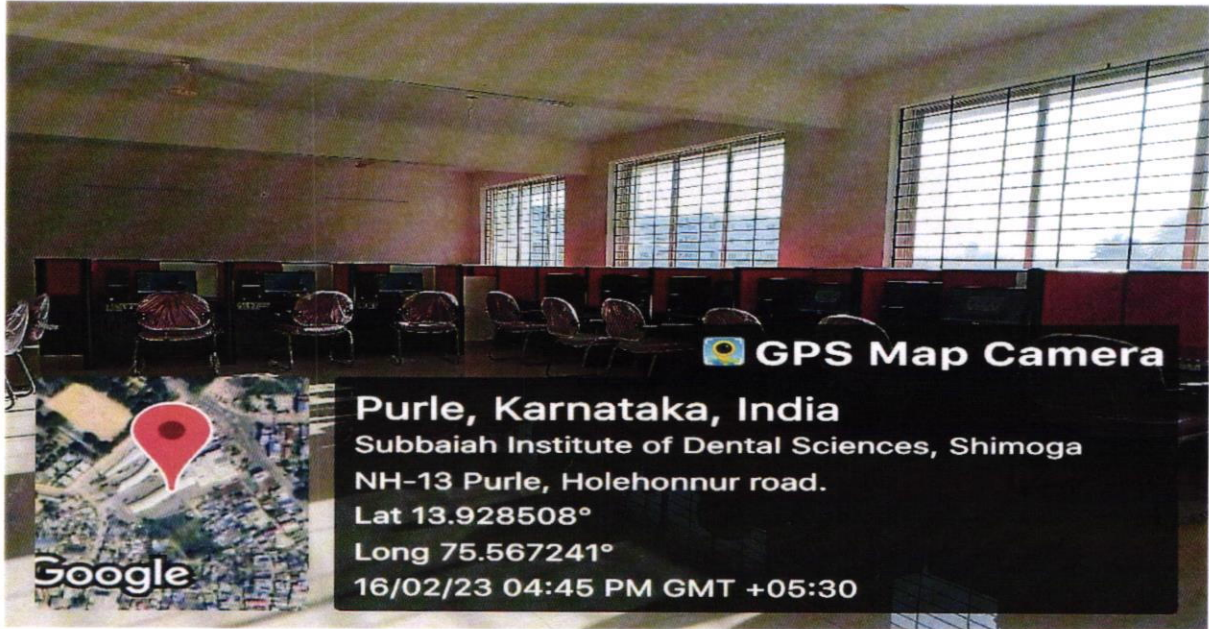


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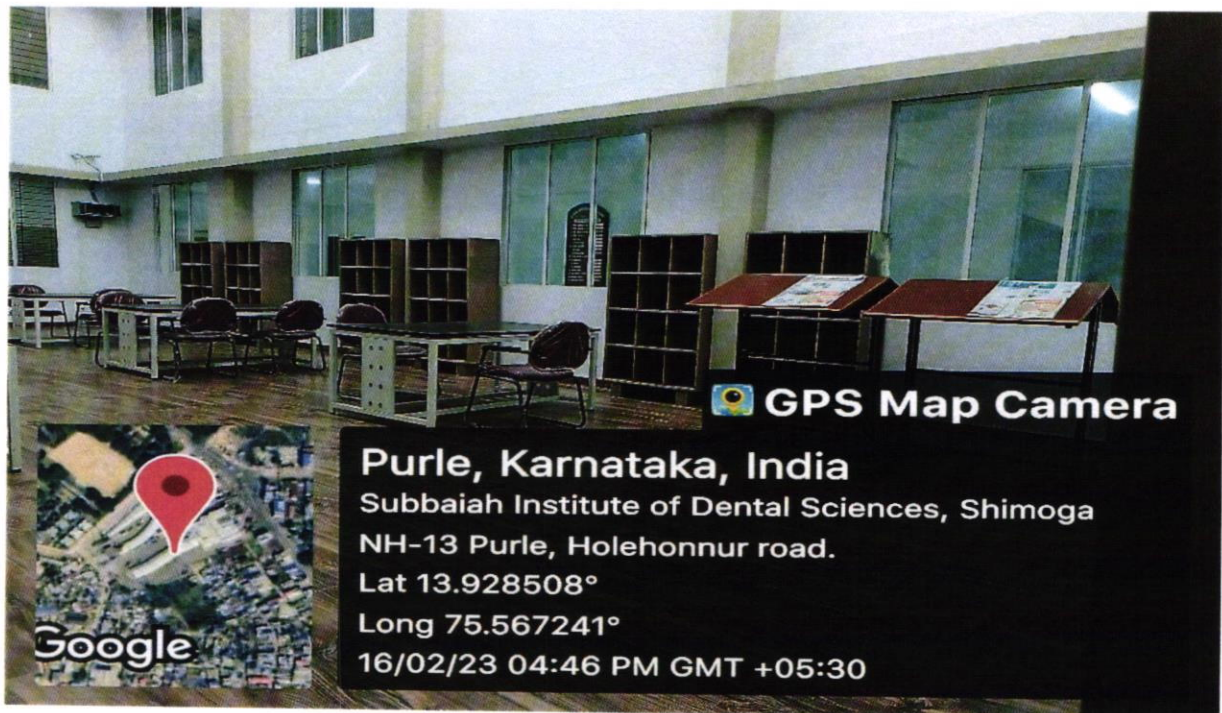
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DIGITAL LIBRARY



