

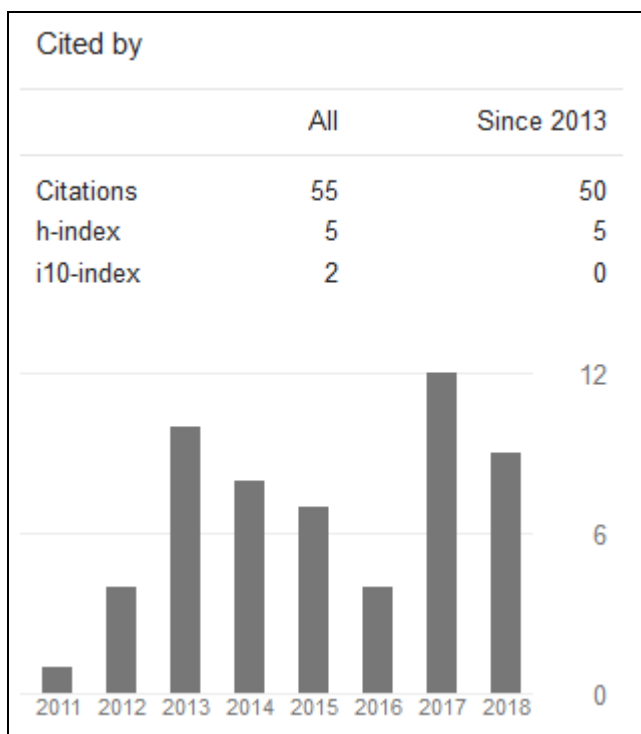
Curriculum Vitae

Dr. K. Balaji
Assistant Professor (Senior Grade)

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PSG Institute of Technology & Applied Research
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<http://scholar.google.co.in/citations?user=qdew3FUAAAJ>

PAPERS PUBLISHED IN INTERNATIONAL JOURNALS

1. Liu Y, Chen J, Qi Y, Gao S, **Balaji K**, Zhang Y, Xue Q, Lu Z. “Cross-linked liquid crystalline polybenzoxazines bearing cholesterol-based mesogen side groups”, **Polymer**, Vol.145, pp.252-260, **2018**.
2. Latha, G., Natarajan, M., **Balaji, K.** and Murugavel, S. C. “Synthesis, spectral and thermal characterization of polyester derived from 1, 1-bis(4-hydroxyphenyl)cyclohexane”, **High Performance Polymers**, Vol.26, No.2, pp.125-134, **2014**.
3. Muthusamy, A., **Balaji, K.** and Murugavel, S. C. Synthesis, Thermal, and Photocrosslinking Studies of Thermotropic Liquid Crystalline Poly(benzylidene-ether)esters Containing α,β -Unsaturated Ketone Moiety in the Main Chain, **Journal of Polymer Science Part A: Polymer Chemistry**, Vol.51, pp.1707-1715, **2013**.
4. **Balaji, K.** and Murugavel, S. C. “Studies on synthesis and thermal characterization of thermotropic liquid crystalline poly(benzylidene-ether)s containing alkanones and methylene spacers in the main chain”, **Liquid Crystals**, Vol.39, No.6, pp.683-693, **2012**.
5. **Balaji, K.** and Murugavel, S. C. “Investigation on dual properties of photosensitive thermotropic liquid crystalline poly(benzylidene-ether)s containing alkanones and methylene spacers in the main chain” **Journal of Polymer Science Part A: Polymer Chemistry**, Vol.50, No.9, pp.1696-1706, **2012**.
6. **Balaji, K.** and Murugavel, S. C. “Synthesis and characterization of photosensitive liquid crystalline poly(benzylidene-ether)s with alkanones and methylene spacers in the main chain”, **Journal of Polymer Science Part A: Polymer Chemistry**, Vol.49, No.22, pp.4809-4819, **2011**.
7. **Balaji, K.** and Murugavel, S. C. “Synthesis, spectral and thermal characterization of photosensitive poly(ether-ester)s containing α,β -unsaturated ketone moieties in the main chain derived from 2,6-bis[4-(3-hydroxypropyloxy)-3-methoxybenzylidene] cyclohexanone”, **Journal of Applied Polymer Science**, Vol.120, No.6, pp.3141-3150, **2011**.
8. Balakrishnan, P. S., **Balaji, K.** and Murugavel, S. C. “Synthesis and Chemical curing Kinetics of Epoxy resin Containing α,β -Unsaturated Carbonyl Moiety in the main chain”, **High Performance Polymers**, Vol.23, No.3, pp.265-272, **2011**.



