BIODATA

Name	:	**DR. ASHWINI SOOD**
Date of Birth	:	17-07-1967
Father's Name	:	Late P. K. Sood, Chief Engineer (Retd.),O.N.G.C.
Designation	:	Professor
Office Address	:	Department of Chemical Engineering, School of Chemical Technology, Harcourt Butler Technical University, Kanpur-208 002, India
Home Address	:	T5-1C, Rudra Greens Apartment, Singhpur, Kalyanpur, Kanpur-208017
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Mobile Nos.	:	91-7081300534, 91-9956868360

Year	**Qualification**	**Board/University**	**Percentage/CPI/GPA**
1982	Class X	**CBSE**	**81.2% (I in the School and Merit Certificate under National Merit Scheme for securing High Rank)**
1984	Class XII	**CBSE**	**83% (II in the School)**
1988	B. Tech. (Chemical Engg.)	**IIT Kanpur**	CPI = 8.4/10.0 (**84%**) (**V in the Class and II Position in GATE 1988**)
1991	M. S. (Chemical Engg.)	**Lehigh University, USA**	GPA = 3.53/4.0 (**88.25 %**)

2006*	Ph. D. (Chemical Engg.)	**UP Technical University, Lucknow**	_

*The Ph. D. work was conducted under the supervision of Professor M. S. El-Aasser, Department of Chemical Engineering, Lehigh University, Bethlehem, PA-18015, U. S. A. from October 1991 to May 1994 (2 years and 8 months) but due to some unfortunate circumstances it could not be submitted for the award of Ph. D. degree. The same work was submitted for the award of Ph. D. degree to U. P. Technical University, Lucknow under the supervision of Professor S. K. Awasthi, Department of Chemical Engineering, H.B.T. I. Kanpur after obtaining no objection certificate from Professor M. S. El-Aasser. Six papers have resulted from the Ph. D. work which have been published in peer reviewed journals. These are listed as papers 3,7,8, 9, 10 and 12 under List of Papers Published in Journals.

B. Tech. Project Topic : Modelling of Polymerisation of Urea and Formaldehyde using Functional Group Approach (resulted in 1 paper published in an international journal)
Supervisor: Prof. Anil Kumar, Dept. of Chemical Engg., IIT Kanpur

M. Tech. Thesis Topic : Modeling of Particle Size Distribution in Emulsion Polymerization (resulted in 2 papers published in an international journal and 1 paper published in national journal)
Advisors: Prof. Christos Georgakis and Prof. Mohamed S. El-Aasser, Dept. of Chemical Engineering, Lehigh University, U. S. A.

Ph. D. Thesis Topic : Modeling of Particle Size Distribution in Miniemulsion Polymerization (resulted in 5 papers published in international journals and 1 paper published in national journal: all journals are SCI journals)
Advisor: Prof. M. S. El-Aasser, Dept. of Chemical Engineering, Lehigh University, U. S. A. (Oct. 1991 to May 1994);
Supervisor: Prof. Shailendra K. Awasthi, Dept. of Chemical Engineering, HBTI Kanpur

Awards and Achievements :

-Served as Session Chair in CHEMCON 2022, organized by Department of Chemical Engineering, H. B. T. U. Kanpur during December 27-30, 2022.

- Served as Technical Committee Member in CHEMCON 2022, organized by Department of Chemical Engineering, H. B. T. U. Kanpur during December 27-30, 2022.

-Served as Session Chair in International Chemical Engineering Conference 2021 organized by Department of Chemical Engineering, Dr. B. R. Amdedkar National Institute of Technology, Jalandhar during September 16-19, 2021.

-Awarded IIChE Awards for the Year 2020: Chemical Weekly Award for the Best Paper published in the "Indian Chemical Engineer" in its issue of 2019 along with IIChE NRC Award Best Paper in "Indian Chemical Engineer" 2019 and Kuloor Memorial Award for the Best Technical paper published in the Institute Journal "Indian Chemical Engineer" in its issue of 2019.

