

Dr. BIJU R, M.Sc, CSIR-JRF(NET), Ph.D

Associate Professor

P.G. Department of Chemistry

Sree Narayana College, Chathannur

Research Interest: Inorganic/Organic/Polymer Chemistry
Research Experience: 13.10 years
Teaching Experience/Service: 14.3 years
Subject handled: Inorganic, Organic, and Physical Chemistry

Course/Training attended			
Name of the course attended	Name of the Institution	Period	Funding Agency
Refresher Course-NEP - 2020 Orientation and Sensitization Programme	UGC-MMTTC (GAD-MMTTC)	15 th to 25 th October 2024	UGC
Short term: Residential Workshop-Preparation of Syllabus of FYUGP	FMNC, Kollam	19 th to 23 rd March 2024	University of Kerala
Short term” Group Theory”	UGC-ASC, University of Kerala	22-3-2023 to 28-2-2023	UGC
Short term” Disaster Management”	UGC-ASC, University of Kerala	4-11-2022 to 10-11-2022	UGC
Refresher Course/Two Week FDP on “Emerging Best Practices in Higher Education”	Guru Angad Dev Teaching Learning Centre, A Centre of MoE, Govt. of India under PMMMNMTT and SGTB Khalsa College, University of Delhi	22-06-2021 to 06-07-2021	PMMMNMTT
One Week Online National Faculty Development Program/Refresher Course entitled “ <i>Enhancing Quality of Chemistry Education in India</i> ”	Guru Angad Dev Teaching Learning Centre, S.G.T.B. Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of Ministry of Education	25-02-2021 to 03-03- 2021	PMMMNMTT
Refresher Course in Environmental Sciences (Interdisciplinary)	UGC-HRDC, University of Kerala	11-01-2020 to 24-01-2020	UGC
Refresher Course in Chemistry	UGC-ASC, University of Kerala	26/02/2015 to 18/03/2015	UGC
Orientation programme (IT Oriented)	UGC-ASC, University of Kerala	30/4/2014 to 27/05/2014	UGC
FLAIR (Induction Training Programme)	Higher Education Department, Govt. of Kerala	29/09/2014 to 01/10/2014	Higher Education, Govt. of Kerala

Papers Published in Journals					
Name of Author/s	Year	Title of the paper	Journal Name	National/ International	Page Number
S. Mini, S. Biju, S. Suja, R.S. Sreepriya, R. Biju , S. Shibu Prasad	2025	Exploring The Catalytic Properties Of Zinc Complexes Derived From (E)-4-((2,6-Dihydroxyphenyl) Diazenyl) Benzoic Acid And Furan-2-Ylmethylene-(4-Methoxy-Phenyl)-Amine In Rubber Vulcanization	<i>New Materials, Compounds and Applications</i>	International	Vol.9, No.2, 2025, pp.386-396
S. Suja, S. Mini, R. Biju , R.S. Sreepriya	2025	Influence of Coconut Husk Retting on the ambient levels and Bioaccumulation of Selected Heavy Metals of Paravur Backwaters	Journal of Emerging Technologies and Innovative Research	International	Volume 12, Issue 2
R. Biju	2015	Chemically Cross-Linked Poly (ϵ -caprolactone) : Synthesis, Characterization, and Shape Memory Behavior.	Indian J. Res. Found. (ISSN 2454-6585), (2015)	National	15-19
S S. Swathy, R. Biju	2015	Synthesis, spectroscopic characterization, antibacterial and corrosion inhibitory activities of some 3d metal complexes of [(2-pyrrole-2-carboxaldehyde)-3-isatin]bishydrazone	Asian J. Chem. 12 (2015) ISSN: 0975-427X	National	4679-85
R. Biju	2014	<i>Effect of phenol end functional switching segments on the shapememory properties of epoxy-cyanate ester system.</i>	<i>J. Appl. Polym. Sci.</i> 131 (2014).	International	1-9
R. Biju	2013	<i>Synthesis and characterization of shape</i>	<i>J. Polym. Res.</i> , 20 (2013)	International	1-11.

