JSPM'S
JAYAWANTRAO SAWANT COLLEGE OF ENGINEERING

2023

TECH CLUB's @ JSCOE

2023

Prof. Dr. T. J. Sawant

- Cabinet Minister, Public Health & Family Welfare, Govt. Of Maharashtra,
- Founder Secretary, JSPM Group of Institutes, Pune

My Dear students,

Jayawant Shikshan Prasarak Mandal (JSPM) was established in 1998 with the objective of creating centers of excellence for education in the field of Engineering, Medical, Pharmacy, Management, and computers. Our Objective behind starting JSPM was to make higher education available to all who are desirous of achieving it .I also visualized that a social transformation can be brought about through the medium of dynamic education, JSPM is thus an institution of higher education with social commitment. With India & Indians, emerging as leaders across various professional sectors, it becomes an even greater challenge for the education sector to nurture and groom such abundant talent, which is all set to take industry's quest for excellence to dazzling new heights. It is in this same spirit of excellence, that we at JSPM have laid each brick. We have created a learning culture, a friendly environment that facilitates complete development of our students. Our three pronged focus on knowledge, skill and attitude is aimed at meeting the needs of our customers i.e.the industry.

My Dear students,

This institution of higher learning has immensely contributed to the nation building by providing intellect talent possessing latest analytical, design, practical and managerial skills.

Our technical club's students have made their marks into all technical sectors including government, private & public sector to serve the country in various capacities and to meet all kind of the global challenges in field of Technology & Management.

Our core values of knowledge, character, excellence, integrity, transparency, quality, teamwork, execution with passion, trust, continuous and student-centric learning are all closely integrated into our technical clubs.

Dr. Sanjay Sawant

Director, JSPM's JSCOE, Pune

My Dear students,

Every technology can serve as an asset or an obstacle depending on the user, therefore be aware of the negative aspects of internet-based digital learning while appreciating the numerous benefits it provides. Avoid copying from the internet when submitting projects and assignments. As a result, we have established a number of student clubs. Improving understanding and implementing good innovative ideas and products to solve real-world societal concerns.

Dr. V.A. Bugade

Director, JSPM's JSCOE, Pune

Dr. R. D. Kanphade
Principal, JSPM's JSCOE, Pune

Technical education has been at the root of societal and human progress. JSPM educational institutions are committed to providing time-based and value-added quality learning. At JSPM, we strive to teach students through involvement and commitment in several technical clubs. We feel that technology-related clubs are the only way to shape students into successful engineers. Modern technology facilitates an effective learning process. At JSPM, we have established a distinct technical club equipped with all latest gadgets to ensure that students understand the fundamentals of the technology they have chosen. The suitable environment is necessary for learning, and this is accessible at JSCOE campuses. Aside from education in the classroom and lab work, we believe in comprehensive student development. We have implemented a mentor plan in technical clubs, in which a technical expert faculty member looks after interested students. We also emphasise presentation skills and new initiatives to be carried out by students in departmental and institute-level clubs. We are completely committed to the overall technical and personal development of students' skills since we know that they are the world's ultimate future growth generators.

Dr. Sharmila Shinde
IOAC. JSPM's JSCOE. Pune

The Internal Quality Assurance Cell plays an important role in developing a system that will assure constant enhancement in the overall performance of all academic and technical clubs at the institution.

To direct all institutional efforts and actions towards optimization and integration of modern learning tools.

Cultivate an educational atmosphere beneficial to quality education and faculty maturation in order for engaging technical clubs to acquire the necessary knowledge and technology. To create an atmosphere for research, entrepreneurship, start-ups, and product development technical clubs are started at the institute.

