

## Tuesday COLLOQUIUM

### **Speaker : Prof. Sundararaja Ramaswamy**

Prof. Ramaswamy joined the School of Mathematics of the Tata Institute of Fundamental Research in mid August 1964 soon after completing his M.Sc in Mathematics and worked there till July 1985. He worked in Potential theory to start with. He spent two years in Paris (France) between 1968 end and 1970 end as a research student supported by the National Center of Scientific Research (CNRS) France.

He held Visiting Positions in Mexico, North Carolina University at Chapel Hill, USA, Indian Statistical Institute, Bangalore, ICTP Trieste (Italy) and TIFR Center Bangalore. He worked as Professor in the Dept. of Mathematics, Pondicherry University, Pondicherry for ten years starting Jan 1995. He also worked as a Visiting Professor for two and a half years in Alagappa University, Karaikudi, Tamil Nadu after retiring from the Pondicherry University. He is currently in the NIIT University, Neemrana, Rajasthan as a Mentor Professor, a senior level post.

### **Title : “Convex sets and Convex functions”**

**ABSTRACT :** Convex functions are very important in Analysis. In this lecture, we define and prove some basic properties of convex functions on intervals of real line and give some examples and some applications to proving some inequalities.

Also important is the notion of a convex set. A well-known theorem of Caratheodary states that in a Euclidean Space of  $n$  dimensions, any point in a convex set is a convex combination of at most  $n+1$  extreme points. This theorem has applications to Optimization problems. We shall indicate an application to linear programming.

**Day & Date :** Tuesday, October 30, 2012

**Time :** 15:45 hrs

**Venue :** Seminar Room PFAG14, Prefabs, Near Annabhau Sathe Bhavan, University of Mumbai, Vidyanagari, Kalina Campus, Mumbai - 400 098

**All are Welcome**