



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 University 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

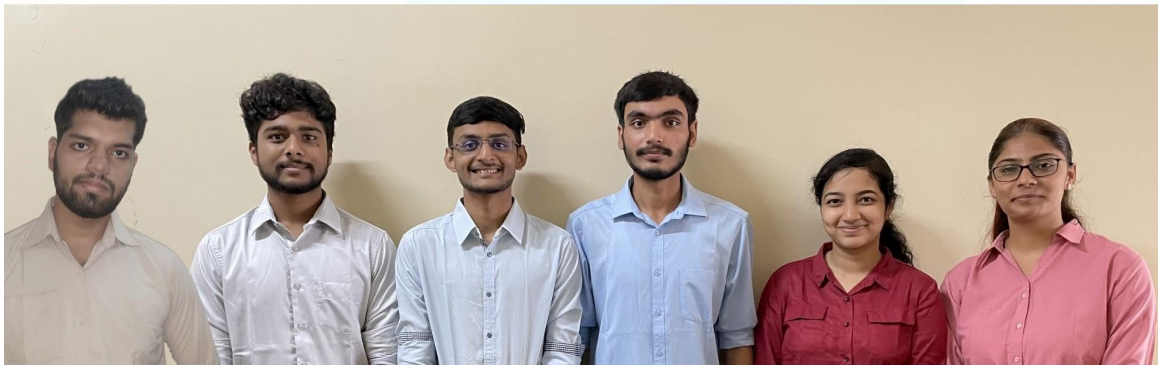


ATHARVA EDUCATIONAL TRUST'S ATHARVA COLLEGE OF ENGINEERING

(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

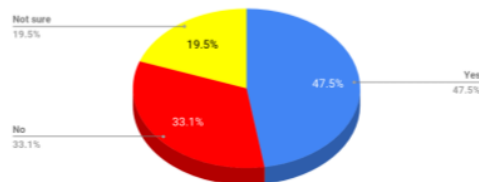
(Approved by AICTE, recognised by Government of
Maharashtra & Affiliated to University of Mumbai)
Department of Computer Engineering
Academic Year 2021-22

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.

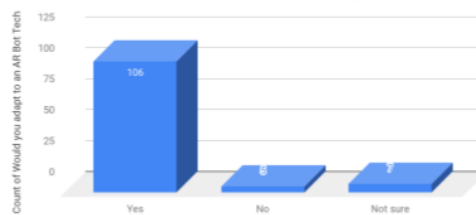
Do you ever find it difficult to find the product you wish to Buy?



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

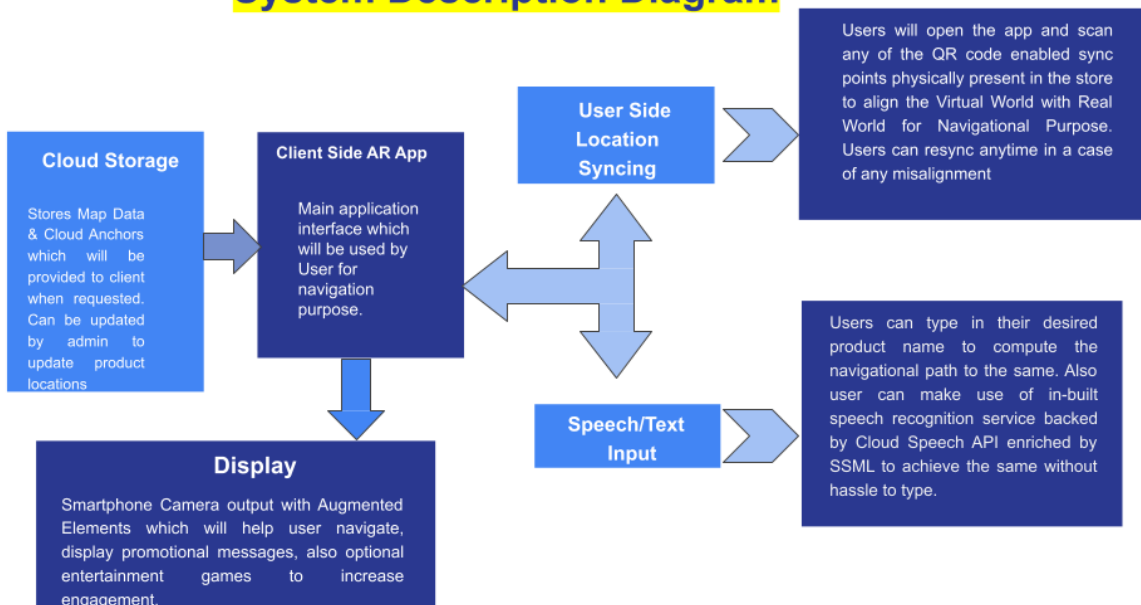
- Navigational System: **Anchored System, SLAM (Simultaneous Localization and Mapping)**
- Artificial Intelligence Algorithms: **Dijkstra's Pathfinding Algorithm**
- Augmented Reality: **Arcore, Plane Detection (Android), Unity3D, ARKit (iOS), Placenote SDK (iOS)**
- 3D Modelling: **Blender, Paint3D, 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