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JSPM's
Jayawantrao Sawant College of Engineering, Pune
DEPARTMENT OF COMPUTER ENGINEERING
IoT Club
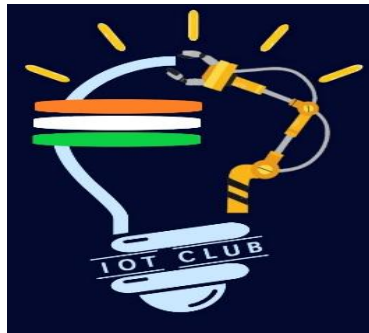
About Club:

The goal of the IoT Club is to promote an opportunity for interaction between students of Computer Engineering and other different department students for interdisciplinary projects. The IoT club should engage in activities related to solving societal, environmental and smart city issues. Students participate in the design and development of various Smart City IoT projects. It provides students with the required platform for their ideas to be implemented. A great workplace, a large collection, and detailed advice from faculty, senior students, alumni, and experts from the industry. The IoT club is divided on the basis of interests and each club is a highly enthusiastic group inspired to disseminate and expand the field's knowledge base. The purpose behind this Club is to increase the quality of student projects, placement, and participation of students in research project competitions & encourage students to research in words, and innovation.

Coordinators:

Sr. No	Name	Role
1	Dr. D.S.Waghole	Faculty Coordinator
2	Mr.Aditya Malapure	Student Coordinator
3	Mr.Sanyam Surana	Student Coordinator

Advisory Board of IoT Club:

Sr. No	Name	Role / Position
1	Dr. R. D. Kanphade	Principal
2	Dr. P. D. Lambhate	HoD
3	Dr. Sanjay Gandhi	Chairman & MD Aspire
4	Mr Abhijith Khurpe	Secreatory,IEEE
5	Dr. D.S.Waghole	Faculty Coordinator
6	Mr.Aditya Malapure	Student Coordinator
7	Mr.Sanyam Surana	Student Coordinator

Internal-External Mentors:-

Sr. No.	Name of Mentors	Internal/External Mentor	Position	Company/Organization	Expert /Domain
1	Mr. Purushottam Darshankar	External	Chief Data Architect President – VRAR Association, Pune Chapter	Persistent	NLP, IoT, ARVR
2	Mr. Girish Khillare	External	CTO & Director	Elliot System Pvt Ltd	Industry 4.0 ,IoT & ML
3	Dr. Sanjay Gandhi	External	Chairman & MD	Aspire Knowledge & Skills	Product development and Incubation
4	Mr. Abhijith Khurpe	External	Secretary, IEEE,Pune	IEEE Pune Section	Business Model and Product Design
5	Dr. Vivek Deshpande	External	Director,VIIT,Pune	VIIT,Pune	AI,ML,WSN, Indistry 4.0
6	Dr. Makarand Jadhav	Extrenal	HoD, SIT,PUNE	SIT,Pune	5G, DTN, IoT
7	Dr. D. S. Waghole	Internal	Head, IoT Club	JSCOE	IoT,ML,NLP

Team Photo

Objectives:

The main objective of IoT Club is to promote an environment for an interaction between Computer Engineering students and other department students for interdisciplinary projects. IoT club is engaged in activities to solve the problems of society, environmental, smart city.

Activities:

- ➢ Workshop on Android Development

- ➢ Expert Talk on recent technologies

Product developed by Club

1. ECKOVAN

2. Agricultural EV

3. Intelligent Gas Trolley

4. Intelligent Garbage Bin

Major Achievements and Awards

Sr no	Name of Competition	Prizes/ Awards
1	Smart India Hackathon 2017	Winners (1 Lakh Rs.)
2	QuEST Ingenium 2018	Winners (1 Lakh Rs.),Best project Award
3	QuEST Ingenium 2022	Winners (1.5 Lakh Rs.) Best project Award
4	KPIT Sparkle 2022	Winners (2 Lakh Rs.) , Abhinavi Award
5	IEEE TDCS	Winners (51k Rs.)
6	IEEE Eureka	Winners (51k Rs.)
7	AICTE Vishwakarma Award 2018	Winners (41k Rs.)
8.	AICTE Vishwakarma Award 2019	Winners (31k Rs.)
9	Poornima Hackathon 2021	Winners (75k Rs.)
10	Poornima Hackathon 2022	Winners (75k Rs.)
11	Aatmanirbhar Bharat Hackathon 2020-21 (EV)	Winners (75k Rs.)
12	Aatmanirbhar Bharat Hackathon 2020-21 (ARVR)	Winners (50k Rs.)
13	Indo – Japan International Hackathon 2022	Best Team Project Award
14	InTech Olympiad 2019	Winners (51k Rs.)

