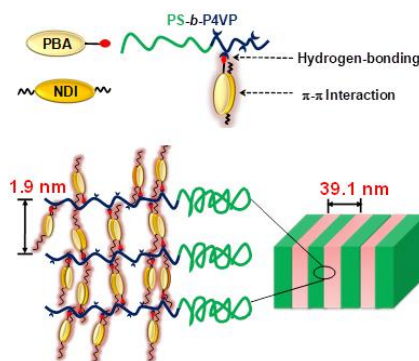


## Chemistry Seminar

The **Department of Chemistry, IIT Bhilai**, is proud to host **Dr. E. Bhoje Gowd**, FRSC, Principal Scientist and Associate Professor, Materials Science and Technology Division, National Institute for Interdisciplinary Science and Technology (CSIR-NIIST), Trivandrum on January 15, 2021 at 15:00 hrs for a seminar on “**Hierarchical Assemblies of Supramolecular Block Copolymers and Star-Shaped Poly(Lactides)**”.

**The abstract of the seminar is:** The structural ordering process plays a key role in controlling the nanostructured morphologies of the multiphase systems for diverse applications. Noncovalent polymer side-chain modification has emerged as a powerful tool for the creation of nanostructured materials with hierarchical morphologies and desirable properties. In the first part of my talk, a three-component hierarchical self-assembly approach to generate stable alternate donor-acceptor (D-A) assemblies within block copolymer microdomains will be discussed. [1,2] I will also discuss the incorporation of polymerizable small molecules within the block copolymer based supramolecules and their subsequent polymerization. [3] In the second part of my talk, the role of polymer chain packing on the solid state emission properties of the star-shaped poly(L-lactide) (PLLA) will be discussed. [4] Using the blends of enantiomeric star-shaped polylactides, the structure formation process of stereocomplex will be discussed. [5]



**Figure** – Schematic illustration of the hierarchical self-assembly of the donor and acceptor molecules within the block copolymer microdomains.

### References:

1. K. Deepthi, R.B. Amal Raj, V.R. Rajeev, K.N.N. Unni, E. Bhoje Gowd, *Macromolecules* 2019, **52**, 2889.
2. K. Deepthi, R.B. Amal Raj, V.S. Prasad, E. Bhoje Gowd, *Soft Matter* 2020, **16**, 7312.
3. K. Deepthi, R.B. Amal Raj, E. Bhoje Gowd, *Polymer Chemistry* 2019, **10**, 3154.
4. S. Nagarajan, E. Bhoje Gowd, *Macromolecules* 2017, **50**, 5261.
5. V.K. Praveena, S. Nagarajan, E. Bhoje Gowd, *Manuscript Submitted*.