CURRICULUM VITAE

Dipak Chattopadhyay; Ph.D
R&D and QC Head
Noetique India Pvt Ltd
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WEBSITE, PROFILES:

http://dkchattopadhyay.yolasite.com

PROFESSIONAL SUMMERY:

Technology professional with robust background for driving advancements in polymeric materials and business transformations. Recognized for leading high-impact research projects that align with organizational goals and enhance overall performance. Known for fostering strong team collaboration and adaptability to changing business needs while leveraging expertise in polymer structure-property relationship and formulation cost management.

SKILLS:

- Technical competency
- Innovative problem solving
- Project and time management
- Supervision and leadership

EXPERIENCE:

July 2025 onwards: R&D and QC Head, Noetique India
Developed below products:

- 1K and 2K polyurethane grouts for waterproofing and ground injection with varied reactivity and expansion.
- PU-waterglass grouting.
- Tail seal greases for Tunnel Boring Machine (TBM).
- Soil conditioner foams for TBM.
- Concrete accelerators.

Nov 2023 – June 2025: Chief Technical Officer - Saan Global Limited
Developed below products:

- Flame lamination additive. Production & sales are ongoing for slabstock foam market.
- Polyurethane (PU) colorants and introduced for production.
- Polyethylene coated peelable kraft paper. Regular production and sales are ongoing.
- Polyester polyol for flame lamination application.
- Polyester polyol for polyester-urethane foam applications.
- Working on other projects for development of additives for polyurethane industry.
- Responsible for operation of two plant – additives for polyurethane foam and fabric for mattress ticking applications.

Feb 2023 - October 2023: R&D Head (General Manager) - Classic Stripes (Now Naxnova)
Developed below products:

- 2K Polyurethane dosing and doming materials.
- Acrylo-urethane clear coatings for automotive decals.

- Vinyl chloride-vinyl acetate copolymer and vinyl chloride-vinyl acetate-vinyl alcohol terpolymer based screen printing ink formulations.
- Solventless thermo-formable UV cured inks.
- Cost effective sources of PVC film – adhesive – liner materials for automotive decals.
- Acrylic foam based and polyester based double sided (DS) tapes.
- Solvent free transparent DS tape.
- Supported Classic Stripes present business and new requirements from different OEM customer.
- Learned thin film electronics and medical wearable IoT such as conducting coating for thin film bendable electronics – Silver coating, Copper coating, PEDOT:PSS, integrated circuits, bio sensors, transistors, wearable drug delivery, healthcare wearable devices for diagnostic and treatment.

Dec 2021 – Feb 2023: **General Manager R&D - HIL Limited (Now Birlanu)**

Development below construction chemicals:

- Building waterproofing – seepage proofing, wall (internal and external) waterproofing, roof, concrete joints and under-tile waterproofing, injection grouting waterproofing. liquid integral waterproofing, SBR, Acrylic emulsion waterproofing, RDP dispersion, bitumen emulsion waterproofing, membranes etc.
- Joint filler – cementitious and polymer modified tiles and marble joint filler.
- Grouting – acrylic injection grout, epoxy grouting, polyurethane (PU) grouting, PU-waterglass grouting, cementitious grouting.
- Repair and renovate – waterproof putty, epoxy injection, PU injection, waterproofing coating.
- Tile adhesives and cleaner, stone-care range, coatings (primer, interior and exterior styrene-acrylic and acrylic emulsion topcoat, glossy and mat finish wood coating) for HIL new business development.
- Introduction of new products for HIL roofing (fiber-cement corrugated painted and non-painted sheets) and building solutions (fiber-cement flat boards and panels, AAC blocks, dry mix products), cement-based putty.
- Cost reduction of existing products and developing value proposition for end customers.
- Worked on Geopolymer development for 3D printing applications.

April 2019 – Oct 2021: Scientist R&D Polymer - Normet India

Developed below construction chemicals:

- Formulation of 1K and 2K polyurethane flexible, semi-flexible and rigid injection grouting waterproofing foams with varied reactivity and expansion. 80 MPa compressive strength 2K PU, 40 MPa compressive strength fire retardant polyurethane-waterglass grouts, PU-waterglass fire retardant foam formulations.
- Acrylic injection gels.
- Epoxy-amine thermoset resin for repair and renovation work.
- Epoxy putty,
- Polyester resin capsules.
- Tunnel waterproofing – polyurea membranes, VAE (RDP) based dry mix mortar and 1K paste.
- Rock Bolt Grout and Cable Bolt Grout.
- Cementitious ground injection formulations.

