

CURRICULUM VITAE



ANNU RAJU

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OBJECTIVE

To pursue an ambitious career in a reputed institution, where I could utilize my inter-personal skills and abilities to the maximum and serve them the best way possible.

EDUCATION

Doctorate in Philosophy, 2018

Completed Ph.D. under the supervision of **Dr. T.P.D. Rajan** and co-supervision **Dr. C. Pavithran** under **Kerala University** at **CSIR-National Institute for Interdisciplinary Science and Technology**, Trivandrum.

The title of the thesis is **“Self-Assembling and Anti-corrosion characteristics of Polystyrene Clay Nanocomposites”**

Master of Science

M.Sc (Pure chemistry) with First class from University of Mysore, Mysore, Karnataka, India. (2008)

Bachelor of Science

B.Sc (Chemistry) with Distinction from Kannur University, Kannur Kerala, India. (2006)

ACHIEVEMENTS

QUALIFIED CSIR JRF -NET, JUNE 2009

TEACHING EXPERIENCE - 4 years

Guest Lecturer, Department of Chemistry and Centre for Research,
St. Teresa's College (Autonomous), Ernakulam, Kerala. (2016 onwards)

BOOK AUTHORED AND EDITED

"Advanced Organic Chemistry" :- First edition, published by Teresian Publishing House, Ernakulam based on restructured syllabus for undergraduate complementary courses common for Botany, Zoology and Family and Community Science.

Year - November, 2017

ISBN: 9788172550929.

AWARDS RECEIVED

- **BEST PAPER AWARD:** " Effective enhancement of anticorrosion properties of polystyrene on Aluminum alloys by polystyrene-clay nanocomposite coatings", **Annu Raju**, R.K. Vishnupratap, N.Anand, T.P.D. Rajan, C. Pavithran, B.C. Pai.,17th National congress on corrosion control-NCCI, CSIR-CECRI, August-2014.
- **BEST POSTER AWARD:** Micropatterned Polystyrene Alumina Composite induced by Phase Separation Technique, Lakshmi V., **Annu Raju**, T.P.D. Rajan, C. Pavithran, B.C. Pai, National Conference on Recent Trends in Materials Science And Technology, IIST Trivandrum, July 2013.

SEMINARS ORGANIZED

- **Coordinator- WOMEN ACHIEVER IN SCIENCE -SERIES 1, 2 and 3 - (2017, 2018 & 2019)** organized by Department of Chemistry and Centre for Research, St. Teresa's College (Autonomous), Ernakulam

- **Coordinator- BRIDGE COURSE** in “ Theory and Problem solving in Spectroscopy” organized by Department of Chemistry and Centre for Research, St. Teresa’s College (Autonomous), Ernakulam
- **Coordinator- “World Space Week Celebration 2019”** - Outreach program by VSSC, ISRO and LPSC.

PUBLICATIONS IN INTERNATIONAL JOURNALS

1. Adduct modified nano-clay mineral dispersed polystyrene nanocomposites as advanced corrosion resistance coatings for aluminum alloys, **Annu Raju**, V. Lakshmi, R.K. Vishnu Prataap, V.G. Resmi, T.P.D. Rajan, C. Pavithran, V.S. Prasad, S. Mohan., Applied Clay Science 126 (2016) 81 -88.
2. Amino-functionalized breath-figure cavities in polystyrene–alumina hybrid films: effect of particle concentration and dispersion, Lakshmi V., **Annu Raju**, Resmi V.G., Jerin K. Pancrecious, Rajan, T.P.D., Pavithran C., Phys. Chem. Chem. Phys. 2016, 18, 7367.
3. Concentration dependent pore Morphological tuning of Kaolin Clay Foams using Sodium dodecyl sulfate as Foaming Agent., Lakshmi V, Resmi V G, **Annu Raju**, Deepa J P, Rajan T P D, Pavithran C, Pai B C, Ceramics International, 2015, 41(10):14263-14269.
4. Microstructural Aspects of Particle-Assisted Breath Figures in Polystyrene–Alumina Hybrid Free Standing Film., Lakshmi Vijaya, Ramya Rajan, **Annu Raju**, Thazhavailai Ponnu Devaraj Rajan, and Chorappan Pavithran, The Journal of Physical Chemistry C, 2017, 121 (28), 15154–15159.
5. Micropatterning of Polystyrene-Alumina Nanocomposite Film by Nonsolvent Induced Phase Separation., Lakshmi V, **Annu Raju**, Rajan T P D, Pavithran C, Pai B C, Materials Science Forum, 2015, 830-831:569-572.