NEWS PAPER SECTION



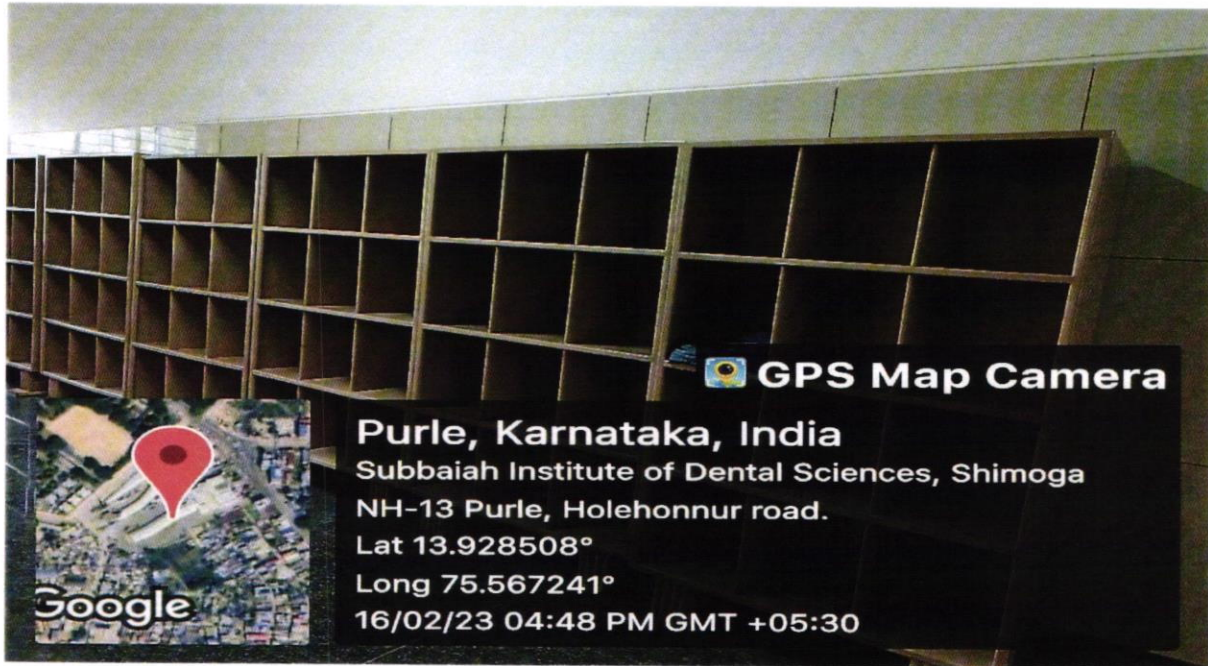


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PROPERTY COUNTER

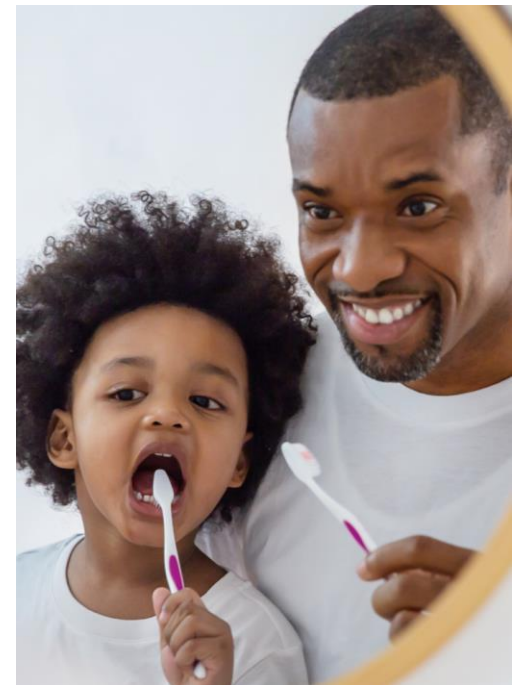


“Dentocure”

Oral hygiene Instrument

Introduction

- Oral hygiene is an important practice that is to be carried out on a regular basis to enable prevention of dental disease and bad breath.
- Good oral hygiene results in a **mouth that looks and smells healthy**. This means: Your teeth are clean and free of debris. Gums are firmly held against teeth and do not hurt or bleed when you brush or floss
- It becomes even more important when it comes to a child's wellbeing. It **impacts on the ability for children to eat and sleep**, to socialise with confidence and to concentrate at school