-Biography was selected for inclusion in Who's Who in the World, 2021 which is comprised of the top 3% of the professionals in the world. Reservation in the Marquis's network is honored to individuals who have demonstrated leadership, excellence and longevity within their respective industries and professions.

-Awarded wall of fame certificate of recognition by the academic council of uLektz as one of the top 50 expert faculties in the field of Chemical/Bio Medical/Marine/Petroleum and Textile Engineering across India for the year 2019 on 31 October 2020.

-Biography was selected for inclusion in Who's Who in the World, 2020 which is comprised of the top 3% of the professionals in the world. Reservation in the Marquis's network is honored to individuals who have demonstrated leadership, excellence and longevity within their respective industries and professions.

- Awarded the Life Team Achievement Award in the 1st International Scientist Awards on Engineering, Science and Medicine, held on 27 July 2019, Bangalore, India, Organized by VDGOOD Professional Association.

- Served as organizing committee member of International Conference on Academic Science and Engineering (ICASAE) 2019 held on 8th June 2019 at Lucknow organized by Institute for Engineering Research and Publication (IFERP), Chennai.

-Biography was selected for inclusion in Who's Who in the World, 2019 which is comprised of the top 3% of the professionals in the world. Reservation in the Marquis's network is honored to individuals who have demonstrated leadership, excellence and longevity within their respective industries and professions.

-Delivered an expert lecture in the one day workshop entitled "Modeling and Simulation in Chemical Engineering and Allied Fields" on 27th October 2018 in the Department of Chemical Engineering, Aligarh Muslim University, Aligarh.

-Editorial Board Member, Journal of Energy, Environmental & Chemical Engineering, Science Publishing Group, New York, USA, 2018-2020.

-Awarded the Life Time Achievement Award in the 88th International Research Awards on Engineering, Science & Management held on 21 & 22 Sep. 2018 at Kolkata, India Organized by International Organization of Scientific Research and Development (IOSRD).

-Selected for the 2018 Albert Nelson Marquis Life Time Achievement Award. I have been selected to receive this prestigious award as a result of my hard work and dedication to my profession.

-Biography has been selected for inclusion in Who's Who in the World, 2018 which is comprised of the top 3% of the professionals in the world. Reservation in the Marquis's network is honored to individuals who have demonstrated leadership, excellence and longevity within their respective industries and professions.

-Delivered an invited lecture on the topic “Modeling of Methyl Methacrylate Emulsion Polymerization in a Semi-batch Reactor” and co-chaired a technical session on Computational Nanotechnology in International Conference on Nanotechnology: Ideas, Innovations and Initiatives 2017 at IIT Roorkee, 6-8 December 2017.

-Awarded IICHE NRC Award 3rd Best Paper in "Indian Chemical Engineer" 2016 for the paper “A Population Balance Model for Butyl Acrylate Emulsion Polymerization, Indian Chemical Engineer, 58, 40-60, 2016”. The award was given in CHEMCON 2017, Indian Institute of Chemical Engineers, Haldia, Dec. 27-30, 2017 and carried a cash award of Rs. 1000.

-Received "Bharat Vikas Award" on 19th November, 2017 at Bhubneshwar, India for my loyalty, diligence and outstanding performance in the field of emulsion polymerization processes. The award was given by Institute of Self Reliance, Bhubaneswar.

-Received "The Best Citizens of India Award 2017" for academic and professional achievements. The award was given by International Publishing House, New Delhi.

-Received “Bharat Jyoti Award” on 25th March, 2017 for meritorious services, outstanding performance and remarkable role from Shri Shiv Raj V Patil, former speaker of Lok Sabha. The award is given by India International Friendship Society, New Delhi.

-Served as Editorial Board Member, Chemical and Biomolecular Engineering, Science Publishing Group, New York, USA in 2016-17, 2017-18..

