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## "TECHNO-SPARK"

# By

# 'CIVIL ENGINEERING DEPARTMENT'

Newsletter Date: 22<sup>nd</sup> May 2025 (Vol. XVIII)

Chief Editor: Prof. T.D.Sayyad (H.O.D. Civil Department) Editor: Prof. N. R. More (Lecturer)

Student Editor: Mr. Karan Jagtap

#### FOUNDER SECRETARY'S MESSAGE

JSPM's Jayawantrao Sawant Polytechnic was established in 2006 with the objective of creating centre of excellence for education in the field of Engineering. The main objective behind starting the institute was to make technical education available to all who are desirous of achieving it. I also visualized that a social transformation can be brought through the medium of dynamic education, Jayawantrao Sawant Polytechnic is, thus, an institution of technical education with social commitment. With India and 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. 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. To achieve this we have handpicked the best



Prof. Dr. T. J. Sawant Founder Secretary

faculty from diverse fields and expertise. We have invested in state of the art facilities, infrastructure and skilled

human resources to supplement the culture and environment of the institute's good governance. Moreover, it is our pledge to change in tandem with the changing requirements of the industry and mould, develop and nurture talent that will make the nation proud.

Prof. Dr. T. J. Sawant, Founder Secretary, JSPM



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**Principal Message** 



Dr. S. M. Deokar Principal

It is observed that, the students those who are taking admission in the college are especially from rural areas. It is our duty to provide them skills and knowledge to empower and enhance them to meet their goals and achieve grant success in their career.

So, we have already started such efforts in this direction. I confidently welcome the student and promise them that their future shall be bright, if they are ready to take challenges to become successful professionals, giant leaders, entrepreneurs.

Our team is ready to enhance their qualities which are required to be the best Indian professionals and also encourage them to face rigors in the corporate sector. I always motivate the students by saying, "Try to climb high, wings are waiting for you". Jayawantrao Sawant Polytechnic provides a student-centred learning environment with close student-faculty interaction and constant participation of the industry. The emphasis is purposive curriculum, tailored to the needs of the industry and practical training to enable the young graduate easily cope up with the Challenges as they get into industries through periodic seminars, symposia, workshops, industrial visits and internship as an integral part of the courses, So, gear up for the hard work and I am sure you will enjoy your learning years.

With a lots of Best Wishes...!

DR. S. M. DEOKAR Principal



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**HOD's Desk** 



Prof. T.D.Sayyad HOD

Department offers Diploma in Civil Engineering with 180 intake capacity. Along with fully equipped Workshop facilities, the department has well equipped Laboratories. The department consists of highly qualified, well experienced and dedicated faculties. Department regularly arranges Expert Lectures and Industrial visits along with workshop and seminars for the development of the students in various field. The department encourages and supports students in extra and co-curricular activities like sports and cultural programmes. We are also focused for the campus placements for our students.

Prof. T.D.Sayyad (H.O.D. Civil Department)



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#### VISION STATEMENT

"To establish learning environment to reinforce civil engineer who shall maintain professional integrity to serve society with knowledge and skill acquired".

#### **MISSION STATEMENT**

- M1.To impart sound theoretical and practical knowledge in the discipline of Civil Engineering, through effective teaching and learning process.
- M2. To produce industry and society oriented skillful engineers through co-curricular activities.
- M3. To inculcate the moral values amongst student through extra-curricular activities.

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1.Achievements

## i. Staff Achievements

➤ Our department Staff Achievements details of 2024-2025:

Sr. No.	Name of Staff	Type of Activity And details / Name of Publication	Organizing Body or Institute / Publisher
1	Mr. Mali Ankita Ashok	Design of connection in Steel Structure	NPTEL-AICTE Faculty Development Programme
2	Priti Eknath Sangode	Basic Environmental Engineering and Pollution Abatement	SWAYAM NPTEL Faculty Development Programme
3	Ms. chitrangini chandrkant chavan	Sustainable Developments through Renewable Energy, SDGS and Smart Cities	AICTE Training and Learning (ATAL) Academy
4	Mr. Suhas Santosh Shelar, Lecturer	Sustainable Developments through Renewable Energy, SDGS and Smart Cities	AICTE Training and Learning (ATAL) Academy
5	Mrs. Amruta Nachiket Kulkarni	Recent Trends In Civil Engineering	Marathwada Institute of Technology polytechnic, Chhatrapati Sambhaji nagar

# ii. Toppers In MSBTE Exam

➤ The principal and the Head of the Departments congratulated all the Toppers of the MSBTE's Winter-2024 examination in the Department. The Class wise toppers are as under:

#### > FIRST YEAR TOPPERS:

Sr. No.	Student Name	Class	Percentage
01	Krishna Dinesh Jangid	FYCE	92.24%
02	Sanskruti Ravindra Modak	FYCE	88.24%
03	Bhavya Prem Makhija	FYCE	87.88%

#### > SECOND YEAR TOPPERS:

Sr. No.	Student Name	Class	Percentage
01	Renake Vivek Arun	SYCE	94.71%
02	Pawar Sayali Sharad	SYCE	89.65%
03	Ukani Meet Nilesh	SYCE	89.29%



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#### > THIRD YEAR TOPPERS:

Sr. No.	Student Name	Class	Percentage
01	Kalbhor Chaitanya Anil	TYCE	96.30%
02	Kande Pratiksha Santosh	TYCE	95.40%
03	Kunjir Manswi Ramdas	TYCE	91.40%

# iii. Students Achievements in Technical Competitions

Our Third year civil engineering students have won the second prize in Technical Event at Pimpri Chinchwad Polytechnic college, pune on 28<sup>th</sup> February 2025. The activity name is "**Plane Table Survey**" Under the guidance of Ms. Mali A. A. The following are winning Students i) Chaitanya Kalbhor ii) Akash Ghorpade.





➤ Our Third year civil engineering students have won the First prize (15K) in project competition organized by G H Raisoni International Skill Tech University, Pune on 3<sup>rd</sup> April 2025. The Project name is "Intelligent traffic management and wireless charging speed bumps for electric vehicles" Under the guidance of Mr. M. D. Thorat The following are winning Students i) Pratiksha Kande ii) Arti Sarkate iii) Rajnandini Khune.



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➤ Our Third year civil engineering students have won the First prize (5K Cash) in project competition organized by Ajeenkya D Y Patil College of Engineering, Pune. on 21<sup>st</sup> March 2025. The Project name is "Intelligent traffic management and wireless charging speed bumps for electric vehicles" Under the guidance of Mr. M. D. Thorat The following are winning Students i) Pratiksha Kande ii) Arti Sarkate iii) Rajnandini Khune.



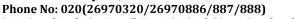


Our Third year civil engineering students have won the Second prize (1.5K cash) in project competition organized by Anantrao Pawar College of Engineering, Pune on 27<sup>th</sup> March 2025. The Project name is "Water Transfer And Insulation Dynamic Of Green Roofs With Coarse Recycled Materials" Under the guidance of Mr. J. S. Shendage. The following are winning Students i) Palak Chaoudhary ii) Prajkta Salunkhe iii) Mayuri Lokhande iv) Tejashree Maher v)Vaishanvi Vidhate.



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Our Third year civil engineering students have won the First prize (2K Cash) in project competition organized by Yashwantrao Bhonsale Institute Of Technology, Sindhudurg on 29<sup>th</sup> March 2025. The Project name is "Intelligent traffic management and wireless charging speed bumps for electric vehicles" Under the guidance of Mr. M. D. Thorat The following are winning Students i) Pratiksha Kande ii) Arti Sarkate iii) Rajnandini Khune.





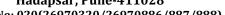
#### 2. Third Year Students – Project List

Our department TYCE student projects details of 2024-2025:

JSPM'S
JAYAWATRAO SAWANT POLYTECHNIC, HADAPSAR, PUNE
DEPARTMENT OF CIVIL ENGINEERING
FINAL PROJECT EVALUATION SHEET
TYCE A.Y.2024-25



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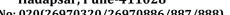




