## ACHIEVEMENTS BY FACULTY

## **Projects Completed:**

S. No.	Project Investigator(s)	Title of Project	Sponsoring Agency	Duration (Specify date & Year)	Amount (Rs.)
1	Prof. A K Nagpal	MODROBS	AICTE New Delhi	1 year	12 Lacs
2	Prof. Deepak Srivastava	Development of Fullerene containing Polymer Nano Composites	TEQIP- II	1 Year	2.50 Lacs
3	Prof. Deepak Srivastava	Modified Epoxy Resins	M/s Ruchi Organics, Kanpur	2 years	20,000
4	Prof. Deepak Srivastava and Prof. A K Nagpal	Development of high performance polymers from CNSL	AICTE, New Delhi	5 years	5.00 Lacs
5	Prof. Deepak Srivastava	Development of Elastomer - toughened composite matrix for high energy absorbing applications	CST, UP	2 years	5.01 Lacs
6	Prof. Deepak Srivastava	Development of modified epoxy matrix from renewable resource material.	UGC, New Delhi	3 years 6 months	11.00 Lacs
7	Prof. Deepak Srivastava	Development of environmentally preferred coating materials	CSIR, New Delhi	1 year	1.78 Lacs
8	Prof. Deepak Srivastava	Development of vinyl ester resins from renewable resource material. for application on composite and coatings	CSIR, New Delhi	1 year	2.68 Lacs
9	Prof. Deepak Srivastava	Studies on the modifications of thermosetting epoxy and vinyl ester resins from renewable resource material for multifarious application	CSIR, New Delhi	1 year	3.08 Lacs
10	Prof. Deepak Srivastava	Studies on the modifications of thermosetting resins from renewable resource material for multifarious application	CSIR, New Delhi	1 year	3.36 Lacs
11	Prof. Reena Singhal	Superabsorbent hydrogels for soil modification for reducing water requirements and promoting plant growth.	TEQIP- II	1 Year	1.30 lacs
12	Prof. Reena Singhal and Prof. A K Nagpal	Polyether Ether Ketone (PEEK) Liquid Crystalline Polymer (LCP) Blends	DMSRDE (DRDO)	3 Year	3.71 lacs.

13	Prof. Reena Singhal	Development Of Copolymeric Hydrogels Based Adsorbents For Removal Of Toxic Heavy Metal Ions & Dyes From Industrial Waste Waters	UGC New Delhi	3 Year	7.20 lacs
14	Prof. Reena Singhal	Centre Of Excellence On Lipids At HBTI, Kanpur	HBTI, Kanpur	1 Year	4.00 lacs
15	Prof. Reena Singhal	Development of high swelling Co- polymer based Superabsorbent Hydrogels for removal of dyes from Industrial waste water	TEQUIP- III ; Seed Money	1 Year	2.0 lacs
16	Prof. Indira Nigam	"Development of pressure sensitive adhesives based on copolymers of styrene and acrylates by mini emulsion polymerization technique"	TEQIP II	1 Year	2.45 lacs
17	Prof. Indira Nigam	'Synthesis & Characterization of copolymer of Styrene and Maleic Anhydride'	Dhupar Chemicals Pvt. Ltd. Kanpur	1 Year	0.5 lacs
18.	Prof. Indira Nigam	Corrosion Resistant Coatings based on Polyacrylate /Nano-clay composites (PNC)	AICTE) New Delhi	3 Year	5.5 lacs

#### **Technical Expert:**

- Dr. Indira Nigam Was Expert Member of Project Monitoring and Review Committee (PMRC) of DMSRDE Kanpur on 5/08/2021; 29/11/2021, 28/04/2022 and 30.09.2022
- Dr. Reena Singhal has been appointed as Expert Member of 'Subject Expert Committee (SEC)' in subject area of Chemical Sciences DST for INSPIRE fellowship for evaluating research proposals; since Dec. 2021 for two years
- Dr. Reena Singhal has been appointed as Technical Expert for evaluation of Project at ISC in Screening Committee of Technology Development Board (TDB) to promote development and commercialization of indigenous technology, DST, Govt. of India in February 2022.
- Dr. Reena Singhal was appointed as thesis evaluator and Examiner for conduction of VIVA for award of Ph.D. degree by University of Delhi, Delhi; Thesis titled," Studies on Bio polymers and It's Blends for Advanced Wound Dressing"; The viva conducted on 12.10.2022.
- Dr. R. Singhal attended a meeting as Technical expert in meeting of Project Evaluation of DST-INSPIRE scheme in Chemical Sciences Scheme in Dehradun on 23<sup>rd</sup> June 2023

