Mahesh Hariharan FRSC
Associate Professor and Head, School of Chemistry
Indian Institute of Science Education and Research Thiruvananthapuram (IISER-TVM), CET Campus, Sreekaryam, Kerala, India 695016
Research Website: http://www.iisertvm.ac.in/faculties/mahesh.phpx
Tel: 91-471-2599413
Fax: 91-471-2597427
Email: mahesh@iisertvm.ac.in

Education

- **B.Sc.**, 1998, Mahatma Gandhi University, Kottayam, Kerala.
- **M.Sc.**, 2000, Mahatma Gandhi University, Kottayam, Kerala.
- **Ph.D.**, 2006, National Institute for Interdisciplinary Science and Technology, Trivandrum, Kerala (Title: *"Design of Photoactivated DNA Cleaving Agents: Synthesis and Study of Photophysical and Photobiological Properties of Bifunctional Organic Ligands"* Supervisor: Dr. Danaboyina Ramaiah).

Appointments

Nov 2016	**Visiting Professor**, University of Wuerzburg, Germany
Sept 2014-present	**Associate Professor**, IISER-TVM, Kerala, India
June 2014-Sept 2014	**Visiting Professor**, Montana State University, Montana, USA
May-July 2010, July 2013	**Visiting Fellow**, Northwestern University, Illinois, USA
July 2009-Sept 2014	**Assistant Professor**, IISER-TVM, Kerala, India
March 2007-July 2009	**Postdoctoral Fellow**, Northwestern University, Illinois, USA Mentor: Prof. Frederick D. Lewis

Honors and Awards

- Chemical Society of Japan Distinguished Lectureship Award, 2017
- Fellow of the Royal Society of Chemistry, 2016-
- Associate Editor of Photochemical and Photobiological Sciences, 2016-
- Associate Editor of RSC Advances, 2015-
- Chartered Chemist & Scientist of the Royal Society of Chemistry, 2015
- Asian and Oceanian Photochemistry Association Young Scientist Prize, 2014
- Indo-US Science and Technology Forum Fellowship, 2014 to visit MSU, USA, Mentor: Prof. Bern Kohler
- Kerala State Young Scientist Award, 2013
- DST-DAAD Fellowship, 2004 to visit University of Mainz, Germany, Mentor: Prof. Bernd Epe
- CSIR-Research Scholarship, 2001 and got shortlisted for Shyama Prasad Mukherjee Fellowship exam

Research Interests

Excited state dynamics in biomolecules, organic crystals and organised donor-acceptor systems

Ongoing Research Grants

1. Department of Science and Technology Nano Mission: Dipolar and Multipolar Interactions in Assembled Molecules and Nanostructures: Developing a General Description and its Applications, 01/06/2016-31/05/2019, Rs. 5,61,20,800. Collaborative grant for Prof. K. George Thomas, Dr. R. S. Swathi, Dr. Adithya Lakshmanna and myself.
2. Kerala State Council for Science Technology and Environment: *Design, synthesis and photocatalytic water splitting properties of functional cobalt based inorganic-organic hybrids*, 26/10/2015-15/10/2018, Rs. 45,20,000.

Professional Service

Member, International Advisory Board, XXVII IUPAC Symposium on Photochemistry, 2018
Co-Chair, Faraday Discussions on Photoinduced Processes in Nucleic Acids and Proteins, 2018
Member, International Advisory Board, International Conference on Tropical Plants& Molecular Design, 2017
Co-Chair, Theme Symposium on Photonic Materials, IUMRS-ICYRAM 2016
Secretary, Organising Committee of Asian Photochemistry Conference 2014
Organiser, IISER-TVM/American Chemical Society Mini-Symposium 2013
Member, Organising Committee of 14th CRSI National Symposium in Chemistry 2012

Graduate Students: Graduated 4 (Dr. R. T. Cheriya, Dr. A. R. Mallia, Dr. S. K. Rajagopal and Dr. K. Nagarajan)
Ongoing 3 (A. M. Philip, R. Ramakrishnan and E. Sebastian)

Selected Publications (Total Publications: 51; Patent: 1)