Group No	Roll No	Name Of Students	Project Title	
	10	KADAM PRATHAMESH SANTOSH		
	13	GUDDE VISHAL GURUNATH	ROAD PAVEMENT BY USING	
25CE101	14	HANDE SUJAL PRAVIN	PLASTIC WASTE	
	16	JAGTAP KARAN RAJU	1 21 20 110 111 212	
	20	EKBOTE NAHOOSH SHAILESH		
	8	CHAVAN ADITYA SUNIL		
	12	RATHOD JAIPAL VISHWANATH		
25CE102	15	PURAM ADITYA GANESH	STORM WATER MANAGEMENT	
	17	JADHAV PARTH SANJAY		
	18	SHAIKH ZAHUR IMRAN		
	1	KAMTHE KRUSHNAI NITIN		
	3	WAGHMARE SWAYAM RAMDAS		
25CE103	9	AMBEKAR UJWAL SANJAY	SLOW SAND FILTER	
	11	GAWAI NISHANT CHANDRASHEKHAR		
	19	KURHADE SHUBHAM ANKUSH		
	44	KANDE PRATIKSHA SANTOSH		
	52	SARKATE ARTI VITTHAL	NON -GEN	
	58	KHUNE RAJNANDINI VIKAS	ROADWAYS:INTELLIGENT	
25CE104			TRAFFIC MANAGEMENT AND	
			WIRELESS CHARGING SPEED BUMPS FOR ELECTRIC	
			VEHICLES	
	47	DONGARE RUTUJA BABASAHEB		
	53	OVHAL PAYAL VIJAY		
25CE105	56	DONGARE PRADNYA SUNIL	SOLAR ELECTRIC VEHICLES	
2502105			CHARGING STATION	
	42	KALBHOR CHAITANYA ANIL		
	50	GUNDGIRE SAKSHAM DADASAHEB		
	51	GHORPADE AKASH VIJAY		
25CE106	57	PAWAR CHANDRAMOHAN	SELF HEALING CONCRETE	
	60	RAMESH KHARAT SIDDHARATH SANTOSH	SELI TILALING CONCRETE	
	60			
	43	PINGLE PRUTHVI SUNIL		
	45	SRUSHTI AKKALKOTE KANGUDE DNYANESHWARI K.		
25 CE 105			DI ACTIC DOAD	
25CE107	46	RASERAO AAKANSHA LAXMAN	PLASTIC ROAD.	
	48 54	GAIKWAD VAIBHAVI ASHOK MANER ADITI SUNIL	1	
	49	KAPSE VEDIKA NILESH		
	55	CHORADE SAMRUDDHI KRUSHANAT	ACCIDENT PREVENTION ROAL	
25CE108	50		SAFETY IN HILLY AREA	
	59	BANSODE PRIYANKA DEVIDAS		
	61	SHIRHATTI SHAIKH AAYESHA		



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	69	CHOUDHARY PALAK		
	70	MANOJKUMAR	WATER TRANSFER AND	
	72	SALUNKHE PRAJAKTA RAMESH	INSULATION DYNAMIC OF	
25CE109	63	LOKHANDE MAYURI VITTHAL	GREEN ROOFS WITH COARSE	
	64	MAHER TEJASHREE LAKAPPA	RECYCLED MATERIALS	
	66	VIDHATE VAISHNAVI PANDIT		
	67	GAIKWAD DEEPALI SHIVAJI		
3505440		KUMAVAT KUNDAN SUNIL	COMPARATIVE ANALYSIS OF	
25CE110	23	NALE YASH BABAN MAHESH CHOUDHARY	BRACING SYSTEM USING	
			STAAD PRO	
	26	GALANDE KIRAN KERBA		
	27	HARANE SAHIL BABU		
	30	BHANDWALKAR SOHAM GAJANAN		
25CE111	33	KOKARE YASH VIJAY	THE CONCEPT OF ZERO	
	36	JADHAV SAURABH AJINATH	<b>ENERGY BUILDINGS</b>	
	39	Athrva KhDSARE		
	40	JAWALKAR SAURABH KRUSHNA		
	41	SAWANT SAURABH VILAS		
	21	GAIKWAD ROHIT ANKUSH MOHAMMAD ZAID MULANI		
	24		DIJOTOCATAI VTIC CONCRETE	
25CE112	29		PHOTOCATALYTIC CONCRETE	
	31	MULE ROHIT RAJENDRA	FOR AIR PURIFICATION	
	34	JAMADAR MEGHARAJ DHARMARAJ		
	35	MOTE SAHIL APPASAHEB		
	28	WAGHMARE SHREYA SANTOSH	SUSTAINABLE UTILIZATION	
2505442		WAGHMARE BHUMIKA	OF DEMOLISHED CONCRETE	
25CE113	32	BALASAHEB	AND GGBS PREPARE	
	37	SALVE KOMAL SANJAY	CONCRETE BLOC	
	38	KUNJIR MANSWI RAMDAS		
	68	ATOLE RUTURAJ HAUSHIRAM		
	70	SIDDHIQUE MOHAMMAD SARIM		
25CE114	74	SHENDAGE PRATIK NANASAHEB	PLASTIC BRICKS	
	76	SONWANE AJINKYA GAJANAN		
	77	JADHAV OM VIJAY		
	78	KHAN YASIR ILIYAS		
	65	NIRANJAN ANIL GHULE		
25CE115	71	GAIKWAD ADITYA SUBHASH	LIGHT TRANSMITTING	
	73	HANDE ADITYA SACHIN	CONCRETE	
	75	KALE OM NANDKUMAR		
	4	RATHOD RITESH VILAS		
3505446	5	MULANI SUFIYAN SAMEER	DETDOERTING	
25CE116	6	KSHATRI ROHIT RAMESH	RETROFITTING	
	7	SAW CHANDAN MANOJ		
	79	SAPKAL GAURAV SADANAND		



