

REPORT

Hands-on training Programme on Zeiss Sigma 360 FE-SEM

Title of the event	Hands-on training programme on Zeiss Sigma 360 FE-SEM
Date and time	05/08/2025- 07/08/2025
Mode	Offline
Department/School/Directorate/ Section	School of Chemical Sciences
Participants (Total)	14
Participants (Goa University)	Faculty:05 Students: 09
Participants (External)	-
Resource Person/s	Mr Suruj Neog; Mr. Amit Kumar; and Mr. Tejas Sahu
Faculty attended	05
Students attended	09
The objectives / description of the activity (50 words)	<p>The School of Chemical Sciences, Goa University, in association with SPAS organized a three-day hands-on training programme on Field Emission Scanning Electron Microscopy (FE-SEM) from 05th to 07th August 2025 under the ZEISS On Your Campus (ZOYC) initiative. The programme focused on the operational and analytical capabilities of the ZEISS SIGMA 360 installed at the MCL laboratories. The sessions were conducted by experts from ZEISS Research Microscopy Solutions, including Mr. Suruj Neog, Mr. Amit Kumar, and Mr. Tejas Sahu. The programme included: Technology talks on the fundamentals of FE-SEM and instrument configuration. Demonstration of imaging using standard samples. Extensive hands-on training on instrument operation, vacuum system management, beam alignment, detector usage, and imaging parameter optimization. A special session on correlative workflow in microscopy. Interactive Q&A sessions. Main Objective was</p> <ul style="list-style-type: none">✓ To provide theoretical and practical exposure to FE-SEM technology.✓ To train participants in independent operation of ZEISS SIGMA 360.✓ To enhance research capabilities in advanced materials characterization.✓ To introduce correlative microscopy workflow concepts.
Copy of Flyer of the event uploaded on the Goa University Website	Attached
Benefit/Key outcome of the event in terms of learning/skills/knowledge	Participants gained practical expertise in operating FE-SEM independently. Improved understanding of imaging optimization and detector selection. Enhanced research quality in materials science, polymeric materials, nanotechnology, and environmental studies. Strengthened industry-academia collaboration. The programme significantly enhanced the effective utilization of the SEM facility and contributed to capacity building within the department.


Dr. Diptesh G. Naik
Coordinator, SCS


04/03/2026
Prof. V. M. S. Verenkar
Dean, SCS



**School of Chemical Sciences in Association with SPAS
Goa University**

Organizes

**“Hands-on Training Programme on
Field Emission Scanning Electron Microscopy (FE-SEM)”**

By

Mr. Suruj Neog, Mr. Amit Kumar and Mr. Tejas Sahu
Experts from ZEISS Research Laboratories



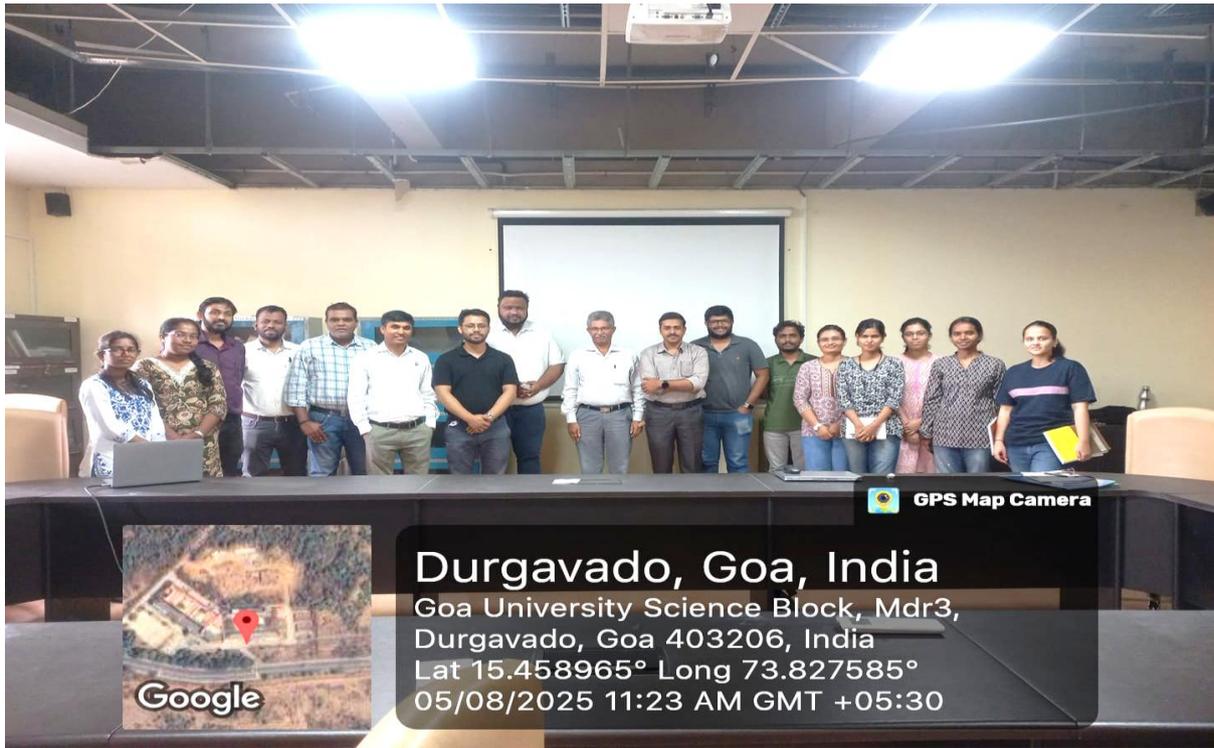
05 – 07 August 2025 at 10.00 am onwards
FE-SEM Facility, School of Chemical Sciences

