

# Curriculum vitae



**KARTHIKA**

Phone: +917012267051, Email: [karthikapairadukkam@gmail.com](mailto:karthikapairadukkam@gmail.com)

Present Location: Pune, Maharashtra, India

## Area of interest:

Synthesis of monomers and polymers, Coatings, Thermosets, Flocculants, membrane preparation, 3D printing (Additive manufacturing), characterization of polymers, Instruments handling, radiopaque polymers for biomedical applications.

## Educational qualification:

Degree	University	Subject	Year	Results	% & CGPA
M.Sc.	CIPET-IPT, Kochi (Affiliated by Cochin university-CUSAT), Kochi, India.	Polymer Science	2019	First Class with Distinction	89.4
B.Sc.	NASC college, Padnekad, (Affiliated by Kannur University), Kanhangad, India.	Polymer Chemistry	2017	First Class with Distinction	89.5
H.S.C.	Kerala Board	Science	2014	First Class with Distinction	88
S.S.C.	Kerala Board	All subjects	2012	First Class with Distinction	92

## Research experience:

Project Associate at CSIR – National Chemical Laboratory Pune (Maharashtra) India

Duration	Project Leader	Responsibilities
Aug – 2023 July -2024	Dr. S. Kiran	“Centre of Excellence in Speciality Polymers for Customized Additive manufacturing”
Feb – 2023 July – 2023	Dr MV Badiger & Dr.P.R.Suresha	"Synthesis of Poly-acrylamide cationic flocculants: Characterization and Performance Evaluation in Flocculation.”

March – 2021 Dec – 2022	Dr. S. Kiran	"Synthesis of Bio-derived Cyclic Carbonates and polymers (Polyurethanes) there fromfor Biomedical Applications".
May– 2019 March – 2020	Dr. Ulhas K Kharul	"Development of Hollow fiber membranes and modules for separation of the gases".

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#### Research skills:

- Hand on experience of multi-step organic synthesis of monomers and purification by Column Chromatography. Hands on experience for synthesis of polymers via various techniques. And hands on experience for Characterization of organic molecules and polymers using Melting point, FT-IR, UV-Visible spectroscopy, Viscosity, GPC, DSC, DLS, Tensile (UTM) Contact angle, Spinning machine, Casting machine, Zeta analyzer, 3D printer.
- **Processing Instruments Skills:** Microprocessor controlled injection molding machine, Automatic blow molding machine, Twin Screw Compounding Extruder, Compression Molding Machine, Thermoforming machine, two roll mixing mill.
- **Computer Skills:** Microsoft office such as MS-Word, MS-Excel, MS-Power point, Adobe Acrobat7.0, Adobe Photoshop, Chem Office: Chemdraw, Sci-finder, Origine8, ACD NMR Processor, Fusion 360, Allevi software.

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#### PUBLICATIONS:

- "Synthesis and Characterization of Non-Invasively Traceable Poly(ether urethane)s for Biomedical Applications." Biomedical Physics & Engineering Express- (2023)045001
- "Evaluation of the adhesive properties of vanillin-derived polyhydroxyurethanes" J Appl Polym Sci.2023;140:e54647.
- "Thrombin Immobilized Hemocompatible Radiopaque Polyurethane Microspheres for Topical Blood Coagulation" Journal of Biomedical Materials Research Part A, 2024; 0:11

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#### Conferences / Workshop Attended:

- Attend SPSI-MACRO 2022 at NCL and IISER Pune.
- Poster participation in NCL-RF 2023 conference at CSIR-NCL Pune.

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#### Personal Details:

Date of birth: 22<sup>nd</sup> Feb 1996  
Gender: Female  
Nationality: Indian  
Languages: English, Hindi, Malayalam  
Mobile No: + 91 7012267051  
Email: [Karthikapairadukkam@gmail.com](mailto:Karthikapairadukkam@gmail.com)

Thesis Topic: New conjugated polymers for thermoelectric energy conversion: materials design  
Keywords: conjugated polymers, thermoelectric, Energy