POC & Products Developed By IoT Club Students:

1. Smart Gas Trolley: Patent No. 201721031951 A

Description: Smart gas trolley have been developed for early detection of gas leakage, fire detection and daily gas consumption. This will be important for to avoid human death due to the gas blast in residence, restaurants and hotels. It will aid in increasing women's security and monitoring.

Commercialization Status: In Progress in collaboration with IP LAB Pune

2. Multipurpose Agriculture Electric Vehicle (Patent in progress): Description: A multipurpose agricultural EV is designed to help farmers with a variety of issues such as weather forecasting, soil testing, grass cutting, pesticide spraying, and so on. We considered women farmers when designing this vehicle, and it is quite easy for women farmers to operate.

Commercialization Status: In Progress in collaboration with IP LAB Pune

| **Multipurpose EV: Version 1** | **Multipurpose EV: Version 2** |

3. EV for Physically Challenged People's: (Patent in Progress)

Description: The electric vehicle for persons with disabilities was designed to alleviate the mobility problem of physically challenged people in small businesses. It aids in tracking users' current locations and continues to monitor vehicle health using BMS.

Commercialization Status: Incubated at iCreate, Ahmedabad, India

4. Intelligent Garbage Bin for Fertilizer generation & Electricity: Patent No. 201721011276

Description: For the Municipal Corporation, an intelligent garbage container is designed to ensure timely garbage collection. Using sensors, it is possible to display the current weight of the garage and the level of the bin. This technology also aids in the production of fertilizer for farms. This invention is extremely beneficial to restaurant, hotels, colleges, MCPs, and society.

Commercialization Status: In Progress in collaboration with IP LAB Pune & JSCOE, Pune

Achievements:-

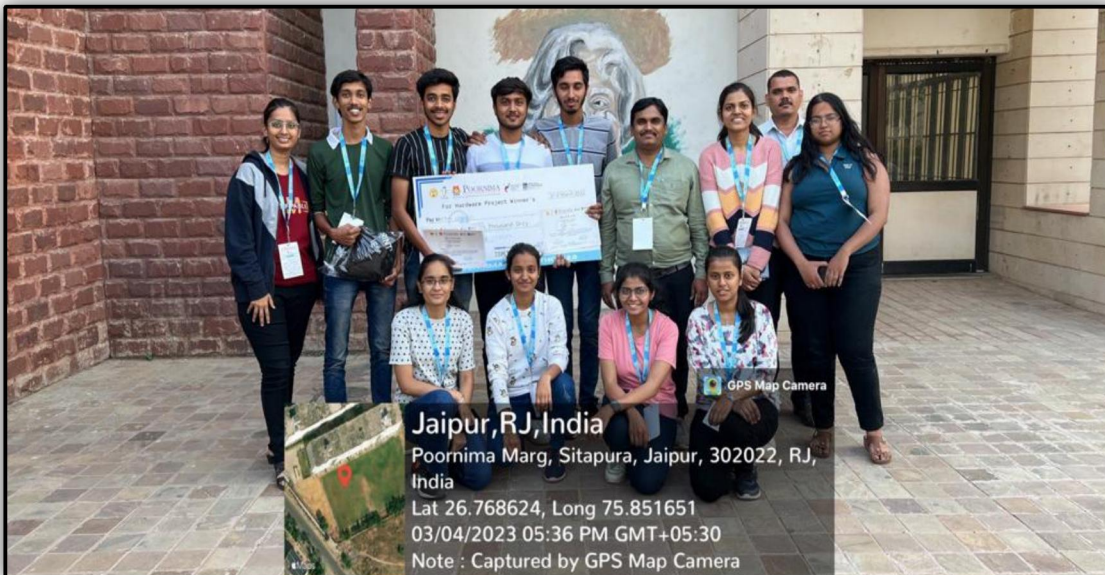**ACHIEVEMENT IN NATIONAL PROJECT COMPETITION: KPIT 2021-22 -Winners**

ACHIEVEMENT IN NATIONAL PROJECT COMPETITION: KPIT 2022-23

QuEST Ingenium 2022-23 - Winners

Poornima Hackathon 2023 – Winners

Indo – Japan International: Ideathon 2023 : Best Team Project Award

Impacts:

1. Enhanced technical skills in IoT and Google technologies.

2. Increased proficiency in problem-solving and teamwork.

3. Improved understanding and application of IoT principles.

4. Expanded knowledge base in wireless sensor networks and IoT cloud technologies.

5. Developed the ability to address real-world challenges through transformative projects.

6. Strengthened research capabilities, leading to published papers and patents.

7. Facilitated interdisciplinary collaborations and knowledge exchange among students.

8. Provided a platform for students to showcase their innovative ideas and projects.

9. Cultivated a passion for innovation, research, and higher studies.

10. Boosted career prospects and employability in the field of IoT and related technologies.

External Mentors Photos: - IoT Club

1. Purushottam Darshankar

2. Mr. Girish Khilare

3. Mr. Abhijith Khurpe

4. Dr. Vivek Deshpande

5. Dr Sanjay Gandhi

CerebroSpark Innovations

Cerebrospark

About Club:

CerebroSpark Innovations is a Pune-based company. We are business owners, drone enthusiasts, aerial photographers, manufacturers, trainers, and best friends. We used to wonder as young engineers why we couldn't have anything called "The Indian Dream." CerebroSpark Innovations was born from our Indian ambition of providing drone enthusiasts like us with a smart toy-like drone. CerebroSpark Innovations has been creating and building small unmanned aerial vehicles (UAVs) for aesthetic and functional aerial photography since 2018.

As early adopters, we became unofficial UAV technology spokespeople for our region's student community and media. We've tested and tried various drones over the last three years and designed a design that's best suited for more hobbyists like us. We stay current on hardware, software, and other technological advances.

For more details related to club please visit - https://www.cerebrospark.in

Coordinators of CerebroSpark Innovations:

Sr. No	Name	Role
1	Prof. Siddhesh Bandhekar	Faculty Coordinator
2	Mr. Ganesh Thorat	Student Coordinator
3	Mr. Mihir Kedar	Student Coordinator
4	Mr. Rushikesh Sonawane	Student Coordinator

Advisory board of club:

Sr. No	Name	Role/Position
1	Dr. R. D. Kanphade	Principal
2	Dr. Pradeep Patil	HoD
3	Mr. Ganesh Thorat	Student Coordinator
4	Mr. Mihir Kedar	Student Coordinator
5	Mr. Rushikesh Sonawane	Student Coordinator

Internal and External mentors of the club:

Sr.No.	Name of Mentors	Internal /External Mentor	Position	Company /Organization	Expert /Domain
1	Dr. R. D. Kanphade	Internal	Principal	JSCOE	IoT
2	Dr. Pradeep Patil	Internal	HoD	JSCOE	Industrial Automation
3	Dr. Mohit Dubey	External	CEO	AIC-MIT ADT Incubator Forum	Drone Technology
4	Mr. Prashant Jogalekar	External	Director	Defense& Electronics at MCCIA	Drone Technology
5	Mr. Prasad Gore	External	CEO	Auto Cluster	Drone Technology

Team Group Photo:

Objectives of CerebroSpark Innovations:

- Innovate Cutting-Edge Drone Technology

- Expand Product Portfolio

- Provide Customization and Solutions

- Ensure Regulatory Compliance and Safety

- Foster Strategic Partnerships

- Deliver Excellent Customer Support

- Foster Innovation and Agility

- Expand Geographical Presence

Activities Conducted by CSI 2023-23:

Team successfully completed many events in the tenure-

- Workshop at JSP, Date: march 2023

- THDC Workshop, Date: April 2023

- TSSM Workshop, Date: May 2023

- Workshops of drone technology: 12

- Workshop on entrepreneurship: 15

- Seminar on drones: 8

- Seminar on idea to product development: 10

Product development by club:

- CS-KRISHI Agricultural drone for spraying of pesticides.

- CS-PRIDE Enterprise drone for Survey, Mapping and Surveillance

- CS-Mamba Drone for disaster management & surveillance

- CS-Bhim Drone for explosive delivery for defence

- CS-BEE Nano drone for spy and security applications

- Heavy duty 30Kg payload drone for defense for higher altitudes.

