# *Geosciences Division*
# *Physical Research Laboratory*

# Tuesday Seminar

## Biogeochemical studies of Asia's second largest lagoon during onset of monsoon


### Abstract

The mechanism of nitrogen (N) transport and transformation is very important for freshwater biogeochemistry as the source and sink of dissolved inorganic nitrogen (DIN) can act as an indicator for the autotrophic and heterotrophic nature of the water body. Studies have shown that coastal lagoons are the important source of inorganic carbon to the atmosphere, though its size is small compared to ocean.

Chilika lagoon, 64.3 km long and 20.1 km wide, is pear shaped shallow water body (average depth ~ 1.5 m) located on the east coast of India. Chilika is India's largest lagoon. We measured the natural abundance isotopic composition ($\delta^{13}C$ and $\delta^{15}N$) and concentration of particulate organic carbon (POC) and particulate organic nitrogen (PON) covering 16 stations including all sectors of the lake during onset of monsoon ($22^{nd}$-$29^{th}$ June, 2015). Experiments to measure assimilation rates of inorganic nitrogen were also carried out and lake-wide DIN budget of the lake was estimated. The overall biogeochemistry of the lake will be discussed during the talk.



## Speaker: Ms. Rupa Mukherjee
## SRF


| Date | Time | Venue |
|---|---|---|
| 29-December-2015 | 16:00 hrs | Ground Floor Lecture Hall |

**All are invited to attend and participate in discussion**

Tea at 15:30 hrs


***Neeraj Rastogi, Seminar Secretary, Geosciences Division***