March 2017 – April 2019: R&D Head (Dy General Manager) - Mayur Uniquoters Ltd, India

- Formulation optimization of next generation PVC leather cloth. Applications include OEM seat covers, upholstery, leather goods, and footwear.
- Testing of developed leather cloths as per customer specifications.
- Established lab for phthalate test using GC-MS instrument, Fog and VOC test as per VDA-278 and other critical to quality tests.
- Established 3rd party Lab testing (Bureau Veritas Noda, SGS Gurgaon, Intertek UK, Filk Germany for REACH, RoHS and California Proposition 65).
- Customer complaints attended. Supported internal customers.

March 2014 – March 2017: **Senior Scientist II - Honeywell, Gurgaon, India**

Developed formulations of below products with Honeywell blowing agents Solstice LBA and Enovate 245fa.

- Rigid form for appliances and panels, and frozen food carrier vehicle for different customers.
- Spray foam for energy insulation buildings.

- Flexible PU foam for automotive applications.
- Slabstock and integral skin PU foam with Honeywell blowing agent.

May 2010 –March 2014: **R&D Head (Assistant General Manager)** - **Sheela Foam, India.**

Formulation development of flexible slabstock foam for:

- Slabstock foam: low density, soft foam, hard foam, high resilience foam, memory foam etc for uupholstery, furniture cushion and mattress Industry.
- UV stabilized foam for shoe and bra-cup applications.
- Flame retardant foam for canopy-generator set (acoustic absorption foam) complying UL-94 HF1.
- Flame retardant slabstock foam complying CAL 117 and BS 5852 crib test standard.
- Flame lamination foam complying FMVSS 302 standard.
- Polyester-urethane foam for OEM applications.
- Reticulated foam for filter applications and paint roller.
- Quality control of incoming materials and outgoing foams.
- Formulation cost vs performance management.
- Technical support to internal and external customers.
- Member of Sheela cross functional team for mattress design and development.

Yr. 2009-2010: Postdoctoral Research Associate, Polymer Chemistry Research Group, Department of Organic Chemistry, Ghent University, Belgium.

Worked on **Recticel BV** sponsored project to develop click chemistry based polyurethane films and foams having surface modification properties. Developed value demonstrator for customer.

Yr. 2006-2008: Postdoctoral Research Associate, Department of Coatings & Polymeric Materials, North Dakota State University, Fargo, USA.

Worked on sol-gel coatings, polyurethane coatings, epoxy-amine thermosets with amino-silanes and nanocomposite coatings. Research was sponsored by Air Force Office of Scientific Research (AFOSR, USA). Developed chromate free sol-gel based coatings for aircrafts.

EDUCATION:

Yr. 2001-2006: Ph. D in Chemistry (Osmania University; Hyderabad)
Research carried out at Indian Institute of Chemical Technology (IICT), Hyderabad, India
Thesis: "POLYURETHANE-UREA & POLYURETHANE-UREA-ACRYLIC SYSTEMS: SPECTROSCOPIC AND PHYSICOCHEMICAL STUDIES". Mentor: Dr. K. V. S. N. Raju, Scientist, IICT, Hyderabad, India.

Developed polyurethane, epoxy, acrylics, polyesters binders and formulated high solids, solvent borne and water borne thermosetting coatings. Synthesized resins were characterized for molecular weight by GPC and MALDI, viscosity by Ford cup No 4 and Brookfield viscometer. Structure was analyzed with FTIR and NMR studies. Curing of formulated coatings was followed by FTIR, NMR, DMTA, TGA and DSC analysis. Post-cured coatings (clear coats) were studied for their thermal properties (TGA, DSC, DMTA), mechanical properties (hardness, tensile strength, % elongation), surface properties (contact angle, X-ray photo-electron spectroscopy) and accelerated weathering resistance (Q-UV test). Pigmented coatings were formulated using Fe_2O_3 and TiO_2 and their humidity and salt-spray resistance were evaluated.

Yr. 1999-2001: M. Tech in Corrosion Sci. & Technology.
Regional Engineering College, Durgapur (Now **N**ational **I**nstitute of **T**echnology), India.
Specialization: Corrosion Science & Technology, First Division (TCPA: 75.9)
M.Tech dissertation: Formulated different acrylic (HEMA, MMA, BA Styrene)—melamine solvent borne and acrylic emulsions. Studied structure-property relationship of synthesized polymers.

M. Sc: Chemistry (1999)
Regional Institute of Technology (NIT), Jamshedpur, India. (First Division 73.62 %)

AWARDS:

- National level Eligibility Test (NET) jointly conducted by Council of Scientific & Industrial Research (CSIR) and University Grants Commission (UGC), India [Letter No. 2-44/2000 (i)-EU. II dated 1.2.2001].

- Graduate Aptitude Test in Engineering (GATE) 1999 & 2000 conducted by the IIT's and IISc, Bangalore, on behalf of the National Coordinating Board - GATE, Department of Education, Ministry of Human Resource Development, Government of India.
- UGC Research Fellowship in Engineering & Technology for perusing Ph. D [Letter No. F.10-1/2000 (SA-II) dated 2 Nov 2001].

