

Curriculum Vitae

Dr. Pradeep Kumar

Ph. D. (IIT Kanpur)

Assistant Professor

Department of Chemical Engineering

Institute of Engineering & Technology Lucknow,

Sitapur Road, Lucknow,

Uttar Pradesh, India-226021

Contact

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Administrative Responsibilities

- ❖ Dy Coordinator, Uttar Pradesh Technical Admission Counseling 2025-26, 2026-27
- ❖ Associate Dean Post Graduate studies, IET Lucknow (Nov. 2023- till date)
- ❖ Director, Navyug Navachar Foundation, IET Lucknow (March 2024- till date)
- ❖ Convenor, M.Tech Admission 2024-25, IET Lucknow
- ❖ Associate Dean Under Graduate studies, AKTU Lucknow (May 2018-May, 2024)
- ❖ Associate Dean Value Education, AKTU Lucknow (June 2018- April, 2024)
- ❖ Hostel warden (Sept. 2017 - April 2022)
- ❖ Coordinator Student Induction Program, AKTU Lucknow (Nov. 2017-Aug.2022)

Research Interest

- ❖ Blended Polymer Composites
- ❖ Polymer Surface Modification
- ❖ Nano Composites
- ❖ Solvent Extraction Process
- ❖ Waste Management

Biosketch

Educational Background

H.B.T.I Kanpur	1998
B.Tech., Chemical Engineering	
Indian Institute of Technology Roorkee	2002
M.Tech., Chemical Engineering	
(Specialization: Computer Aided Process Plant Design)	
Indian Institute of Technology Kanpur	2017
Ph.D., Chemical Engineering	

Professional Background

Teaching

1.	Assistant Professor Institute of Engineering and Technology, Lucknow	01 Sept 2017 - Present
2.	Senior Lecturer UIET CSJM University, Kanpur	18 Aug 2007 – 31 Aug 2017
3.	Lecturer KNMIET Modinagar	15 Sep 2004 – 17 Aug 2007

Industrial

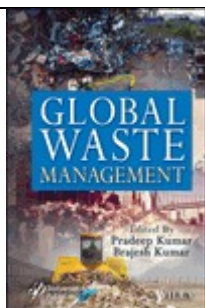
1.	Trainee Engineer Oswal Papers & Allied Industries, Mukerian, Punjab	April 2000 – July 2003
2.	Assistant Engineer Welspun Syntex Ltd., Silvassa	Feb 1999 – May 2000

Research

Projects

Topic	Year	Role	Financial Grant	Funding Agency	Status
Development of Biodegradable plastics from Agricultural Waste: Cellulose Acetate-Based Films with circular economy integration	2026	Principal Investigator	13.36 Lac	UPCST	Ongoing
Computational Fluid Dynamics (CFD) Investigation of Momentum and Thermal Characteristics of non-Newtonian shear-thinning and shear-thickening industrial fluids	2025	Co Investigator	13.86 Lac	UPCST	Ongoing
Extraction of Spent Lithium Using Green Solvent	2023-24	Supervision, B.Tech Proj.	20,000/-	UPCST	Completed
Development and Characterization of Epoxy and Waste Flyash Nanocomposites filled with HNTs Halloysite Nanotubes	2019-20	Supervision, B.Tech Proj.	20,000/-	UPCST	Completed
Extraction and Study of Wax from the Leaves of Nelumbo Nucifera	2018-19	Supervision, B.Tech Proj.	20,000/-	UPCST	Completed

Book Published

Book Title	Edited by	Publisher	ISBN/ DOI	Published Book
Global Waste Management	Pradeep Kumar & Brajesh Kumar	Scrivener Publishing, Wiley	978-1-394-31838-4, DOI: 10.1002/9781394318414	

Journal Publications

1. Anand Maurya, **Pradeep Kumar***, Brajesh Kumar, Ravish Singh Rajput, Vinay Kumar Singh

Title: Optimization of fly ash reinforcement in epoxy/polyester blended composites for improved thermo-mechanical performance

