

*The University of Alabama
Department of Computer Science
Colloquium Series Speaker*

**Prof. Subhash C. Nandy
Indian Statistical Institute**

**"Recognition of Minimum Width
Color-spanning Corridor and
Minimum Area Color-spanning Rectangle"**

**Monday, December 6th
11:00 a.m., HO 108**

Abstract:

Given a set of n colored points with a total of $m \geq 3$ colors in 2D, the problem of identifying the smallest color-spanning object is studied. We have considered two different shapes: (i) corridor, and (ii) rectangle of arbitrary orientation. Our proposed algorithm identifies the narrowest color-spanning corridor in $O(n^2 \log n)$ time using $O(n)$ space. Our proposed algorithm for identifying minimum area color-spanning rectangle runs in $O(n^3 \log m)$ time and $O(n)$ space.