-Listed in XII edition of Marquis's Who's Who in Science and Engineering, 2016-2017. Who’s Who in Science and Engineering is the source for current biographical information that documents the latest achievements of leaders in such fields as aerospace, genetics, and environmental engineering, and from over 100 nations. The 2016-2017

Edition chronicles the lives of these distinguished individuals for reference audience. Many businesses, libraries, and universities had requested copies of this edition.

-Listed in XI edition of Marquis's Who's Who in Science and Engineering, 2011-2012.

-Nomination Endorsed by the Governing Board of Editors for Great Minds of 21st Century, American Biographical Institute, Inc., Raleigh, North Carolina, USA (entries limited to 1,000 individuals from around the globe), 2011.

-Nominated for the membership of the American Chemical Society, 2009-2010.

-Invited to Deliver an Invited Lecture in Second International Conference on Polymer Processing and Characterization, Kottayam Kerala, India, January 15-17, 2009.

-Nominated as the International Scientist of the Year by International Biographical Centre at Cambridge, England for 2008.

-Invited to Deliver a Plenary Lecture as an Expert in Multiphase Polymer Systems in Second International Conference on Polymer Blends, Composites, IPNs, Membranes, Poly Electrolytes and Gels: Macro to Nano Scales, at Mahatma Gandhi University, Kottayam, Kerala, India, Sept. 22-24, 2008.

- Chaired three sessions on:1. Chemical Reaction Engineering, 2. Food Technology, 3. Green Technology in CHEMCON 2007.

- Listed in X Edition Anniversary Special of Marquis's Who's Who in Science and Engineering, 2007.

- Received Best Paper of the Session Award for the paper **A. Sood** and S. K. Awasthi, Radical Entry in Emulsion and Miniemulsion Polymerization Processes in CHEMCON 2003, Indian Institute of Chemical Engineers, Bhubneshwar, Dec. 19-22, 2003.
.
-Received Research Assistantships, Lehigh University, U.S.A. and Clarkson University, U. S. A., 1988.

- Secured II Position in G.A.T.E. 1988 (Percentile: 99.77).

- Selected in IIT Kanpur, (JEE Rank: AIR 847). Also cleared Roorkee (Rank:189), MNREC (Rank: 432) and ISM Dhanbad (Rank: 62) engineering entrance exams in 1984.

- Got Merit Certificate for securing high position in A. I. S. S. E.(Class X) under National Merit Scheme, 1982.

- Secured I Position in Class (K.G.II to Class XI).

- Secured II Position in Class (K.G. I & Class XII).

Research Interests :

- Emulsion Polymerization and Miniemulsion Polymerization Processes.
- Rheology of Dispersed Phase Systems.
- Chemical Reaction Engineering

Membership of Professional Bodies:

- Life Member (LM 22415), Indian Institute of Chemical Engineers since 2001-2002
- Nominated for the membership of American Chemical Society, 2009-2010
- Life Member (M-1430313), Institution of Engineers, India since 2011.
- Life Member, Leaders' Club, Institute of Self Reliance, Bhubneshwar, Orissa since 2017.
- Member for 5 years, VDGOOD Professional Association since 2019.