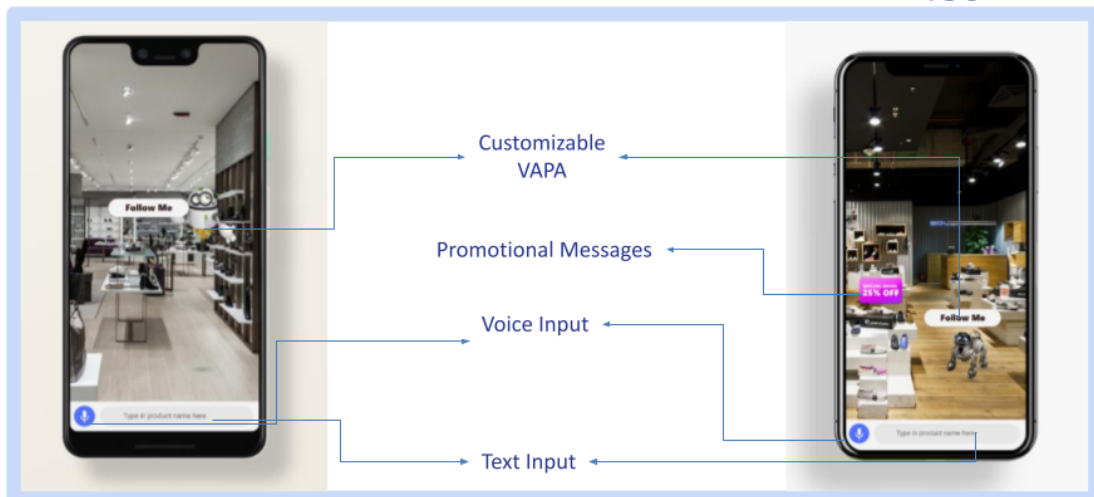
ATHARVA EDUCATIONAL TRUST'S ATHARVA COLLEGE OF ENGINEERING

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

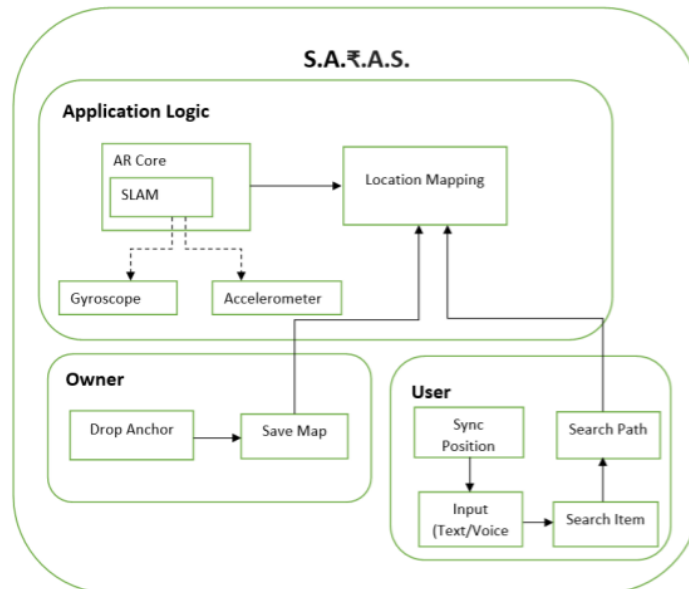
Prototype

Android

iOS



**Creative Visualizations | May change during actual implementation



**SIH 2019
Winners**



Team No.	Team Name	Team Leader	Student Full Name	Email ID	Mobile Number	Gender	Stream(CMPN,INFT,EXTC,ELEC,ETRX)	Academic Year(FE,SE,TE,BE)
1	405,Found	Aaryan Umesh Sawant	Aaryan Umesh Sawant	aaryansawant72@gmail.com	8779661031	M	CMPN	TE
			Vedant Ashok Jadhav	vedantjadhav.vj10@gmail.com	8779663918	M	CMPN	TE
			Nachiketa Ratnakar Patil	nachiketapatil123@gmail.com	8308317615	M	CMPN	TE
			Siddhant Rajesh Sharma	ss347324@gmail.com	9967763463	M	INFT	BE
			Sumeet Venu Bhimanpally	sumeetb271001@gmail.com	9004897265	M	CMPN	TE
			S Vandhanaa B Shyam Sundar	vandvaish2@gmail.com	9987736347	F	CMPN	TE
2	Team Ananta	Jayesh Vinod Bafana	Jayesh Vinod Bafana	jayeshbafana@gmail.com	9637884048	M	CMPN	TE
			Jay Abhay Chaudhari	jaychaudhari021@gmail.com	8412901444	M	CMPN	TE
			Bijal Nitesh Bharadva	bijal.bharadva@gmail.com	8451982667	F	CMPN	TE
			Jaarvi Dileep Nambiar	nambiarjaarvi17@gmail.com	8390263758	F	CMPN	TE
			Vinit Dwarikanath Jha	jhavinit01@gmail.com	9022716721	M	CMPN	TE
			Pranav Hemant Dave	ptheway.21@gmail.com	7489640284	M	CMPN	TE
3	Bit256	Aakash Rajesh Ghole	Aakash Rajesh Ghole	gholeaakash03@gmail.com	9167064656	M	CMPN	TE
			Ashwin Ajith Kumar	ashwinkumar-cmpn@athavacoe.ac.in	8356884629	M	CMPN	TE
			Rituja Ramakant Nanaware	ritujanaware@gmail.com	8433577688	F	CMPN	TE
			Malhar Ravindra Gudekar	malhargudekar@gmail.com	8454840320	M	CMPN	TE
			Aditya Rajesh Joshi	adityajoshi@protonmail.com	9920361091	M	CMPN	TE
			Bharat Dhiraj Choudhary	26bharatchoudhary@gmail.com	9892558512	M	CMPN	TE
4	Binary _Brain	Pooja Vimal Sharma	Pooja Vimal Sharma	s.pooja1301@gmail.com	9660534007	F	EXTC	TE
			Tushar Vaman Amdoskar	tusharvamanamdoskar@gmail.com	9324133348	M	CMPN	TE
