Physical Research Laboratory

Tuesday Seminar

Microbial life: At interface and in the aqueous marine environment

Abstract

Microbes in any bulk phase (liquid or gas) tend to accumulate or attach at interfaces, such as solid-liquid, liquid-gas and solid-gas. The microbial life at interfaces is often termed as biofilms. Biofilm formation is usually detrimental to human health and man-made structures including ships, underwater pipelines, submersibles etc. On the other side, they are beneficial for the degradation of waste, organic carbon and production of value added products. During this presentation we will discuss the mechanisms underlying bacterial adhesion and biofilm formation onto to solid surfaces, as well as electron transfer mechanism in microbial biofilms capable of generating electricity via organic matter oxidation.

Microbes in the ocean play an important role in biogeochemical cycling of carbon, nitrogen, phosphorus, iron and sulfur. They form the base of marine food chain, recycling nutrients and organic matter, and producing vitamins and cofactors needed by higher organisms to grow and survive. Understanding of microbial community structure and function is very crucial for elucidating their role in various biogeochemical cycles and impact on or of climate change. The factors influencing bacterial community structure in marine environment and role of marine bacteria in carbon cycling will be discussed.

Speaker

Dr. Anand Jain

Project Scientist, NCAOR, Goa

Date	Time	Venue
18-July-2017	16:00 hrs	Ground Floor Lecture Hall

All are invited to attend and participate in discussion

Tea at 15:30 hrs

A .K. Sudheer, Geosciences Division