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#### 3. Co – Curriculum Activities

#### i. Industrial Visits

➤ Department of Civill Engineering had arranged Site Visit For SYCE students on 23/01/2025 at Lashkar Water Treatment Plant .This Site Visit is conducted under the subject of WWE to understand Water Treatment Processes. From this session Students able to understand actual on site working of Sedimentation, Chlorination, Clarriflocculatior, filtration, Backwashing process. Intake screening details, Students able to understand 100 mld water treatment plant and there working. water treatment plant and there working.





➤ On 3rd April 2025 Industrial Visit, Coordinator and concerned teachers visited the 48, Central Park G+|7 Buinding, Hadapsar, Pune. Before that, all precautionary instructions were given to the students. The basis of the plan. all the students gather in the classroom around 8.30 and we reach the site in about an hour. After reaching the site, the students were given a brief introduction about Construction of Raft Foundation, Slab, Beamn, Column & Footing Reinforcement.



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➤ On 2nd April 2025 Industrial Visit, Coordinator and concerned teachers visited the MSW Transfer Station, Katraj, Pune. Before that, all precautionary instructions were given to the students. The basis of the plan, all the students gather in the classroom around 8.30 and we reach the site in about an hour. After reaching the site, the students were given a brief introduction about Municipal waste collection, segregation, recovery and disposal of city waste. Mr. Rajiv Thakare gave valuable information about the solid waste management process of Pune city. Also he has given information about biogas plant and its working. Also he has given details about disposal of solid waste after utilisation as manure. The object of this visit is to understand Solid waste management process of Pune Municipal Corporation.







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#### ii. Expert / Guest Lectures

➤ Department of Civil Engineering was organized Guest lecture on "Exploring opportunities for civil Engineer in Architectural and Interior Design." Under subject 'Emerging tread in Civil Engineering. For TY students on 27/04/2025 at Class 406 Polytechnic B building Prof. Saachi Jain. She is working as Head of Architectural Department, Vishwakarma University pune. She gave information about The fields of architectural and interior design has evolved significantly, with growing opportunities for innovation. sustainability, and aesthetic appeal.





➤ Department of Civil Engineering had arranged Expert Lecture For SYCE students on 24/01/2025 at Seminar Hall. This Expert Lecture is conducted under the subject of ECV to understand different types of Software used in BIM Industry.From this session Students able to understand uses of Different Software for multidisciplinary Projects.







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#### iii. Parent – Teacher Meet

➤ Department of Civil Engineering has arranged **Parents Meeting** for All FYCE, SYCE & TYCE on 22-02-2025 The speaker was Mr. A. B. Jadhav, Academic Co-ordinator of Civil Department. The speaker was introduced by Mr. A. B. Phule. The speaker guided the students as well as Parents about current academic schedule of department and departmental activities etc. Further the class teachers informed them about result of SWT, attendance and academic Performance of their child. The entire session came to end by the vote of thanks delivered by Mr. A.B. Phule.





#### 4. Extra – Curriculum Activities

#### i. Shivjayanti Celebration

➤ Department of Civil Engineering celebrated shivjayanti on 19 February 2025 from 10.00 am to 12.00 pm.







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### ii. Celebration of International Women's Day

➤ Department of Civil Engineering and CESA committee conducted a programme on "International Women's Day" for First, Second and Third year student on 08/03/2025 from 2.00 pm to 4.30 pm.





### iii. World Water Day Celebration

➤ On the occasion of World Water Day 2025, We Department of Civil Engineering Celebrated this day by taking Oath of Water Protection & Conservation The students were given knowledge about Wate Scarcity and need of Water Conservation by Head of Civil Department Mrs. Sayyad T. D. We are Thankful to Dr.M.S.Kalbande sir-(Vice Principal), Dr. S. M. Deokar Sir, (Principal), JSPM's JS Poly and Dr. V. A. Bugade sir - Director for their Motivation and Guidance.







