



ATHARVA EDUCATIONAL TRUST'S ATHARVA COLLEGE OF ENGINEERING

(Approved by AICTE, recognised by Government of
Maharashtra & Affiliated to University of Mumbai)
Department of Computer Engineering
Academic Year 2021-22

SMART INDIA HACKATHON 2022

After screening and the batch 4 results, three teams from our college got selected for the final round of SMART INDIA HACKATHON 2022. The details of the teams are as follows:

Team 1:

Team Name:	Team Ananta
Problem Statement:	Sanskrit voice to text and interface in Google Search Engine.
Problem Statement Number:	AD976
Team Leader:	Jayesh Vinod Bafana
Team Members:	Jay Abhay Chaudhari Vinit Dwarikanath Jha Pranav Hemant Dave Jaanvi Dileep Nambiar Bijal Nitesh Bharadva
Nodal Center:	Jai Bharath College of Management and Engineering Technology, Kerala

Team 2:

Team Name:	Binary Brain
Problem Statement:	Solution to prevent copyright infringement/piracy/plagiarism of NCERT text books
Problem Statement Number:	RK785
Team Leader:	Pooja Vimal Sharma
Team Members:	Tushar Vaman Amdoskar Nikita Krishnadev Dubey Deep Madhab Coomer Vishruta Bhupesh Patil Devansu Mahendra Yadav
Nodal Center:	KLE Technological University, Karnataka



ATHARVA EDUCATIONAL TRUST'S ATHARVA COLLEGE OF ENGINEERING

(Approved by AICTE, recognised by Government of
Maharashtra & Affiliated to Univeristy of Mumbai)
Department of Computer Engineering
Academic Year 2021-22

Team 3:

Team Name:	Innovaors
Problem Statement:	Use of technology in overcoming language barriers.
Problem Statement Number:	LC1075
Team Leader:	Saloni Swaroop Joshi
Team Members:	Zalak Nehal Gandhi Mansi Ravindra Kargutkar Khushi Rakeshkumar Pal Hiralal Umesh Kumar Yash Chande
Nadal Center:	Sikkim Manipal Institute of Technology, Rangpo, Sikkim

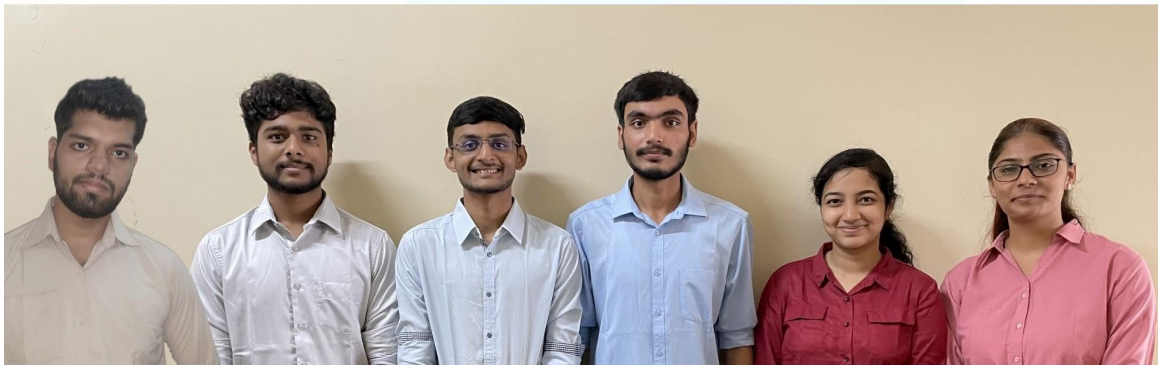


ATHARVA EDUCATIONAL TRUST'S ATHARVA COLLEGE OF ENGINEERING

(Approved by AICTE, recognised by Government of
Maharashtra & Affiliated to University of Mumbai)
Department of Computer Engineering
Academic Year 2021-22



#SmartIndiaHackathon
World's Biggest Open Innovation Model



**PRANAV
DAVE**

**JAY
CHAUDHARI**

**JAYESH
BAFANA**

**VINIT
JHA**

**JAANVI
NAMBIAR**

**BIJAL
BHARADVA**

**Team Ananta - Finalist for SIH 2022
BATCH 2 RESULTS**



#SmartIndiaHackathon
World's Biggest Open Innovation Model



Team Binary_Brain from Atharva College of Engineering short-listed for SIH 2022

BATCH 3 RESULT



**Pooja
Sharma**

**Nikita
Dubey**

**Vishruta
Patil**

**Devansu
Yadav**

**Deep
Coomer**

**Tushar
Amdoskar**



ATHARVA EDUCATIONAL TRUST'S ATHARVA COLLEGE OF ENGINEERING

(Approved by AICTE, recognised by Government of
Maharashtra & Affiliated to University of Mumbai)
Department of Computer Engineering
Academic Year 2021-22



