

Dr. Hansa Jeswani <a href="mailto:hansajeswani@spce.ac.in">hansajeswani@spce.ac.in</a>

#### Regarding final project presentation for best thesis

**Head Civil Engineering Department** <a href="https://docs.nc.in">https://docs.nc.in</a> To: civilenggfaculty@spce.ac.in, HARSH SRIVASTAVA <c2110019@spce.ac.in>

Wed, Apr 23, 2025 at 10:53 AM

#### Dear all

As was discussed in the CED meeting regarding the best thesis award to be given in each dept. We plan to do it for CED too. For this purpose the final project book should be ready by 28-29th May 2025 (as their exam gets over on 22nd) and presentation will be carried out on 2nd June 2025 for all groups from 10 am to 5 pm. 2-3 externals will be called for the same.(depending on groups we made i.e 1. structures, 2. sustainability and env, 3. transportation, CM and water resource

I plan to call alumni and industrial personnels as we are all academicians here.

Those who don't want their groups to participate can opt out and do the presentations at the group level. Please see to it that the S grade should be given to individuals who have presented their work or have made a draft copy of paper and submitted it to their guides.

I am marking a copy to Mr Harsh too who is class CR Dr. Hansa Jeswani Head Civil Engineering Department

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## Bharatiya Vidya Bhavan's SARDAR PATEL COLLEGE OF I





(Government Aided Autonomous Institute) Munshi Nagar, Andheri (W) Mumbai – 400058

26<sup>th</sup> May 2025

To

Mr. Vivek Mewada

Deputy General Manager

Welspun Group

Alumnus, Civil Department

Subject: Invitation as judge for final year B. Tech. Projects

Dear Sir,

On behalf of the Civil Engineering Department of Sardar Patel College of Engineering, we would like to invite you as judge for evaluating final year B. Tech. Projects. This is the first year when the department has decided to award "Best Thesis" to undergraduate project. Your insights and comments will be valuable to the students.

Date: Monday, 2<sup>nd</sup> June 2025

Time: 10 am to 5 pm

The tentative schedule is attached for your reference

Looking forward to meeting with you

Regards,

Dr. Hansa Jeswani

HoD, Civil Department

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#### Bharatiya Vidya Bhavan's

### SARDAR PATEL COLLEGE OF ENGINEERING



(Government Aided Autonomous Institute) Munshi Nagar, Andheri (W) Mumbai – 400058

26<sup>th</sup> May 2025

To

Mr. Ishan Kulkarni

Partner,

Kulkarni Gerneral Contractos, LLP

Alumnus, Civil Department

Subject: Invitation as judge for final year B. Tech. Projects

Dear Sir,

On behalf of the Civil Engineering Department of Sardar Patel College of Engineering, we would like to invite you as judge for evaluating final year B. Tech. Projects based on their report and presentation. This is the first year when the department has decided to award "Best Thesis" to undergraduate project. Your insights and comments will be valuable to the students.