- Gold Medal for secured the first position in M. Tech. M.Sc University Topper.
- Indian Paint Association Award - 2004.
- Name included in Marquis Who's Who in Science and Engineering 2011-2012 (11th Edition). This is one of the World-Prestigious Dictionary.

CERTIFICATIONS:

- Six Sigma green belt - Honeywell.
- Internal Auditor on Integrated Management System (ISO 9001: 2015, ISO 14001: 2015, ISO 45001: 2018) - Bureau Veritas

RESEARCH PUBLICATIONS:

a. Books & Book Chapters : 02 BOOK CHAPTER

1. K.V.S.N. Raju and D. K. Chattopadhyay, "Polyester Coatings for corrosion protection", Editor Prof. A S Khanna. "High performance organic coatings", Woodhead Publishing Limited, Abington Hall, Abington, Cambridge, CB1 6AH, England, UK, 2008, pp 165 – 200.

2. D. K. Chattopadhyay and Dean C Webster, "Application of Nanomaterials in the Coatings Industry" for "Encyclopedia of Nanoscience and Nanotechnology" 2nd Edition (New 15 Vol. Set.; Vol.11-25), Editor Dr. H. S. Nalwa (www.aspbs.com/enn), American Scientific Publishers, USA, 2010.

b. Papers in referred journals: 37 **[*h* - Index: 23; Total citations > 5243]**

Sl No	Authors	Article Title	Journal / Volume / Year	Publisher	Impact factor, 2020 (Citations)
1	Neena Ravindran, Dipak K. Chattopadhyay, Autumn Zakula, Dante Battocchi, Dean C. Webster, Gordon P. Bierwagen	Thermal Stability of Magnesium-rich Primers based on Glycidyl Carbamate Resins	Polymer Degradation & Stability 2010, 95, 1160.	ELSEVIER PUBLICATION	IF = 7.4, Citations: 7
2	D. K. Chattopadhyay, Dean C. Webster	Hybrid Coatings Prepared from Silane Modified Glycidyl Carbamate Resins and Different Amine Crosslinker	Progress in Organic Coatings 2009, 66, 73.	ELSEVIER PUBLICATION	IF = 7.3, Citations: 36
3	D. K. Chattopadhyay, Autumn D. Zakula, Dean C. Webster	Organic-Inorganic Hybrid Coatings Prepared from Glycidyl Carbamate Resin, 3-Aminopropyl Trimethoxysilane and Tetraethoxyorthosilicate	Progress in Organic Coatings 2009, 64, 128.	ELSEVIER PUBLICATION	IF = 7.3, Citations: 63
4	D. K. Chattopadhyay, Aaron J. Muehlberg, Dean C. Webster	Organic-Inorganic Hybrid Coatings Prepared from Glycidyl Carbamate Resins and Amino Functional Silanes	Progress in Organic Coatings 2008, 63, 405 - 415.	ELSEVIER PUBLICATION	IF = 7.3, Citations: 32

