





Koushik S
M.Tech Surface Coating and Technology
Institute of Chemical Technology

D.O.B: 29th Jan 1996

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Career Objective: Self-Motivated, energetic and enthusiastic individual seeking an opportunity to indulge in project works for enhanced coatings and to tackle the problems or shortcomings that may arise in due process with different perspectives and prove myself as a highly engaged and positive team player with a strong customer focus and the motivation to deliver exceptional results.

Educational Qualifications:

Examination	Institution (name, place, state of Institution)	%Marks
S.S.C. (2012)	Mahatma Montessori Matriculation Higher Secondary School, Madurai, Tamil Nadu	95.40
H.S.C. (2014)	Krishnamal Ramasubbaiyer Matriculation Higher Secondary School, Madurai, Tamil Nadu	87.92

Educational Qualifications:

B.Tech - Polymer Technology, Kamaraj College of Engineering and Technology, Madurai, Tamil Nadu							
Semester	Year	%Marks / SGPA	CGPA	Semester	Year	%Marks / SGPA	CGPA
I	2014	7.731	7.73	V	2016	8.870	8.15
II	2015	8.222	7.98	VI	2017	8.038	8.13
III	2015	7.680	7.88	VII	2017	8.5	8.19
IV	2016	8.348	7.99	VIII	2018	10	8.25
M.Tech - Surface Coating Technology, Institute of Chemical Technology, Mumbai, Maharashtra							
Semester	Year	SGPA	CGPA	Semester	Year	SGPA	CGPA
I	2019	8.98	8.98	II	2020	9.11	9.03
III	2020	10	9.38	IV	2021	-	-

In-Plant Training:

- Krishna Tube Industries Ltd, Madurai, Tamil Nadu. June 2016
Hands on training on **Manufacturing of Rubber Tubes and Troubleshooting** involved in the process
- R.P.Plastics Madurai, Tamil Nadu. June 2016
Hands on training on **Manufacturing Processes for Different Plastic Components**
- Rubber Board of India, Kottayam Kerala. August 2016
Short term training on **Rubber Product Manufacturing and Testing**

B.Tech Research Topic:

SRF Ltd- Engineering Plastic Business – Manali, Chennai 5th Dec 2017-15th Mar 2018
“Analysed the Process Capability for Compounded Nylon6, Nylon 6,6, PBT and Achieved the Process Capability Index for Three Grades” under the guidance of Dr.R.Baskaran Associate Professor, Kamaraj College of Engineering and Technology, Madurai.

M.Tech Research Topic:

Synthesized “**Bio-Based Non-Isocyanate Polyurethane from Five Different Amines under Atmospheric Pressure, as Hardener for Improving the Corrosion Resistance of Epoxy Resins**” under the guidance of Dr. Anagha S. Sabnis Associate Professor Institute of Chemical Technology, Mumbai.

Problems in commercial Polyurethane: Synthesis of Commercial Polyurethane make use of Isocyanate that is highly Toxic and can cause Fatal Diseases when get exposed.

Solution for the specified problem: Found an alternative feasible route [Cyclic Carbonate + Amine] for the synthesis of Polyurethane that Eradicates the use of Hazardous Isocyanate.

Problems present in ongoing research works: The ongoing research works on Non-Isocyanate Polyurethane makes use of the Epoxy rings which are Carbonated to produce Cyclic Carbonate which usually requires High Pressure Reactors.

Benefit of proposed scheme: Synthesized Cyclic Carbonate at Atmospheric Pressure through Transesterification route which makes the route more feasible than the current ongoing studies.

Problem faced in the project: The product synthesized formed excellent films with epoxy but is highly hygroscopic which resulted in the lack of adhesion.

Rectification of Problem: Surface Treatment by Silanization of the steel panels.

Results: Produced highly Corrosive Resistance Non-Isocyanate Polyurethane coating that didn't show any sign of corrosion even after 21days of Salt Spray Testing.

Mini-Project :

I have worked in a consulting project for UltraTech where:

- I have **Formulated Acrylic Water-Based Paints** and tested their performance with the commercial Paints.
- I have **Formulated Solvent based Alkyds, Polyurethane 2K (From Acrylic Polyol and Polyester Polyol)**, and tested their competence with the commercial paints.



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Academic Achievements and Awards:

1. Qualified Gate 2018 and 2019.
 2. Runner up in **Paper Presentation** on “**Biobased Fiber for Polymer Composites**” CRESTECH-2016 National Level Technical Symposium at B.S. Abdur Rahman University, Chennai.
 3. Runner up in **Technical Quiz** Event held as a part of Elastoplaz’17 on 3rd march 2017 at MIT campus Anna University, Chennai.
 4. I have been honored by **Rajya Puraskar** award in scouts and guides in 2010
 5. Presented a paper on “**Chemistry for Sustainable Future**” during scientium’15 organised by Kongu Engineering College, Erode, Tamil Nadu.
6. Presented a poster on B.Tech project during RTAM’2018 at Kamaraj college Madurai.

Extra-Curricular:

1. Batch Representative and school sports team captain.
2. Participated in the Common Wealth Games Queen’s Baton Relay.

Skills:

Interpersonal skills || IPR skill || Management skill || Good presentation skill || Team player || Comfortable working in a multi cultural and multi lingual environment || Emotional intelligence.

Language Skills:

English, Tamil, Hindi.

Interests:

I enjoy acquiring knowledge from my peers and surroundings.

Hobbies:

Playing Badminton, Basket Ball and Carrom.