		<i>memory epoxy-anhydride system.</i>			
R. Biju	2013	<i>High transition temperature shape memory polymer composites based on bismaleimide resin.</i>	High Perform. Polym., 25 (2013)	International	464-474
R. Biju	2013	<i>Epoxy-cyanate ester shape memory thermoset: some aspects of phase transition, viscoelasticity and shape memory characteristics.</i>	Polym. Adv. Technol., 24 (2013)	International	623-629
K. S. Santhosh Kumar, R. Biju	2013	<i>Review of progress in shape memory epoxy resins.</i>	React. Funct. Polym., 73 (2013)	International	421-430
R. Biju	2012	<i>Shape memory polymers based on cyanate ester-epoxy-poly (tetramethyleneoxide) co-reacted system</i>	Eur. Polym. J., 48 (2012)	International	499-511
R. Biju	2012	<i>Rheokinetic cure characterization of epoxy-anhydride polymer system with shape memory characteristics.</i>	J. Therm. Anal. Calorim., 107 (2012)	International	693-702

Papers Presented in Seminars							
Name of Author/s	Title of the paper	Oral / Poster	Event	Organising agency/ Institution	Regional/ National/ International	Date	Funding agency
R. Biju	Shape memory effect and mechanical properties of cyanate ester-poly-(ϵ -caprolactone)-epoxy copolymer	Oral	Young Scholars Congress 2019	AKG centre for Study and Research	International	16-17 March 2019	AKG Centre
R. Biju	Comparative Study of Shape Memory Bisphenol A and Bisphenol F Cyanate Ester Systems	Poster	Third International Conference on Frontiers of Mass	School of Environmental Sciences, Mahatma Gandhi University	International	11-14 Dec. 2017	UGC

			<i>Spectrometry (ICMS 2017)</i>	y & Inter University Instrumentation Centre (IUC), Kottayam, Kerala			
R. Biju	Shape Memory Polymers Based On Cyanate Ester-Epoxy-Carboxyl telechelic Poly(tetramethylene oxide) co-reacted system	Oral	Recent and Emerging Advances in Chemical Science	Dept. of Chemistry, All Saints' College, Trivandrum	National	08-09 Jan. 2015	UGC
R. Biju	Chemically Cross-Linked Poly(ϵ -caprolactone): Synthesis, Characterization, and Shape Memory Behavior	Oral	<i>National Seminar on NANOMATERIALS AND ITS APPLICATIONS (NSNA - 2015)</i>	Mar Ivanious College, Trivandrum	National	1 st Oct. 2015	KSCSTE
R. Biju	Shape Memory Polymers Based On Cyanate Ester-Epoxy System; Dependency On Nature Of Switching Segment	Poster	Recent Advances in Polymer Science and Technology	Mar Ivanious College, Trivandrum	National	23 June 2012	UGC

Projects Undertaken				
Title	Funding Agency	Period	Total fund sanctioned by funding agency (Rs.)	Status (Ongoing/ Submitted /Completed)
Shape memory polymers based on Cyanate ester-Epoxy-Poly(ϵ -caprolactone) co-reacted systems; Dependency on nature of cyanate ester resins	UGC	2013-2015	1.8 lakhs	Completed

Seminars /Workshops Organized						
Date	Event (seminar / conference invited talk/ workshop etc.)	Title of the event	Name & details of the resource person	Funding agency	National/ International	Details of the proceedings
28 th February 2017	Seminar	<i>National Science Day Celebration Observed by the Dept. of Chemistry</i>	Dr. R.S Rajeev Scientist/Engineer SF Polymers and Special Chemicals Division Vikram Sarabhai Space Centre, ISRO, Trivandrum	KSCS TE Kerala	National	
12 th & 13 th /12/ 2013	Seminar	<i>Emerging Trends at the Interface of Chemistry and Informatics</i>	Prof. V. N. Rajasekharan Pillai, Executive Vice President and Principal Secretary, Science and Technology, TVPM Dr. Achuthsankar S. Nair Hon. Director Centre for Bioinformatics, University of Kerala, Kariyavattom Campus Thiruvananthapuram Jaleel U C Open Source Pharma, Cheminformatics	UGC	National	
8 th & 9 th March 2016	Conference	Smart Materials	Dr. C. P. Reghunadhan Nair Scientist H & Deputy Director Propellants,	UGC and KSCS TE	National	