1. CS-Mamba Drone for disaster management & surveillance – Deployed in Bihar

Commercialization Status: Start-up at JSCOE

2. CS-Bhim Drone for explosive delivery for Indian Army

Commercialization Status: Commercialized & started Start-up at JSCOE

3. CS-BEE Nano drone for spy and security applications

Commercialization Status: Commercialized & started Start-up at JSCOE

4. Heavy duty 30Kg payload drone for defense for higher altitudes.

Commercialization Status: Commercialized & started Start-up at JSCOE

Awards & Recognitions:

1. Felicitation of startup owners by Hon. Minister Prof. Dr. T. J. Sawant January 2023

2. SPPU Startup exhibited by Shri Piyush Goal, Date: Dec 2021

3. SPPU Expedition with Lt. General R.K Malhotra Date: Dec 2021

4. Got Bihar state excise department Surveillance project

5. Winner in FOF Hackathon 23 Feb 2020 organized by PCMC

Achievements:

- Top 7 young change makers across India selected by United Nations India and UNICEF.

- Top 5 in one million second online Corona hackathon 2020 conducted by Telangana information technology association (TITA).

- Top 2 change makers across India selected by The Indian Express. • Invited by IIT Madras for 'SHAASTRA 2020'

- Winner in FOF Hackathon 2020 by PCMC.

- Selected as top 25 startups in Pune by SPPU to present to Hon Minister Shri Piyush Goyal.

- Got Bihar state excise department Surveillance project

- Winner in FOF Hackathon 2020 by PCMC.

- Event: Int. Youth Day recognized as top 7 young change maker by United Nation India & UNICEF & Top 2 young change maker across India by the India Express, Date: Aug 2020

- Top 5 in one million second online Corona Hackathon 2020 conducted by Telangana information technology association (TITA).

- Invited by IIT Madras for 'SHAASTRA 2020'

Impact:

- For the past 9 months we have been providing surveillance services to the excise department of Bihar Government for the monitoring and prohibition of illegal liquor and narcotics activities.

- 3 drones and 7 Districts of Bihar are handled by Cerebrospark Innovations.

- We have supplied 6 drones to the army for the purpose of Surveillance, Explosive delivery and training operations.

- Supplied drone are of 80g, 2Kg and 25Kgs

- Internships: 50+

Drone Club Mentors: -

1. Dr. Mohit Dubey

2. Prashanr Jogalekar

3. Mr. Prasad Gore

ELESPA

About Club:

The ELESPA HEV Club is a community dedicated to transforming conventional scooters, mopeds, and bikes into Hybrid Electric Vehicles (HEVs). By embracing their innovative conversion kit, club members enjoy the benefits of electric and petrol modes, reducing reliance on petrol and minimizing environmental impact. With a focus on convenience, efficiency, and sustainability, the club promotes a greener future without the need for charging stations, thanks to portable and swappable battery technology. Join the ELESPA HEV Club and be part of the movement towards a cleaner and smarter approach to transportation.. For more details related to club please visit - https://elespahev.com

Coordinators of ELESPA:

Sr. No	Name	Role
1	Dr. Pradnya Kosbe	Faculty Coordinator
2	Prathamesh Choudhary.	Student Coordinator

Advisory board of club:

Sr. No	Name	Role/Position
1	Dr. R. D. Kanphade	Principal
2	Dr. Pradeep Patil	HoD
3	Prathamesh Choudhary.	Student Coordinator
4	Mr. Ganesh Thorat	Student Coordinator
5	Mr. Mihir Kedar	Student Coordinator
6	Mr. Rushikesh Sonawane	Student Coordinator

Internal and External mentors of the club:

Sr. No.	Name of Mentors	Internal/External Mentor	Position	Company/ Organization	Expert /Domain
1	Dr. R. D. Kanphade	Internal	Principal	JSCOE	IoT
2	Dr. Pradeep Patil	Internal	HoD	JSCOE	Industrial Automation
3	Dr. Mandar Joshi	External	CEO	BHAU Incubation Institute	EV
4	Dr. Kamal Vora	External	Ex. Director	ARAI	Hybrid Vehicle

Team Group Photo:

Objectives of ELESPA Innovations:

1. Promote sustainability through the adoption of Hybrid Electric Vehicles (HEVs).

2. Enhance transportation efficiency by enabling vehicles to operate in both electric and petrol modes.

3. Provide convenience through a portable and swappable battery system, eliminating the need for charging stations.

4. Offer a cost-effective alternative by converting existing vehicles into HEVs instead of purchasing new electric vehicles.

