



ST. XAVIER'S COLLEGE, MAPUSA GOA

Report of Activity conducted in the Academic Year 2026-2027

Name of Activity	"Alumni Connect: Bridging Generations", an alumni lecture series, as part of the Late Rev. Dr. Nicolau Pereira Birth Centenary Celebrations
Date/ Duration	26 th September 2026, 11:45 am to 12.30 pm
Venue	Seminar Hall and PG Block Conference Hall
Name of organizing Department/Cell	NA
In collaboration with	
Name/s of Faculty Co ordinator	Dr Marielou Ferrao, Dr. Larissa Menezes
Stratum of Event	College level
Name & details of Resource Person/s if any	Dr Maria Ana Desa, Principal Technical Officer, CSIR–National Institute of Oceanography (NIO), Goa.
Report	St. Xavier's College, Mapusa-Goa, organised "Alumni Connect: Bridging Generations", an alumni lecture series, as part of the Late Rev. Dr. Nicolau Pereira Birth Centenary Celebrations, on 26th September 2026, at the College Seminar Hall. The event involved invited sessions by five Alumni, who were present during the tenure of the birth centenarian. Simultaneous sessions took place at two venues ie. College Seminar Hall and PG Block Conference Hall. The second session began at 11:45 am, on the title "From SXC Desk to ORV Decks: A Marine Geophysical Journey", by alumnus Dr Maria Ana Desa, (Batch of 1987, BSc), currently Principal Technical Officer, CSIR–National Institute of Oceanography (NIO), Goa. Dr Maria shared her academic and professional journey and introduced students to the fascinating field of marine geophysics. The programme commenced with a welcome by Dr Marielou Ferrao, convenor of the programme, presentation of a memento to Dr. Desa by Dr. Zen Lobo. The Principal, Ursula Barreto, addressed the gathering and warmly recalled her college days as Dr. Desa's batchmate, highlighting her dedication, intellectual curiosity, and commitment to scientific research. Dr. Desa began by reminiscing about her undergraduate years at St. Xavier's College in 1987 and her subsequent entry into CSIR–NIO as a Graduate Trainee in the Marine Geophysics Division. She described her early work in geophysical data processing and computer programming and shared experiences from several oceanographic expeditions aboard ORV Sagar Kanya, ORV Marion Dufresne, and ORV Sindhu Sadhana. She also spoke about completing her M.Sc. in Marine Science from Goa University, receiving the Dr. V. V. R. Varadachari Gold Medal,

	participating in international scientific meetings, and obtaining her Ph.D. in 2011. A major career milestone was her leadership of ORV Sindhu Sadhana Cruise 21 in 2016 in the Bay of Bengal. The technical session introduced students to the four major components of marine geophysics—bathymetry, gravity, magnetics, and seismics. Dr. Desa explained the structure of continental margins, including the continental shelf, slope, rise, and abyssal plain, along with important geological features of the Indian Ocean such as the Ninetyeast Ridge, Chagos-Laccadive Ridge, trenches, seamounts, and subduction zones. The session also covered the fundamentals of plate tectonics, including convergent, divergent, and transform boundaries, with examples such as the Himalayas, Andaman–Nicobar subduction system, mid-ocean ridges, and San Andreas Fault. The principles of marine gravity studies and the role of density variations in understanding subsurface structures were discussed. Students were introduced to marine magnetic anomalies and paleomagnetic striping, which provide evidence for seafloor spreading and help determine the age and movement of oceanic crust. Dr. Desa further explained marine seismic surveys, demonstrating how acoustic waves and reflected signals are used to investigate structures beneath the seafloor. She highlighted applications of seismic data in understanding faults, sedimentary basins, volcanic structures, tectonic evolution, and resource exploration, particularly in the Bay of Bengal. An important component of the session was the discussion on academic and career opportunities at CSIR–NIO. Dr. Desa highlighted the institute's multidisciplinary research in marine geology, physics, biology, chemistry, pollution, instrumentation, archaeology, and ocean engineering. She discussed opportunities for internships, dissertations, apprenticeships, Ph.D. programmes, research positions, and institutional visits, along with advanced facilities such as ICP-MS, XRD, XRF, SEM, AAS, and optical microscopy. Students were also introduced to research opportunities through AcSIR, including Ph.D. programmes within the CSIR system. The session concluded with a strong message on environmental stewardship and ocean conservation. Dr. Desa discussed climate change, increasing atmospheric carbon dioxide, dependence on fossil fuels, and the critical role of oceans in regulating climate and supporting ecosystems and livelihoods. She encouraged students to adopt sustainable practices, reduce plastic pollution, and contribute towards protecting marine environments. The session was attended by 70 students, and successfully connected classroom concepts with real-world marine research, giving students valuable insights into marine geophysics, oceanographic expeditions, scientific instrumentation, and research careers. The session ended with a formal vote of thanks by the event convenor, Dr Marielou Ferrao.
Brochure/Poster	https://xavierscollegegoa.ac.in/wp-content/uploads/2026/10/Poster-of-Alumni-Connect-Bridging-Generations.pdf
Photographs	https://xavierscollegegoa.ac.in/wp-content/uploads/2026/10/Images-of-Dr-Maria-Ana-Desa-Report-2-Alumni-Connect-Bridging-Generations.pdf

List of participants with signatures	https://xavierscollegegoa.ac.in/wp-content/uploads/2026/10/Attendance-of-Alumni-Connect-Bridging-Generations.pdf
Certificate	NA