# **PhD Guided:**

S.No.	Name of Student	Topic	Year	Guide
1.	Dr. G.P.Singh	Rheological Studies on Concentrated Polymer Solutions	1977	Dr. G.N Mathur
2.	Dr. T.P.Srivastava	Block Copolymerization of Styrene and Acrylamide	1978	Dr. B.C.Mitra
3.	Dr.A.K.Srivastava	Kinetics and Mechanism of Copolymerization	1979	Dr. G.N Mathur
4.	Dr. U.N.dwivedi	Copolymerization and their Studies	1980	Dr. B.C.Mitra
5.	Dr.Ajit B.Mathur	Studies of Mechanism of Degradation of Polyolefins	1980	Dr. G.N Mathur
6.	Dr.Vijay Kumar	Evaluation of various substituted Phenols on Antioxidants for Polyolefins	1980	Dr. G.N Mathur
7.	Dr.Pradeep Singh	Kinetic Study of vinyl monomer with complex agents	1982	Dr. G.N Mathur
8.	Dr. A.K.Nagpal	Effect of zinc and iron chloride on degradation of PVC	1983	Dr. G.N Mathur
9.	Dr. J.S.P.Rai	Synthesis and thermal behaviour Epoxy resin on Novolacs	1984	Dr. G.N Mathur
10.	Dr. R.N.Gupta	Studies on efficiency of Stabilization in Polyethylene	1984	Dr. G.N Mathur
11.	Dr. Prabhat Saxena	Study on reactions in Polymethane	1984	Dr. G.N Mathur
12.	Dr. Sunil Srivastava	Development of interpenetrating network	1984	Dr. G.N Mathur
13.	Dr. Anjali Babbar	Kinetics of Reaction of Epoxy Novolac Block Copolymer	1984	Dr. G.N Mathur
14.	Dr.Alkendu Srivastav	Synthesis & Characterization of PTFE	1985	Dr. G.N Mathur
15.	Dr.Madhurima Dubey	Studies on Polymerization of Vinyl monomer in presence of P-Yields	1985	Dr. G.N Mathur
16.	Dr.Rajiv Njgam	Development of Polyurethanes	1986	Dr. G.N Mathur
17.	Dr.Rajesh Tripathi	Studies on interaction of Polyurethane polymers on leather	1987	Dr. G.N Mathur
18.	Dr. K.D.Sinha	Studies on Epoxy Novolac Block copolymer	1987	Dr. G.N Mathur
19.	Dr. Sanjeev Gupta	Studies on synthesis of Polurethane	1988	Dr. G.N Mathur
20.	Dr. Dinesh Narayan	Studies on thermal behaviour and degradation of epoxies	1989	Dr. G.N Mathur
21.	Dr.V.P.Malhotra	Evaluation of Organo Antimony	1990	Dr. G.N Mathur