Mansi Kargutkar



Khushi Pal



Zalak Gandhi



Saloni Joshi



Hiralal kumar



Yash Chande

Report Prepared By,

Prof. Mahendra Patil (SPOC SIH 2022)

Prof. Prajakta Pawar (SIH Coordinator)



ATHARVA EDUCATIONAL TRUST'S ATHARVA COLLEGE OF ENGINEERING

(Approved by AICTE, recognised by Government of
Maharashtra & Affiliated to University of Mumbai)

Department of Computer Engineering
Academic Year 2021-22

SMART INDIA HACKATHON 2019 (Winners)

TEAM 1

TEAM NAME:	Vengers(winners)
BRIEF IDEA:	leveraging the use of Augmented Reality In large retail stores/malls, so that customer would have his/her personal bot assistant which can help them to navigate through the place and also provide Content Rich 3D promotional messages.
TEAM MEMBERS:	Krunal gediya
	Saurabh Soparkar
	Mrityunjay Mishra
	Akash Mishra
	Prem Raval
	Reeya Nand

TEAM 2

TEAM NAME:	//TO DO:(winners)
BRIEF IDEA:	The was program powered by Machine Learning, Artificial Intelligence and Deep Learning to give the answer to all questions related to the progress of any event. With This program it will be just a few clicks that one would need to know how well the event is performing or not. With Augmented reality backing up the program and having a glimpse of the event on phone is possible.
TEAM MEMBERS:	Abhishek Bandivadekar
	Trishala Ahalpara
	Kunal Kasa
	Ajit Goud
	Jatin Jawale



ATHARVA EDUCATIONAL TRUST'S ATHARVA COLLEGE OF ENGINEERING

(Approved by AICTE, recognised by Government of
Maharashtra & Affiliated to University of Mumbai)
Department of Computer Engineering
Academic Year 2021-22

	Vinay Addagatla
--	-----------------



Shopping Experience in a Supermarket

Team: </>VENGERS
Org: Infosys
PS: Autonomous Bot for Retails

Graphical Analysis, Survey
& Concept Proposal of our
proposed AR Bot (SARAS)
for Retails & Supermarkets.







ATHARVA EDUCATIONAL TRUST'S ATHARVA COLLEGE OF ENGINEERING

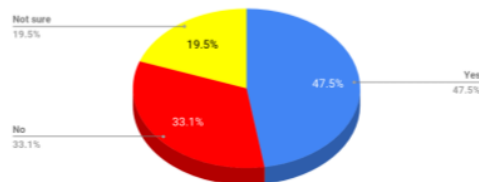
(Approved by AICTE, recognised by Government of
Maharashtra & Affiliated to University of Mumbai)
Department of Computer Engineering
Academic Year 2021-22

Difficulty in finding a Product?

Majority of the customers
did find it difficult to find
their desired product to
purchase.

Here's where our proposed
solution (SARAS) comes in
Action.

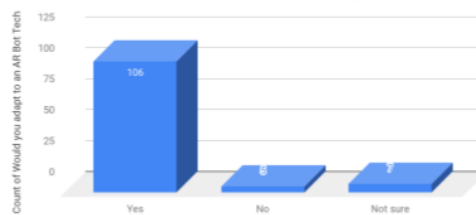
Do you ever find it difficult to find the product you wish to Buy?



Willingness to adapt our AR Bot while Shopping

A Clear Majority of more
than 90% people would
consider using such an
Application.

Would you adapt to an AR Bot Tech App which would help you reach your desired product while your shopping journey?



Would you adapt to an AR Bot Tech App which would help you reach your desired product





ATHARVA EDUCATIONAL TRUST'S ATHARVA COLLEGE OF ENGINEERING

(Approved by AICTE, recognised by Government of
Maharashtra & Affiliated to University of Mumbai)
Department of Computer Engineering
Academic Year 2021-22

SIH 2019 - Idea Proposal

- **Ministry / Organization:** Infosys
- **Problem Statement ID:** #IN3
- **Problem Statement Title:** Autonomous Bot for Retail
- **Team Name:** </>vengers

Introducing AI Enabled Augmented Reality Autonomous Personal Bot:

- In large retail stores/malls, navigating to your desired product might get confusing sometimes. Even though most of the retail stores are well organized, location of specific product is not known to users most of the time.
- While we can develop hardware robots that roam around the place for quick assistance to help us find our product, we cannot match the supply to demand, as allotting one bot per customer is impractical, absurd and not at all feasible.
- Wherein, we are leveraging the use of Augmented Reality to overcome this issue.
- Using this idea, each customer would have his/her personal bot assistant which can help them to navigate through the place and also provide Content Rich 3D promotional messages.

