GITAM School of Technology
Bengaluru

Guest Name: **Prof. Sanjeev Sambandam**

Department of Instruments and Applied Physics
Indian Institute of Science, Bangalore

Topic Name: **"Self Healing Circuits for Flexible Electronics"**

Date: **15th Dec 2017, Time: 2.30PM**

Venue: **5th Floor Seminar Hall, Shivaji Bhavan**

Abstract:
Electronic systems on mechanically flexible substrates are of research interest due the possibility of roll-to-roll manufacturing, flexible image sensors and displays that can conform to any surface, wearable electronics with circuits and systems integrated into clothing etc. However, these advantages are accompanied by a number of reliability problems affecting device performance and the structural integrity of the interconnects. Interconnects on flexible and wearable electronic systems are prone to significant structural and electrical stress. As a result, open interconnect faults during manufacturing and operation is not uncommon and can result in the entire electronic system becoming unusable. The talk presents the integration of a self-healing mechanism to repair open faults and physically restore interconnects of electronic circuits. The electric field driven mechanism involves the growth of a bridge of conductive particles across the gap of an open interconnect resulting in the restoration of current.

Organized by: **DEPARTMENT OF ELECTRONICS AND COMMUNICATION**