5	D. K. Chattopadhyay, Dean C. Webster	Thermal Stability and Flame Retardancy of Polyurethanes	Progress in Polymer Science 2009, 34, 1068.	ELSEVIER PUBLICATION	**IF = 26.1**, Citations: 1595
6	D.K. Chattopadhyay, N. Prasada Raju, M. Vairamani, K.V.S.N. Raju	Monitoring of Polypropylene glycol (PPG) and Isophorone diisocyanate (IPDI) based Polyurethane Prepolymer preparations by Matrix-assisted laser desorption/ionization time-of-flight (MALDI-TOF)-mass spectrometry	Progress in Organic Coatings 2008, 62, 117.	ELSEVIER PUBLICATION	IF = 7.3, Citations: 17
7	Savita Kumari, Aswini K. Mishra, Dipak K. Chattopadhyay, K.V.S.N. Raju,	Synthesis and characterization of Hyperbranched Polyesters and Polyurethane coatings	Journal of Polymer Science: Part A: Polymer Chemistry 2007, 45, 2673.	JOHN WILEY & SONS	IF = 3.6, Citations: 42
8	Kishore K. Jena, D. K. Chattopadhyay, K.V.S.N. Raju	Synthesis and characterization of hyperbranched polyurethane-urea coatings	European Polymer Journal 2007, 43, 1825 - 1837.	ELSEVIER PUBLICATION	IF = 6.3, Citations: 150
9	D. K. Chattopadhyay, K. V. S. N Raju	Structural Engineering of Polyurethane Coatings for High Performance Application	Progress in Polymer Science 2007, 32, 352.	ELSEVIER PUBLICATION	**IF = 26.1**, Citations: 1702
10	D. K. Chattopadhyay, B. Sreedhar, K.V.S.N Raju	The Phase Mixing Studies of Moisture Cured Polyurethane-Ureas during Cure	Polymer 2006, 47, 3814.	ELSEVIER PUBLICATION	IF = 4.5, Citations: 80
11	A. K. Mishra, D. K. Chattopadhyay, B. Sreedhar, K.V.S.N. Raju	Thermal and Dynamic Mechanical Characterization of Polyurethane-Urea-Imide Coatings	Journal of Applied Polymer Science 2006, 102, 3158.	JOHN WILEY & SONS	IF = 2.8, Citations: 49
12	B. Sreedhar, D. K. Chattopadhyay, M. Sri Hari Karunakar, A. R. K. Sastry	Thermal and surface characterization of plasticized starch polyvinyl alcohol blends crosslinked with epichlorohydrin	Journal of Applied Polymer Science 2006, 101, 25.	JOHN WILEY & SONS	IF = 2.8, Citations: 125
13	B. Sreedhar, D. K. Chattopadhyay, V. Swapna	Thermal and Surface Characterization of Polyurethane-Urea Clay Nanocomposite Coatings	Journal of Applied Polymer Science 2006, 100, 2393.	JOHN WILEY & SONS	IF = 2.8, Citations: 23
14	Ramanuj Narayan, D. K. Chattopadhyay, K. V. S. N. Raju, N. N. Mallikarjuna, Sheetal S. Jawalkar, T. M. Aminabhavi	Viscosity Behavior of Hydroxylated and Acetoacetylated Polyesters	Journal of Applied Polymer Science 2006, 100, 2422.	JOHN WILEY & SONS	IF = 2.8, Citations: 6
15	B. Sreedhar, M. Sairam, D. K. Chattopadhyay, Pragnya Paromita Mitra, D. V. Mohan Rao	Thermal and XPS studies on polyaniline salts prepared by inverted emulsion polymerization	Journal of Applied Polymer Science 2006, 101, 499.	JOHN WILEY & SONS	IF = 2.8, Citations: 83
16	D. K. Chattopadhyay, A. K. Mishra, B. Sreedhar, K.V.S.N. Raju	Thermal and Viscoelastic Properties of Polyurethane-Imide/Clay Hybrid Coatings	Polymer Degradation & Stability 2006, 91, 1837.	ELSEVIER PUBLICATION	IF = 7.4, Citations: 94
17	A. K. Mishra, D. K. Chattopadhyay, B. Sreedhar, K. V. S. N. Raju	FTI-R and XPS studies of Polyurethane-Urea-Imide Coatings	Progress In Organic Coatings 2006, 55, 231.	ELSEVIER PUBLICATION	IF = 7.3, Citations: 339
18	D. K. Chattopadhyay, B. Sreedhar, K.V.S.N Raju	Influence of Varying Hard Segments on the Properties of Chemically Crosslinked Moisture-Cured Polyurethane-Urea	Journal of Polymer Science: Part B: Polymer Physics 2006, 44, 102.	JOHN WILEY & SONS	IF = 3.6, Citations: 54

