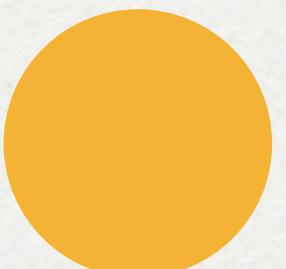


DR. NEHA TULI



*AN ENTREPRENEUR
A PROFESSOR
A DEVELOPER
A DESIGNER
A RESEARCHER*



ABOUT

PhD in CSE (with expertise in Augmented Reality)

Enthusiastic Assistant Professor with 9+ years of experience in Research and Teaching with expertise in emerging technologies like Augmented Reality and Virtual Reality in Education. Excellent reputation for team management, leadership and organizational skills.

Women Entrepreneur of the year - 2022.

Co-Founder of '6DOF Solutions Private Limited', an Ed-tech startup that creates immersive and interactive learning solutions for Ed-Tech industry using technologies like Augmented Reality and Virtual Reality.

ABOUT

12+ projects,

9 patents,

30 publications,

30+ National/International Workshops/Expert Talks

80+ Lakhs Funding (Meity TIDE, DST, NewGen, etc)

Expert Areas: Augmented Reality (AR), Virtual Reality (VR), Human Computer Interaction, Interactive Learning Environments, Serious Games, Game Design, Game Development, Computer Vision, Usability Principles, UI/UX

Google Scholar Profile:

**[https://scholar.google.com/citations?
user=wNNmRRIAAAJ&hl=en&oi=ao](https://scholar.google.com/citations?user=wNNmRRIAAAJ&hl=en&oi=ao)**

LinkedIn Profile:

<https://www.linkedin.com/in/dr-neha-tuli-b70b2780/>



STARTUP

6DOF Solutions Pvt. Ltd. is an AR/VR startup focused on building promising interactive and immersive solutions for the EdTech industry.

- We empower educational institutions and learners to harness the power of AR/VR impacting over 1500+ students with our products and solutions.
- We are a team of educationists, researchers, doctorates + tech professionals backed by esteemed government organisations like Meity TIDE, DST, IIT Bhubaneswar.

Achievements:

- Grant of Rs. 35 Lakh from Meity TIDE 2.0.
- Schaeffler India Social Innovation Fellowship 2022
- Recognised in Startup India Innovation Week (10th-16th January, 2022).
- Qualified it to the top 100 pool of Entrepreneurs Startup Contest (6th edition) conducted by Lemon ideas.
- First prize worth Rs. 50,000 at IIT Bhubaneshwar Hackathon on AR/VR.
- Commercialising grant of Rs. 7 Lakh from Meity TIDE 2.0.

Youtube link: <https://www.youtube.com/@6dofsolutions966>

Amazon Link: <https://www.amazon.in/integrated-activities-interesting-interactive-vocabulary/dp/8195628001>

ACHIEVEMENTS / RECOGNITIONS

- **Winner of 'Schaeffler India Scholarship' - 2022.**
- **'Women Entrepreneur of the Year' award by STPI - 2022.**
- **Startup recognized in Startup India Innovation Week - 2022.**
- **Won 35 lakhs commercialization grant from Meity TIDE 2.0.**
- **Runner Up in TIE Women Global Pitch Competition - 2021.**
- **Startup shortlisted in top 500 pool of entrepreneurs in Lemon Ideas**
- **Won commercializing grant of Rs 7 Lakh from MEITY TIDE 2.0 for the product 'Learn -O- Little'.**
- **Won prototyping grant of Rs. 2.5 Lakh in Novate+ 2020 organized by Chitkara University.**
- **Won first prize in the Conclave and Hackathon held at IIT Bhubaneswar setup by STPI for project Learn -O- Little.**
- **Awarded the title of "Most Emerging Leader" in Teachers' Excellence Awards-2019 conducted by Chitkara University, Punjab.**
- **Secured 1st position for the project "Hyperspace-AR" in Techspardha-2019 held in NITTTR, Chandigarh.**
- **Secured 3rd position for the project "Dhwani-VR" in a Techspardha-2019 held in NITTTR, Chandigarh.**
- **Winner of BRIC Idea Exposition, Chandigarh, 2019 organized by The Biotechnology Industry Research Assistance Council (BIRAC) and IKP Knowledge Park (IKP) and received a travel grant of Rs. 50,000.**
- **Winner of NOVATE+, 2019 and received a funding of 2.5 Lakh rupees from NewGen IEDC for the "Learn-O-Little" project.**