Problem Statement



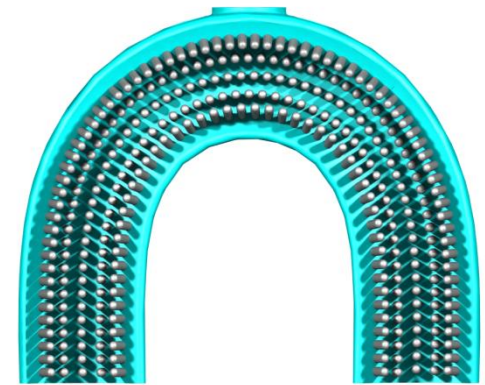
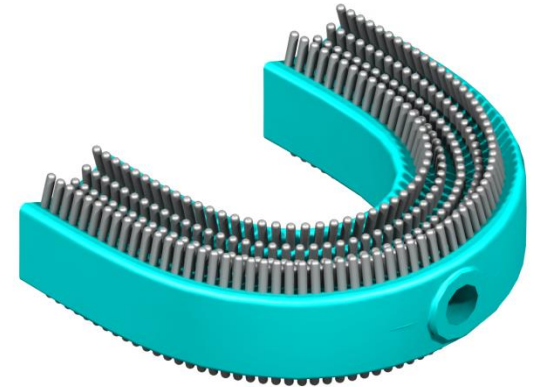
- In case of the children who are **disabled** and cannot take care of themselves, maintaining their oral hygiene which including basic tasks like brushing teeth and flossing can be a **very challenging**.
- Working with disabled kids can be a complicated task considering that no two children are alike and the difference in their behavior and response would be clear.
- We have to design a device which can both be **safe and easily usable** on these children to help with their oral hygiene.

