Activity Report on
Smart India Internal Hackathon 2022

Technically Sponsored by

Organized by,
Department of Mechanical Engineering
SVKM'sInstituteofTechnology,Dhule
22th March 2022

- **Institute coordinator :Mr.Umakant Mandawkar**
- **Mechanical Engg. Department Faculty Coordinator:**

  Mr. Dattatray Doifode

  - **Date: 22nd March , 2022 Time: 10 AM**
  - **Venue: SVKM'S Institute of Technology, Dhule**

- **Total student Participated:90**

Introduction:

Ministry of Education's (MoE's) Innovation Cell (MIC) and AICTE have launched the SmartIndia Hackathon (SIH) 2022. It's a non-stop product development competition, where problem statements are posed to students for innovative solutions.SIH2022is a nation wide initiative to provide students a platform to find innovative solution to some of the pressing problems faced by our society. For details about Smart India Hackathon, students can visit SIH Website https://www.sih.gov.in/.

WhocanparticipateinSmartIndia Hackathon?

The teams selected in the Internal SVKM's IOT Hackath on 2022 atSVKM's IOT, Dhule to be organized in Mid of March 2022 will be nominated by the institute to participate in SIH2022.

What is Internal SVKM's IOT Hackathon?

In order to select the team for SIH-2022, SVKM's IOT is organizing an Internal Hackathon named as SVKM's IOT Hackathon 2022 at Institute level. Internal Hackathon will be organized during Mid of March 2022 at SVKM's IOT, Dhule. Details will be made available in due time.

Who can participate in SVKM's IOT Hackathon-2022?

All SVKM's IOT students can participate in the SVKM's IOT Hackathon at SVKM's IOT, Dhule. **However, it is suggested that each team may have students from different disciplines having members from computer Engineering background**. It is a good opportunity for SVKM's IOT students to be part of such a mega event at the national level. **The students participating in Internal Hackathon will get Certificate of Participation.**

What are Problem Statement and Themes?

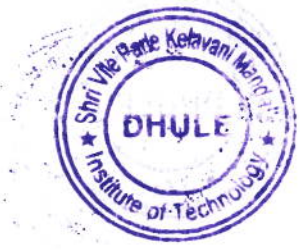
The interested students can choose any problem statement given on the SIH Website under the sectors Medtech/Biotech/Healthtech, Clean and Green Technology, Smart Education, Fitness and Sports, Transportation & Logistics, Blockchain and Cybersecurity, Robotics and Drones, Tourism, Disaster Management, Heritage and Culture, Smart Automation, Smart Vehicle, Renewable/Sustainable Energy, Agriculture, FoodTech and Rural Development, and Miscellaneous.

How to participate in SVKM's IOT Hackathon?

Several problem statements for Hackathon-2022 purpose are provided on the Website https://www.sih.gov.in/.Interested students of SVKM's IOT have to form a team as per the norms of SIH and come upwith own ideas against the problem statements and submit the same to the coordinator(SIH) SVKM's IOT latest by**March05,2022**. The selected teams will be invited to participate in the internal Hackathon at SVKM's IOT, Dhule duringMarch2022

Why should you participate in Smart India Hackathon?

Participation in such a National level event will be a matter of pride. The winning teams atthe



National level Hackathon will be awarded **with cash prize up to Rs. One Lakh by theMoE**basedoncomplexitylevelofttheproblemandfurthertheywillbesupportedfinancially as well as academically and technically to develop the end product by the SIHteam.

Shri Vile Parle Kelavani Mandal's
Institute of Technology, Dhule
Approved by AICTE & Affiliated to DBATU

DEPARTMENT OF MECHANICAL ENGINEERING

The students and faculty mentors of Mechanical Engineering Department are here by informed that for **institute level round** of **Smart India Hackathon(SIH) 2022** (going to held after 20th March),following project teams are selected .Some of the guidelines for SIH are as follows,

a. Students need to form a group of six members and out of this one member must be compulsory girl student.

b. Team members need to form a idea proposal under the theme and problem statement provided on the site of Smart India Hackathon.

c. For problem statement students/Faculty have to visit : https://www.sih.gov.in/sih2022PS

d. After the formation of idea proposal, Students need to register their group to Mr.Dattatray Doifode before 15th March 2022.

e. Partcipation of all the mentioned group is mandatory.

f. If the project idea is not matching with the problem statement of SIH ,then the student team can register their idea proposal under "Students

g. Student team can also give any other innovative idea proposal other than project idea by observing the various problem statements on SIH site.