<http://scholar.google.co.in/citations?user=qdew3FUAAAAJ>

COUNTRIES VISITED

- ❖ **Visited Stockholm, Sweden to deliver an invited talk** in 4th International Conference on Polymer Chemistry held during 25th – 27th June 2018. **(Funded by CSIR, New Delhi)**
- ❖ **Visited Kent State University, Kent (Ohio), USA** for presenting the research article in 26th International Liquid Crystal Conference (ILCC 2016) held during 31st July to 5th August 2016. **(Awarded Young Scientist Travel Grant by SERB, India)**
- ❖ **Visited Yokohama, Japan** for presenting the research article in 11th IUPAC Advanced Polymers via Macromolecular Engineering (APME 2015) held during 18-22, October 2015. **(Funded by CICS, India)**
- ❖ **Visited Mainz, Germany** for presenting the research article in 24th International Liquid Crystal Conference (ILCC-2012) held during 19-24, August, 2012. **(Awarded Young Scientist Travel Grant by CSIR & DST, India)**

INTERNATIONAL COLLABORATIONS

- ❖ School of Chemistry and Chemical Engineering, Shandong University, China.
- ❖ Department of Material Science and Engineering, Xiamen University, China
- ❖ Department of Chemistry & Biochemistry at Kent State University, Ohio, USA.
- ❖ Institute of Physical Chemistry and Technology of Polymers, Silesian University of Technology, Gliwice, Poland.
- ❖ Institute for Materials Chemistry and Engineering, Kyushu University, Japan

EDUCATIONAL QUALIFICATIONS

Degree	University	Specialization	Class	Year
Ph.D. (Chemistry)	Anna University	Polymer	Highly Commended	2013
M.Sc.	Bharathiar	Chemistry	I	2005
B.Sc.	Bharathiar	Chemistry	I	2003

ACCOMPLISHMENT IN ONLINE COURSES

Name of the Course – **Processing of Polymers and Polymer Composites**

Discipline – **Mechanical / Material Science & Engineering**

Duration – **8 weeks (July-Sep 2017)**

Conducted by – **IIT- Roorkee (NPTEL)**

Score – **67%**

CERTIFICATION COURSES COMPLETED

- ❖ Completed **Five days Certificate Course on Effective Patent Drafting – 2017** (Pat Draft 2017) conducted jointly by Centre for Intellectual Property Rights (CIPR), Anna University, Chennai and The Tamilnadu Technology Development & Promotion Centre (TNTDPC) of Confederation of Indian Industry (CII), Chennai held between **22nd to 26th November 2017** at Anna University Regional Campus, Coimbatore.

HONOURS AND AWARDS RECEIVED

- ❖ **Received Exemplary award 2014 – 2015 for research**, from PSG Institute of Technology and Applied Research.
- ❖ Council of Scientific and Industrial Research (CSIR), India awarded the **Senior Research Fellowship** in the year 2012 **based on research experience and publications during the Ph.D work.**

RECOGNIZED Ph.D. SUPERVISOR

- ❖ Recognized **Supervisor for guiding Ph.D.** and M.S (by research) by Anna University, Chennai.
- ❖ Area of Specialization : **Chemistry, Polymer Chemistry, Environmental Science**

RESEARCH EXPERIENCE

- 2012 – 2013 Senior Research Fellow (CSIR) in PSG College of Technology, Coimbatore.
(Worked in the field of photosensitive LCP)
- 2008 – 2011 Junior Research Fellow (DST) in PSG College of Technology, Coimbatore.
(Worked in the field of Photocrosslinkable Thermotropic LCP)
- 2006 – 2008 Research Intern in Central Electro-Chemical Research Institute (CECRI) at Karaikudi in Electrodeics and Electrocatalysis division
(Worked in the field of Ion Selective Electrodes)

EMPLOYMENT HISTORY

2016–Till date Assistant Professor (**Senior Grade**) in Department of Chemistry, PSG Institute of Technology and Applied Research, Coimbatore.

2014–2016 Assistant Professor in Department of Chemistry, PSG Institute of Technology and Applied Research, Coimbatore.

2013 – 2014 Assistant Professor in Department of Chemistry, PSG College of Technology, Coimbatore.

CONSULTANCY ACTIVITIES

Name of the Consultancy work	Agency	Year
Case Study	Tata Chemicals	2017-18
Testing of Plant Extract	KPR Institute of Engineering & Technology, Coimbatore	2017-18

MEMBERSHIP IN PROFESSIONAL BODIES /REVIEWER/ EDITORSHIP

1. IUPAC Affiliate Member

2. Serving as a reviewer for SERB EMR research proposals.
3. Serving as a reviewer for High Performance Polymer journal.
4. Lead Guest Editor of Surface Chemistry in Science Journal of Chemistry, New York, USA. (<http://www.sciencepublishinggroup.com/journal/editorialboard.aspx?journalid=125>)
5. Editorial Member & Reviewer for Science Publishing Group Journal, New York, USA.
6. Editorial Member & Reviewer for Universal Journal of Materials Science Horizon Research Publishing, USA. (http://www.hrpub.org/journals/jour_editorialboard.php?id=62)