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#### iv. Poster paper Competition

The Poster Presentation Competition was organized by Civil Engg. Department & AO Department. The objective of this event is to encourage individuals to creatively communicate their research, ideas, or knowledge on a specific topic through a visually appealing poster format. Total 290 students from different degree and polytechnic colleges had participated for this event. This event was conducted under the guidance of Principal Dr. S. M. Deokar, Vice-Principal Dr. M. S. Kalbande, HOD Civil Engineering Department Mrs. T. D. Sayyad & HOD AO Department Dr. Vinodkumar Chadankar with the help of Event Coordinator Mr. R. S. Arghode.





#### v. Farewell - Third Year

➤ Department of Civil Engineering and CESA committee organize "Farewell Party" for Third year students on 29/04/2025 from 12.00 pm to 4.00 pm. In this Programme students express their views about 3 year's college journey, share their experience & thoughts to FY and SY students. Those who have something extra talent such as singing, dancing and one act play are performed by students. Some fun games and activities are arranged by CESA Committee to TYCE Students. The entire session came to end by the vote of thanks delivered by Mr. A. B. Phule.







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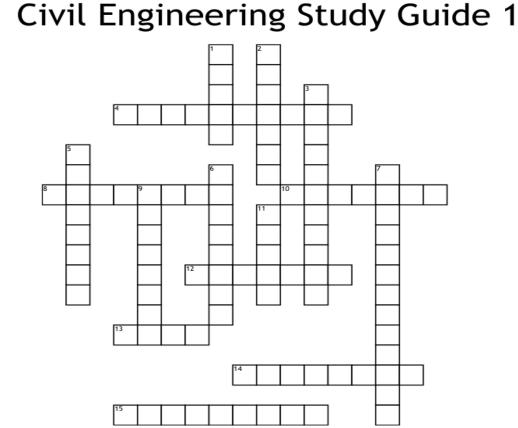
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#### 5. Students Articles

#### i. Technical cross word



#### Across

- 4. Which type of bridge can span the longest distances?
- **8.** An arch bridge's shape is held together with a
- **10.** A force that is a mixture of tension and compression
- **12.** An action that twists a material
- **13.** Which bridge is the most susceptible to the bending force?
- **14.** The weight of items on a structure
- **15.** To strengthen an arch bridge, what is used?

#### Down

- 1. Cable bridges are made mostly of what material?
- 2. A force that stretches material apart
- **3.** A force that squeezes a material
- **5.** A force that makes materials slide past one another
- **6.** The weight of the structure itself
- 7. To strengthen a rectangle, what is used?
- **9.** The strongest and most rigid shape
- **11.** Which bridge uses a triangular design to improve strength?

Krishna Jangid (FYCE)



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### ii. Sustainable Innovations in Civil Engineering: Building a Greener Future

Civil engineering plays a vital role in shaping modern infrastructure while ensuring environmental protection. Today's engineers focus on **sustainable construction**, using eco-friendly materials like **green concrete**, and promoting techniques such as **rainwater harvesting** and **solar-powered systems** to reduce the carbon footprint of cities. Emerging technologies like **Building Information Modeling (BIM)**, **3D printing**, and **smart sensors** are transforming the way projects are designed and maintained, making them more efficient and cost-effective.

Diploma students can contribute to sustainability by engaging in **mini-projects**, **industrial visits**, and **poster presentations** that explore green building practices and waste management methods. As future civil engineers, we must remember that our designs shape the world. By adopting sustainable and innovative approaches, we can build a greener, smarter, and more resilient future.

Gauri Bagal (SYCE)

#### iii. Use of Recycled Materials in Road Construction

Road construction is one of the largest infrastructure activities that consume vast natural resources. With increasing environmental awareness, civil engineers are now focusing on **sustainable and eco-friendly methods** to reduce waste and conserve natural materials. One effective approach is the **use of recycled materials** in road construction. Materials such as **waste plastic, demolished concrete, fly ash, and rubber from old tyres** are now being reused to create strong and durable pavements. Among these, **plastic waste roads** have become especially popular in India due to their improved strength, resistance to water damage, and longer lifespan.

Using recycled materials not only **reduces environmental pollution** but also **lowers construction costs** and helps manage solid waste efficiently. Such innovative practices reflect the growing responsibility of civil engineers towards sustainable development. As students of civil engineering, it is our duty to explore and promote such green technologies that build better roads — and a better future.

Pawar Sayali Sharad (FYCE)

#### **6. Upcoming Events**

- The new academic year 2025-2026 will be start from 02<sup>nd</sup> July 2025.
- > In the month of November the MSBTE's Winter-2025 examination will start.