Note: **Following projects are not exactly matching with the problem statements given under the respective theme but the students under the supervision of project guide need to make such an idea proposal which will match with the problem statement given under that theme.**

Following point should be included in idea Proposal,

1.Team Name
2.Choose problem statement from SIH website
3.Idea Title
4.Idea Description
5.Idea PPT in PDF format
6.Name of team leader and other five Team members

Date:04/03/2022

Roll N	Student Group	Year	Project Guide	Project Title	Matching with Smart India Hackathon (SIH) 2022 Theme
41	Tejas Shinde	Final Year	Prof. Yogesh Sonawane	Energy and emission analysis of CI engine using biodiesel by multiple injection.	Renewable and Sustainable energy
39	Yadnesh Gujar	Final Year			
38	Shubham Suryawanshi	Final Year			
37	Mayur Sawant	Final Year			
4	SONAR LOKESH SUNIL	Third Year			
	AMRUTKAR TEJASWINI SUNIL	first Year			

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17	Nilesh Gokul Patil	Final Year	Prof. Mahesh Dalwani	Performance Evalation of PCM based solar water heater using Machine learning	Smart Automation
2	Dhiraj Dipak Gharate	Final Year			
21	Chirag Mahendra Hire	Final Year			
25	Shubham Gopal Sharma	Final Year			
6	KARANKAL KUNAL RAVINDRA	Third Year			
18	Harshada Shamkant Jagtap	Final Year			
20	Rohit Mahajan	Final Year	Dr. Hitesh Thakare	Design, Fabrication and Performance Testing of Agricultural Drone	Agriculture foodTech and Rural Development
50	Kuldeep Sonawane	Final Year			
22	Pratik Deore	Final Year			
42	Mayur Kothawade	Final Year			
7	SONAR TEJAS MAHENDRA	Third Year			
	Anushree Patil	Third Year			
11	Yogesh Mangesh More	Final Year	Prof. Dhiraj Bhandarkar	DESIGN, CONSTRUCTION AND TESTING OF FULLY AUTOMATED SPEED BREAKER WITH THE APPLICATIONS OF IoT, ML AND AI.	Smart Automation
30	Mihir Manoj Lohar	Final Year			
23	Girish Uttam Marathe	Final Year			
36	Pankaj Sonwane	Final Year			
10	NANDEDKAR PARTH MAHESH	Third Year			
	PATIL TANISHA NITIN	first Year			
15	Anish Mahesh Fulzade	Final Year	Prof. Dhiraj Bhandarkar	Design and Analysis of Chassis Frame of Light Motor Vehicle	Smart Vehicles
4	Rohit Vibhuti Pawar	Final Year			
66	Samyak Parshuram More	Final Year			
43	Ninad Ajay Mudawadkar	Final Year			
21	GUDHE MEHUL ANNASAHEB	Third Year			
	PATIL DIVYASHRI VIJAY	first Year			
3	Swaraj Mahire	Final Year	Dr. Amol Badgujar	Design , Fabrication and Testing of Spin dryer for Post Harvest Processing	Agriculture foodTech and Rural Development
6	Akash Gote	Final Year			
40	Ganesh Yelpale	Final Year			
34	Nikhil Chaudhari	Final Year			
34	BHANDARKAR GAURAV SANJAY	Third Year			
	Kajal Patil	Final Year(civil)			
19	Rushikesh Jagtap	Final Year	Prof. Mahesh Dalwani	Evaluation of solar pv panel performance and modelling using Machine learning	Renewable and Sustainable energy
10	Parth Punjabi	Final Year			
54	Gaurav Kaywal	Final Year			
27	Niraj Chaudhari	Final Year			
2	ADITYA GHARDE	Second Year			
12	Ruchita satish ahire	Final Year			
57	Tushar Anil Kalewar	Final Year	Prof. Dattatray Dolfode	Design and fabrication of solar dryer for multipurpose agricultural product	Agriculture foodTech and Rural Development
53	Tushar Dinkar Deore	Final Year			
24	Rohit Baban Yeole	Final Year			
46	Pranil Vikas Sonje	Final Year			
32	PATIL PRADYUMNA VILASRAO	Third Year			
	PATIL AKANSHA VIDHYADHAR	first Year			