RESEARCH INTEREST

- Liquid Crystals and Liquid Crystalline Polymers
- Photosensitive Polymers & Photolithography
- Flame Retardant Polymers
- Polymer Composites, Thermosets & Epoxies
- Synthetic Polymers and Synthetic Organic Chemistry

KNOWLEDGE ON INSTRUMENT HANDLING

- Differential Scanning Calorimetry (Pyris 6 DSC, Perkin Elmer)
- Polarizable optical microscope (Euromex) with heating stage (Linkam)
- Fourier Transform Infra Red spectrophotometer (Perkin Elmer and Shimadzu)
- UV-Visible spectrophotometer
- Limiting Oxygen Index analyzer (LOI)
- Hand moulding machine
- Hydraulic pelletizer
- Attended the workshops for handling the instruments like NMR, AFM, TEM and SEM

GUEST LECTURE DELIVERED

- Delivered a lecture on “Bloom’s Taxonomy” at PSG Institute of Technology and Applied Research, Neelambur, Coimbatore (July 21, 2015).

SEMINARS/CONFERENCES/WORKSHOP/FDP CONDUCTED

- Organized One Week Refresher Programme on Horizontal Integration of Various Elements of Pedagogy in Engineering Education during 4th to 9th June 2018 at PSG iTech (Funded by AICTE-ISTE, New Delhi).
- Conducted One day Workshop on Technical Textiles and Capabilities of PSG TECHS COE INDUTECH on 16th October 2017 at PSGTECHS COE INDUTECH.
- Organized two days Faculty Development Programme on “Train the Trainers - A Pedagogical Approach” on 28th & 29th June 2016.

- Organized five days Teaching-Learning process (Microteaching) for the faculty members during 08.12.2015 to 19.12.2015, at PSG Institute of Technology and Applied Research, Neelambur, Coimbatore.
- Organized two days First Year Students Orientation Programme on 31st July and 1st August 2015 at PSG Institute of Technology and Applied Research, Neelambur, Coimbatore.
- Conduct a one day workshop on “Micro Teaching-Laboratory Classes” for the faculty members on 30.06.2015 at PSG Institute of Technology and Applied Research, Neelambur, Coimbatore.
- Organized four days Teaching-Learning process for newly joined faculty members during 22.06.2015 to 25.06.2015, at PSG Institute of Technology and Applied Research, Neelambur, Coimbatore.
- Organized a one day programme on “Steps for preparing a session plan for Class Work” for the faculties in PSG Institute of Technology and Applied Research, Neelambur, Coimbatore on 17th June 2015.
- Conducted a one day workshop on “Session Plan for Class work” for the faculties in PSG Institute of Technology and Applied Research, Neelambur, Coimbatore on 8th January 2015.
- One of the co-ordinators to organize 66th Republic day celebrations held on 26th Jan 2015 PSG Institute of Technology and Applied Research, Neelambur, Coimbatore.

PAPERS PRESENTED IN SEMINARS/CONFERENCES

- **Presented a research article in 4th International Conference on Polymer Chemistry held during 25th – 27th June 2018 at Stockholm, Sweden.**
- **Presented a research article in 26th International Liquid Crystal Conference (ILCC – 2016), held on 31st July to 5th August 2016 at Kent State University, Kent (Ohio), USA.**
- **Presented a research article in 11th IUPAC Advanced Polymers via Macromolecular Engineering (APME 2015) held on 18-22, October 2015 at Yokohama, Japan.**
- **Presented a research article in 24th International Liquid Crystal Conference (ILCC – 2012), held on 19-24, August, 2012 at Mainz, Germany.**

- National Conference on Current Trends in Chemistry (NCCTC – 10), Organized by Department of Chemistry, Bharathiar University, Coimbatore on December, 2-3, 2010.
- National Seminar on Recent Developments in Green Chemistry (NSGC-2009), Organized by Post Graduate & Research Department of Chemistry, Sri Ramakrishna Mission Vidyalaya College of Arts & Science, Coimbatore on 22nd & 23rd July 2009.
- National Conference on Polymeric Materials – MACRO 09, Organized by Society of Polymer Science India and IIT-Madras at IIT-Madras Chennai, India on March 9-11, 2009.
- National Conference on Novel Polymeric Materials, Organized by Stella Maris College, Chennai and CLRI, Chennai on January 20th-21st, 2009.
- Recent Advances in Conducting Polymers (RACP-05), Organized by Department of Physics, Sri Ramakrishna Mission Vidyalaya college of Arts and Science, Coimbatore on 30th & 31st March 2005.

