

# UNAIS SAIT

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"I BELIEVE THAT PROPER OBSERVATION IS ADEQUATE TO KNOW INSIDE-OUT OF  
ANY PROBLEMS HAPPENING AROUND YOU"

## EXPERIENCE

AUGUST 2018 TO PRESENT

**ASSISTANT PROFESSOR**, FACULTY OF DESIGN, PES UNIVERSITY, BANGALORE

Teaching the core subjects for Interaction Design and Product Design students

JUNE 2018 TO JULY 2018 – ONE MONTH

**APPLICATION DESIGNER**, CISTUP, INDIAN INSTITUTE OF SCIENCE, BANGALORE

Launching of e-emission application

MAY 2017 TO DECEMBER 2017 – SIX MONTHS

**PRODUCT DESIGNER**, ASTROME SPACE TECHNOLOGIES, BANGALORE

Structural and Mechanism Design for satellite.

AUGUST 2015 TO JULY 2016 – ONE YEAR

**ASSISTANT SYSTEM ENGINEER**, TATA CONSULTANCY SERVICES

Creation of iOS based application for Engineering Work Instructions (EWI) in manufacturing work bench

## EDUCATION

2016-2018

**MASTER OF DESIGN (PRODUCT DESIGN AND ENGINEERING)**

INDIAN INSTITUTE OF SCIENCE, BANGALORE

Master's Thesis Project: **Performance evaluation device for High jump.**

CGPA: 7.2

2011-2015

**BACHELOR OF TECHNOLOGY (MECHANICAL AND PRODUCTION ENGINEERING))**

THANGAL KUNJU MUSALIAR COLLEGE OF ENGINEERING, KOLLAM, KERALA

Bachelor's Thesis Project: **Modelling on the effect of particle size in surface roughness in Magnetorheological abrasive honing process**

CGPA: 8.22

2011

**AISSCE, CBSE**

ANGELS ARC SENIOR SECONDARY SCHOOL, KAYAMKULAM

85.6%

2009

**AISSE, CBSE**

ANGELS ARC SENIOR SECONDARY SCHOOL, KAYAMKULAM

80.2%

## RESEARCH

GOOGLE SCHOLAR ID:- [UNAIS SAIT](#)

### IEEE MEMBER

- *Unais Sait et. al. "A framework outlining a daylight responsive model for smart buildings," CISBAT 2019 – International Scientific Conference, Switzerland, IOP Journal of Physics Conference Series.*
- *Unais Sait et. al. (Accepted for publication), "Design and development of an assistive device for the visually impaired," International Conference on Computational Intelligence and Data Science (ICCIDIS 2019), Procedia Computer Science.*
- *Unais Sait et. al. (Accepted for publication), "Design and Development of an assistive device for dementia patients" IEEE GLOBAL HUMANITARIAN TECHNOLOGY CONFERENCE (GHTC 2019)*
- *Unais Sait et. al. , "Design and Development of a mobile application for early diagnosis of Pneumonia in the Rural context" IEEE GLOBAL HUMANITARIAN TECHNOLOGY CONFERENCE (GHTC 2019), Seattle*

## CORE SUBJECTS

- Web Design and Development
- Human Computer Interaction
- Artificial Intelligence and Augmented Reality
- Customer Experience and Virtual Reality
- Responsive Application Design
- Design of Smart Devices
- Mechatronics

## SOFTWARE SKILLS

- Unity/Vuforia for AR/VR
- SolidWorks
- Linkage/Fusion360 for Mechanism Design
- Keyshot for product rendering
- Ansys for structural analysis
- Arduino for Mechatronics
- TensorFlow for Machine Learning
- Android Studio for application development

## HARDWARE SKILLS

- HTC VIVE for AR/VR
- Kinet for motion tracking
- Tobii Eye Tracking device
- Google Cardboard for VR

## CORE SKILLS

- Product Visualization using AR/VR
- Customer Experience Design
- Artificial Intelligence-Image Recognition using tensorflow
- Coding (C++,HTML,CSS)
- Mechatronics (Arduino, NodeMCU)

## PROJECTS

- Performance evaluation system for High jumpers.



Clearance measurement (over cross bar) module having laser sensors



LDR-Laser array to measure vertical and horizontal velocities of athlete.