16	Sumit Gopal Patil	Final Year	Prof. Mohammed Juneduddin	DEVELOPMENT OF BOT SMART APPLICATION	Smart Education
1	Deepak Gangaram Sonwane	Final Year			
71	Dhiraj Patil	Final Year			
45	Mahesh Pradip Khandebharad	Final Year			
37	Hrutik Patil	Third Year			
	PATIL DARSHANA RAMESH	first Year			
13	Tejas ahire	Final Year	Prof. Satish Patil	Development of forced convection solar dryer for Neem seed	Agriculture foodTech and Rural Development
33	Ganesh Ashok Deore	Final Year			
55	Vishal Dharma Gore	Final Year			
61	Bhushan Sonawane	Final Year			
8	CHARUDATTA VIBHANDIK	Second Year			
	BHAVSAR KHUSHI PRAKASH	first Year			
5	MANSOORI SARFRAZ MUHAMMAD ISLAM	Final Year	Prof. Satish Patil	Investigation of Gross Calorific Value of Different Agroforesty Species of SVKM'S Dhule campus	Clean And Green Technology
26	KOLAPKAR VARAD LAXMAN	Final Year			
8	PRASAD RAJAN CHULHAI	Final Year			
60	Shaikh Mohammad Noman Shaikh Mahemood	Final Year			
11	DEEPAK PANJWANI	Second Year			
	Pallavi Patil	Final Year(Civil)			
9	Pratik Mohan Mali	Final Year	Prof. Yogesh Sonawane	Performance and emission analysis using biodiesel with different piston geometry.	Renewable and Sustainable energy
14	Pranjal Vikas Borse	Final Year			
48	Mayur Kailas Khairnar	Final Year			
49	Jayesh Jadhav	Final Year			
44	AHIRE MANAS PRAVIN	Third Year			
	Aanchal Pardeshi	Second Year			
7	Ansari Awais Ahmad	Final Year	Prof. Mohammed Juneduddin	Developing of a Language Translation and Understanding Model By Using LUIS	Smart Automation
70	Gaurav Wagh	Final Year			
68	Kaushal Lohar	Final Year			
63	Sohail Shaikh	Final Year			
38	PATIL SUDIP SUNIL	Third Year			
	Neha Patil	Second Year			
67	PUKALE SAURABH MOHAN	Final Year	Dr. Hitesh Thakare	Design, Fabrication and Performance Testing of Manually Operated Cow Dung Collector	Clean And Green Technology
69	Abhishek Jain	Final Year			
56	PARKHE AKHILESH SHARAD	Final Year			
65	DHAYBAR GANESH ANANT	Final Year			
27	GUNVANT DINKAR PATIL	Second Year			
31	Dipali Bharatarinath Varade	Third Year			

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Department of Mechanical Engineering

A) Problem statements(PS) attempted by teams:

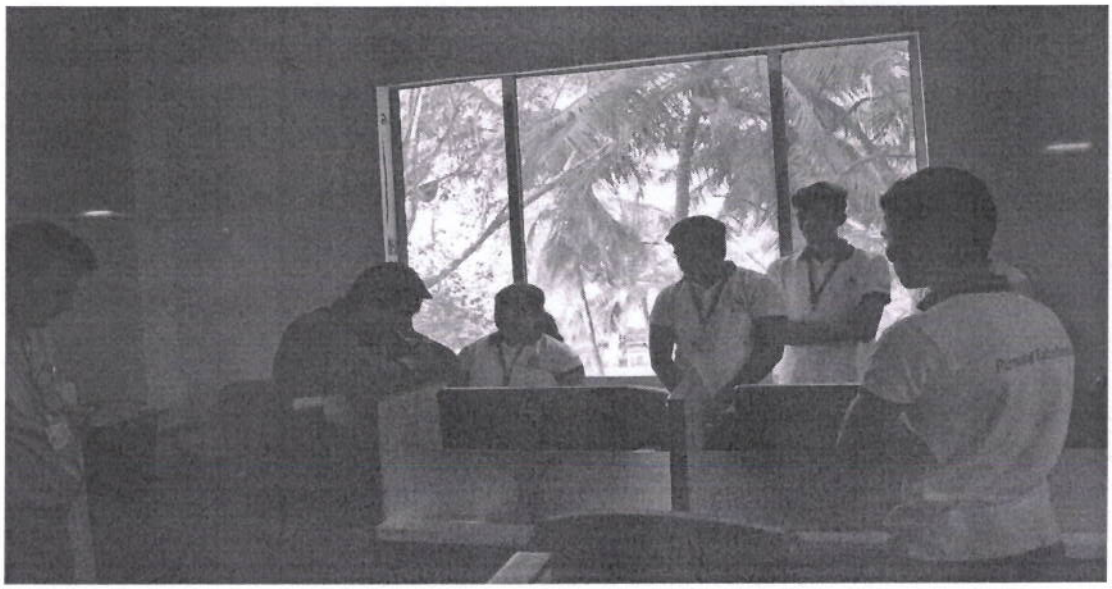
1. Student Innovation (Team Name: **ML Minds):Evaluation of solar pv panel performance and modelling using Machine learning**
2. Student Innovation (Team Name: **Elite):Performance Evaluation of PCM based solar water heater using Machine learning**
3. Student Innovation (Team Name:**Challenger):Energy and emission analysis of CI engine using biodiesel by multiple injection.**
4. Student Innovation (Team Name: **Titans):Design and Analysis of Chassis Frame of Light Motor Vehicle**
5. Student Innovation (Team Name: **Special six):Performance and emission analysis using biodiesel with different piston geometry.**
6. Student Innovation (Team Name: **Unique Thinkers):Design, construction and testing of fully automated speed breaker with the applications of IOT, ML and AI.**
7. Student Innovation (Team Name: **Dream Team):Development of forced convection solar dryer for Neem seed**
8. Student Innovation (Team Name: **The Bachelor's): Automatic street light by using piezoelectric effect.**
9. Student Innovation (Team Name: **Rockers):Design , Fabrication and Testing of Spin dryer for Post Harvest Processing**
10. Student Innovation (Team Name:Team Phantom **):Design and fabrication of solar dryer for multipurpose agricultural product**
11. **Student Innovation (Team Name: Phantom): Design, Fabrication and Performance Testing of Agricultural Drone**
12. Develop a system to Transliterate Regional language text into English /Hindi and perform matching using fuzzylogic / machine learning algorithms(Team Name: Comprehensive translation builder)
13. AI based Chatbot to answer FAQs(Team Name: Bot Builders)
14. Artificial intelligence enabled robotic trash boat to drive and harvest floating trash from urban drain (Team Name: ACHIEVERS)

B) Total no. of Teams Participated against each PS: 1
C) Total no. of teams selected against each PS: 3
D) Total number of teams participated: 15
E) Total number of students Participated: 6*15=90
F) No. of female Participants: 15
G) No. of male Participants: 75

Winner Team name with respective Photograph in word file :

Team 2: Future Enlight

Problem Statement Title: Energy Conservation with modern technology
PS Number: DR704
Main Domain:Renewable and sustainable energy