Volume: 58, Issue 5, Page: 1-18, **YOP:** 2026

Journal: Journal of Elastomers & Plastics, SAGE Publications

DOI: <https://doi.org/10.1177/00952443261436655>, **IF:** 2.4

2. Brajesh Kumar, **Pradeep Kumar**, Shishir Sinha, Surendra Kumar

Title: Oxidative steam reforming of propanol for hydrogen production: a comprehensive thermodynamic equilibrium analysis

Volume: 68, Issue 2, Page: 209-223, **YOP:** 2025

Journal: Indian Chemical Engineer, Taylor & Francis

DOI: <https://doi.org/10.1080/00194506.2025.2454244>, **IF:** 1.2

3. Anand Maurya, **Pradeep Kumar***, Shishir Sinha

Title: Impact of reinforcing ability of carbon fiber on the thermomechanical properties of epoxy based hybrid composites

Volume: 62, Issue 5, Page: 419-430, **YOP:** 2025

Journal: Journal of Macromolecular Science, Part A, SAGE Publications

DOI: <https://doi.org/10.1080/10601325.2025.2486059>, **IF:** 2.4

4. Anand Maurya, **Pradeep Kumar***, Shishir Sinha

Title: Fabrication of epoxy/polyester based hybrid composites reinforced with modified flyash and HNTs with improved thermo-mechanical properties

Volume: 32, Issue 259, Page: 419-430, **YOP:** 2025

Journal: Journal of Polymer Research, Springer

DOI: <https://doi.org/10.1007/s10965-025-04474-1>, **IF:** 3.5

5. Abrar Ahamad, **Pradeep Kumar**, Brajesh Kumar

Title: Development of epoxy/flyash composites containing halloysite nanotubes:

- Mechanical, morphological, and thermal degradation kinetics
Volume: 101, Issue 12, Page: 1-11 , YOP: **2024**
Journal: Journal of the Indian Chemical Society, Elsevier
DOI: <https://doi.org/10.1016/j.jics.2024.101476>, **IF: 3.4**
6. Abrar Ahamad, **Pradeep Kumar**, Brajesh Kumar
- Title:** Optimization of nanofiller compositions for enhancing thermo-mechanical properties of epoxy-based composites through the application of response surface methodology with central composite design
Volume: 101, Issue 11, Page: 1-9, YOP: **2024**
Journal: Journal of the Indian Chemical Society, Elsevier
DOI: <https://doi.org/10.1016/j.jics.2024.101417>, **IF: 3.4**
7. Archana Arya, Abrar Ahamad, **Pradeep Kumar**, Avinash Chandra
- Title:** A review on lignin based nanocomposites: Fabrication, characterization and application
Volume: 78 Part 1, Page: A10-A15, YOP: **2023**
Journal: Materials Today: Proceedings, Elsevier
DOI: <https://doi.org/10.1016/j.matpr.2023.03.569>
8. Anand Maurya, **Pradeep Kumar***, Shishir Sinha , Vijay Singh
- Title:** A review: Impact of surface treatment of nanofillers for improvement in thermo mechanical properties of the epoxy based nanocomposites
Volume: 78 Part 1, Page: 164-172, YOP: **2023**
Journal: Materials Today: Proceedings, Elsevier
DOI: <https://doi.org/10.1016/j.matpr.2023.01.178>
9. R.S. Rajput, M. Singh, **P. Kumar**, N.K. Srivastava
- Title:** Evaluation of dairy effluent detoxification and removal efficiency in integrated wastewater treatment system using low-cost adsorbents
Journal: Rasayan J. Chem.
Volume: 15 Part 1, Page: 593-599, YOP: **2022**
DOI: https://rasayanjournal.co.in/admin/php/upload/3503_pdf.pdf
10. **Pradeep Kumar**, Tessy Vincent, Ashok Khanna
- Title:** Application of response surface methodology with central composite design to evaluate the extraction of U(VI) into ionic liquids
Volume: 57 Part 4, Page: 1738-1744, YOP: **2022**
Journal: Materials Today: Proceedings, Elsevier
DOI: <https://doi.org/10.1016/j.matpr.2021.12.377>
11. Abrar Ahamad, **Pradeep Kumar**
- Title:** Mechanical and thermal performance of PEEK/PEI blend matrix reinforced with surface modified halloysite nanotubes
Volume: 36 Issue 2, Page: 657-672, YOP: **2021**
Journal: Journal of Thermoplastic Composite Materials, SAGE Publications
DOI: <https://doi.org/10.1177/08927057211028>, **IF: 4.0**
12. Abrar Ahamad, **Pradeep Kumar**