List of Papers Published In Journals

1. A. Kumar and **A. Sood**, Modelling of Polymerization of Urea and Formaldehyde using Functional Group Approach, J. Appl. Polym. Sci., 40, 1473-1486, 1990.[B. Tech. Project]
2. **A. Sood**, Monodisperse Distributions, Indian Chemical Engineer, 44(2), 75-81, 2002.
3. **A. Sood** and S. K. Awasthi, Initial Droplet Size Distribution in Miniemulsion Polymerization, J. Appl. Polym. Sci., 88, 3058-3065, 2003.(**accepted as is**)
4. **A. Sood**, Analytical Solutions of Series-Parallel Reactions (Part I), Indian Chemical Engineer, 45(4), 229-231, 2003.
5. **A. Sood**, Analytical Solutions of Series and Parallel Reactions (Part II), Indian Chemical Engineer, 46(1), 7-12, 2004.
6. **A. Sood**, Particle Size Distribution Control in Emulsion Polymerization, J. Appl. Polym. Sci., 92, 2884-2902, 2004.
7. **A. Sood** and S. K. Awasthi, A Population Balance Model for Miniemulsion Polymerization, Indian J. Chemical Technol., 11, 367-376, 2004.
8. **A. Sood** and S. K. Awasthi, Population Balance Model for Miniemulsion Polymerization I. Model Development, Macromol. Theory Simul., 13, 603-614, 2004.
9. **A. Sood** and S. K. Awasthi, Population Balance Model for Miniemulsion Polymerization II. Model Solution and Validation, Macromol. Theory Simul., 13, 615-628, 2004.
10. **A. Sood**, Coagulative Stability of the Miniemulsion Droplets, J. Appl. Polym. Sci., 109, 1262-1270, 2008.
11. **A. Sood**, Modeling of the Particle Size Distribution in Emulsion Polymerization, J. Appl. Polym. Sci., 109, 1403-1419, 2008.
12. **A. Sood**, Insitu Bimodal or Broad Particle Size Distributions using Miniemulsion Polymerization, J. Appl. Polym. Sci.,114, 49-61, 2009.

13. **A. Sood**, Increasing PVAc Emulsion Polymerization Productivity-An Industrial Application, Indian J. Chemical Technol., 17, 34-42, 2010.
14. **A. Sood** and Pankaj Kumar Lodhi, Modeling Evidence in Support of Coagulative Nucleation Theory, J. Appl. Polym. Sci., 122, 517-531, 2011.
15. **A. Sood** and Aparna Singh, A Lumped Model for Butyl Acrylate Emulsion Polymerization, Indian Chemical Engineer, 54, 235-244, 2012.
16. **A. Sood**, Ranjana Bharti and Anjali Awasthi, Modelling of Butyl Acrylate Emulsion Polymerisation: A Detailed Lumped Parameter Approach, Indian Chemical Engineer, 56, 185-214, 2014.
17. **A. Sood**, Anjali Awasthi and Ranjana Bharti, A Population Balance Model for Butyl Acrylate Emulsion Polymerization, Indian Chemical Engineer, 58, 40-60, 2016 [**Awarded IICHE NRC Award 3rd Best Paper in "Indian Chemical Engineer" 2016**].
18. Sandeep Tripathi, Shahida Anjum, **A. Sood**, A Review Paper on Emulsion Polymerization of Vinyl Acetate, Journal of Chemical Engineering and its Applications, 2, 1-26, 2017.
19. **A. Sood**, Temperature Dependency of the Radical Entry Rate in Emulsion Polymerization, Ultra Engineer, 5, 25-27, 2017.
20. Ankit Srivastava and **A. Sood**, A Particle Size Distribution Model for Butyl Acrylate Emulsion Polymerization: Model Validation, Ultra Engineer, 5, 33-39, 2017.
21. Ambereen Aziz Niaze and **A. Sood**, A Model for Butyl Acrylate Emulsion Polymerization, Journal of Chemical Engineering and its Applications, 2, 1-10, 2017.
22. **A. Sood**, Modeling Explanation of the Maximum in the Reaction Rate Profile in Interval II of Emulsion Polymerization, Journal of Chemical Engineering and its Applications, 2, 1-12, 2017.
23. Virendra Kumar and **A. Sood**, A Model for Vinyl Acetate Emulsion Polymerization, Journal of Chemical Engineering and its Applications, 3, 1-12, 2018.
24. **A. Sood**, Radical Entry Mechanisms in Emulsion Polymerization, Journal of Chemical Engineering and its Applications, 3, 1-19, 2018.
25. Reena Sharma and **A. Sood**, Modelling of Emulsion Polymerization of Styrene in a Semi-Batch Reactor, Journal of Chemical Engineering and its Applications, 3, 1-17, 2018.
26. Tulika Gaur and **A. Sood**, Semibatch Emulsion Polymerisation Modelling: Polybutyl Acrylate Case Study, Indian Chemical Engineer, 61, 387-402, 2019 [**Awarded IIChE Awards for the Year 2020: Chemical Weekly Award for the Best Paper published in the "Indian Chemical Engineer" in its issue of 2019 along with IIChE NRC Award Best Paper in "Indian Chemical Engineer" 2019 and Kuloor Memorial Award for the Best Technical paper published in the Institute Journal "Indian Chemical Engineer" in its issue for 2019].**
27. Sandeep Tripathi, Shalini Prajapati and **A. Sood**, A Detailed Lumped Model for Vinyl Acetate Emulsion Polymerization, International Journal of Polymer Science and Engineering, 5(1), 1-12, 2019.