Design Requirement

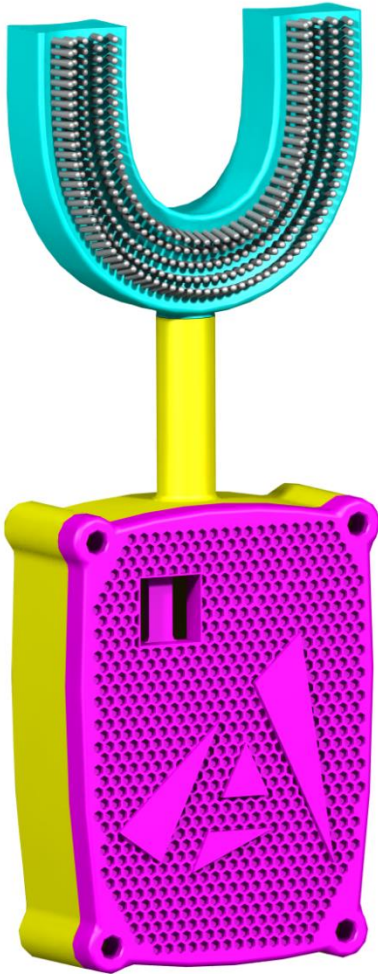
- A normal person or a child takes an average of 10-15 minutes for brushing their teeth.
- The biggest struggle while brushing a disabled child's teeth is keeping their focus and making sure that they don't hurt themselves or get upset.
- The Requirement is to design a device that can complete the task in a fraction of that average time taken.
- The device should be **safe, sterilizable** with effective functionality. Making sure that the materials used are **non-toxic**.

Design

- Dentocure: A handy mouth piece with bristles which fit inside a child's mouth and vibrate vigorously to clean the teeth.
- The mouth piece has two sides up and down which covers all teeth inside the mouth at a time.
- This helps to complete the task much faster than usual
- The intensity of the vibratory action can be controlled as per the requirement using a controlling device
- Materials used to fabricate the device are safe, sterilizable and non-toxic



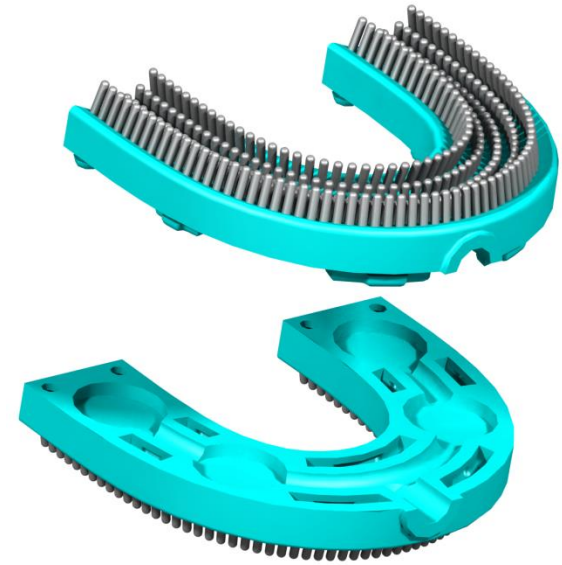
Prototyping and Testing



- The initial prototype developed was tested on a group of disabled children at a care home.
- The response to the functionality of the device revealed that the vibratory action needs to be improved in the initial prototype.
- The next Feedback and response from the children were taken into account in improving the design to suit the needs appropriately.
- The device was examined by a dental Practitioner whose response to the same was positive and approving.