			Nikita Krishnadev Dubey	nikdubey06@gmail.com	9326142626	F	CMPN	TE
			Deep Madhab Coomer	deepcoomer198@gmail.com	9769690435	M	CMPN	TE
			Vishruta Bhupesh Patil	vishrutapatil2106@gmail.com	7977952344	F	CMPN	TE
			Devansu Mahendra Yadav	devansuyadav@gmail.com	9769164294	M	CMPN	TE
5	YaSh	Devendra Prabhu Yadav	Devendra Prabhu Yadav	devy2k87@gmail.com	9136288879	M	CMPN	BE
			Mohammad Zaid Masood Alam Shaikh	md.zaidshaikh2000@gmail.com	7021449515	M	CMPN	BE
			Vaibhav Vivek Sharma	vaibhavs1801@gmail.com	9326062120	M	CMPN	BE
			Adithya Gangadhar Shetty	shettyaditya452@gmail.com	9987179175	M	CMPN	BE
			Akhileshkumar Sanjay Yadav	a2000khilesh@gmail.com	8779860825	M	CMPN	BE
			Pritam Vilas Shringare	pshringare23@gmail.com	8237324189	F	CMPN	BE
6	HackTech	Ria Kokate	Ria Vilas Kokate	kokateria-infnt@atharvacoe.ac.in	9833202525	F	INFT	SE
			Amey Shiva Pandit	panditamey-infnt@atharvacoe.ac.in	9702153712	M	INFT	SE
			Hitanshu Raja Oza	ozahitanshu-infnt@atharvacoe.ac.in	8369978568	M	INFT	SE
			Aarnav Mangesh Sangekar	sangekaraarnav-infnt@atharvacoe.ac.in	9136833103	M	INFT	SE
			Bhagyadeep Pandurang Pawaskar	pawaskarbhagyadeep-infnt@atharvacoe	9819994704	M	INFT	SE
			Ritik Ramkripal Yadav	yadvritik-infnt@atharvacoe.ac.in	8291563516	M	INFT	SE
7	Innovaors	Saloni Swaroop Joshi	Saloni Swaroop Joshi	salonijoshi2409@gmail.com	8291426270	F	INFT	TE
			Khushi Rakeshkumar Pal	khushi02pal@gmail.com	9321667233	F	INFT	TE
			Zalak Nehal Gandhi	zhalakgandhi20@gmail.com	7506205608	F	INFT	TE
			Chande Yash Suhas	yashchande35@gmail.com	9930887854	M	INFT	TE
			Hiralal Umesh Kumbhar	hiralalkumar-infnt@atharvacoe.ac.in	9004179070	M	INFT	TE
			Mansi Ravindra Kargutkar	manskargutkar548@gmail.com	8850668560	F	INFT	TE
8	Remote Coders	Yash Kiran Sawant	Yash Kiran Sawant	sawantyashk07@gmail.com	7506479650	M	INFT	TE
			Ajay Prabhakar Kanki	ajaykanki.2e@gmail.com	7977463780	M	INFT	TE
			Vatsal Nilesh Mehta	vatsal.nmehta26@gmail.com	7977168663	M	INFT	TE