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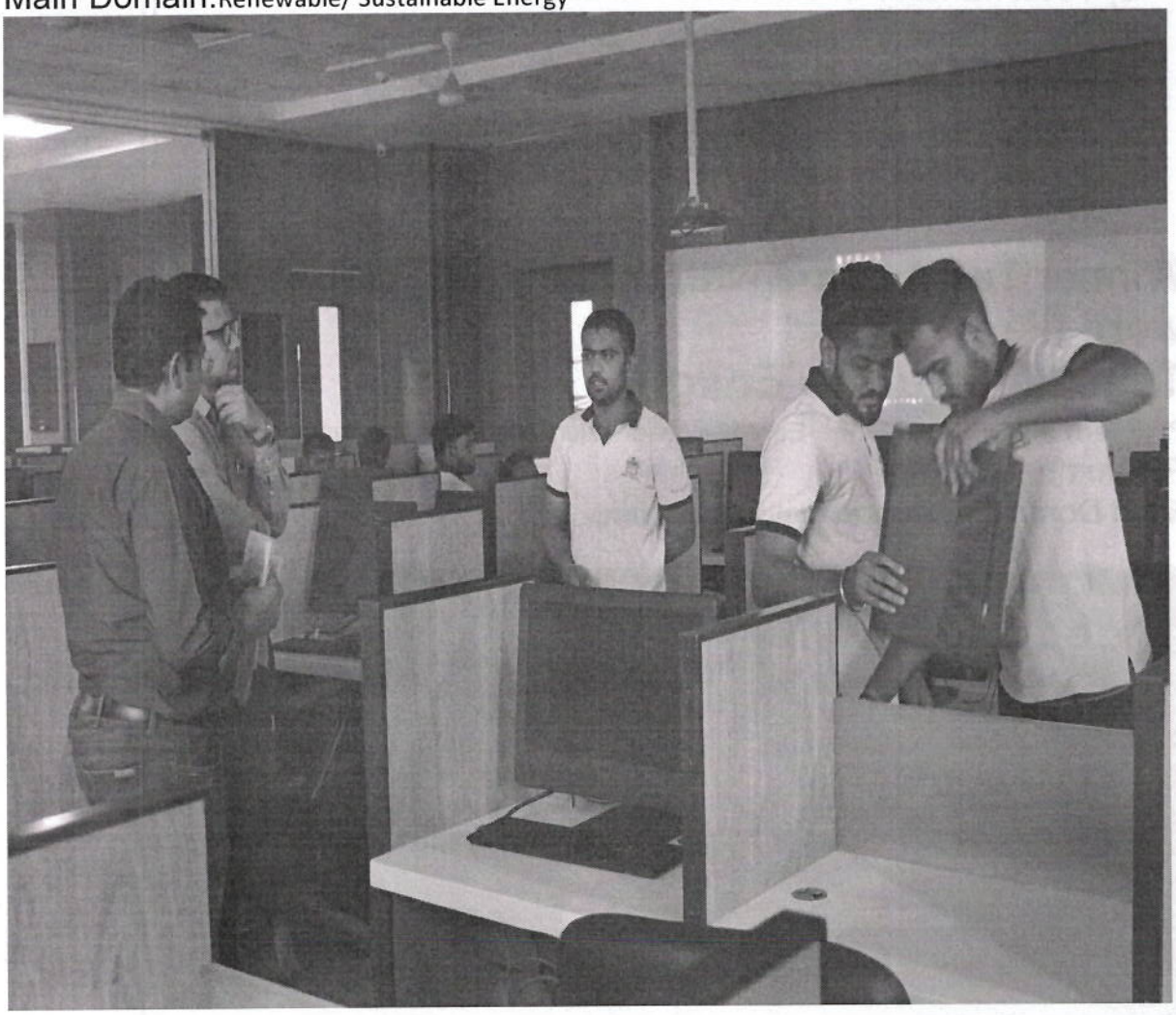
Team 4: Challenger