PAPERS PRESENTED AT CONFERENCES (POSTERS/ORAL)

1. Mid-CRSI conference held at NIIST (CSIR), Trivandrum during 23-24 July 2010.

2. "Polymer Science and Technology: Current Trends and Future Scenario" workshop organized by the Society for Polymer Science, Trivandrum Chapter on 24 January 2010.
3. International Conference on Recent Trends in Materials Science and Technology held at Trivandrum during Oct 29-31 2010
4. National seminar on "Frontiers in Chemistry" organized by IIST, Trivandrum on 7-8th December 2011.
5. International Conference on Advances in Metallic Materials and Manufacturing Processes for Strategic Sectors, Trivandrum, January 19-21, 2012.
6. CRSI conference held at CSIR-NIIST, Trivandrum during February 4-6th 2012.
7. International Conference on Advanced Functional Materials, Trivandrum, February 19-21, 2014.
8. National Conference on Materials Science And Technology, IIST, Trivandrum, July 28-30, 2014.
9. 17th National Congress on Corrosion Control -NCCI, CSIR-CECRI, Karaikudi, August 21-23, 2014.
10. International Seminar on "Recent Advances in Solar Energy Applications", Rase- 2016, St. Teresa's College, Department of Chemistry, Ernakulam, 15 December 2016. **ORAL PRESENTATION** on "Solvent Assisted Self-Assembling and Anticorrosion Properties of Polystyrene Clay Nanocomposites".

INTERNATIONAL/NATIONAL CONFERENCE ATTENDED

- Participated in UGC sponsored workshop on "Fourth Cycle Accreditation in Autonomous Colleges", Organized by IQAC and the audit cell, St. Teresa's College (Autonomous), Ernakulam on 22nd June 2016.
- Participated in a two day National seminar on 'Smart materials-Theory and Applications' held at Post Graduate and Research Department of Chemistry, Maharaja's College, Ernakulam on 8,9 December, 2016
- Participated in International Seminar on "Recent Advances in Solar Energy Applications", Rase- 2016, St. Teresa's College, Department of Chemistry, Ernakulam, 15 December 2016.
- Participated in UGC sponsored National seminar on "Advancements in Polymer Science and Technology" by Department of Chemistry, St. Teresa's College (Autonomous), Ernakulam, 24-25, January, 2017.

- Participated in Seminar on “GC-MS,LC-MS and NMR Spectroscopy”, by INDIAN SOCIETY OF ANALYTICAL SCIENTISTS – Kerala Chapter, held at St. Teresa’s College, Department of Chemistry, Ernakulam, September 22, 2017.
- Participated in National Workshop on, “Microscale Techniques in Experimental Organic and Physical Chemistry” organized by Dept. of Chemistry, St. Teresa’s College, 2 & 3 November, 2017.
- Participated in State level seminar on “Environmental sustainability – changing phases” organized by Department of Chemistry and Economics St. Teresa’s College, 2 & 3 November, 2017.
- Participated in UGC sponsored National seminar on “Rising Cancer: A Raising Concern” by the community college, St. Teresa’s College (Autonomous), Ernakulam, 15 December, 2017.
- Participated in Albertian International knowledge summit 2018, International conference on multidisciplinary research, 8-17 January, 2018.
- Participated in International Seminar on “Emerging Trends in biophysical research and current challenges in arctic sea ice monitoring”, St. Teresa’s College, Department of Zoology, St. Teresa’s College, Ernakulam, 13 July, 2018.
- Participated in “ World Ozone day celebration 2018” organized by Bhoomithra Sena club and Department of Chemistry, St. Teresa’s College, on 17th September , 2018.
- Participated in the Albertian Knowledge Summit-An International Conference on Multidisciplinary Research organized by St. Albert’s College (Autonomous), Ernakulam on 4th and 5th January 2019.