- Title:** Evaluation of mechanical, thermal, and morphological properties of PEEK/PEI matrix reinforced with halloysite nanotubes
Volume: 60 Issue 14, Page: 1557-1567, YOP: **2021**
Journal: Polymer-Plastics Technology and Materials, Taylor & Francis
DOI: <https://doi.org/10.1080/25740881.2021.1918161>, **IF: 3.0**
13. **Pradeep Kumar**, Ashok Khanna
Title: Extraction of Uranium from Aqueous Solution of Nitric Acid and Organic Solvent Using Ionic Liquid
Volume: 33 Issue 1, Page: 43-48, YOP: **2021**
Journal: Asian Journal of Chemistry,
DOI: <https://doi.org/10.14233/ajchem.2021.22916>
14. Abrar Ahamad, **Pradeep Kumar**
Title: Effect of reinforcing ability of halloysite nanotubes in styrene-butadiene rubber nanocomposites
Volume: 22, Page: 100440, YOP: **2020**
Journal: Composites Communications, Elsevier
DOI: <https://doi.org/10.1016/j.coco.2020.100440>, **IF: 8.6**
15. Abrar Ahamad, Dhananjay Singh, **Pradeep Kumar**
Title: Development and characterization of halloysite nanotubes reinforced polyetherimide (PEI) nanocomposites
Volume: 97, Page: 1002-1007, YOP: **2020**
Journal: Journal of the Indian Chemical Society, Elsevier
DOI: <https://indianchemicalsociety.com/portal/uploads/journal/july-8.pdf>
16. Suresh Kumar Patel, Brajesh Kumar, **Pradeep Kumar** and Dhananjay Singh
Title: Enhancing the performance of modified solar still using Al₂O₃ nanofluid by harvesting solar energy
Volume: 97, Page: 1008-1013, YOP: **2020**
Journal: Journal of the Indian Chemical Society, Elsevier
DOI: <https://indianchemicalsociety.com/portal/uploads/journal/July-9.pdf>
17. Suresh Kumar Patel, Deepak Singh, Deepak Singh, **Pradeep Kumar** and Dhananjay Singh
Title: Physicochemical parametric and water quality index (WQI) analysis of Gomti River, Lucknow using MDSSS
Volume: 97, Page: 1725-1730, YOP: **2020**
Journal: Journal of the Indian Chemical Society, Elsevier
DOI: <https://indianchemicalsociety.com/portal/uploads/journal/OctoberA21.pdf>
18. Suresh Kumar Patel, **Pradeep Kumar**, G. Srinivasan and Dhananjay Singh
Title: Removal of arsenic from water via solar energy harvesting technique with integrated system of activated alumina absorbent bed and double slope solar still
Volume: 13 Issue 3, Page: 1293-1307, YOP: **2020**
Journal: Rasayan J. Chem.
DOI: https://rasayanjournal.co.in/admin/php/upload/993_pdf.pdf

19. **Pradeep Kumar**, Tessy Vincent & Ashok Khanna

Title: Extraction of UO_2^{2+} into ionic liquid using TTA and TBP as extractants

Volume: 50 Issue 17, Page: 2668-2675, YOP: **2015**

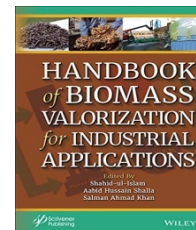
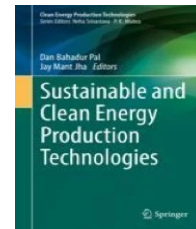
Journal: Separation Science and Technology, Taylor & Francis

