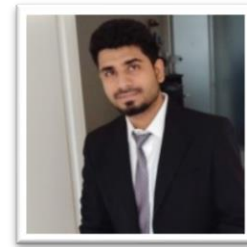


UNAIS SAIT

Phone: +91-9847285975

unaissait@gmail.com

unaissait.github.io/



EDUCATION

- M. Des** Product Design and Engineering
Indian Institute of Science, Bangalore August 2018
Thesis: “Performance evaluation system for High Jump”
Advisor: Dr. Dibakar Sen
- B. Tech** Mechanical and Production Engineering
University of Kerala, Trivandrum July 2015

PUBLICATIONS

Published Papers

First Author

- “Design and development of an assistive device for the visually impaired”
U Sait, V Ravishankar, T Kumar, R Bhaumik, GL KV, K Bhalla, KS Sanjay
Procedia Computer Science 167, 2244-2252 2020
- “A framework outlining a daylight responsive model for smart buildings”
U Sait, GL KV, T Kumar, R Bhaumik, K Bhalla
Journal of Physics: Conference Series 1343 (1), 012166 2019
- “Memhans: an Assistive Device for Dementia Patients”
U Sait, VD Ravishankar, T Kumar, S Shivakumar, GL KV, K Bhalla, ...
2019 IEEE Global Humanitarian Technology Conference (GHTC), 1-5
2019
- “A Mobile Application for Early Diagnosis of Pneumonia in the Rural context”
U Sait, S Shivakumar, GL KV, T Kumar, VD Ravishankar, K Bhalla
2019 IEEE Global Humanitarian Technology Conference (GHTC), 1-5
2019

Co-Authored

- “Design and development of a smartphone-based application to save lives during accidents and emergencies”
GL KV, U Sait, T Kumar, R Bhaumik, S Shivakumar, K Bhalla

- “A case-study of slums: an informal housing for people below poverty line (BPL) in India”

A Kondapi, T Kumar, U Sait, K Bhalla, SS Ashok

Journal of Physics: Conference Series 1343 (1), 012152

2019

Accepted Papers

- “An AI-Based Pedagogical Feedback Tool for Creating Sketched Representation of Products bearing Emotive Forms in the Conceptual Design Stages”
Springer AISC / LNNS series
- “User centric responsive support system for the elderly using facial expressions”
iCORD-2020

Abstract-Presentation

- “A study of the socio-cultural aspects and built environments of the indigenous settlements in Coorg, India”
October 2019, World Resource Forum, Geneva
- “Design and Implementation of IoT Based Affordable Smart Home System”
October 2019, World Resource Forum, Geneva
- “In-House Greywater Sewage Treatment Systems: Proposing a Comprehensive Decision-Making Framework for Micro-Scale Solutions at the Point Source”
October 2019, World Resource Forum, Geneva

HONORS AND AWARDS

- **Recognition from IEEE** 2020
The research work on pneumonia was made open
under the category of COVID-19 resources by IEEE
- **MHRD (Ministry of Human Resource and Development) Govt. of India Fully funded scholarship for Master’s Program**
(Inclusive of food & accommodation) 2016 to 2018
- **MERIT Award** 2016
For achieving top rank
in GATE (Graduate Aptitude Test in Engineering) Exam
(an all India Examination for admission to Post Graduate programs in India)

- **Certificate of Appreciation at TCS (Tata Consultancy Services)** 2016
Appreciation for the best team member in the Project
- **University 4th rank in Bachelor's Course** 2015
Overall 4th rank and distinction holder in Kerala University
- **School Topper in High School** 2011
(Subject Topper in Chemistry & Computer Science)

ONGOING RESEARCH

Ongoing Research Projects - 2

- A Deep learning-based multimodal system for COVID-19 diagnosis using breathing sounds and Chest X-ray images
 - An extended version of the pneumonia project
- A framework for pandemic response based on App and systems-level integration with patient management

Ongoing Patenting work – 1

- Design of a breathing sound analysing module for detecting abnormalities in breathing sound which can diagnose COVID-19

RESEARCH EXPERIENCE

Mechatronics and Interactive Smart Devices Lab,
PES University, Bangalore 2019
Lab Head

Centre for infrastructure, Sustainable Transportation and Urban Planning
Indian Institute of Science (IISc), Bangalore 2018
Research Assistant,

- Analyzing the Carbon Foot print for Electronic City, Bangalore.