19	Ramanuj Narayan, D. K. Chattopadhyay, B. Sreedhar, K. V. S. N. Raju, N. N. Mallikarjuna, T. M. Aminabhavi	Synthesis and Characterization of Crosslinked Polyurethane Dispersions Based on Hydroxylated Polyesters	Journal of Applied Polymer Science 2006, 99, 368.	JOHN WILEY & SONS	IF = 2.8, Citations: 45
20	D. K. Chattopadhyay, P.S.R. Prasad, B. Sreedhar, K. V. S. N. Raju	The Phase Mixing of Moisture Cured Polyurethane-Urea during Cure	Progress In Organic Coatings 2005, 54, 296.	ELSEVIER PUBLICATION	IF = 7.3, Citations: 51
21	D. K. Chattopadhyay, Siva Sankar Panda, K.V.S.N. Raju	Thermal and Mechanical Properties of Epoxy-Acrylate/Methacrylates UV Cured Coatings	Progress In Organic Coatings 2005, 54, 10.	ELSEVIER PUBLICATION	IF = 7.3, Citations: 244
22	Ramanuj Narayan, D. K. Chattopadhyay, B. Sreedhar, K. V. S. N. Raju, N. N. Mallikarjuna, T. M. Aminabhavi	Degradation Profiles of Polyester-Urethane (Hydroxylated Polyester/Diphenylmethane Diisocyanate) and Polyester - Melamine (Hydroxylated Polyester/Hexamethoxymethyl Melamine) Coatings: An Accelerated Weathering Study	Journal of Applied Polymer Science 2005, 97, 1069.	JOHN WILEY & SONS	IF = 2.8, Citations: 17
23	Ramanuj Narayan, D. K. Chattopadhyay, B. Sreedhar, K. V. S. N. Raju, N. N. Mallikarjuna, T. M. Aminabhavi	Degradation Profiles of Polyester-Urethane (HP-MDI) and Polyester-Melamine (HP-HMMA) Coatings: A Thermal Study	Journal of Applied Polymer Science 2005, 97, 518.	JOHN WILEY & SONS	IF = 2.8, Citations: 16
24	B. Sreedhar, M. Sairam, D. K. Chattopadhyay, K. Kojima	Preparation and Characterization of Lithium fluorophosphate Glasses Doped with MoO_3	Materials Chemistry and Physics 2005, 92, 492.	ELSEVIER PUBLICATION	IF = 4.7, Citations: 14
25	B. Sreedhar, M. Sairam, D. K. Chattopadhyay, P. A. Syamala Rathnam, D. V. Mohan Rao	Thermal, Mechanical, and Surface Characterization of Starch – Poly(vinyl alcohol) Blends and Borax-Crosslinked Films	Journal of Applied Polymer Science 2005, 96, 1313.	JOHN WILEY & SONS	IF = 2.8, Citations: 128
26	Dipak K. Chattopadhyay, B. Sreedhar, K. V. S. N. Raju	Effect of Chain Extender on Phase Mixing and Coating Properties of Polyurethane Ureas	Industrial & Engineering Chemistry Research 2005, 44, 1772.	ACS PUBLICATION	IF = 3.9, Citations: 99
27	A. Prabhakar, D. K. Chattopadhyay, B. Jagadeesh, K. V. S. N. Raju	Structural Investigations of Polypropylene glycol (PPG) and Isophorone diisocyanate (IPDI)-based Polyurethane Prepolymer by 1D and 2D NMR Spectroscopy	Journal of Polymer Science: Part A: Polymer Chemistry 2005, 43, 1196.	JOHN WILEY & SONS	IF = 3.6, Citations: 17
28	D. K. Chattopadhyay, B. Sreedhar, K. V. S. N Raju	Thermal Stability of Chemically Crosslinked Moisture - Cured Polyurethane Coatings	Journal of Applied Polymer Science 2005, 95, 1509.	JOHN WILEY & SONS	IF = 2.8, Citations: 59
29	Dipak K. Chattopadhyay, Siva Sankar Panda, K. V. S. N. Raju	Properties of Diamine Chain Extended Polyurethane Urea Coatings	Shikizai Kyokaishi (Japan Society of Colour Material) Dec. 2004, Vol. 77, No 12, p. 540.	JOURNAL OF JAPAN SOCIETY OF COLOUR MATERIAL	Citations: 5
30	D. K. Chattopadhyay, D.B. Rohini Kumar, B. Sreedhar, K. V. S. N Raju	Thermal Stability and Dynamic Mechanical Behaviour of Acrylic Resin and Acrylic Melamine Coatings	Journal of Applied Polymer Science 2004, 91, 27.	JOHN WILEY & SONS	IF = 2.8, Citations: 22

31	Ramanuj Narayan, D. K. Chattopadhyay, B. Sreedhar, K. V. S. N Raju	Cure, viscoelastic and mechanical properties of hydroxylated polyester melamine high solids coatings	Journal of Materials Science 2002, 37, 4911.	SPRINGER PUBLICATION	IF = 3.9, Citations: 23
32	D. K. Chattopadhyay, K. V. S. N. Raju	Cure behaviour and performance evaluation of segmented polyurethane-urea coatings	Paintindia Aug 2005, 55 (8), 47-56. Indian Paint Association Award Paper-3rd Prize-2004	COLOUR PUBLICATIONS PVT LTD.	Citations: 2
33	Siva Sankar Panda, D. K. Chattopadhyay, K. V. S. N. Raju	Roof Cooling Materials and Coatings: An Emerging Technology	Paintindia Nov. Issue 2004; Vol 54, No. 11, pp. 65-74.	COLOUR PUBLICATIONS PVT LTD.	Citations: 1
34	D. K. Chattopadhyay, B. K. Chakravarti, R. Narayan, K. V. S. N. Raju	Properties of acrylic melamine coatings based on high conversion prepolymer	Paintindia, Nov. 2003, Vol. 53, T. 7, S. 45-56.	COLOUR PUBLICATIONS PVT LTD.	Citations: 1
35	D. K. Chattopadhyay, D. B. Rohini Kumar, K. V. S. N. Raju	Effect of hydroxyl number and polymerization techniques on the properties of Acrylic melamine coatings	Paintindia, 2003, Vol. 53, T.6, S. 47-56.	COLOUR PUBLICATIONS PVT LTD.	Citations: 1
36	D. K. Chattopadhyay, R. Narayan, K. V. S. N. Raju	VOC Protocols and High Solid Acrylic Coatings	Paintindia, Nov. 2001, Vol. 51, T. 10, S. 31-42.	COLOUR PUBLICATIONS PVT LTD	Citations: 1
37	V. Swapna, K. Sasidhar, Dipak Chattopadhyay, M.L Kantam, R. Narayan, B. Thirupathi, S.G. Rao	Development of highly crystalline polyurethanes from hydroxy terminated polyester.	IJSRST, August 2017, Issue 6, 259-266.	IJSRST	Citations: ?