ACHIEVEMENTS / RECOGNITIONS



Hindustan Times

The image is a collage of news clippings from Indian media. At the top, there's a photograph of Dr. Neha Tuli, founder of EdTech startup Chitkara's incubated company, receiving an award at TIECON 2022. Below this, there are two large, bold headlines: 'The Tribune' on the right and 'Times of India' on the left. Both headlines are associated with 'Leadership Awards'.

Dainik Bhaskar

An advertisement banner for The Tribune. It features a woman with short dark hair, wearing a white top, smiling at the camera. The background is a blurred indoor setting. At the top left, there's a small logo for 'The Tribune' and some social media icons. The text 'Award for woman entrepreneur' is displayed above her. Below her, there's more text about her achievement and a link to 'www.tribune.com'. The overall design is clean and professional.

The Tribune

<https://timesofindia.indiatimes.com/home/education/founder-of-chitkaras-incubated-edtech-startup-dr-neha-tuli-felicitated-with-stpis-women-entrepreneur-of-the-year-award-at-tiecon/articleshow/91313774.cms>

EXPERT LECTURES/

TRAININGS ON

AR/VR/MR

- Guest Speaker for a session on "Role of Innovation in Entrepreneurship" organized by Chitkara Innovation Incubation Foundation, Chitkara University, Punjab.
- Expert Lecture on "Design Challenges in Metaverse" organized by Chitkara Innovation Incubation Foundation, Chitkara University, Punjab. (2022)
- Conducted workshop on "Role of Augmented Reality in Educational Environments" in International Conference on Transformations in Engineering Education (ICTIEE). (2022)
- Guest Speaker for session on "My Story - Motivational Session by Successful Innovator" organized by Chitkara University in collaboration with Institution's Innovation Council. (2021)
- Guest Speaker in International TIP Webinar Series on "Digital Product (UI/UX) Design Challenges in 5G Era" organized by TIP Community Lab in Southeast Asia. (2021)
- Expert Lecture on "Role of Augmented Reality in Education" in WAVR 2021 organized by IIT Bhubaneswar, Bhubaneswar. (2021)
- Guest speaker in the 5 days on-line workshop on 'Emerging IT Technologies and Innovation' organized by AIIT, Amity University. (2021)
- Chaired a session in a Springer & MHRD, TEQIP-III sponsored 3rd International Conference on Mobile Radio Communications & 5G Networks, (MRCN-2021) organized by Electronics and Communication Department, University Institute of Engineering and Technology (UIET), Kurukshetra University, Kurukshetra. (2021)

EXPERT LECTURES/ TRAININGS ON AR/VR/MR

- Led 5-day online hands-on Faculty Development Programme on AR/VR organized by UIET Kurukshetra University sponsored by AICTE Training and Learning (ATAL) academy to 180 participants from all over India.(2020)
- Led 5-day hands-on workshop on Augmented Reality and Virtual Reality in UIET, Kurukshetra University, Kurukshetra sponsored by ATAL academy. (2019)
- Conducted a 1-day workshop on AR/VR for IEEE student branch, Chitkara University.(2019)
- Co-ordinated 20 Steam school workshops on "Make your first AR application" as resource lead.(2019)
- Co-ordinated 10 Steam school workshops on "Basics of Unity 3D" as resource lead.(2019)
- Expert lecture on "Virtual Reality" for National Institute of Technical Teachers Training and Research (NITTTR). (2018)
- 5 Steam School workshops on "Make your own AR/VR application" resource lead. (2018)
- Coordinated a Research Induced Training on "Game Design & Development using Unity 3D" for B.Tech. students. (2017)