Team No.	Team Name	Team Leader	Student Full Name	Email ID	Mobile Number	Gender	Stream(CMPN,INFT,EXTC,ELEC,ETRX)	Academic Year(FE,SE,TE,BE)
8	Remote Coders	Rashi Kiran Sawant	Vignesh Ganesh Pillutla	vigneshpillutla@gmail.com	8828459033	M	INFT	TE
			Tejas Mohan Karkera	tejaskarkeral@gmail.com	8828488206	M	INFT	TE
			Nidhi Naresh Lade	1301nidhi@gmail.com	7021815776	F	INFT	TE
9	Hack-King	Kaustub Sudhakar Shetty	Kaustub Sudhakar Shetty	kaustubshetty123@gmail.com	9834455289	M	INFT	TE
			Shravan Sanjay Thombre	shravanthombre25@gmail.com	8779560006	M	INFT	TE
			Rakshit Chandrashekar Shetty	rakshit24x7@gmail.com	8452012557	M	INFT	TE
			Ashutosh Arun Bagal	ashutoshbagal6427@gmail.com	9373487584	M	INFT	TE
			Manali Dinesh Rathod	manalirathod175@gmail.com	8208500618	F	INFT	TE
			Ranjeet Suresh Yadav	ranjeetsyadav40@gmail.com	8779226608	M	INFT	TE
10	Code Eclipse	Brinda Vinod Temkar	Brinda Vinod Temkar	temkarbrinda66@gmail.com	9004693792	F	EXTC	TE
			Vivek Vikrant Vishwakarma	vishwakarmavivek-extc@atharvacoe.ac.in	8655689594	M	EXTC	TE
			Aastha Harishchandra Bane	baneaastha-extc@atharvacoe.ac.in	9769564342	F	EXTC	TE
			Teesha Sushil Sonawane	teesha8sonawane@gmail.com	9323938635	F	EXTC	TE
			Tejas Bharat Vaity	tejasvaity17@gmail.com	9136721490	M	EXTC	TE
			Shreyas Rameshbhai Vaghasia	shreyasvaghasia01@gmail.com	8652570159	M	CMPN	BE
11	FuseBytes	Anjan Nair	Anjan Sanal Nair	anjannair56@gmail.com	7021615750	M	EXTC	TE
			Shripad Pravin Jagtap	shripadjagtapyt@gmail.com	9987202263	M	EXTC	TE
			Avishkar Anant Dige	avishkardige2001@gmail.com	8356026183	M	EXTC	TE
			Ciba Allauddin Patel	cibapatel@gmail.com	8169828516	F	EXTC	TE
			Aryan Ashish Chavan	aryanchavan2003@gmail.com	9326112750	M	INFT	SE
			Abdul Kabeer Imraan Shivani	kabeerimranshivan-extc@atharvacoe.	8369575887	M	EXTC	SE