Date: Monday, 2<sup>nd</sup> June 2025

Time: 10 am to 5 pm

The tentative schedule is attached for your reference

Looking forward to meeting with you

Regards,

Dr. Hansa Jeswani

HoD, Civil Department

B.Tech Project Presentations 2024-25 : Requisite Details						
Group No.	Name of Representative (with Reg. No.)	Project Guide	Project Title ( Tentative )	Committee / Panel No.	Contact of Representative	Date & Time for Presentation
1.)	Harsh Srivastava	Dr. P.G.Gaikwad	Assessment of Safety Practices in Construction Projects across the Mumbai Metropolitan Region.	2	9370026628	Monday, 2nd June 2025 - 12:00 p
	(C2110019)			-		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
2.)	Gavatri Rathod	Dr. Hansa Jeswani	Carbon Dioxide (CO2) Sequestration Using Algae.	3	9892289489	Monday, 2nd June 2025 - 03:00 p
/	(C2110044)		caron manue (coor) ordered and manual court		,	,,,
3.)	Shubham Thakare	Dr. P.P. Nagrale	Modelling of Flexible Pavements using HTPAVE Software and it's Economic Analysis.	2	8329876184	Monday, 2nd June 2025 - 11:00 a
	(C2220015)	Dr. F.F. Nagrate	Moderning of Frexione Pavements using 111 PAVE. Software and it's Economic Amarysis.	*	6327670184	Monday, 2nd June 2023 - 11:00 at
4.) 5.) 6.)	Yutika Kadoo	Dr. T. Bandiyadekar	Renairs and Restoration in Civil Engineering Works.	1	8983521103	Monday, 2nd June 2025 - 04:00 p
	(C2110024)	Di. I. Dandivatekai	repairs and restoration in Civil cagnitering Profess.	•	0,003,21105	(To be Confirmed)
	Saishwari Dhotre	Dr. A. R. Kambekar	Impact Analysis of Ground Water due to Existing Water Management Practices.	2	9021671668	Monday, 2nd June 2025 - 3:30 pr
	(C2220006)	Di. A. R. Ramockai	impact Anniyate of Ground Water due to Existing Water Management Fractice.	-	7021071000	(To be Confirmed)
	Shweta Godbole	Dr. Kshitija Nadgouda	Cost Over-Runs in Sub-Structure Construction.	2	9321013639	Monday, 2nd June 2025 - 10:30 as
	(C2010064)				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,
7.)	Saif Shaikh	Prof. Snehiit Kumbhar	Pollution Control Assessment of Large-Scale Industry.	3	9773187792	Monday, 2nd June 2025 - 02:00 p
	(C2220014)					
8.)	Sagar Ghule	Dr. Reshma Raskar Phule	Proposed Improvement in the existing Storm Water Drainage (critical spots identification and solution	3	9987330825	Monday, 2nd June 2025 - 02:30 p
	(C2110017)		for effective drainage) for Bhartiya Vidya Bhavan's educational campus, Andheri West, Mumbai.			
9.)	Urvashi Seth	Dr. A.A. Bage	Optimisation of Design of Shore Piles for Different Levels of Basements	1	9657731155	Monday, 2nd June 2025 - 10:00 a
	(C2220016)					
10.)	Vaishnavi Shelar	Prof. Shweta Patil	Thermal Insulation in Green Buildings.	2	8767001642	Monday, 2nd June 2025 - 11:30 a
	(C2010062)					
11.)	Parth Birajdar	Prof. Ankit Asher	Design and Implementation of Retrofitting Techniques of Frame Elements under Increased	1	9130399989	Monday, 2nd June 2025 - 4:30 pr
	(C2220003)		Design Loads.			(To be Confirmed)
12.)	Asmita Bharitkar	Dr. A.N. Ghadge	Evaluating the Performance of MDC using different Ion Exchange Membrane.	3	7498728350	Monday, 2nd June 2025 - 12:30 p
	(C2220002)					

#### **Report on Final Project Submission and Presentation**

#### **Project Submission Deadline**

The final project book was completed and submitted by 28–29 May 2025. This timeline was decided considering that the final examinations concluded on 22 May 2025, which provided students adequate time for compilation and finalisation.

#### **Presentation Schedule**

The project presentations were conducted on 2 June 2025, from 10:00 a.m. to 5:00 p.m. All groups presented on this day in the presence of external evaluators.

#### **External Evaluators**

A panel of 2–3 external experts was invited, depending on the number of project groups.

- External evaluators were **alumni and industry professionals**, as the faculty members were primarily from academia.
- The alumni who attended were:
  - 1. Mr. Vivek Mewada, AVP, Sustainability, Wellspun, 2009 batch
  - 2. Mr. Ishan Kulkarni, Project Engineer, Thorntan Tomsetti, 2018 batch

#### **Group Categorisation**

Projects were presented under the following thematic categories:

- 1. Structures
- 2. Sustainability and Environmental Engineering
- 3. Transportation, Construction Management, and Water Resources

#### **Participation and Alternative Options**

Groups that did not wish to participate in the main presentation opted out and conducted presentations at the departmental/group level.

#### **Evaluation and Grading**

- The **S Grade** was awarded **only** to individuals who:
  - o Actively presented their work during the scheduled presentation, or
  - Prepared and submitted a draft copy of a research paper to their respective guides.

There were three groups who were neck to neck however one group CO<sub>2</sub> sequestration using algae won the challenge for the year 2025-26

Given the current climate crisis, using algae to absorb CO2 and convert it into O2 is more relevant than ever. Hence, my BTech project group (2024-25) comprising all girls, namely **Gayatri Sawant**, **Gayatri Rathod**, **Sejal Khade**, **Pooja Kangane** and **Sanika Bidkar**, started working on microalgae by choosing the algae from the native environment of Sardar Patel College of Engineering (SPCE), Mumbai, which they found out to be Oscillatoria and

Scytonema. However, the literature concluded that Chlorella and Scenedesmus work better in CO2 sequestration, and hence, they procured both species from the NCIM (National Collection of Industrial Micro-organisms), Pune. When growth curves were observed, it was seen that Chlorella dominated and showed the end of log phase the earliest; moreover, it was observed that Chlorella contaminated other species too.

A photobioreactor (CO2 filter) using Chlorella was conceptualised by them for school kids. It is observed that students (schoolkids) may experience difficulty concentrating, fatigue, and even health issues like headaches and dizziness due to the presence of CO2 or a lack of ventilation. The technical details will follow after a full-fledged research. Moreover, the basic electricity requirement of pumping in dirty air can be overcome by using a photovoltaic cell, which will convert it into truely to photobioreactor. This is just the start of the PHOTOBIOREACTOR revolution.

