INSTITUTE COLLOQUIUM

INDIAN INSTITUTE OF SCIENCE
BANGALORE

PROFESSOR AJAY K SOOD
DEPARTMENT OF PHYSICS

Will deliver a lecture
on
FASCINATING WORLD OF COLLOID PHYSICS

on Tuesday, the 13th April, 1999
at 4.00 PM in the Faculty Hall

PROFESSOR G MEHTA

Director, will preside

All are cordially invited.

Coffee : 5.00 PM
Reception Hall

Prof. S S KRISHNAMURTHY
Convener

ABSTRACT

This talk will highlight the novel physics aspects of colloids which form one example of the newly emerging area of soft condensed matter. These systems exhibit fascinating behaviour under equilibrium and non-equilibrium conditions. This will be illustrated with some examples of the speaker's work in this field. These include entropy driven depletion forces, colloids in anisotropic solvents, laser induced freezing and non-linear flow behaviour of worm-like micellar system which displays interesting time-dependent behaviour characteristic of a dynamical system. Dynamical light scattering, diffusing wave spectroscopy and recently developed technique of x-ray fluorescence correlation spectroscopy to study dynamics of colloids will also be discussed. In addition to this aspect of using light to study colloids, use of colloids with controllable disorder to study light will be pointed out.

P.T.O.