DOI: <https://doi.org/10.1016/j.coco.2020.100440>, **IF:** 2.3

Patents

1.	Dr. Ravish Singh Rajput, Dr. Pradeep Kumar , Dr. Ashutosh Singh, Dr. Manoj Kumar, Dr. Sanjay Kumar Singh. Equipment For Algae Based Packaging. Indian Patent Application No. 430324-001. Dated: 21/01/2025, (Granted)
2.	Dharmendra Pandey & Pradeep Kumar . Thermo-Chemical Device to Convert Waste into Energy. Indian Patent Application No. 464762-001. Dated: 05/12/2025, (Granted)
3.	Dharmendra Pandey, Koustuv Ray, Arun Kumar Gupta, Pradeep Kumar , Shivani Dwivedi. Composition and Method for Converting Carbon dioxide into Fuel Products. Indian Patent Application No. 202621033875. Dated: 15/05/2026, (Published)

Book Chapters

S. No.	Chapter Details	Authors Name	Book
1.	Chapter Title: Radioactive Waste management Chapter : 11 YOP: December 2021 DOI: https://doi.org/10.1016/B978-0-12-824344-2.00004-5 , Elsevier	Pradeep Kumar Brajesh Kumar Dhananjay Singh	
2.	Chapter Title: Photocatalytic Biomass Valorization into Valuable Chemicals Chapter : 1 YOP: January 2022 DOI: https://doi.org/10.1002/9781119818816.ch1 Scrivener, Wiley	Brajesh Kumar Lovjeet Singh Pawan Rekha Pradeep Kumar	
3.	Chapter Title: Clean Energy Production using Solar Energy Resources Chapter : 12 YOP: July 2022 DOI: https://doi.org/10.1007/978-981-16-9135-5_12 Springer	Brajesh Kumar, Deepak Garg Kurella Swamy Pradeep Kumar	

4. **Chapter Title:** Experimental investigations of direct absorption solar collectors
Chapter : 5
YOP: June 2022
DOI: <https://doi.org/10.1016/B978-0-323-90564-0.00011-8>
Elsevier

5. **Chapter Title:** Photo-catalytic Reactor: A modelling approach
Chapter : 7
YOP: 2023
DOI: <https://doi.org/10.1201/9781003325147>
CRC press (Taylor and Francis Group)

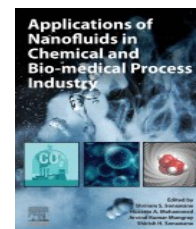
6. **Chapter Title:** Composite materials based on high-performance polymer for high-tech application
Chapter : 1
YOP: 2023
DOI:<https://doi.org/10.5281/zenodo.10464476>

7. **Chapter Title:** Waste Utilization for Sustainable Development
Chapter : 1
YOP: December 2025
DOI: <https://doi.org/10.1002/9781394318414.ch1>
Scrivener Publishing, Wiley

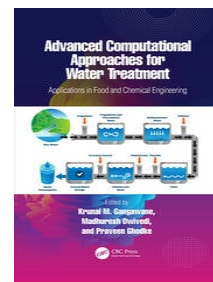
8. **Chapter Title:** Impact Assessment of E-Waste: Environment and Society
Chapter : 6
YOP: December 2025
DOI: <https://doi.org/10.1002/9781394318414.ch6>
Scrivener Publishing, Wiley

9. **Chapter Title:** Radioactive Waste: Treatment and Management
Chapter : 8
YOP: December 2025
DOI: <https://doi.org/10.1002/9781394318414.ch8>
Scrivener Publishing, Wiley

Dhananjay Singh
Suresh Kumar
Patel
Pradeep Kumar,
Dharm Pal
Parag Thakur
Shriram S.
Sonawane