Concept testing video: <https://www.youtube.com/watch?v=O-cRbFm4Z04>

Product testing video: <https://youtu.be/abOI5vgVSQE>

- Input Output modalities for visually challenged users.  
Brief: To design a system to minimize the problems faced by visually challenged (fully blind) in using modern technologies (smartphone, computer).  
The project is done by regular inputs from a music teacher who is fully blind since birth. The final prototype is tested with him as well to get valuable feedback.



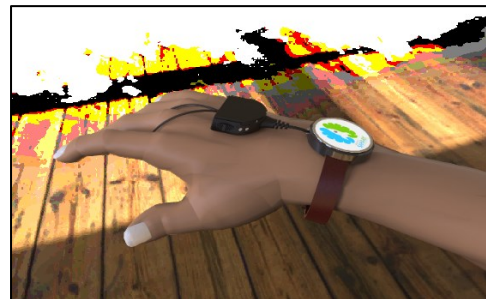
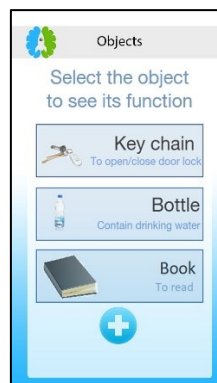
Haptic feedback glove.

Product testing video: [https://youtu.be/BU\\_iZ96yG9k](https://youtu.be/BU_iZ96yG9k)

- Sahaay- Assistive smart device for dementia patients.

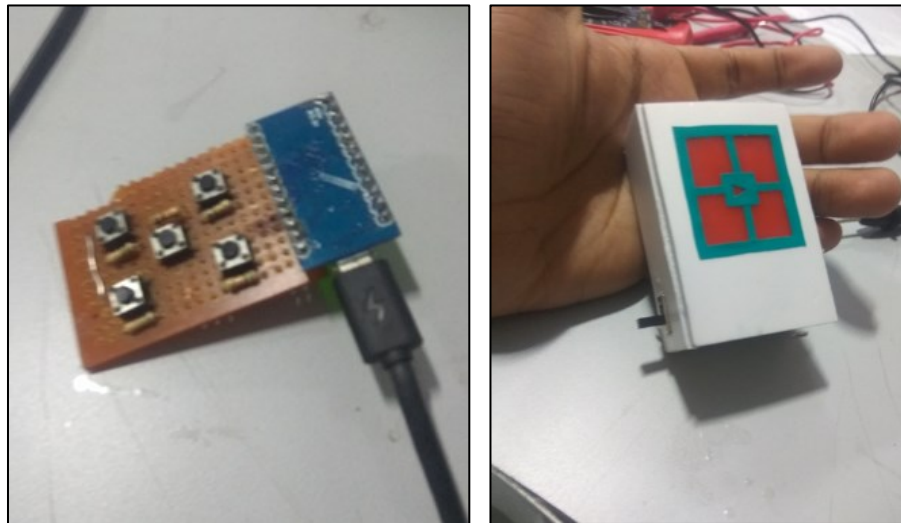
Brief: To design a system which can assist and helps dementia patients (early and moderate stage) by providing necessary information they need in their routine life.

The product is a hand glove which detects and tells about the objects being hovered by the hand through RFID technology. The user can control and switch multiple functions through smartphone through an App (targeting users which use smartphone).



Product Demo video: <https://youtu.be/y-ykgcxHQfE>

- Music player for visually challenged people.  
The device is handheld which is connected to smartphone through Bluetooth.



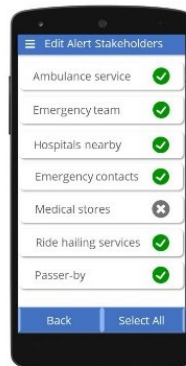
- Lifesaver- Android App:
  - Brief: Lifesaver app uses your smartphone accelerometer to detect a fall in particular manner and sends emergency messages automatically to desired contacts.



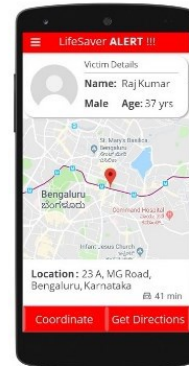
Users Screen: Home page, comprising activation button



Users Screen: Settings page



Users Screen: User to choose the specific stakeholders for receiving aid



Hospital's / ambulance's end: information about the victim and location