1. "Persistent Charge Separated States in Self-Assembled Twisted Non-Symmetric Donor-Acceptor Triad" A. R. Mallia, A. M. Philip, V. Bhat and M. Hariharan* *J. Phys. Chem. C* **2017**, Accepted (Frontispiece)
2. "Enhanced Intersystem Crossing in Core-Twisted Aromatics" K. Nagarajan, A. R. Mallia, K. Muraleedharan and M. Hariharan* *Chem. Sci.* **2017**, DOI: 10.1039/C6SC05126J (Outside Back Cover)
3. "Prolonged Charge Separated States in Twisted Stacks of All-carbon Donor and Acceptor Chromophores" A. M. Philip, A. R. Mallia and **M. Hariharan*** *J. Phys. Chem. Lett.* **2016**, *7*, 4751-4756 (ACS Liveslides)
4. "Nonparallel Stacks of Donor and Acceptor Chromophores Evade Geminate Charge Recombination" A. R. Mallia, P. S. Salini and **M. Hariharan*** *J. Am. Chem. Soc.* **2015**, *137*, 15604-15607 (Frontispiece; Spotlights; Image Challenge)
5. "Light Harvesting Vesicular Donor-Acceptor Scaffold Limits the Rate of Charge Recombination in the Presence of an Electron Donor" R. T. Cheriya, A. R. Mallia and **M. Hariharan*** *Energy Environ. Sci.* **2014**, *7*, 1661-1669 (Frontispiece; Hot Article)

Invited Seminar and Colloquium Presentations

100 invited lectures at universities and international conferences since 2009.

Invited Lectures

- Strategies to Reduce the Rate of Charge Recombination, '8th East Asia Symposium on Functional Dyes and Advanced Materials', CSIR-NIIST, Thiruvananthapuram, India, September 20-22, 2017
- Crystal Engineering π-ways for Enhanced Charge Transport, '24th Congress & General Assembly of the International Union of Crystallography 2017', Hyderabad International Convention Centre, Hyderabad, August 21–28, 2017
- Strategies to Reduce the Rate of Charge Recombination, Osaka Prefecture University, Japan, March 22, 2017
- Strategies to Reduce the Rate of Charge Recombination, Kyoto University, Japan, March 21, 2017
- Strategies to Reduce the Rate of Charge Recombination, 'The 97th Chemical Society of Japan Annual Meeting', Keio University, Yokohama, Japan, March 16-19, 2017
- Twists and Turns in the Excited State Properties of Aromatics, 'Mini-Symposium on Photofunctional π Materials", Nara Institute of Science and Technology, Nara, Japan, March 15, 2017
- Strategies to Reduce the Rate of Charge Recombination, 'Symposium on Photonic Materials', IUMRS-ICYRAM 2016, IISc, Bangalore, December 11-15, 2016
- Strategies to Reduce the Rate of Charge Recombination, '9th Asian Photochemistry Conference', Nanyang Technological University, Singapore, December 4-8, 2016
- Ultrafast Intersystem Crossing in Core-Twisted Aromatics, 'Light-Induced Dynamics in Molecular Aggregates', Niederstetten, Germany, November 24-25, 2016
- Strategies to Reduce the Rate of Charge Recombination, University of Wuerzburg, Germany, November 17, 2016
- Strategies to Reduce the Rate of Charge Recombination 'Pacifichem 2015-Molecular and Supramolecular Photochemistry', Honolulu, Hawaii, USA, December 15-20, 2015
- Tuning the Solid State Packing and Optical Properties of Organic Crystals 'Pacifichem 2015-Aggregation Induced Enhanced Emission', Honolulu, Hawaii, USA, December 15-20, 2015
- Tuning the Solid State Packing and Optical Properties of Organic Crystals 'Department of Chemistry, University of Durham', Durham, UK, February 19, 2015
- Strategies to Reduce the Rate of Charge Recombination '24th Winter I-APS Conference' Florida, USA, January 1-4, 2015
- Exciton Interactions in DNA and Superstructured Organic Materials '8th Asian Photochemistry Conference' Trivandrum, India, November 9-13, 2014
- Light Harvesting Vesicular Donor-Acceptor Scaffold Limits the Rate of Charge Recombination 'Department of Chemistry, Montana State University', Montana, US, June 12, 2014
- Ultrafast Dynamics of Charge Carriers in Superstructured Organic Materials 'The State Key Laboratory of Molecular Reaction Dynamics', ICCAS, Beijing, China, April 18, 2014
- Light Harvesting Vesicular Donor-Acceptor Scaffold Limits the Rate of Charge Recombination '*2nd International Conference on Clean Energy Science*' Qingdao, China, April 13-16, 2014
- Conformational and Excited State Dynamics of Near-Orthogonal Donor-Acceptor Bichromophores *'Photochemistry Gordon Research Conference'* Stonehill College, Easton, MA, July 14-19, 2013