12	The Eliminators	Divya Sanjay Khadpe	Divya Sanjay Khadpe	khadpe.divyaa@gmail.com	8291210401	F	ETRX	BE
			Lisha Ramesh Minat	lishaminat54742@gmail.com	8208352768	F	ETRX	BE
			Sree Ramya Pullapantula	sreeramy1909@gmail.com	7263869845	F	ETRX	BE
			Akanksha Bimlesh Singh	akanksha7122000@gmail.com	8291028182	F	ETRX	BE
			Devang Anil Pokar	devangpokar0721@gmail.com	7977533677	M	INFT	BE
			Moksh Mukesh Patel	mokshmukeshpatel2504@gmail.com	7045526674	M	ETRX	BE
13	Ster-Robo	Kaustubh Pimpale	Pimpale Kaustubh Rajesh	kaustubhpimpale1234567@gmail.com	8828451925	M	ELEC	BE
			Mulik Shubham Shyam	mulikshubham7@gmail.com	8879429092	M	ELEC	BE
			Tanawade Soham Shrirang	sohamtanawade24@gmail.com	9167847695	M	ELEC	BE
			Desai Sanket Vilas	sanketdesai2000@gmail.com	9167206355	M	ELEC	BE
			Salve Anushree Ravindra	salveanushree13@gmail.com	9923633029	F	ELEC	BE
			Kamble Asawari Dayanand	asavarikamle@gmail.com	9833919150	M	ELEC	BE
14	Electrek	Amanpreet Singh Bamrah	Bamrah Amanpreet Singh Davendra S	bamrahamanpreet123@gmail.com	9833190575	M	ELEC	BE
			Dalankar Aadit Sandeep	a7sdalankar@gmail.com	9892526470	M	ELEC	BE
			Vasaikar Mandar Vijay	mandarvasaikar214@gmail.com	9920472718	M	ELEC	BE
			Chavan Sahil Milind	sahilmilind2000@gmail.com	9029779764	M	ELEC	BE
			Kapadia Vipasha Viral	vipasha.kapadia@gmail.com	7977935956	F	ELEC	TE
			Doke Meghana Baliram	meghanadoke0702@gmail.com	8850876524	F	ELEC	TE
15	Pulse-Ox	Salvi Shweta Rajendra	Salvi Shweta Rajendra	shwetasalvi8888@gmail.com	7758944867	F	ELEC	BE
			Ghadigaonkar Rutika Vijay	ghadirutika2000@gmail.com	9324204147	F	ELEC	BE
			Jaypatil Nimisha Dilip	nimishajpatil@gmail.com	7350596445	F	ELEC	BE
			Solankar Kajal Mahadev	kajalsolankar2015@gmail.com	9594241073	F	ELEC	BE
			Nadar Anushka Kamaraj	anuksha611@gmail.com	9082069594	F	ELEC	BE

[illegible]