CONFERENCE/SYMPOSIUM/SEMINAR/FDP ATTENDED

- Attended 3rd Edition “National Higher Education Conclave” organized by CII on 1st and 2nd December 2017, at Le Meridian, Coimbatore.
- Participated in a One day Workshop on “Publishing in Indexed Journals like (Scopus)”, organized by Higher Education Learning Centre (HELIC), PSG Institute of Technology and Applied Research on 8th November 2017.
- Attended One day Workshop on ‘Emotional Intelligence’ at PSG Institute of Technology and Applied Research on 20th October 2017.
- Attended a lecture on ‘Writing Proposals for Research Funds’ organized by PSG CARE on 14th October 2017.
- Attended two days conference on Higher Education for Digital Natives organized by CII, Coimbatore on 02-03 December, 2016.
- Participated in the one day workshop on “Identifying Role Relevant Behavioral Competencies” held on 11th November 2016, conducted by Mr. Muralidharan Nagarajan, Former GM, HR, Ashok Leyland at PSG Institute of Technology and Applied Research, Coimbatore.
- Attended One Day Workshop on Intellectual Property Rights 2016 (IPR 2016) held during 26th April 2016, organized by Centre for Intellectual Property Rights (CIPR), Anna University, Chennai.

- Attended a one day workshop on Applying and Implementing Effective Teaching Methods for Professional Development organized by PSG Centre for Academic and Research Excellence on 5th December 2015.
- Attended two day Faculty Development Programme on Exploring the Nature of Experiences in Academic Ambience organized by PSG Institute of Technology and Applied Research during 21st and 22nd May, 2015.
- Attended the Safety Awareness Programme organized by PSG Institute of Technology and Applied Research, Coimbatore on 28th January 2015.
- Attended a session on Promoting Innovation in Higher Education conducted by CII, Coimbatore on 27th March 2015.
- Participated in two days TEQIP-II sponsored Workshop on Polymeric Materials-Characterization and Applications organized by Department of Chemistry, Coimbatore Institute of Technology, Coimbatore during 29-30th November 2013.
- Attended two days workshop on Nanofabrication Technologies-2013 organized by Indian Nanoelectronics user program, IIT Bombay and PSG IAS during 24-25th October 2013 at PSG College of Technology, Coimbatore.
- Attended two days Research Workshop on “Composites” conducted by Departments of Production Engineering & Basic Sciences (Chemistry) on 27-28 September 2013, at PSG College of Technology, Coimbatore.
- Attended the one day FDP on Orientation Programme sponsored under TEQIP Phase II on 29.06.2013, organized by Educational Technological Centre, PSG College of Technology, Coimbatore.
- Attended the Faculty Development Programme on Green Chemistry Frontiers & Challenges, Organized by Department of Chemistry, NIT-Calicut, on 17.06.2013 to 21.06.2013.
- Attended the third National Workshop on Theory and Practice of Advanced Techniques for the Characterization of Nanomaterials, Organized by Department of Chemistry, PSG College of Technology, Coimbatore on 24th & 25th January 2013.
- Third National Conference on Recent Trends in Polymer Science and Technology (NCRTPST – 2011), Organized by Department of Chemistry, PSG College of Technology, Coimbatore on 29th – 27th August 2011.
- UGC Funded National Seminar on Traditional and Modern Medicine: Current Trends and Future Prospects, Organized by Department of Chemistry, Nirmala College for Women, Coimbatore on 25th February 2011.

- Third National Conference on Advances in Chemical for Textile Polymers-Application and Quality Assurance (ACTPAQ 2011), Organized by Department of Chemistry, PSG College of Technology, Coimbatore on 17th – 18th February 2011.
- Attended the Workshop on Theory and Practice of Advanced Techniques for the Characterization of Nanomaterials, Organized by Department of Chemistry, PSG College of Technology, Coimbatore on 20th & 21st January 2011.
- Three day Lecture workshop on “Applications of Nonlinear Dynamics in Engineering and Technology” Organized by Department of Physics, PSG College of Technology, Coimbatore on 30th July to 1st August 2009.
- Second National Conference on Advances in Chemical for Textile Polymers-Application and Quality Assurance (ACTPAQ 2009), Organized by Department of Chemistry, PSG College of Technology, Coimbatore on 12th – 13th February 2009.
- Second National Conference on Recent Trends in Polymer Science and Technology (NCRTPST – 2008), Organized by Department of Chemistry, PSG College of Technology, Coimbatore on 21st - 22nd November 2008.
- Attended the National Workshop on Principles and Practice of Advanced NMR Spectroscopy conducted by The Society for Advancement of Electrochemical Science and Technology at CECRI Karaikudi on 11th -14th December 2006.