CERTIFICATIONS/ SPECIALISATIONS

- Specialization in Unity XR: How to Build AR and VR Apps by Unity.
 - Introduction to XR: VR, AR and MR Foundations
 - Mobile VR App Development with Unity
 - Handheld AR App Development with Unity
- Specialization in Game Design: Art and Concepts by California Institute of the Arts.
 - Introduction to Game Design
 - Story and Narrative Development for Video Games
 - World Design for Video Games
 - Character Design for Video Games
 - Game Design Document: Define the Art & Concepts
- Business Model Canvas: A Tool for Entrepreneurs and Innovators by University System of Georgia. (2020)
- Nano-Degree on “Virtual Reality” using HTC-VIVE. (2019)

PROJECTS

PhD THESIS ON “Augmented Reality Learning Environments for Early Childhood”.

Proposed usability principles and development method that can be used by other researchers and developers to develop mobile based AR applications for kindergarten kids. Developed an AR based learning application for kindergarten kids.

Link to Thesis:

<https://shodhganga.inflibnet.ac.in:8443/jspui/handle/10603/314584>

PROJECTS

Department of Science and Technology Funded project:

Children centric outreach programme

(Funding of 33 Lakhs) from

- **GOVERNMENT OF INDIA**
- **MINISTRY OF SCIENCE AND TECHNOLOGY**

To develop Augmented Reality (AR) and Virtual Reality (VR) applications for school students and promote the awareness of the use of technology for learning. To create awareness about emerging technologies like IoT, AI and Robotics through AR and VR technology.

PROJECTS

Commercialized Product:

Learn -O- Little Magic Colouring + Activity Book (Available on Amazon)

India's first AR integrated AWARD WINNING Workbook with 18+ activities and improving 16+ skills in which the child learns unique vocabulary and can visualize the same colour animals in front of him/her the way he fills in his colouring book.

Amazon Link:

<https://www.amazon.in/integrated-activities-interesting-interactive-vocabulary/dp/8195628001>

Product Link:

<https://www.youtube.com/watch?v=4x-EXMu2CRU>



PROJECTS

Commercialized Product:

Learn -O- Little Magic Learning Kit (Business 2 Business Model)

Designed and developed an Augmented Reality based learning environment for teaching alphabet learning and word building to the kindergarten kids. The AR application provides 3D real-like visualizations of each alphabet and allows the kids to learn word building by getting real-time response from the application.

Product Link:

<https://www.youtube.com/watch?v=QOrtFy4Oh3E>

https://www.youtube.com/watch?v=Alp4oNF_z5I



PROJECTS

Nano-degree on “Virtual Reality”.

Completed a Nano-degree on “Virtual Reality” and developed various mini-Virtual Reality based applications like MAZE, Night at the Museum etc. using HTC-VIVE and Unity 3D.

Sample Links created for submission:

<https://www.youtube.com/watch?v=MM7HJk7asf0>



PROJECTS

Dhwani-VR

Dhwani-VR is an intelligent low-cost hearing loss screening device. It uses virtual reality (VR) as a medium to perform early diagnosis of hearing loss on a user.

Video Link:

<https://www.youtube.com/watch?v=MM7Hjk7asf0>



FIG. 1



Patent has been filed

PROJECTS

Virtual Reality Driving Simulator

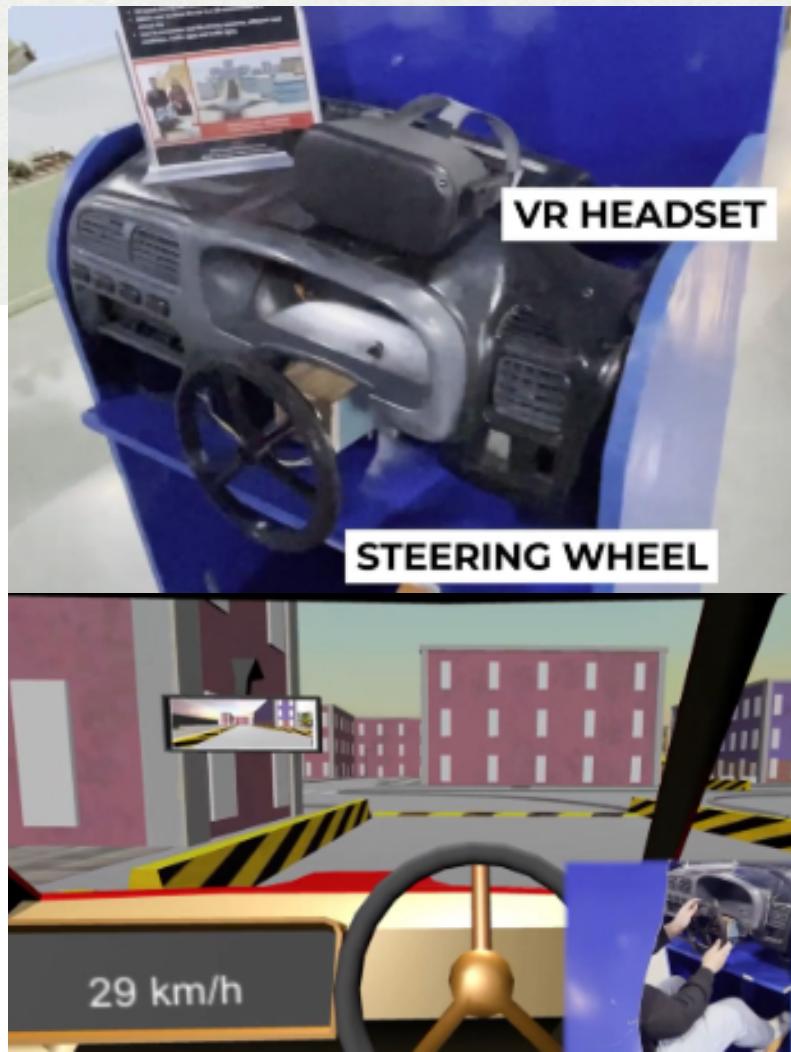
Virtual Reality driving simulator to test responsiveness and ability of the driver while following traffic rules and regulations.

Video Link:

<https://newgeniedc.chitkara.edu.in/project/driving-test-simulator/>



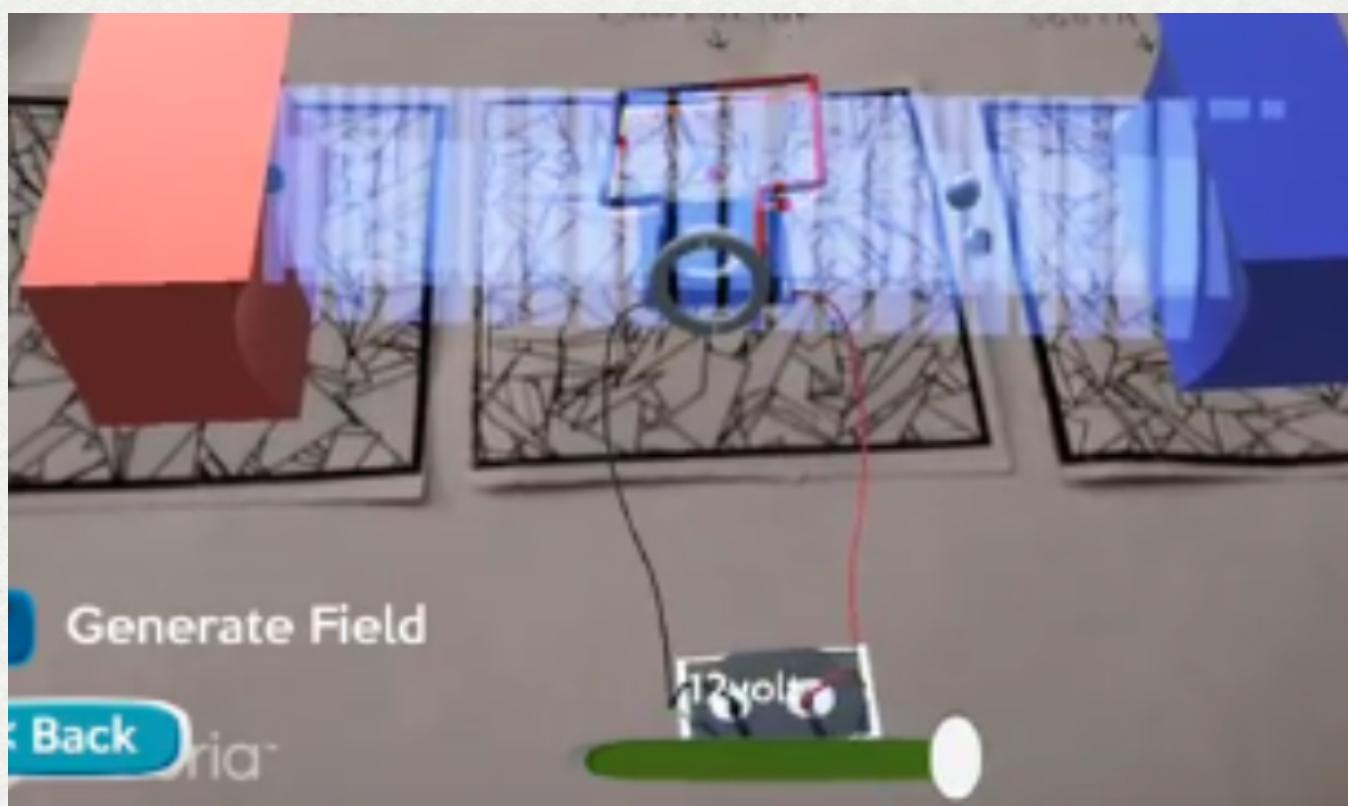
IP status : Patent filed



PROJECTS

Augmented Reality based Learning Environment to Experience the Concept of Magnetism (Visual Physics)