28. Swati Gangwar and **A. Sood**, A Model to Study the Effect of Monomer Flow Rate on Methyl Methacrylate Emulsion Polymerization in a Seeded Semi-Batch Reactor, International Journal for Research in Applied Sciences & Engineering Technology, 7, 132-136, 2019.
29. Swati Gangwar and **A. Sood**, A Model to Study the Effect of Homogeneous Nucleation and Emulsifier Amounts on Methyl Methacrylate Emulsion Polymerization in a Seeded Semi-Batch Reactor, International Journal of Polymer Science and Engineering, 5(2), 9-17, 2019.
30. Shanjul Shrivastava and **A. Sood**, Secondary Nucleation in Emulsion Polymerization:A Review, International Journal for Research in Applied Science & Engineering Technology, 8, 1481-1487, 2020.
31. Tulika Gaur and **A. Sood**, Particle Size and Particle Size Distribution of Emulsion Polymers: A Review of Modeling Studies, Journal of Chemical Engineering Research Updates, 7, 16-23, 2020.
32. Aishwarya Tiwari and **A. Sood**, Calculations of the Average Number of Radicals per Particle in Emulsion Polymerization, International Journal for Research in Applied Science & Engineering Technology, 9, 1056-1059, 2021.
33. Tulika Gaur and **A. Sood**, Modelling of Particle Size Distribution in Butyl Acrylate Emulsion Polymerization in a Batch Reactor, Indian Chemical Engineer, 63, 219-230, 2021.
34. Ashish Kumar Singh, Vaishali Chauhan and **A. Sood**, A Review on Methods Available for Doping of High Energy Boron Particles into Liquid Fuels, Journal of Aerospace Sciences and Technologies, 73, 106-117, 2021
35. Sachin Kumar and **A. Sood**, Parametric Sensitivity Study of a Butyl Acrylate Emulsion Polymerization Model, International Journal of Innovative Science and Research Technology, 7, 362-367, 2022.

List of Oral Presentations/Posters/Abstracts Presented in Conferences

1. J. Venkatesan, **A. Sood**, C. Georgakis, C. S. Silebi and M. S. El-Aasser, Monitoring Particle Size Distribution during the course of Emulsion Polymerization, AIChE Annual Meeting, Los Angeles, USA, 1990.
2. **A. Sood** and S. K. Awasthi, Stability Analysis of the Miniemulsion Droplet Size Distribution, Proceedings/Abstracts, CHEMCON 2001, Indian Institute of Chemical Engineers, Chennai, Dec. 19-22, 2001.[ABSTRACT]
3. **A. Sood**, Modeling Particle Nucleation in Emulsion Polymerization: An Approach Based on Comprehensive Nucleation Theory, POLYCON 2002:Recent Developments of Polymers, National Symposium in Polymer Science, HBTI, Kanpur, Aug. 15-17, 2002.
4. **A. Sood**, Model of Viscosity of Bimodal Dispersions for Improved Flow Behaviour, NASYPOLYSCI 2002: National Symposium in Polymer Science, Sardar Patel University, Vallabh Vidya Nagar, Gujarat, Dec. 3-4, 2002.
5. **A. Sood**, Low Viscosity giving Efficient Operating Procedure for Highly Viscous Emulsion Polymerization, NASYPOLYSCI 2002: National Symposium in Polymer Science, Sardar Patel University, Vallabh Vidya Nagar, Gujarat, Dec. 3-4, 2002.