		compounds on flame retardancy of plasticized PVC		
22.	Dr.Neeta srivastava	Kinetics of Copolymerization of Vinyl monomers in presence of complexing agent	1990	Dr. J.S.P.Rai
23.	Dr.Dhirendra Nigam	Synthesis and Characterizationof Epoxy Novolac block copolymer	1991	Dr. G.N Mathur
24.	Dr.Anjali Mishra	Dr.Anjali Mishra Degradation kinetics of polypropylene		Dr. G.N Mathur
25.	Dr. Ravi Saxena	Synthesis and characterization of IPNs	1991	Dr. G.N Mathur
26.	Dr. Atul Tewari	Synthesis and characterization Epoxy Resole blends	1992	Dr. G.N Mathur
27.	Dr. Vivekanand Badoni	Degradation kinetics of Nylon-6	1992	Dr. G.N Mathur
28.	Dr. Pradeep Agarwal	Synthesis and characterization of Epoxy Novolac block copolymer	1993	Dr. G.N Mathur
29.	Dr.Deepak Srivastava	Synthesis and Characterizationof thermoplastic liquid crystalline Polymers with Mesogenenic side groups	1993	Dr. G.N Mathur
30.	Dr. Neeraj Kumar Gupta	Studies on the property profiles of crosslinkable PVC by γ- radiation	1993	Dr. G.N Mathur
31.	Dr.Bharti Gaur	Synthesis and thermal behaviourvinyl ester resins based on epoxy resin	1993	Dr. J.S.P.Rai
32.	Dr.Anju Singh	Studies and characterization of epoxy resin	1994	Dr. G.N Mathur
33.	Dr. Abha Shukla	Studies on conductive polypyrol	1994	Dr. G.N Mathur
34.	Dr.Indira Nigam	Rhelogical Characterization ofblends of polycarbonate with various polymers	1994	Dr. G.N Mathur
35.	Dr. Achla Jha	Synthesis and characterization acrylamide based copolymers	1994	Dr. J.S.P.Rai
36.	Dr.Suman Katiyar	Studiews of Elastomer modified Bismaleimide resin	1994	Dr. A.K.nagpal
37.	Dr.Aradhana Sharma	Development of LCP polymers	1994	Dr. G.N Mathur
38.	Dr.Anita Agarwal	Development of LCP polymers	1994	Dr. G.N Mathur
39.	Dr.Snjay Mathur	Photo resist polymers	1994	Dr. G.N Mathur
40.	Dr.Alka Mehrotra	Development of LCP polymers	1994	Dr. G.N Mathur
41.	Dr.Madhumita Swaroop	Studies on mastication of polypropylene/ butadiene styrene block copolymers	1997	Dr. G.N Mathur

42.	Dr.Rajesh Garg	Studies on blends of LDPE, LLDPE and HDPE	1998	Dr. G.N Mathur
43.	Dr.Reena Singhal	Study on controlled release of from polymer matrices	1998	Dr. G.N Mathur
44.	Dr. Anil Kumar Jain	Studies on the Modification of Polypropylene(PP) WITH Ethyle Propylene-Diene-Rubber (EPDM)	2002	Dr. A.K. Nagpal
45.	Dr.Shailesh K. Shukla  Studies on blends of epoxy, resoles and carboxyl-terminated polybutadiene (CTPB).		2002	Dr.Deepak Srivastava
46.	Dr. Tamanna Begum	Synthesis & Characterization of Modified polyacrylamide based copolymeric hydrogels	2003	Dr.Reena Singhal
47.	Dr . Neelam Pal	Curing and Thermal Properties of blends of Vinyl Ester Resins	2004	Dr. J S P Rai
48.	Dr .Alka Gupta	Synthesis and Characterization of Reactive Blends Based on EpoxyResins and Polycaprolactam	2004	Dr. A.K. Nagpal
49.	Dr .Surendra Kr. Gupta	Studies on the Property Profiles Rubber on wood polymer composites processed by gamm Radiation	2004	Dr. A.K. Nagpal
50.	Dr. Mudit Goel	Study of thermal and physico of polyeher ether Ketone(PEEK) Liquid Crystalline polymer blen	2005	Dr. A.K. Nagpal
51.	Dr.Rajesh Tewari	Kinetics of Ru(III) Catalysed Polymerization of Vinyl Mono by Charge Transfer Comlex	2006	Dr. J S P Rai
52.	Dr.Indu Gupta	A study of En-vironment Res- ponsive (Smart) Hydrogels base on Polyacryl-amide and Acrylat	2008	Dr.Reena Singhal
53.	Dr. Rajiv Singh Toma	Synthesis and Characterization of Super Absorbent polymers base Acrylamide and Acrylic acid.	2008	Dr. A.K. Nagpal
54.	Dr. Archana Devi	Studies on the blends of cardano based epoxidised novolac and CTPB.	2008	Dr.Deepak Srivastava
55.	Dr. Garima Tripathi	Studies on the blends of epoxy, cycloaliphatic epoxy and CTBN	2008	Dr.Deepak Srivastava
56.	Dr. S K Singhal	Optimum Part Deposition Orientation and Adaptive Slicin SL and SLS Prototyping	2008	Dr. A.K. Nagpal
57.	Dr. Bilson Shukla	Effect of Electrical Insulating.  Mechanical and Thermal Property of solvent less Polyester Varnish	2010.	Dr. A.K. Nagpal