			<p>Polymers, Chemicals & Materials Vikram Sarabhai Space, Centre, ISRO Trivandrum 695 022</p> <p>Dr. K.S Santhosh Kumar Scientist/Engineer SE</p> <p>Polymers and Special Chemicals Division Vikram Sarabhai Space Centre, ISRO, Trivandrum</p> <p>Dr. R.S Rajeev Scientist/Engineer SF</p> <p>Polymers and Special Chemicals Division Vikram Sarabhai Space Centre, ISRO, Trivandrum</p> <p>Dr. R. Sujith Assistant Professor Mechanical Engineering Department, BITS Pilani Hyderabad Campus Hyderabad, 500078.</p>			
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Workshops /Seminar attended				
Name of Programme	Title	Regional/National/International	Date	Funding agency
Webinar	The importance of Data Visualizations"	National	10-08-2021.	GAD-TLC under PMMMMNMTT of Ministry of Education
Webinar	Smart Materials Chemistry"	International	29 to 31 July 2021	Department of Chemistry, St. Joseph's College, Tiruchirappalli, Tamil Nadu
Webinar	Transition from Campus to Corporate Life-Telephone Etiquettes	Regional	13-07-2020.	S N College, Chempazhant hy
Webinar	<i>CO2 Capture from Air to Control Pollution & Gas Purification"</i>	International	24-07-2020	Mannaniya College of Arts & Science, Pangode, Kallara, Thiruvananthapuram
Webinar	ICT Tools for Chemistry Teachers"	National	22-02-2021.	PMMMMNMTT
Workshop	One day Workshop on PFMS Training programme	Regional	28/2/2020	RUSA
Seminar	Tracing The New Strides: Vignettes Of Frontline Chemistry	International	7th and 8th November 2019.	Department of Collegiate Education, Govt. of Kerala
Workshop	PFMS and UGC-Settlement meeting	State	June 3 & 4th 2019.	UGC and RUSA
Workshop	Practicals in Chemistry BSc (S4) and M.Sc (S4) at FatimaMata National College, Kollam.	State	10 Oct. 2015	ACT, Trivandrum
Seminar	Recent Trends in Chemical Sciences	National	23-24 Oct 2014	UGC
Workshop	Advance in Organic Synthesis and its Application in Drug Discovery	National	21 - 22 July 2011	CSIR OSDD-ACT

Achievements/ Awards

SAMPE (Indian Society for Advancement of Materials and Process Engineering) award for Smart Materials and System Technology Development for “ <i>Investigation on Shape Memory Polymers for Space Applications</i> ”.	Aeronautical Society of India, Bangalore., 2012.
The Young Researcher Award for “ <i>Synthesis and Characterization of Shape Memory Bismaleimide Resins</i> ”. International conference ‘Functional Polymers’	Department of Chemistry of NIT Calicut, 2011
Dr. H S Venkataraman Memorial Endowment award given by Sri. Sankara Narayana Iyer for securing highest marks among all S N Colleges (2006)	SN Trust
4th Rank, M.Sc Chemistry 2004-2006 batch Chemical Research Society of India, Trivandrum Chapter Quiz	University of Kerala
Chemical Research Society of India, Trivandrum Chapter Quiz Competition conducted NIIST Trivandrum chapter- Ist Prize 2006 and IInd Prize 2005.	NIIST
All Kerala Intercollegiate Chemistry Quiz Competition conducted on Fatima Matha National College Kollam- IIIrd Prize	Fatima Matha National College Kolla

Details of PhD Research Scholars		
Programme	Total Number of scholars enrolled.	Total Ph.D Degree awarded
Ph.D.	one	Nil

Membership in Academic & Professional Bodies
<ul style="list-style-type: none"> ❖ Life Member, SPSI (The Society for Polymer Science, India) ❖ Life member Academy of Chemistry Teachers ❖ Alumni member-University College, TVPM and S N College, Chempazhanthy.

Other Academic Achievements
<ul style="list-style-type: none"> ❖ Junior Research Fellowship (2007), Council for Scientific and Industrial Research of India-CSIR-JRF(NET) ❖ Graduate Aptitude Test in Engineering: GATE 2007 ❖ National Eligibility Test (CSIR-NET)- Lectureship (2006), Council Scientific and Industrial Research of India

Position/responsibilities held
<ul style="list-style-type: none"> ❖ RUSA coordinator (2019-2025) ❖ PTA secretary (2017-2020) ❖ Purchase Committee (Convener) (2018-2020) ❖ Computer centre (convener) 2017-2018 ❖ Computer club member 2019- till continue ❖ CLMC (member) 2016-2017

- ❖ Canteen committee (member) 2017-2019
- ❖ College Council member (2018-2019)
- ❖ Planning board member 2018-till continue
- ❖ Research committee (member) 2019- till continue
- ❖ Anti-ragging squad member (2018-19)
- ❖ Anti-Ragging committee member (2018-2019)
- ❖ LOGOS journal member (2019-2020)