c. Papers in conference proceedings: 01

1. D. K. Chattopadhyay, Aaron J. Muehlberg and Dean C. Webster, "Organic-Inorganic Hybrid Coatings Prepared from Glycidyl Carbamate Resins and Amino-Functional Silanes" Polymeric Materials: Science and Engineering (PMSE) Preprints 2008, 98, 883.

d. Patent Publications:

1. Dean C. Webster and Dipak Chattopadhyay, 'Hybrid Coatings Prepared from Glycidyl Carbamate Resins'. PCT Int. WO 2008150568 (Int App No PCT/US2008/058904)
2. Dean C. Webster and Dipak Chattopadhyay**,** 'Hybrid Coatings Prepared from Glycidyl Carbamate Resins.' US patent 8097741B2, 2012.

e. Article presented in conferences: 25

1. Dipak K. Chattopadhyay, K. V. S. N. Raju, "High Performance Coating Materials for Aerospace Applications" Macro 2004. International Conference on Polymers for Advanced Technologies, December 15-17, 2004, Thiruvananthapuram, India.

2. D. K. Chattopadhyay and Dean C. Webster, "Novel Organic-Inorganic Hybrid Coatings Prepared from Glycidyl Carbamate Resin and 3-aminopropyltrimethoxysilane" International Coatings Expo-2007, Toronto, Oct. 3-5, 2007.

3. D. K. Chattopadhyay, Aaron Muehlberg, Autumn D. Zakula, and Dean C. Webster, "Hybrid Coatings Prepared from Silane Modified Glycidyl Carbamate Resins and Amine Crosslinkers" International Coatings Expo-2007, Toronto, Oct. 3-5, 2007.

4. Neena Ravindran, Dipak Chattopadhyay, Autumn Zakula, Dante Battocchi, Dean C. Webster, Gordon Bierwagen, “Properties of Magnesium-rich Primers Based on Silane-modified Glycidyl Carbamate Resins” International Coatings Expo-2007, Toronto, Oct. 3-5, 2007.

5. D. K. Chattopadhyay, Autumn D. Zakula, and Dean C. Webster, “Synthesis and characterization of organic-inorganic hybrid materials from glycidyl carbamate resin, 3-aminopropyl trimethoxy silane and tetraethoxyorthosilicate” Gordon Research Conferences on Composites, Jan. 13-18, 2008 Ventura, CA, USA.

6. Dipak K. Chattopadhyay, Aaron J. Muehlberg, Dean C. Webster, “Organic-Inorganic Hybrid Coatings Prepared from Glycidyl Carbamate Resins and Amino-Functional Silanes” 235th ACS National Meeting, April 6-10, 2008, New Orleans, LA, USA.

7. Dipak Chattopadhyay, Autumn Zakula, Dean C. Webster, “Hybrid Sol-Gel Coatings from Glycidyl Carbamate Functional Resins” 4th Coatings Science International Conference (COSI 2008), June 23-27, 2008, Noordwijk, The Netherlands.

8. Neena Ravindran, Dipak Chattopadhyay, Dante Battocchi, Dean Webster, Gordon Bierwagen, “Thermal Stability of Magnesium-rich Primers Based on Glycidyl Carbamate Resins” FSCT Coatings Tech Conference, April 28-29, 2009, Indianapolis, IN, USA.

9. D.K. Chattopadhyay, K.V.S.N. Raju, Filip Du Prez, “Phase Mixing Characteristics of Moisture Cured Polyurethanes during Cure” Baekeland 2009, Nov. 22-25, 2009, Antalya, Turkey.

10. Filip Du. Prez, D. Fournier, J. Devroede, D. Chattopadhyay, “Click Chemistry as a Tool toward Functionalization of Polyurethane Thermosets” Baekeland 2009, Nov. 22-25, 2009, Antalya, Turkey.

11. Dipak Chattopadhyay, “Formulation and Characterization of Silica Based Hybrid Flexible Polyurethane Foam” PU Tech 2011, March 9-11, Greater Noida, India (Invited Lecture).

12. Mohit Bindal, Dipak Chattopadhyay, "Synthesis and Characterization of Sol-Gel Based Hybrid Composite Polyurethane Foam" International Conference on Advances in Materials and Materials Processing (ICAMMP 2011), December 9-11, 2011 held at IIT Kharagpur, India.

13. Mohit Bindal, Dipak Chattopadhyay, "Synthesis and Characterization of Nano-Composite Flexible Polyurethane Foam" International Conference on Advances in Materials and Materials Processing (ICAMMP 2011), December 9-11, 2011 held at IIT Kharagpur, India.