Problem Statement Title: Student Innovation

PS Number: SM966

Main Domain:Renewable/ Sustainable Energy

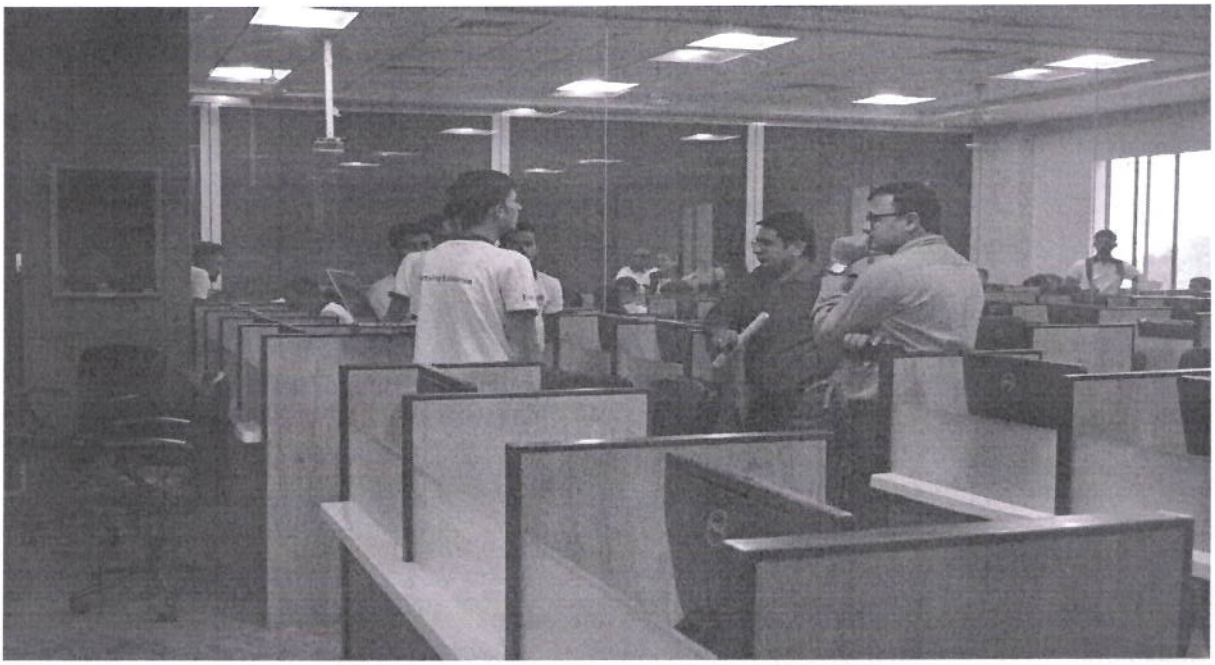


Team 11: ACHIEVERS

Problem Statement Title: Artificial intelligence enabled robotic trash boat to drive and harvest floating trash from urban drain

PS Number: BV800

Main Domain: Disaster management



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Smart India Hackathon 2022
Institute level Hackathon
Mechanical Engineering Department Shortlisted Teams

Team :Achiever

	Name	Gender (M/F)	Email id	Mobile no.
Team Leader	YashSharadAhirrao	Male	yashahirrao72@gmail.com	9604332752
Team Member	RupeshPradipShinde	Male	shindejayesh887@gmail.com	9423495350
Team Member	NileshMaganPatil	Male	patilnilesh0278@gmail.com	7378772141
Team Member	TejasBalbir Rajput	Male	tejasrajput2333@gmail.com	7757032999
Team Member	AkanshaVidhyadharPatil	Female	akanshapatil14102003@gmail.com	9370268793
Team Member	Rohit Rajesh Sonawane	Male	rohitsonawane2412@gmail.com	9860315962

Team :Challenger

	Name	Gender (M/F)	Email id	Mobile no.
Team Leader	Tejas Harish Shinde.	M	shindetejas2000@gmail.com	9172290515
Team Member	YadneshDhanrajGujar.	M	yadneshgujar5@gmail.com	7620624851
Team Member	MayurDhanrajSawant.	M	mayursawant421209@gmail.com	9623444334
Team Member	Shubham Sunil Suryawanshi.	M	rajputshubham0506@gmail.com	8788424231
Team Member	Lokesh Sunil Sonar	M	lokesh.ssonar2002@gmail.com	9552778487
Team Member	Tejaswini Sunil Amrutkar	F	tejaswiniamrutkar3@gmail.com	9370200570

Team :Future Enlight

	Name	Gender	Email id	Mobile no.