5. Foster innovation in the automotive sector by driving research and development.

6. Reduce reliance on fossil fuels and minimize environmental impact, including air and noise pollution.

7. Increase mileage and optimize energy usage for improved fuel efficiency.

8. Enable uninterrupted mobility with a backup petrol mode for emergency situations.

9. Promote a greener future without the need for extensive charging infrastructure.

10. Build a community of like-minded individuals through the ELESPA HEV Club, fostering knowledge sharing and support.

Activities Conducted by CSI 2023-23:

Team successfully completed many events in the tenure-

- Workshop at JSP, Date: march 2023

- THDC Workshop, Date: April 2023

- TSSM Workshop, Date: May 2023

- Workshops of drone technology: 12

- Workshop on entrepreneurship: 15

- Seminar on drones: <u>8</u>

- Seminar on idea to product development: <u>10</u>

Product development by club:

- Multipurpose Hybrid Electric Vehicle from ELESPA HEV

Achievements:

- Platinum Award Winner of KPIT SPARKLE 2022 (Prize : 10 Lakhs)

- 1st Runner Up of SIH 2022 (Prize : 75,000/-)

- Won VOIS National Project Competition (Prize : 2 Lakh)

- Winner at Asia's Largest Technical Festival Kshitij 2023

- B-Plan at IIT Kharagpur (Prize : 70,000/-)

Winner of DTE's Reginal Level Project Competition

Winner of TECHTATVA Business Competition

Winner of TECHATHON Project Competition

Winner of ABHIVARDHAN Business Competition

Excellent Project at TECHGLINT

- Already sold the basic HEV version to 16 customers.
- 100% work has been done successfully!

- Smart EV Winner
- Best Smart city solution
- Best Innovative Idea
- College level Shark Tank Winner
- Best Startup Idea MCED

Impacts:

1. Reduced carbon emissions and lower environmental impact.

2. Improved air quality in urban areas.

3. Quieter and more peaceful surroundings due to reduced noise pollution.

4. Cost savings through lower fuel consumption.

5. Enhanced energy efficiency and reduced energy waste.

6. Extended driving range with a portable and swappable battery system.

7. Uninterrupted mobility with a backup petrol mode for emergency situations.

8. Facilitation of wider adoption of electric mobility in the future.

9. Potential advancements in hybrid electric systems and battery technology.

10. Community engagement and collaboration through the ELESPA HEV Club.

Auto Club : Mentors Data

1. Mr. Mandar Joshi

2. Kamal Vora

Mr. KC Vora(Deputy Director , ARAI & Chairman SAE India)

JSPM's
Jayawantrao Sawant College of Engineering, Pune
Department of Electronics and Telecommunication
GOOGLE DEVELOPER STUDENT CLUB

Google Developer Student Clubs
JSPM's Jayawantrao Sawant College of Engineering

About Club:

Google Developer Student Clubs (GDSC) are community groups for college and university students interested in Google developer technologies. Students from all undergraduate or graduate programs with an interest in growing as a developer are welcome. By joining a DSC, students grow their knowledge in a peer-to-peer learning environment and build solutions for local businesses and their community.

GDSC provides you the platform where peers from all the departments of the university come together as a team. It is a program of university based community groups for students interested in building new team projects, honing their technical skills, improving their group communication and team coordination. Students are also provided with guidance of Google facilitators and Industry experts. GDSC club of JSPM'S Jayawantrao Sawant College of Engineering (JSCOE) Pune has organized different speaker sessions, workshop events and Hackathon on google technologies like flutter, google cloud, android etc. GDSC JSCOEC helps colleges to engage students in Co-Curricular activities, maintain a coding environment throughout the campus and college faculty get the opportunity to mentor students with out-of the box ideas. So, the primary aim of this club is to help every individual student learn programming together, among peers, in a fun and interactive setting.