OTHER ACHIEVEMENTS AND CERTIFICATES

- Organizing committee member of the following programs organised by the Department of Chemistry and Centre for Research of St.Teresa’s College, Ernakulam(academic year 2019-20)-
 - Career prospects in Industry by Biocon Academy
 - Three day certificate course on ‘Green and Safe Approach to Microscale Volumetric Analysis’ on 29th June,1-2 July 2019.
 - Dr.(Sr.) Bertille endowment lecture on Computational Chemistry
- Organizing committee member of walk with a scientist: Series 1, programme on “Nanomaterials based Biosensors for cancer detection”, organized by the Department of Chemistry and Centre for Research on 17th January, 2018.

- Organizing committee member of the following programs organised by the Department of Chemistry and Centre for Research of St.Teresa's College, Ernakulam(academic year 2018-19)
 - Student enrichment programme-'Career prospects of Women in Industry'
 - Workshop on microscale volumetric analysis
 - Higher education and research at IISER-outreach program
 - Faculty enrichment programme-Teresian Ecofriendly Recycling and Reusing Activities(TERRA)
 - Enrichment program-Total quality management
 - State level workshop for laboratory staff-FAST 2018
 - Erudite lecture program by Prof.Toshiaki Enoki
 - Dr. Sr. Bertille endowment lecture on Thermodynamics of living cells.
 - Dr. Sr. Bertille endowment lecture on Spectroscopy

MISCELLANEOUS DUTIES AND POSITIONS HELD

- **Question Paper Setter** for the "Fifth Semester UG Examinations October-2019 "Environmental Studies and Human Rights", of CMS College, Kottayam (Autonomous).
- **BOS member** of Department of Chemistry and centre for Research
- Has been part of restructuring of the syllabi of PG papers (theory and practicals) under autonomy (2019-2020)
- **External examiner** of Semester 3 - UG End semester exam of *Sacred Heart College, Ernakulam* for the year 2016, 2018 and 2019.
- **External Examiner** of Semester 5 - UG End semester exam of *CMS college, Kottayam* for the year 2019
- **LIFE GUIDANCE** for students - Faculty in charge of the college, 2018-19.
- **JESUS YOUTH** - Teacher in Charge of the college, 2018-19.

- **NAVADARSHAN** in-charge of the Department of Chemistry and Centre for Research during the academic year 2016-2018
- **Teresian Rural Outreach Program (TROP) - Coordinator**, of the Department of Chemistry, St. Teresa's College, Ernakulam(2018 & 2019)
- **Chemistry Association in Charge Teacher** of the Department of Chemistry and Centre for Research during the academic years 2017, 2018 & 2019.
- **Chemicals purchase** in-charge of the Department of Chemistry and Centre for Research during the academic year 2018 & 2019.
- One of the Judges of the Competition for students on the "FACE PAINTING AND BEST OF WASTE" by NSS unit, St. Teresa's College (Autonomous), Ernakulam, 8-9, July 2019.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

- Member, Indian Institute of Metals.
- Member, Society of Polymer Science
- Member, Materials Research Society of India

AREA OF INTEREST

- Functionally Graded Materials
- Polymer chemistry
- Inorganic Chemistry
- Spectroscopy Technique

SCIENTIFIC INSTRUMENTS USED

- UV-Visible Spectrophotometer
- Optical Microscopy
- Stereo Microscopy

PROFESSIONAL STRENGTHS/SKILLS

- Good Interpersonal skills
- Strong desire for acquiring knowledge.
- Positive Thinking

PERSONAL PROFILE

Marital Status	Married
Date of birth	29-04-1986
Gender	Female
Nationality	Indian
Languages known	Read : Malayalam, English and Hindi Write : Malayalam, English and Hindi Speak : Malayalam, English, Hindi, Tamil and Kannada
Interests	Teaching, Cooking, Dancing, Traveling and Listening to music

REFERENCES

<p>Dr. Ushamani M. Associate professor Former Head of the Department Department of Chemistry and Centre for Research St. Teresa's College(Autonomous) Ernakulam -682035 Tel: 9895935659 Email: usmam@yahoo.com</p>	<p>Dr. B.C. Pai Scientist - G Former Director, CSIR-National Institute of Interdisciplinary Science and Technology, Industrial Estate P. O., Pappanamcode Trivandrum, Kerala.- 695 019. Tel: 0091-471-2515238; Email: bcpai12@rediffmail.com</p>
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