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		(M/F)		
Team Leader	Anushree Sanjay Patil	F	anushreepatil14901@gmail.com	7499416851
Team Member	DipakUkhaPatil	M	dipakup.a04@gmail.com	8805050393
Team Member	BhatuSantoshPatil	M	bhatuspatil2000@gmail.com	9359346374
Team Member	ChinmaySatishChitte	M	chinmay.s.chitte987@gmail.com	9834066911
Team Member	BhaveshKishor Deore	M	bhaveshdeore46@gmail.com	9822381286
Team Member	KunalRavindraKarankal	M	mr.karankalkunal@gmail.com	9834552744

Team :Special Six

	Name	Gender (M/F)	Email id	Mobile no.
Team Leader	Mayur Kailas Khairnar	Male	mayurkhairnar70@gmail.com	7875941168
Member	PranjalVikasBorse	Male	Borsepranjal50@gmail.com	8552864853
Member	Pratik Mohan Mali	Male	Pratikmali846@gmail.com	9511829072
Member	Jayesh Sunil Jadhav	Male	Jayeshjadhav885@gmail.com	7385315783
Member	ManasPravin Ahire	Male	Manas.ahire@gmail.com	8275440734
Member	AanchalSatishPardeshi	Female	aanchalpardeshi@gmail.com	8530490320

Team :Titans

	Name	Gender (M/F)	Email id	Mobile no.
Team Leader	Anish Mahesh Fulzade	M	fulzadeanish@gmail.com	9309856368
Team Member	Ninad Ajay Mudawadkar	M	Ninadmudawadkar1740@gmail.com	7028868306
Team Member	SamyakParshuram More	M	Samyakmore4122000@gmail.com	8530615723
Team Member	RohitVibhutiPawar	M	rvpawar001@gmail.com	7038545990
Team Member	MehulAnnasahebGudhe	M	mehulgudhe03@gmail.com	9921220486
Team Member	Divyashri Vijay Patil	F	divyashreepatil@gmail.com	9529787537

Sample Certificates

SMART INDIA HACKATHON 2022

Shri Vile Parle Kelavani Mandal's

INSTITUTE OF TECHNOLOGY, DHULE

CERTIFICATE OF PARTICIPATION

This is to certify that,

Mr. /Ms. **Aakansha Vidhyadhar Patil** of team **ACHEIVERS** has presented an idea entitled "Artificial intelligence enabled robotic trash boat to drive and harvest floating trash from urban drain" at "SVKM's Institute of Technology - Hackathon 2022" organized by, SVKM's Institute of Technology, Dhule, held on **22nd March 2022.**

Umakant Mandawkar	Dr. Makarand Shahade	Dr. Nilesh Salunke
SPOC	SVKM's IOT 2022, Hackathon	Principal
SVKM's IOT,Dhule	Organizer	SVKM's IOT, Dhule

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INSTITUTE OF TECHNOLOGY, DHULE

CERTIFICATE OF PARTICIPATION

This is to certify that,

Mr. /Ms. **Tejas Balbir Rajput** of team **ACHEIVERS** has presented an idea entitled "Artificial intelligence enabled robotic trash boat to drive and harvest floating trash from urban drain" at "SVKM's Institute of Technology - Hackathon 2022" organized by, SVKM's Institute of Technology, Dhule, held on **22nd March 2022.**

Umakant Mandawkar	Dr. Makarand Shahade	Dr. Nilesh Salunke
SPOC	SVKM's IOT 2022, Hackathon	Principal
SVKM's IOT,Dhule	Organizer	SVKM's IOT, Dhule

Shri Vile Parle Kelavani Mandal's Institute of Technology DHULE

Mr. Dattatray Doifode
Dept.Faculty, Coordinator

Dr. Hitesh Thakare
Head, Mech. Engg. Department

H.O.D. Mechanical Dept,
SVKM's Institute of Technology,Dhule

Dr. Nilesh Salunke
Principal & Patron

Principal
SVKM's Institute of Technology,Dhule

Shri Vile Parle Kelavani Mandal's Institute of Technology DHULE

Principal

S.V.K.M's Institute of Technology,Dhule

H.O.D. Mechanical Dept.

S.V.K.M's Institute of Technology,Dhule