
Departmental Seminar

Seminar Title	: Blue Carbon: A Vital Learning in Ocean and Climate Change Science
Speaker	: Dr. Raghab Ray
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Venue	: ER-303 Class Room
Date and Time	: 28 Oct 2024 (4:30 PM)
Abstract	: The term “blue carbon” was coined by the United Nations Environment Programme in 2009 to address the suppression of CO ₂ emissions by storing it for centuries within the sediment and biomass of mangroves, tidal marshes and seagrasses, thereby mitigating climate change. More than half of carbon stored in the ocean is sequestered by these shallow coastal ecosystems that account for less than 10% of the ocean surface and 0.5% or less of the total ocean volume. The number of publications dealing with blue carbon has been increasing exponentially since the genesis of the term, and the science of blue carbon and its role within the context of oceanic carbon cycle and the mitigation of global warming seem to be rapidly maturing. Among the shallow coastal ecosystems, mangroves are the most carbon-rich and most studied coastal habitats. In this seminar, following a brief overview of fundamentals and inventory of blue carbon, a good time will be spent on learning how we conduct field and lab-based blue research, what are the methodologies we adopt, what kind of data we generate, and how we interpret them mainly from biogeochemical perspective. Key findings across a latitudinal gradient (5 S-27N) would cover carbon stock and exchange fluxes in mangroves and discuss around Indian Sundarbans as a model site for carbon budget interpretation