- Light Harvesting Vesicular Donor-Acceptor Scaffold Limits the Rate of Charge Recombination '*International Symposium on Fundamental and Applied Chemistry*' Northwestern University, IL, July 12-13, 2013

Invited Lectures (International Conferences Organised/Held in India)

- Light Harvesting Vesicular Donor–Acceptor Scaffold Limits the Rate of Charge Recombination '*India-Israel Meeting on Materials Science and Nanoscience'* M. G. University, Kerala, India, Jan 31-Feb 01, 2013
- DNA Donor-Acceptor Conjugates: Towards Understanding Biological Processes in Femtosecond Timescale '*IISER-American Chemical Society Mini-Symposium'* IISER-TVM, Kerala, India, November 28, 2013
- DNA Donor-Acceptor Conjugates: Towards Understanding Biological Processes in Femtosecond Timescale '*International Conference on Frontiers of Mass Spectrometry 2013'* M. G. University, Kerala, September 6-9, 2013
- Ultrafast Dynamics of Charge Carriers in Superstructured Organic Materials '*Organic Devices: The Future Ahead*' Bhabha Atomic Research Center, Mumbai, March 3-6, 2014
- Ultrafast Dynamics of Charge Carriers in DNA and Superstructured Organic Materials '*Light in Chemistry, Materials and Biology'* Indian Institute of Technology, Kharagpur, February 24-25, 2014
- Ultrafast Dynamics of Charge Carriers in DNA and Superstructured Organic Materials '*International Conference on Advanced Functional Materials'* CSIR-NIIST, Kerala, India, February 19-21, 2014
- Light Harvesting Vesicular Donor–Acceptor Scaffold Limits the Rate of Charge Recombination '*India-Japan Workshop on Biomolecular Electronics & Organic Nanotechnology for Environment Preservation*' Delhi Technological University, Delhi, India, December 13-15, 2013

Arranged Lectures

- Ultrafast Dynamics of Charge Carriers in Superstructured Organic Materials 'Indo-UK Scientific Seminar', University of Leeds, UK, February 16-18, 2015

Voluntary Service

- Volunteer Visitor, Chemists' Community Fund, Royal Society of Chemistry, 2016-

Member of Professional Societies

Royal Society of Chemistry; American Chemical Society; Asian and Oceanian Photochemistry Association; Inter-American Photochemical Society; European Photochemistry Association; International Association of Advanced Materials; Chemical Society of Japan, Japanese Photochemistry Association, Chemical Research Society of India; Materials Research Society of India; Indian Society for Radiation and Photochemical Sciences, Photosciences Research Society of India; Kerala Academy of Sciences, India

Journal Referee

ACS Nano**;** Journal of American Chemical Society**;** ACS Applied Materials and Interfaces**;** Journal of Physical Chemistry Letters/A/B/C; ACS Omega; Energy and Environmental Science**;** Chemical Communications; Journal of Materials Chemistry**;** Organic Chemistry Frontiers; Physical Chemistry Chemical Physics**;** RSC Advances**;** Acta Cryst B, Crystal Growth and Design, Photochemical and Photobiological Sciences**;** ChemPhysChem**;** Chemistry An Asian Journal**;** Photochemistry and Photobiology**;** Scientific Reports**;** Journal of Photochemistry and Photobiology A: Chemistry**;** Chemical Physics Letters; Journal of Luminescence**;** Bulletin of Materials Science**;** Current Organic Chemistry**;** Applied Biochemistry and Biotechnology; JSM Bioinformatics, Genomics and Proteomics