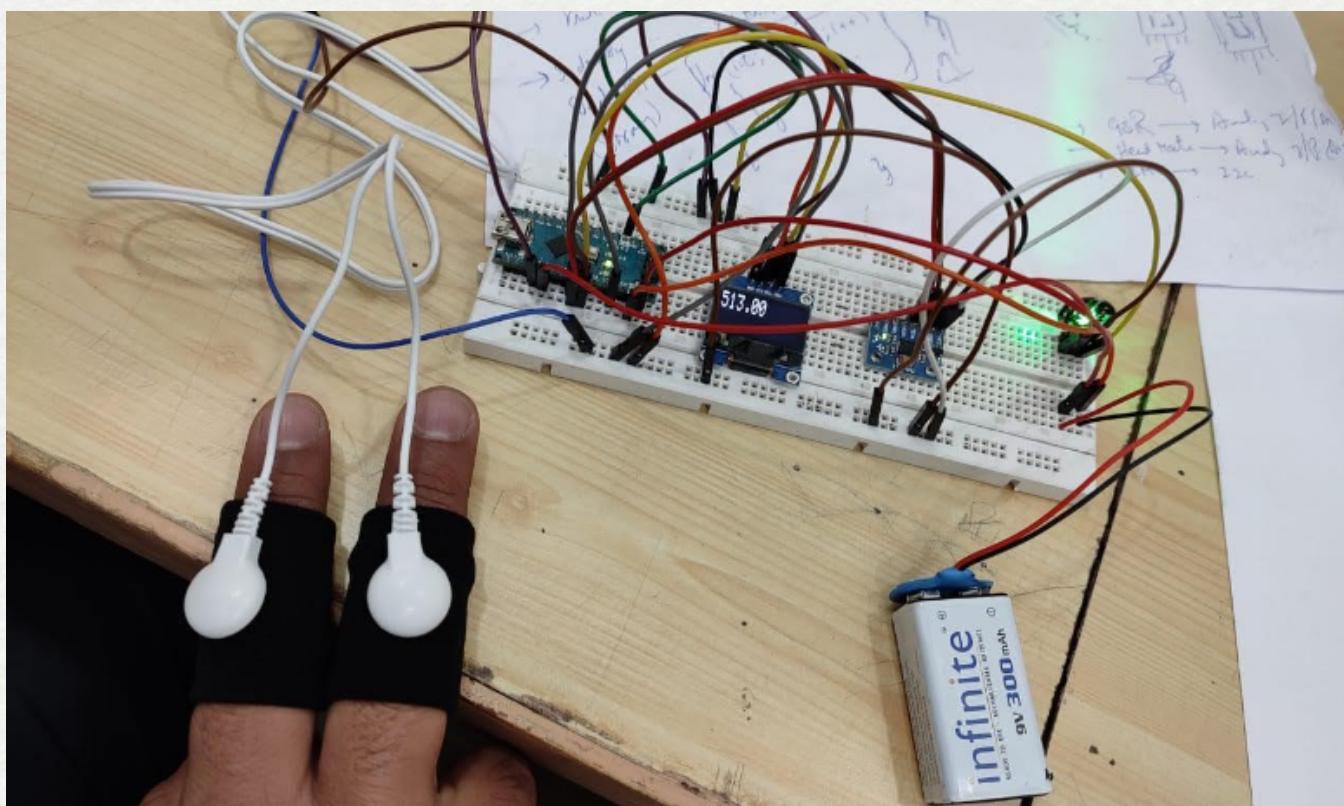
An application for class 10th, 12th and engineering students for studying the topic from their science book giving visual understanding of the topic so that they can retain it better. It is both desktop and android mobile based application that will help students to know the behavior of magnetic field lines, electric current, and voltage and visualize the basic principle of DC motor and generator



PROJECTS

Mano-Aid:

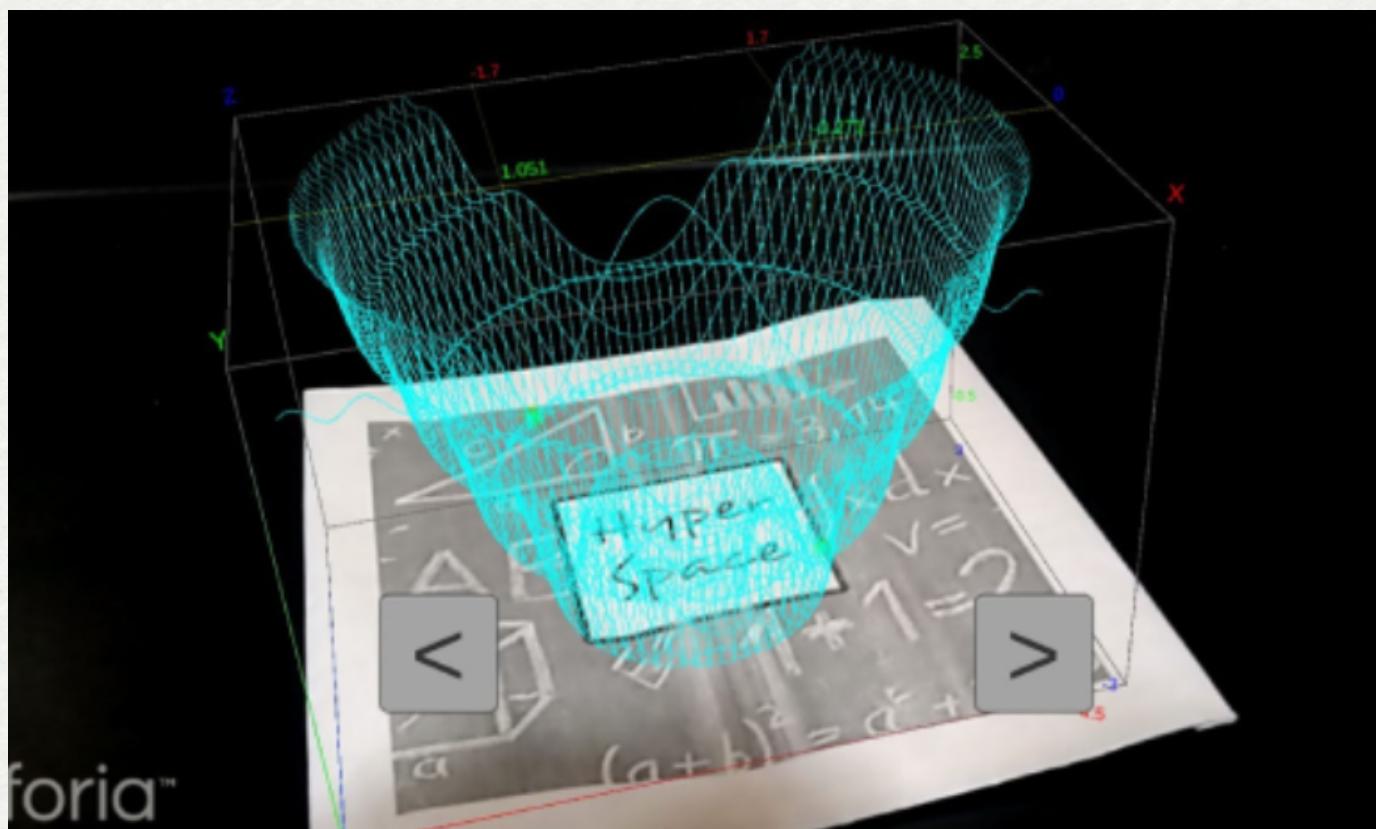
Mano-Aid provides cognitive behavioral therapy virtually to mental health patients at their homes with an electronic glove that monitors physiological signals. This will keep the norm of social distancing and provide an opportunity for psychotherapists for work from home solution. Mano-Aid is an affordable VR system that can run on any android or ios phone thus no extra device is needed. Monitoring Hand-glove is optional for moderate to severe anxiety patients for therapy sessions.



PROJECTS

HyperSpace (Augmented Reality and Virtual Reality Based Advanced Mathematical Toolkit for Undergraduate Student):

AR and VR based visualization kit is developed to explain complex mathematical concepts such as Linear Algebra, Differential Calculus, Knot theory and Hyperspace geometry. Focus is on graduate and postgraduate students and converting the actual applied mathematics from computation to visualization part.



PROJECTS

Development of Serious Educational Games for class 8 and 10.

Developed four interactive syllabus-based games on the topics - Solar System, Moon Phases, Seasons and Sources of Energy

PATENTS

- **A System for converting wind energy into electrical energy, 202211057645, 8th October, 2022**
- **Augmented Reality based system for book, 202211043321, 28th July, 2022**
- **Multipurpose Virtual Reality dock station, 367474-001, 08th July, 2022**
- **Learner support system and method thereof, 202211020288, 4th April, 2022.**
- **Real Time Reflecting device, 334119-001, 9th October, 2020. [Granted]**
- **Alerting and disinfecting device, 202011054774, 21st December, 2020.**
- **Augmented Reality based Zone Simulation Apparatus, 201911005921, 14th February, 2020.**
- **A Medical Device for Early Detection of Hearing Loss in Infants, 201911025478, 26th June, 2019.**
- **A Novel Device for Learning English using AR Technology, 201911022811, 08th June, 2019.**
- **Virtual Reality-Based Driving Test Simulator, 201911001972, 16th January, 2019.**
- **Convertible spoon cum fork, 312191, 20th November, 2018 [Granted].**

Thank You :)