Dr. Diptesh G. Naik
(Coordinator)

Prof. V. M. S. Verenkar
Dean, SCS

Program schedule

Date	Time	Event details	Person responsible
05/08/2025 (Tuesday)	09:30 AM – 10:30 AM	Technology talk and basics on Field Emission Scanning Electron Microscopy – SIGMA 360	Mr. Suruj Neog
	10:30 AM – 10:45 AM	Break	
	10:45 AM – 01:00 PM	ZEISS SIGMA 360 demonstration with standard samples	
	01:00 PM – 02:00 PM	Lunch Break	Mr. Amit Kumar
	02:00 PM – 05:00 PM	ZEISS SIGMA 360 hands-on customer training	
	05:00 PM	Q&A session and End of day 1	
06/08/2025 (Wednesday)	09:30 AM – 11:00 AM	ZEISS SIGMA 360 hands-on customer training	Mr. Tejas Sahu
	11:00 AM – 11:15 AM	Break	
	11:15 AM – 12:00 PM	Technology talk on Correlative workflow	
	12:00 PM – 01:00 PM	ZEISS SIGMA 360 hands-on customer training	Mr. Amit Kumar
	01:00 PM – 02:00 PM	Lunch Break	
	02:00 PM – 05:00 PM	ZEISS SIGMA 360 hands-on customer training	
07/08/2025 (Thursday)	05:00 PM	End of day 2	Mr. Amit Kumar
	09:30 AM – 11:00 AM	ZEISS SIGMA 360 hands-on customer training	
	11:00 AM – 11:15 AM	Break	
	11:15 AM – 01:00 PM	ZEISS SIGMA 360 hands-on customer training	
	01:00 PM – 02:00 PM	Lunch Break	
	02:00 PM – 05:00 PM	ZEISS SIGMA 360 hands-on customer training	
05:00 PM	End of day 3		



GPS Map Camera



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Durgavado, Goa, India

Goa University Science Block, Mdr3,
Durgavado, Goa 403206, India

Lat 15.458965° Long 73.827585°

05/08/2025 11:23 AM GMT +05:30



GPS Map Camera



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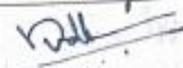
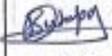
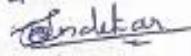
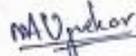
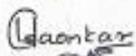
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FE-SEM Training Session

05th August 2025

at School of Chemical Sciences.

Attendance			03 th Aug. 2025
Sl. No	Name	School	Sign
1.	Sudhir Chaturvedi	SPAS	
2.	Sudipa K. Das	SPAS	
3.	Prasad. H. Jitayya	SIAT	
4.	Shubhankar Bandekar	SPAS	
5.	Somam Kumari	SCS	
6.	Manasi Ugvekar	SCS	
7.	Shradha Thonkar	SCS	
8.	Priyanka S. Modak	SCS	
9.	Namrata Kumari	SCS	
10.	Upma Gaonkar	SCS	
11.	Rohan K. Kulkarni	SCS	
12.	Dr. Diptesh G. Nair	SCS	
13.	V.M.S. Venkar	SCS	
14.	Vinod Mandekar	SCS	

"Demonstration and hands-on training on Zeiss Sigma 360
FE-SEM."

Date- 06 & 07th Aug. 2025 ; School of Chemical Sciences ; Venue - Comiller Room, SCS.

Sr. No.	Name	School	Sign.
01.	Diptesh G. Wail	SCS	
02.	Upma Ganekar	SCS	
03.	Manasi Ugreekar	SCS	
04.	Shradha Thundkar	SCS	
05.	Shubhlaxmi K. Naik.	SCS	
06.	Sonam Kumari	SCS	
07.	Shubhankar Bundekar	SPAS	
08.	Prasad Pittapa	SPAS	
09.	Sudhpa Das	SPAS	
10.	Priyanka S. Modak	SCS	
11.	Namrata Kuvani	SCS	
12.	Rohan K. Kunkolekar	SCS	
13.	Shankar R. Naik	SCS	