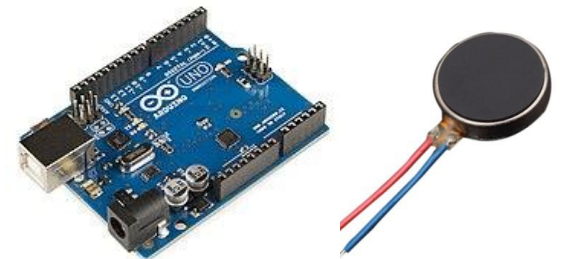
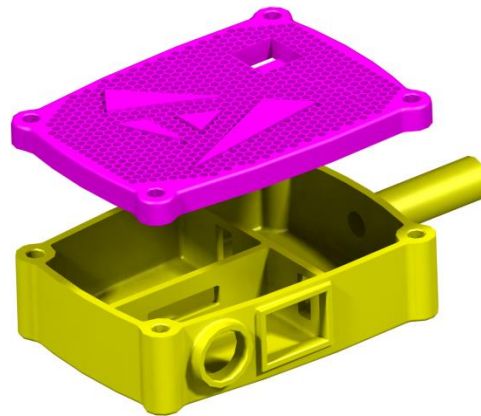
Working and Components

- The device functions by utilizing the vibratory action from the multiple motors placed inside the mouthpiece. Depending on how vigorous the Vibration is needed, intensity of the same is controlled by using a microcontroller.



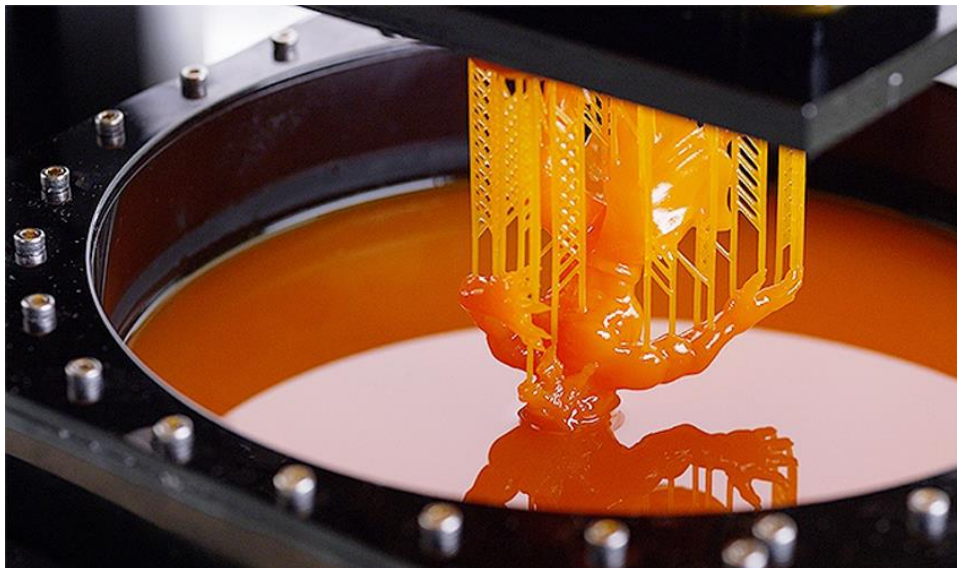
Main components include:

- 1) **The mouthpiece**
- 2) **Enclosure**
- 3) **Controller**
- 4) **Vibratory motors**



Materials and Fabrication

- The material used for manufacturing the mouthpiece is a clear biocompatible resin which hardens upon curing. This resin is Biocompatible, safe, elastic in nature and non-toxic.
- The device is manufactured using Stereo lithography (SLA) type of 3D printing technology.
- Using 3D printing technology enabled our team for rapid prototyping and also made it cost effective.



Future scope

- The device can be integrated with advanced sensors which may detect how clean a person's mouth is and suggest how much of a cleaning is required to maintain hygiene.
- This device can also be used by regular people, considering that the device is perfectly functional and gets the work done fast.
- Device can be customized according to the user using advanced manufacturing techniques like 3D printing which not only makes the device extremely flexible but also cost effective.

Conclusion:

- With the use of Dentocure, keeping the disabled children safe from cavity and dental related diseases can be reduced to a much simpler task than the usual
- Dentocure not only aims at aiding the disabled kid but sees potential wherein it can be used by the common people too.
- At the heart of our project, we believe in making the lives better for the parents and their children.