58.	Dr. Ranjana Yadav	Studies on the blends of cardano based epoxidized novolac resin CTBN	2009	Dr. Deepak Srivastava
59.	Dr. Suman Kumari	'Studies on Synthesis of Modifie Copolymer of Styrene and Mal Anhydride	2010	Dr. Indira Nigam
60.	Dr. Arun Maithani	Studies on vinyl ester resins and their blends for use in surface coatings	2010	Dr. Deepak Srivastava
61.	Dr. Sweta Bajpai	Effect of Higher Acrylates on the Synthesis and Characterization of Crosslinkable Copolymers of MMA and Diacrylate/ Dimethacrylatesl'.Anhydride	2011	Dr. Indira Nigam
62.	Dr. Minakshi Sultania	Studies on the synthesis and characterization of vinyl ester re from renewable resource materi	2012	Dr. Deepak Srivastava
63.	Dr. Arundhati	"Studies on Thermomechanical properties of blends based on Polysulfide &Epoxy Resin"	2012	Dr. A.K. Nagpal
64.	Dr. Rashmi Katiyar	'Synthesis and Characterization Copolymers of fullerene with v monomers using Bismuthoniumylide as a novel initiator	2013	Dr. Indira Nigam
65.	Dr. Seema Awasthi	Synthesis and Characterzation of Smart Hydrogels based on Acrylamide and Sodium Acryla modified with Acrylic derivativ	2014	Dr. Reena Singhal
66.	Dr. Priti Shukla	Studies on Vinyl ester resins bas on phenol cardanol novolacs	2014	Dr. Deepak Srivastava
67.	Dr. Ravindra Singh	Synthesis and Characterization o copolymers of vinyl monomers fullerene	2014	Dr. Deepak Srivastava
68.	Dr. Tripti Singh	Synthesis and Characterzation of Multifunctional copolymeric Hydrogels"	2016	Dr. Reena Singhal
69.	Dr. Jgarati Kandpal	Effect of Thermoplastics on The and Mechanical Properties of Multifunctional Epoxies	2016	Dr. A.K. Nagpal
70.	Dr. Riya Srivastava	Development of modified epoxy matrix from furfural	2017	Dr. Deepak Srivastava
71.	Dr. Shrawan Kumar Shukla	Studies on cardanol based resin systems for application in	2018	Dr. Deepak Srivastava

		protective coating		
73.	Dr. Manoj Kumar Shukla	Study of thermal & mechanical properties of nano CaCO <sub>3</sub> Modification DGEBA Epoxy matrix/Glass fibre composites	2018	Dr. Deepak Srivastava
74.	Dr. Indrajeet Sen	Studies on method development analysis of food and food product	2021	Dr. Deepak Srivastava
75.	Dr. Shipra Agnihotri	Synthesis and Characterization of Multicomponent Ionic Hydrogel based or Natural Carbohydrates for Water purification		Dr. Reena Singhal
76.	Shilpi Tiwari	Studies on effect of nano filler of chemical, mechanical and thermaproperties of epoxy/Fly ash nanocomposite	2023	Dr. Deepak Srivastava
77.	Harendra Kumar	Preparation and characterizationNBR-PP- MMT and NBR-PP-H elastomer nanocomposites	Under Progress	Dr. Deepak Srivastava
78.	Nidhi Raj Yadav	Studies on preparation and characteristics of starch based bioplastics	Under Progress	Dr. Deepak Srivastava
79.	Nidhi Talwar	Optical, mechanical and morphological properties of DGEBA epoxy nano composite	Under Progress	Dr. Deepak Srivastava
80.	Akanksha Verma	Design and Development of Asymmetric super capacitor device based on conducting polymer a metal oxide/sulfide nanostructure for energy storage application.	Under progress	Dr. Soma Banerjee
81.	Brijesh Kumar Yadav	Halogen free fire retardant cable compounds	Under Progress	Dr. Soma Banerjee

#### **Patent Published:**

Name of the Teacher: Dr. DEEPAK SRIVASTAVA Patent Application No.202111011903 A

Nature of the Patent: Indian

Title of the patent: High Toughness Epoxy/Bamboo Char Composite Reinforced with

Silanized TiO<sub>2</sub> Nanoparticles Publication Date: 26/03/2021

# **On-going Research Project:**

Name of the faculty	Project Title	Project Type Research/Consultancy	Funding Agency	Amount	Duration
Prof. Deepak	Development of carbon	Research project	UPCST	Rs. 11.94	3 years
Srivastava	nanotube/graphene oxide		Lucknow	lakhs	
Co-Investigator:	from waste plastics for				
Dr A K Rathor,	waste water application				
Chemical Engg					
Dept.					