14. Mohit Bindal, Dipak Chattopadhyay, "Enhancement in Thermo-Mechanical Properties of Bio-based Flexible Polyurethane Foam" 18th Congress of Metallurgical Professionals Involving Students, Industry and Teachers (COMPOSIT), March 12-13, 2011, IIT Kharagpur, India.

15. Amit Kumar, D.K. Chattopadhyay, "Formulation & Characterization of Permanent White Body Polyurethane (PU) Foam with Isophorone Diisocyanate (IPDI)" Asian Workshop on Polymer Processing (AWPP 2013), Dec 8-10, 2013, Goa, India.

16. Amit Kumar, D.K.Chattopadhyay, "Propylene Carbonate Modified Polyether Amine based Flexible Polyurethane Foam: Formulation and Characterization" Asian Workshop on Polymer Processing (AWPP 2013), Dec 8-10, 2013, Goa, India.

17. Anshul Singhal, Ankit Vijay, Himanshu Jain, Roli Punwar, D.K. Chattopadhyay, "Formulation and Characterization of MDI and TDI based Viscoelastic Polyurethane Foams", Asian Workshop on Polymer Processing (AWPP 2013), Dec 8-10, 2013, Goa, India.

18. Ankit Vijay, Anshul Singhal, Himanshu Jain, Roli Punwar, D.K. Chattopadhyay, "Formulation and Characterization of MDI based Flexible Polyurethane Foams" Polymer Processing Society Asia/Australia Conference (PPS 2013), Dec 4-7, 2013, Mumbai, India.

19. Amit Kumar, D.K. Chattopadhyay, D. Kumar, "Propylene Carbonate and Hydroxypropylamine Modified Flexible Polyurethane Foam: Formulation and Characterization", APA International Conference on Polymers: Vision & Innovations (APA - 2014), Feb 19-21, 2014, New Delhi, India.

20. Himanshu Jain, Anshul Singhal, Ankit Vijay, D.K. Chattopadhyay, "A New Epoch for MDI based Flexible PU Foams: Formulation and Characterization" APA International Conference on Polymers: Vision & Innovations (APA – 2014), Feb 19-21, 2014, New Delhi, India.

21. Anshul Singhal, Ankit Vijay, Himanshu Jain, Roli Punwar, D.K. Chattopadhyay, "Formulation and Characterization of MDI and TDI based Visco-PU Foams" APA International Conference on Polymers : Vision & Innovations (APA - 2014), Feb 19-21, 2014, New Delhi, India.

22. Amit Kumar, D.K. Chattopadhyay, D. Kumar, "Study of Aliphatic Isocyanate Based Non-Yellowing Flexible Polyurethane (PU) Foam" National Conference on Innovation and Development in Chemical Technology (IDCT - 2014), Feb 28 - March 1, 2014, New Delhi, India.

23. Abhijit Borgohain, Dipak Chattopadhyay, Pranav Mehta, Selwyn T Wilfred, SP Chidambaram, " Performance Enhancer: HFC, HCFC and HFO Auxiliary Blowing Agents in Molded Polyurethane Foam Systems", Best Technical Poster Award, Presented in Honeywell Technology Symposium, Delhi TCO 2014, Sept 11-12; and Chicago TCO, Sept 29-Oct 1, 2014.

24. Dipak Chattopadhyay, Selwyn T Wilfred, SP Chidambaram, "Impact of HFC 245fa and Solstice LBA addition to slabstock polyurethane foams", Honeywell Technology Symposium, Delhi TCO 2015, Sept 3-4, 2015.

25. Dipak Chattopadhyay 'Synthesis and Experimentation with Polymeric Resins in Laboratory Scale & Coating on Textile Fabrics for Various Application' 16 March 2021, Presented to Uttar Pradesh Textile Technology Institute (Invited eWebinar).

26. Visited conferences: (a) UTECH North America 2014, 5-5 June, Charlotte, (b) Honeywell Technology Symposium, Pheonix, May 20-22, 2014, (c) PU Tech 2014, March 12-14, 2014, Greater Noida, India, (d) Urethane Tech 2012, Sept. 18-20, Shenzhen, China, (e) PlastIndia 2012, Feb. 1-6, Pragati Maidan, New Delhi, (f) India Composite Summit 2012, Nov. 1-2, 2012, Pragati Maidan, New Delhi, (g) India Med Expo 2012, Dec. 7-9, Jaipur, India, (h) Agra Footwear Conference 2012, Nov. 2-4, Agra, India, (i) PU Tech 2011, March 9-11, Greater Noida, India, (j) Belgium Polymer Conference 2009, May 14-15, Houffalize, Belgium, (k) International Symposium on Biodegradable Polymers and Packing Materials, Indian Institute of Chemical Technology, Hyderabad, Nov. 17-18, 2001, Organised by Indo-German Nachokoutankt Association (IGNA).

