

1.	Name : Dr. Mahesh S.
2.	Designation and Present Institution (different lines separated by commas): UGC-Dr. K. S. Kothari Fellow Center for Nanoscience and Nanotechnology Mahatma Gandhi University Kottayam- 686560
3.	Postal Address for Communication (different lines separated by commas): Vadasseril House Parippu. P. O Kottayam-686024 Kerala, India
4.	Phone Number/s (different lines separated by commas): 0481/2731669 (Office) 0481/2518820 (Residence) 09447800511 (Mobile)
5.	Fax Number/s (different lines separated by commas): 0241/2731669
6.	E-mail address/es (different lines separated by commas): maheshmgu@gmail.com
7.	Brief account of your research interests with special focus on Nano Science and Technology (strictly within 300 words): During the last five years I have made significant, contributions in certain aspects of organic nanomaterials materials and Supramolecular Chemistry, which pertain to one of the major activities of his supervisor's research groups at NIIST, Trivandrum as well as to the research group at Katholike University Leuven, Belgium. The recent major contributions are in the areas of organic nanostructures of π -conjugated

molecules and their H-bonded assemblies. The important contributions are summarized below. Recently my research focus is on the formation and characterization of self-assembled molecular networks in ambient conditions and at the liquid/solid interface, primarily using scanning probe microscopy techniques. Recent studies in the area of supramolecular materials based on photo and electro active conjugated systems and H-bonded assemblies are noteworthy. My contributions in this topic are attracting attention among scientists working in the area of functional π -electronic materials and few are listed below. For example, we have shown that the cooperative involvement of H-bonding and π - π -stacking interactions leading to the formation of toroidal objects of nanometer dimension. These molecular components forms organogels at more concentrated conditions whereas in the solvent-free state liquid crystalline behavior was observed, and hence a unique self-assembly system with multiple functional properties. This is a first example of a rosette assembly forming toroidal morphology (*Angew. Chem. Int. Ed.* **2008**, 47, 4691-4694). Many of these contributions have received international coverage. My present activities are directed toward the Supramolecular Chemistry of photoswitchable conjugated oligomers with a view to design aesthetically appealing complex architectures and functional materials with novel optical and electronic properties. I have fairly good experience in various microscopic techniques such as SEM, TEM, AFM and STM.

Keywords related to your research interests (maximum 10, different lines separated by commas)

8.

Nano materials, Supramolecular Chemistry, Self-assembly, Organic Functional Materials, Photoresponsive Materials, Scanning Tunneling Microscopy, Atomic Force Microscopy.