For more details related to club please visit - https://linktr.ee/gdscjscoe

Coordinators of Google DSC:

Sr. No	Name	Role
1	Prof. D.G. Ingale	Faculty Coordinator
2	Jasmine Chourasia (Lead)	Student Coordinator

Advisory board of club:

Sr. No	Name	Role/Position
1	Dr. R. D. Kanphade	Principal
2	Dr. Pradeep Patil	HoD
3	Nikita Gandhi	GDSC National community manager
4	Jasmine Chourasia (Lead)	Student Coordinator

Internal and External mentors of the club:

Sr. No.	Name of Mentors	Internal/ External Mentor	Position	Company/Organization	Expert /Domain
1	Dr. R. D. Kanphade	Internal	Principal	JSCOE	IoT
2	Dr. C. A. Manjare	Internal	HoD	JSCOE	Speech processing, Signal processing
3	Shardul Inamdar	External	Associate	Software Engineer, Red Hat	Cloud
4	Vinayak Gavariya	External	Campus Ambassador	Coding Ninjas	Cloud

Team Group Photo:

Objectives of GDSC :

● Building a platform for developers to hone their skills. Creating a community which encourages the members to **learn new skills, build new technologies.**

● Coming up with solutions to real world problems and implementing them as a team.

● Encouraging budding developers for building open source projects.

● To build a thriving community of student developers who **build solutions to existing problems.**

● To help individual members realize their technical potential.

● To provide resources to learn on all latest technologies in the means of **workshops, sessions and competitions**.

Activities Conducted by GDSC 2023-23:

Team successfully completed 21 events in the tenure, on topics like -

1. Open Source Contribution

2. Android Development using Jetpack Compose

3. Web 3.0

4. Google Cloud

5. Cyber Security

6. Web Development

7. Solutions Challenge - International level Hackathon by Google 8. UI/UX Designing

9. How to become the next GDSC Lead

10. Flutter Development 11. Al/ML

Visit here for more details on speakers and attendees - https://gdsc.community.dev/jspms-jayawantrao-sawant-college-of-engineering-jscoe-pune/

Product development by club:

Cloud Project: Server Development, **AI/ML Project:** Flight price prediction and house price prediction, **Web Project:** HTML form using HTML and CSS, **Android Project:** Meditation App, Greeting card and Business card, etc.

Achievements: GSDC JSCOE successfully organized Online Hackathon from 20th March 2023 to 10th April 2023

Impact:

1. Successfully reached and influenced 2.5k students of our college within a year

2. Utilized various social media platforms for communication and engagement

3. Nishant Deshmukh from JSPM JSCOE won the second prize in an online Hackathon

Project-based placement: Urvesh Thakkar (Cloud DevSecOps) Informatica

Google DSC : Mentors Photos   **2. Vinayak Gavariya**

JSPM's
Jayawantrao Sawant College of Engineering, Pune
Department of Electronics and Telecommunication Engineering

Svanetr innovations Pvt. Ltd.

About Club:

The Svanetr Innovations Industry Culture Club is a dynamic and forward-thinking club established within the Electronics and Telecommunication (E&TC) Department. Our primary objective is to provide students with an immersive and hands-on experience in the world of industry, specifically focusing on the product development process of Svanetr Innovations' IoT-based sanitizer.

By joining the Industry Culture Club, students will have the opportunity to gain valuable technical and professional skills while working on a real-world product. Our club aims to bridge the gap between academia and industry by fostering a culture of innovation, collaboration, and entrepreneurship.