MEMBERS:

1. American Chemical Society – past member.
2. Society for Polymer Science (Dharwad Chapter)

JOURNAL REFEREE (Reviewed > 150 articles for below Journals):

ELSEVIER PUBLICATION:

1. Progress in Organic Coatings, 2. European Polymer Journal, 3. Carbon, 4. Materials Chemistry and Physics, 5. Surface and Coatings Technology, 6. Applied Clay Science, 7. Journal of Industrial and Engineering Chemistry, 8. Arabian Journal of Chemistry, 8. Journal of Building Engineering, 9. Journal of Physics and Chemistry of Solids.

JOHN WILEY & SONS:

1. Polymers for Advanced Technologies, 2. Journal of Applied Polymer Science,

SPRINGER:

1. Journal of Polymer Research

HINDWAI:

1. International Journal of Biomaterials, 2. International Journal of Polymer Science.

OTHER:

1. Brazilian Journal of Chemical Engineering, 2. Materials Science, 3. Mediterranean Journal of Chemistry.

OTHER SCIENTIFIC ACTIVITY:

- Project proposal reviewer on POLYURETHANE for National Research Foundation (NSF/NRF), South Africa funding.

STUDENT SUPERVISED:

At NDSU, USA as co-supervisor: (1) Autumn D. Zakula, (2) Aaron J. Muehlberg, (3) Joong Won Lee.
Sheela Foam: supervisor for project work: (1) Mohit Binal (B.Tech student) - IIT, Kharagpur, (2) Tushar Sharma (B.Tech student)- NIT Jalandhar. Every year we used to accommodate 10 students from Delhi Technological University, Applied Chemistry and Polymer Technology Department for summer and winter internship research projects.

INSTRUMENTATION SKILL:

- Perkin Elmer GC-MS instrument (GC-Clarus 580; MS: Clarus SQ 8S)
- Dynamic Mechanical Thermal Analyzer (TA Instruments, Rheometric Scientific DMTA IV)
- Universal Testing Machine (Instron AGS-10k NG, Shimadzu, and Hounsfield)
- Differential Scanning Calorimeter (TA Instruments, Mettler-Toledo, Perkin Elmer)
- Thermogravimetric Analyzer (TA Instruments, Mettler-Toledo, PerkinElmer)
- X-ray photoelectron spectroscopy (Kratos Axis 165)
- Fourier Transformed Infrared Spectrophotometer (PerkinElmer, Nicolet NEXUS 670, Nicolet MAGNA-IR 850, Bio-Rad FTS 175C)
- Online FTIR (Mettler-Toledo: ReactIR 4000 instrument)
- Nuclear magnetic resonance spectroscopy (1D & 2D 1H and 13C NMR: Varian Innova)
- Matrix assisted laser desorption/ionization time-of-flight (MALDI-TOF: Kompact MALDI SEQ; Kratos Analytical)
- Gel Permeation Chromatography (Waters Corporation; Shimadzu)
- Scanning electron microscope (Jeol JSM-6490LV and Hitachi S520; Japan)
- Transmission Electron Microscope (Jeol Instrument)
- ESR (JES-FA spectrometer)
- Elemental analysis (CHNS-932 Elemental Analyzer)
- Nanoindentation (Nanoscope IIIa MultiMode SPM)
- Particle size analyzer (Malvern Mastersizer 2000)
- Atomic Force Microscope (Dimension 3100® microscope: Digital Instruments, Inc., California)
- Contact angle measurement (First Ten Angstroms: FTÅ 125)
- QUV Weathering Tester (QUV Weather-O-meter: Q Lab)
- Mechanical properties: pencil hardness and König pendulum hardness (BYK-Gardner pendulum hardness ester), abrasion, adhesion (crosshatch adhesion), flexibility (Conical mandrel: Gadco), impact resistance etc.
- Corrosion resistance tests: salt spray (Q-Lab) and humidity resistance.
- Water vapor permeability (Payne cup: Sheen Instruments)
- Gloss (Gloss meter: BYK and Gardco Statistical Novogloss Glossmeter)

- Viscosity (Ford cup No. 4)
- All the test as mentioned in ASTM D3574 and IS 7888 for flexible PU foam (Density, porosity, compression set, resilience, tensile strength, % elongation, IFD hardness, Asker hardness, pounding test, shear fatigue test etc)
- Dimensional stability, compressive strength and k value determination for rigid PU foam
- PVC leather cloth tests including GSM, Thickness, Gloss at 60° angle, Belly flexing, W-flex, Wyzenbeek abrasion, Martindale abrasion, Seam fatigue test, Tensile strength, % Elongation, T-peel test, Tear strength, Stiffness, Heptic properties etc.
- Pull out adhesion strength test.