Description of Idea / Solution:

We are proposing a Technology-Rich effective solution to address the problem.

- Our solution will be a "Smart-phone Application" which will work across both Android as well as iOS devices.
- It will be an Augmented Reality enabled app which will allow a user to input the product name by typing or using the built-in Voice Recognition service.
- A User will have to first use any sync points (QR code based) to align the Real-World and Virtual-World for navigational purpose.
- It will then use the Artificial Intelligence algorithms (Dijkstra's) to compute an Optimal path from the user's current location to the destination where the desired product is located.
- User will be accompanied by a "Virtual Augmented Personal Assistant" (VAPA) which will help him/her navigate throughout the store.
- Along with navigation, VAPA will also provide the user with an optional promotional 3D messages such as current offers running in the store, product price info, etc.
- We can also extend this solution to provide users with information about the various food products such as nutritional info, ingredients, composition etc. by just looking it through Smart-phone camera and without actually picking it up.
- Some extra toppings which would be enabled by VAPA would be seasonal in-store AR games/contests etc. which can really help maintain customer loyalty and to provide some exclusive offers/prizes.



ATHARVA EDUCATIONAL TRUST'S ATHARVA COLLEGE OF ENGINEERING

(Approved by AICTE, recognised by Government of
Maharashtra & Affiliated to University of Mumbai)
Department of Computer Engineering
Academic Year 2021-22

Description of Technology Stack & Dependencies

Technology Stack

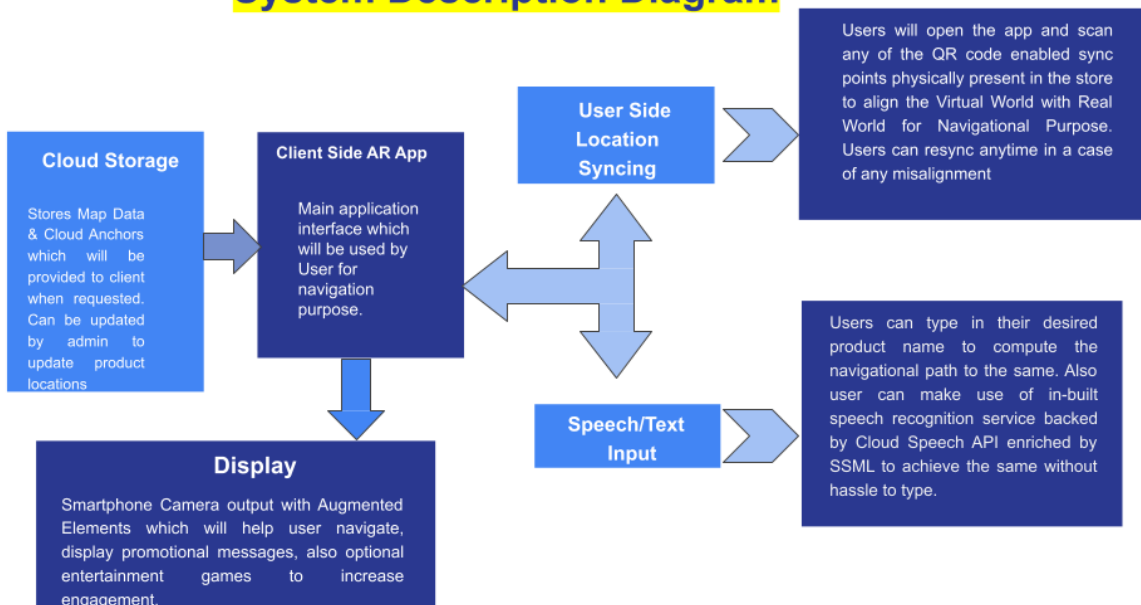
- Navigational System: **Anchored System, SLAM (Simultaneous Localization and Mapping)**
- Artificial Intelligence Algorithms: **Dijkstra's Pathfinding Algorithm**
- Augmented Reality: **Arcore, Plane Detection (Android), Unity3D, ARKit (iOS), Placenote SDK (iOS)**
- 3D Modelling: **Blender, Paint3D, Unity3D**
- Voice Recognition: **SSML (Speech Synthesis Markup Language), Amazon Lex, Google Cloud Speech API**
- Scripting Language: **C#**

Dependencies

- ARKit supported iOS devices.
- Android 5.0+ devices with suitable sensors & 5.0 MP+ Camera.