Direct Tweet by “**ScienceOpen**” (free and open access professional networking platform specializing in research discovery and impact) for my research work on pneumonia under relevant works for infectious diseases and **COVID-19**

Uploaded a “curated dataset for COVID-19 X-Rays” on **Kaggle** for helping other researchers in their global fight against COVID19

TEACHING EXPERIENCE

PES University, Bangalore

Aug 2018 to Present

Assistant Professor, Faculty of Design

- **Undertaken the following subjects for teaching: -**
- **Mechatronics**, an undergraduate course averaging 30 students per semester, covering the following topics: - Arduino Programming, making of simple and useful products using Arduino.
- **Customer Experience and Virtual Reality**, an undergraduate course averaging 30 students per semester, covering the following topics: - Customer Journey Mapping, Empathy Writing and Personas, Emotion Mapping, Voice of Customer Analysis, Virtual Reality in Unity3D and Google Cardboard, Environment Modelling in SketchUp.
- **Human-Computer Interaction**, an undergraduate course averaging 40 students per semester, covering the following topics: - User Task Flow, Cognitive Processes, Mendel Models, Fitts Law, Gap Analysis, Human-Computer Interaction Mapping.
- **Game Design**, an undergraduate course averaging 30 students per semester, covering the following topics: - Game design principles and mechanics, dynamics, aesthetics framework, Games for change, Game for critique, Designing board games
- **Artificial Intelligence and Augmented Reality** an undergraduate course averaging 40 students per semester, covering the following topics: - Enabling AI in the existing mobile application, Data Visualization and Training using ML, Turing Test on Existing Captcha Using Google Lens and redesign of Captcha, Augmented reality using Vuforia and Unity3D
- **Developed assignments, exams, viva voce, and lab experiments**
- **Revised the academia syllabus to meet National accreditation standards and industrial Requirements**
- **Developed assignments, exams, and lab experiments**
- **Revised the syllabus to meet accreditation standards and industrial Requirements**

PRESENTATIONS AND INVITED LECTURES

Paper Presentation,

- “A framework outlining a daylight responsive model for smart buildings,” CISBAT 2019, EPFL, Switzerland.
- “Design and development of an assistive device for the visually impaired”, ICCIDS 2019, NorthCap University, Delhi

Workshop,

- “Design for AR/VR,” Summer Course, PES University, 2019.

PROFESSIONAL AFFILIATIONS

IEEE Member -96078717

PROFESSIONAL SERVICE

- **Peer-Reviewed Abstract for:**
 - ASCE India conference 2020

PROFESSIONAL TRAINING

Product Designer,
Astrome Space Technologies, Bangalore

PROFESSIONAL EXPERIENCE

Assistant System Engineer
Tata Consultancy Services, Bangalore 2015 to 2016

LANGUAGES

Malayalam: Native Language

English: Intermediate Listener, Novice Speaker, Advanced Reading and Writing

COMPUTER SKILLS

Programming: C/C++, Java, Python

Applications: Android Studio, Unity3D, Vuforia

Platforms: Arduino, Android, NodeMCU, TensorFlow

REFERENCES

Prof. CHITRA VISWANATHAN
Director for Design
PES University
Bangalore (India) - 560085
Phone: +91-9945145696
Email: chitravishwanathan@pes.edu

Dr. Tarun Kumar,
Ph. D. Research Scholar,
SuDesi Lab, CPDM
Indian Institute of Science
Bangalore (India) - 560012
[B.Arch (SPA, New Delhi)]
[M. Des. (CPDM, IISc. Bangalore)]
Mobile: **+91-9483742547**
Email: tarunkumar@iisc.ac.in
Website: <http://tarunkumar.strikingly.com/>