Coordinators of Svanetr:

Sr. No	Name	Role
1	Prof. N.S.Pingle	Faculty Coordinator
2	Jasmine Chourasia (Lead)	Student Coordinator

Advisory board of club:

Sr. No	Name	Role/Position
1	Dr. R. D. Kanphade	Principal
2	Dr. C. A. Manjare	HoD
3	Prof. N.S.Pingle	Faculty Coordinator

Internal and External mentors of the club:

Sr. No.	Name of Mentors	Internal/ External Mentor	Position	Company /Organization	Expert /Domain
1	Dr. R. D. Kanphade	Internal	Principal	JSCOE	IoT
2	Dr. C. A. Manjare	Internal	HoD	JSCOE	Speech processing, Signal processing
3	Prof. N.S.Pingle	Internal	Coordinator	JSCOE	ML,Image Processing
4	Mr. Rajeev Sanyal	External	Co-Founder	Svanetr Pvt.Ltd	AI,ML

Team Group Photo:

Objectives :

- To train Students in concern with the product of Svanetr Innovations

- To Develop Actual Product (IOT based Sanitizer) at E&TC Department.

- To Get Train Students in product development and its process

Product development by club:

IOT Based Hand-Sanitizer

Components Required For this Product

1. PCB- Controller,TSOP1738
2. IR Sensor –Tri-color Sensor
3. Transmitter & Receiver
4. Platinum Electrode
5. Power: 5V, 2A Micro USB Adaptor.
6. Wall Mounted Provision
7. Arduino Software(1.8.16)

Technical Session Regarding the Development of the product IOT based Mobioclean Hand Sanitizer under the Svanetrinnvations Pvt. Ltd. Mr. Rajeev Sanyal is Co-Founder of the Svanetr Innovation. IOT based hand sanitizer is natural Ingredient based alcohol free sanitizer generator with a touchless dispenser.

Sanitizing liquid is powerful this kills bad bacteria and it is skin friendly, this can used as a hand sanitizer., Veg / fruit wash and surface disinfectant.

It is powerful and skin friendly that smaller concentrations are used for eye wash and also introduced what we use ingredients to make sanitizing liquid. We require Water, Non-Iodized Salt, and Venerer. This IOT based product which converts the plain salt water to a powerful sanitizer and Relay – For Switching Purpose and Pump on off to start or stop the electrolysis Electrolysis process is done inside the platinum Electrolysis converts the plain salt water to a powerful sanitizer. For the touchless dispenser we use the IR sensor

IOT based Mobioclean Hand Sanitizer

Benefits of IOT Based Hand sanitizer:

1. **Negligible Cost:**

   IOT based self-made sanitizer costs nothing when compared to available sanitizers

2. **No Plastic Waste:**

   With self-made pure sanitizer, no need to buy plastic-bottled stuff. Avoid plastic.

3. **Untouched purity:**

Self made under own supervision. No chance for adulteration.

4. **Non-Toxic:**

   Made of Natural ingredient based alcohol free sanitizer.

5. **Multiple Uses**:

   Disinfect Fruits & Vegetables, Sanitize objects and surfaces.

Svanetr team had explored students about this product. They had given training about how to disassemble all hardware components, check them, how to build circuit, make some improvements in product range and at the end assemble it into product again.

Students are learning innovative techniques, components connections and testing, TSOP microcontroller and its programming, IR transmitters and receivers etc.

Through rigorous trainings, skilled and industry ready students will be developed.

Impact:

1. Enhanced Technical Skills: Students will develop proficiency in working with hardware components such as PCB, IR sensors, transmitters, and receivers. They will gain hands-on experience in circuit design, assembly, and troubleshooting.

2. Practical Understanding of Product Development: Students will acquire practical knowledge of the product development process, including disassembling and assembling hardware components, conducting checks, and making improvements to the product. They will gain insights into quality control and the importance of reliability and safety in the manufacturing process.

3. Familiarity with IoT-based Solutions: Students will gain exposure to IoT technology and its applications in the development of the Mobioclean Hand Sanitizer. They will learn about integrating and calibrating IR sensors for touchless dispensing, and gain an understanding of the benefits and challenges associated with IoT-based products.

4. Entrepreneurial Mindset: Through training and exposure to the industry culture, students will develop an entrepreneurial mindset. They will learn to think innovatively, identify opportunities, and consider market viability in their product development endeavors.

5. Industry Readiness: The training and practical experience gained through the Industry Culture Club will equip students with the skills and knowledge necessary to enter the industry with confidence. They will be well-prepared to take on roles related to electronics and telecommunication, product development, and IoT-based solutions.