Transform.position.x.y.z attribute to access coordinates
C# unity editor, VS Code for Scripting
String in on canvas, in - Cache for cache
UI in editor on canvas, in - Cache for Demo
List to adjacency matrix,

System Description Diagram





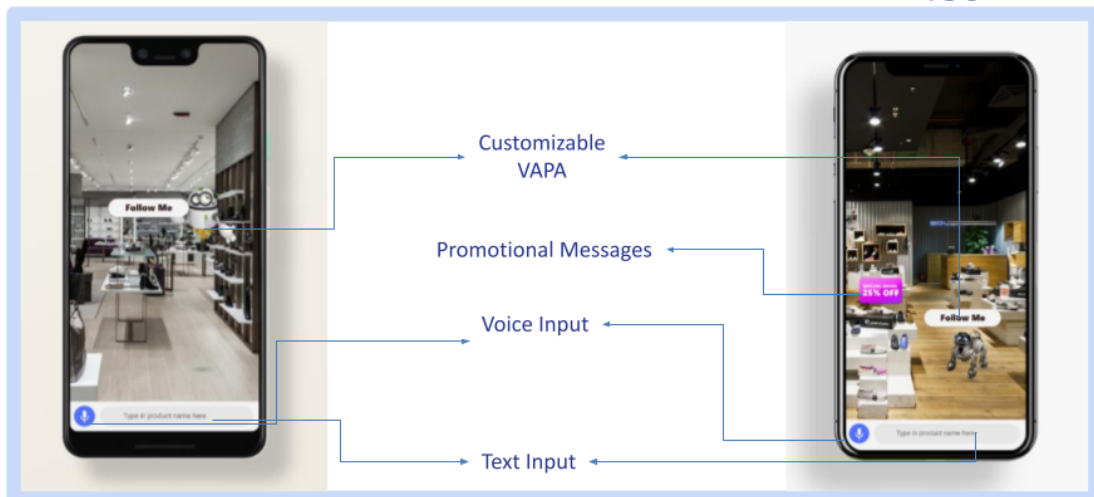
ATHARVA EDUCATIONAL TRUST'S ATHARVA COLLEGE OF ENGINEERING

(Approved by AICTE, recognised by Government of
Maharashtra & Affiliated to Univeristy of Mumbai)
Department of Computer Engineering
Academic Year 2021-22

Prototype

Android

iOS

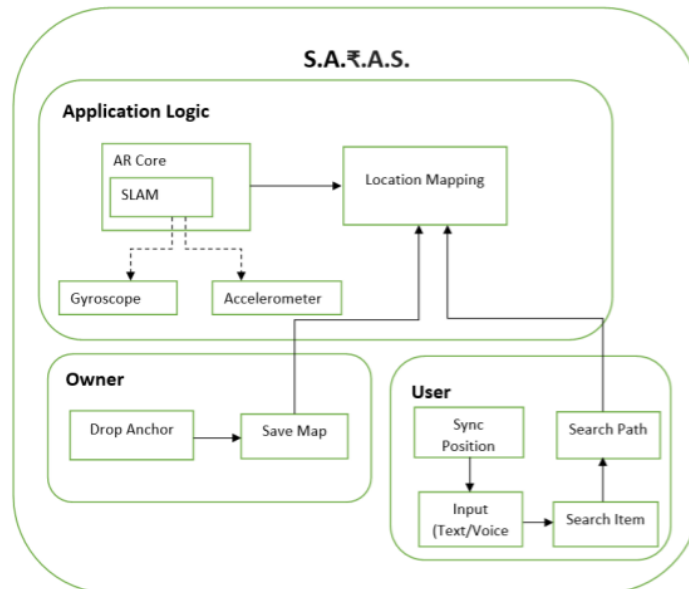


**Creative Visualizations | May change during actual implementation



ATHARVA EDUCATIONAL TRUST'S ATHARVA COLLEGE OF ENGINEERING

(Approved by AICTE, recognised by Government of
Maharashtra & Affiliated to University of Mumbai)
Department of Computer Engineering
Academic Year 2021-22



**SIH 2019
Winners**