Brajesh Kumar,
Vijay Singh,
Pradeep Kumar
K. M. Gangawane



Mohd. Rashid
Khan
Pradeep Kumar
Abrar Ahamad



Pradeep Kumar

Yogendra Kumar,
Pradeep Kumar,
Brajesh Kumar

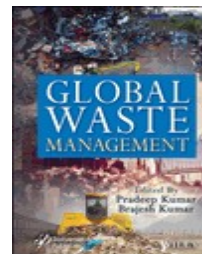


Indu Kumari,
Pradeep Kumar,
B. Krishna Srihari

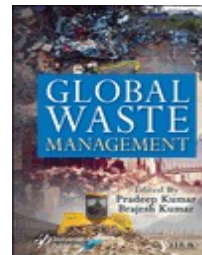


10. **Chapter Title:** Plastic Waste: A Long-Lasting Threat to the Environment
Chapter : 13
YOP: December 2025
DOI: <https://doi.org/10.1002/9781394318414.ch13>
Scrivener Publishing, Wiley
11. **Chapter Title:** Treatment and Recycling of Plastic Waste: A Dire Need for a Sustainable Future
Chapter : 14
YOP: December 2025
DOI: <https://doi.org/10.1002/9781394318414.ch14>
Scrivener Publishing, Wiley
12. **Chapter Title:** Plastic Waste Assessment
Chapter : 15
YOP: December 2025
DOI: <https://doi.org/10.1002/9781394318414.ch15>
Scrivener Publishing, Wiley

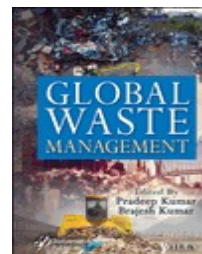
Anand Maurya,
Pradeep Kumar,
 Brajesh Kumar,
 Vinay Kumar
 Singh



Abrar Ahamad,
Pradeep Kumar,
 Brajesh Kumar



Abrar Ahamad,
Pradeep Kumar,
 Brajesh Kumar,
 Himanshu



PhD Students

S. No.	Name	Topic	Status
1.	Abrar Ahamad	Development and Characterization of Halloysite Nanotubes (HNTs) based Polymer Nanocomposites	PhD awarded (Nov. 2022)
2.	Anand Maurya	Comparative studies of Epoxy /polyester hybrid nanocomposites reinforced with fibers and nanofillers for industrial applications	PhD awarded (Dec. 2025)
3.	Shivani Singh	Extraction of valuable products from food waste through green solvents	Ongoing
4.	Manish Singh Rajput	Polymeric composite for Footwear design	Ongoing

Extra Curricular Professional Recognition

S. No.	Position	Journal
1.	Reviewer	International Journal of Polymer Analysis and Characterization

- | | | |
|----|----------|----------------------|
| 2. | Reviewer | Journal of e-Polymer |
| 3. | Reviewer | Journal of Materials |
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International/National Conferences

1. **Conference title:** International conference on applied catalysis & Chemical engineering
Name of authors: Dhananjay Singh & Pradeep Kumar
Title: Catalytic conversion of biomethane to liquid fuels and useful chemicals
Date: 8-10 April, 2019 **Venue:** Dubai, UAE
2. **Conference title:** ICHVHE-2018
Name of authors: Pradeep Kumar
Title: Education for Holistic Human Health
Date: 26th -28th April, 2018 **Venue:** KGUMSB, Thimphu, Bhutan
3. **Conference title:** 19th Pacific Basin Nuclear Conference
Name of authors: Pradeep Kumar & Ashok Khanna
Title: Extraction of metal ions through ligand assisted ionic liquids
Date: 24-28 Aug 2014 **Venue:** Vancouver, British Columbia, Canada
4. **Conference title:** International Conference on Chemical, Nano & Sustainable Engineering (ICCNSE-2013)
Name of authors: Pradeep Kumar & Ashok Khanna
Title: Extraction of metal ion through supercritical CO₂
Date: 29th to 31st March, 2013 **Venue:** Kuala Lumpur, Malaysia
5. **Conference title:** National Conference on "Nanotechnology and Environment" (NCNE-2020)
Name of authors: Abrar Ahmad and Pradeep Kumar
Title: Development and characterization HNTs reinforced with polyetherimide (PEI) nanocomposites
Date: 13-14 Feb 2020 **Organized by:** NIT Raipur
6. **Conference title:** International Chemical Engineering Conference 2021
Name of authors: Pradeep Kumar, Tessy Vincent & Ashok Khanna
Title: Application of response surface methodology with central composite design to evaluate the extraction of U(VI) into ionic liquids
Date: 16-19 September 2021 **Organized by:** Dr. B.R. Ambedkar NIT, Jalandhar, Pb
7. **Conference title:** International Conference on "Technological interventions for sustainability"
Name of authors: Archana Arya, Abrar Ahmad, Avinash Chandra and Pradeep Kumar
Title: Lignin based epoxy nanocomposites, fabrication, characterization and application: a review
Date: 14-16 April 2022 **Organized by:** MNNIT Allahabad & USM, Malaysia

