

# *Design of ferroelectric and multiferroic materials for non-volatile random access memory devices*

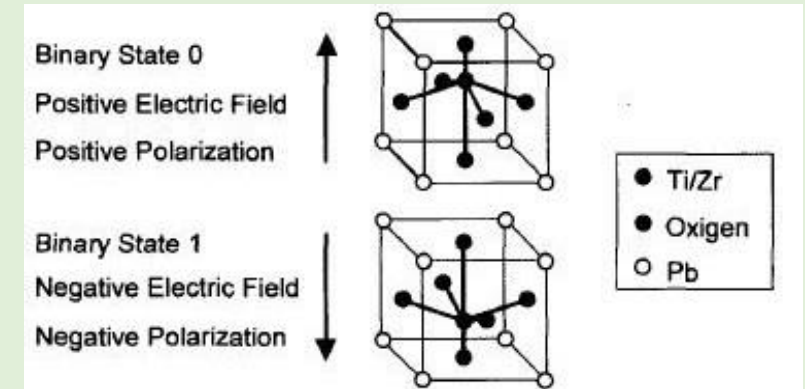
## **Theme:**

*Synthesis and Characterization of Functional Oxide Materials for Capacitor and Memory Devices*

*Our group has been investigating the utilization of functional oxide materials synthesized by adopting various routes like molten salt, sol-gel and solid state reaction methods to exploit it for multifarious device applications.*



*1C - 1T NVRAM Configuration*



*PZT Crystal Lattice*

## **Group Lead:**

*Prof. B. Harihara Venkataraman*

## **Group Members:**

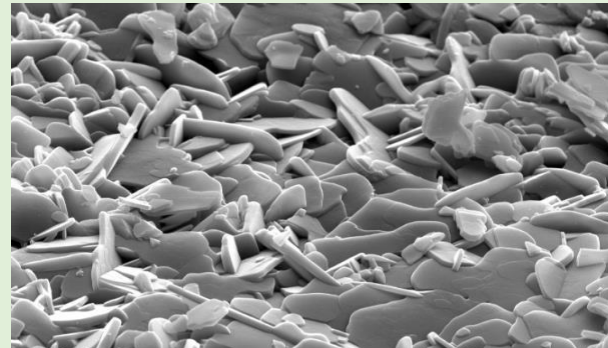
*Dr. Rajesh Kannan (Alumni)*

*Dr. Waseem Ahmad Wani (Alumni)*

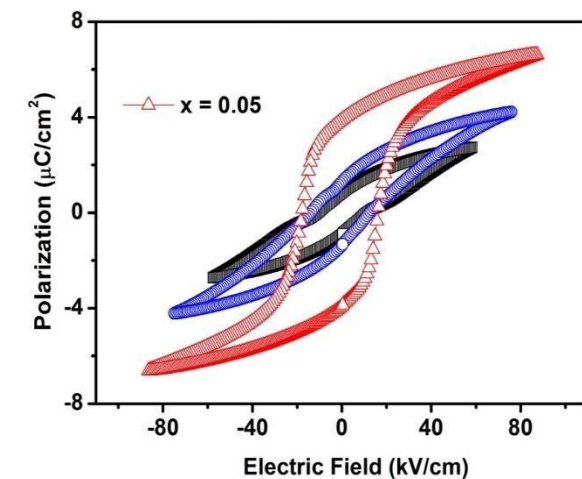
*Dr. Renuka Hyderkhan (Alumni)*

*Mr. Jahangeer*

*Ms. Priyanka*



*Scanning Electron Micrograph  
(Ferroelectric Ceramics)*



*Hysteresis Studies  
(Ferroelectric Ceramics)*