FORMAT FOR FINAL REPORT (RGUHS)

1. Title of the Project: GENDER IDENTIFICATION BY 3DIMENSIONAL ANALYSIS OF MAXILLARY CANINE USING DENTAL SCANNER.

2. Project Code (provided by RGUHS) :19DEN090

3. Principal Investigator and Co-Investigators:

Principal Investigator

Dr.Shruthi.D.K
Professor
Dept Of Oral Pathology & Microbiology
Subbaiah Institute of Dental Sciences
NH-13, Purle, Shimoga.

Co-Investigator

Dr.Mahesh Reddy
Associate Professor
Dept Of Oral Pathology & Microbiology
Subbaiah Institute of Dental Sciences
NH-13, Purle, Shimoga

4. Implementing Institution and other collaborating Institutions

Subbaiah Institute of Dental Sciences
NH-13, Purle, Shimoga

5. Date of commencement:03/02/2020

6. Duration:3 YEARS

7. Date of completion: 31st March 2023

8. Objectives as approved:

1. Volumetric analysis of Maxillary canine in males.
2. Volumetric analysis of Maxillary canine in females.
3. Comparison of Volumetric analysis of Maxillary canine in males and Females.

9. Deviation made from original objectives if any, while implementing the project and reasons thereof.

No deviations made.

10. Field/ Experimental work giving full details of summary of methods adopted.

The project involved development of software which focused to assess measurements, involves creating a program that can analyze and evaluate data collected from various measuring devices. The software was designed to process the measurements and provide accurate and reliable results to the user. The software is named "**Dentegenus**".

The development process involved several key steps:

1. Define the requirements: The first step in developing the software is to identify the requirements for the program. This includes understanding the type of measurements that will be analyzed, the data format and structure, and any specific calculations or algorithms required.

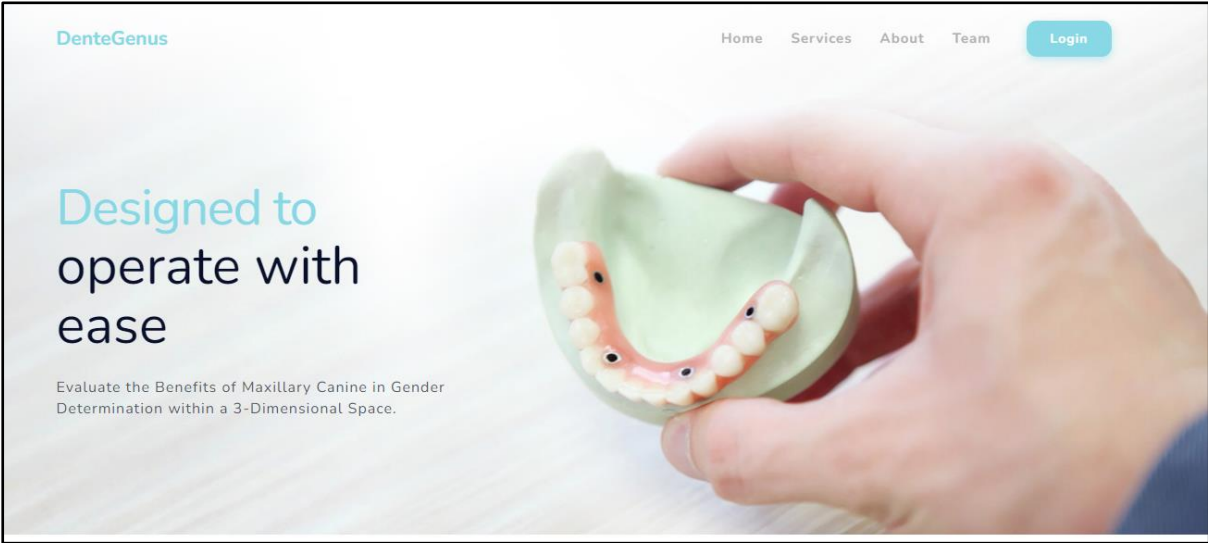
2. Design the software: Once the requirements have been established, the software was designed. This involved creating a plan for the software architecture, user interface.