8. **Conference title:** International Conference on "Sustainable Development in Chemical and Environmental Engineering"(SDCEE-2024)
Name of authors: Abrar Ahmad, Pradeep Kumar & Brajesh Kumar
Title: Development of epoxy/flyash composites containing HNTs: Thermal stability analysis & degradation kinetics
Date: 22-24 Feb 2024 **Venue:** TIET, Patiala, Punjab

Outreach activities

As Expert/Speaker in FDP/Short term courses/lecture

1. **Institution:** BIET, Jhansi
Dated: 19th – 23rd Feb. 2018
Title: Industrial Pollution Abatement and Waste Management
2. **Institution:** CIPET Lucknow
Dated: 4th Oct. 2018
Title: Polymeric Smart & Nanomaterials Technology Concept & Future Applications
3. **Institution:** MNNIT, Allahabad
Dated: 10-14th Oct. 2018
Title: Industrial Applications of Heat Transfer Operations
4. **Institution:** PEC, Pondicherry
Dated: 18-19th July 2019
Title: Radioactive nuclear waste management
5. **Institution:** AITH Kanpur
Dated: 11th September 2019
Title: Nuclear Waste Management
6. **Institution:** RITM Lucknow
Dated: 24-28 Sep. 2019
Title: Nanotechnology for healthcare & environment
7. **Institution:** I.P.S.R AKTU Lucknow
Dated: 11-15 Oct. 2019
Title: Application of Novel Drug Delivery System for Molecules of Herbal Origin
8. **Institution:** PEC, Puducherry
Dated: 8-10 Jan. 2020
Title: Nano Material and its Application in Chemical Engineering
9. **Institution:** Khwaja Moinuddin Chishti Language University Lucknow
Dated: 16 September. 2021
Title: Ozone For Life - 36 Years Of Ozone Layer Protection
10. **Institution:** RITM, Lucknow
Dated: 09-17 May. 2023
Title: Role of Human Values & Professional Ethics in Education
11. **Institution:** Sahbhagi Siksha Sansthan, Lucknow
Dated: 07 December. 2023

Title: Role of Human Values & Professional Ethics in Education

Award recognition

1. CST UP Engineering Students Project Grant Scheme, 1st prize of Rs 1 Lac 2023-24
2. Best oral presentation award at “National conference on Nanotechnology & Environment (NCNE-2020)” held at NIT Raipur, 13-14 Feb. 2020
3. Certificate of Appreciation for worked as Associate Dean Value education at AKTU Lucknow
4. Certificate of Appreciation for worked as Associate Dean UG at AKTU Lucknow

Events organized

1. A FDP on “ Advances in Renewable and Bioenergy (ARB-2019) ” Date: 19 th to 23 rd October, 2019, Organized by Dept. of Chemical Engineering, IET Lucknow Convenor: Dr. Dhananjay Singh Co-Convenor: Dr. Pradeep Kumar
2. Online FDP on “ Next generation of chemical Manufacturing & waste management ” Date: 29 th July to 2 nd Aug.2020 , Organized by Dept. of Chemical Engineering, IET Lucknow, Coordinator: Dr. Pradeep Kumar Co-Coordinator: Dr. Dhananjay Singh
3. IPR Awareness Workshop, Dated 6 th December 2025, funded by Council of Science and Technology, UP, Organized by Dept. of Chemical Engineering, IET Lucknow, Coordinator: Dr. Pradeep Kumar
4. IPR Awareness Workshop, Dated 22 February 2025, funded by Council of Science and Technology, UP, Organized by Dept. of Chemical Engineering, IET Lucknow, 5. Coordinator: Dr. Pradeep Kumar

Dr. Pradeep Kumar