3. Develop the software: With the design in place, the software was developed using programming languages and tools such as Java. The development process typically involved writing code, testing.

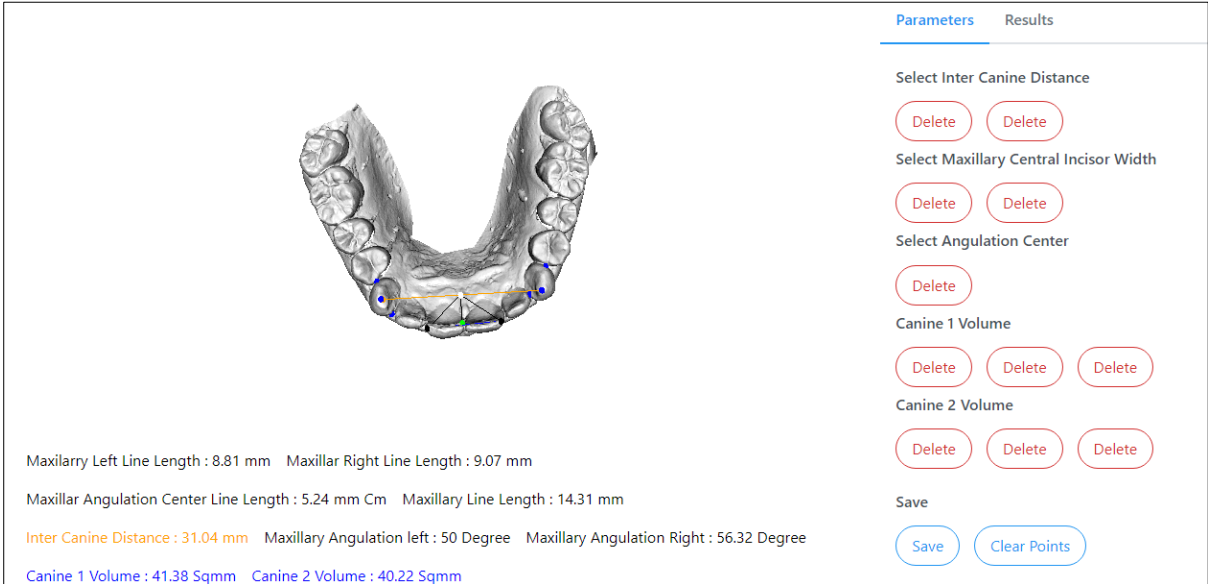
4. Test the software: Before the software was released, it was thoroughly tested to ensure that it is accurate and reliable. This involved running a series of tests to check for errors, bugs, and other issues.

5. Deploy the software: Once the software was tested and approved, it was used to deploy for use by the end-users. This involved installing the software on the appropriate devices and ensuring that it is properly configured.

Following the above steps software called **DENTEGENUS** was developed.



Picture explaining Frontpage of the software



Picture explaining the marking of mesiodistal dimension of central incisors, inter canine width.

Parameters Results

Select Inter Canine Distance

Select Left Select Right

Select Maxillary Central Incisor Width

Select Left Select Right

Select Angulation Center

Select

Canine 1 Volume

Delete Delete Delete

Canine 2 Volume

Delete Delete Delete

Save

Save Clear Points

Maxillary Left Line Length : 0 mm Maxillary Right Line Length : 0 mm

Maxillary Angulation Center Line Length : 0 mm Cm Maxillary Line Length : 0 mm Inter Canine Distance : 0 mm

Maxillary Angulation left : 0 Degree Maxillary Angulation Right : 0 Degree Canine 1 Volume : 23.58 Sqmm

Canine 2 Volume : 23.07 Sqmm

Picture explaining the marking of canine to measure the volume of the canine.