6. **A. Sood** and S. K. Awasthi, Monomer Transport Framework for Miniemulsion Polymerization, CHEMCON 2002, Indian Institute of Chemical Engineers, Hyderabad, Dec. 19-22, 2002.[POSTER].
7. **A. Sood** and S. K. Awasthi, Radical Dynamics Framework for Miniemulsion Polymerization, CHEMCON 2002, Indian Institute of Chemical Engineers, Hyderabad, Dec. 19-22, 2002.[POSTER]
8. **A. Sood** and S. K. Awasthi, Population Balance Framework for Miniemulsion Polymerization, MACRO 2002, IIT Kharagpur, Dec. 7-11, 2002.
9. **A. Sood**, A Study of Settling Behaviour of Suspensions, Separation in Process Industries, National Symposium on Separation Processes, IT BHU, Feb. 14-16, 2003.(**Full Paper Published in Proceeding**)
10. **A. Sood**, Calculation of Column Efficiencies of Multi-Component Distillation Columns, Separation in Process Industries, National Symposium on Separation Processes, IT BHU, Feb. 14-16, 2003.(**Full Paper Published in Proceeding**)
11. **A. Sood** and S. K. Awasthi, Radical Entry in Emulsion and Miniemulsion Polymerization Processes, CHEMCON 2003, Indian Institute of Chemical Engineers, Bhubneshwar, Dec. 19-22, 2003.(**Best Paper of the Session Award**)
12. **A. Sood**, Mechanism and Kinetic Model of Ozone Depletion Reaction, CHEMCON 2003, Indian Institute of Chemical Engineers, Bhubneshwar, Dec. 19-22, 2003.
13. **A. Sood,** Modeling of Particle Size Distribution in Emulsion Polymerization, CHEMCON 2007, Indian Institute of Chemical Engineers, Kolkata, Dec. 27-30, 2007.
14. **A. Sood,** Population Balance Model versus Lumped Model for Emulsion Polymerization, Enabling Technologies for Chemical Process Industries, Indian Institute of Chemical Engineers, Kanpur Regional Centre, Kanpur, Nov. 13-14, 2009.
15. Pankaj Lodhi and **A. Sood**, A Lumped Model for Styrene Emulsion Polymerization, SAMAAGAM, A National Technical Seminar on Advances in Lipids, Surfactants, Surface Coatings & Polymer, Student Chapter, Oil Technologists' Association of India (Central Zone) and Deptt. of Oil & Paint Technology, HBTI, Kanpur, April 24-25, 2010.
16. **A. Sood** and Aparna Singh, Modeling of Butyl Acrylate Emulsion Polymerization, CHEMCON 2011, Indian Institute of Chemical Engineers, Bangalore, Dec. 28-30, 2011.[POSTER]
17. Tulika Gaur and **A. Sood,** Modelling of the Particle Size Distribution in Butyl Acrylate Emulsion Polymerisation, 8th International Conference on Advancements in Polymeric Materials (APM 2017), Advanced Research School for Technology and Product Simulation, Central Institute of Plastics Engineering and Technology (CIPET), Chennai, held at Bangalore, Feb. 11-13, 2017.
18. Neha Mishra and **A. Sood**, Modeling of Methyl Methacrylate Emulsion Polymerization in a Semi-batch Reactor, International Conference on Nanotechnology: Ideas, Innovations and Initiatives (ICN:3I 2017), Department

of Mechanical and Industrial Engineering and Center of Nanotechnology, IIT Roorkee, Dec. 6-8, 2017 [**INVITED LECTURE**].

19. Tulika Gaur and **A. Sood**, Semi-batch Emulsion Polymerisation Modelling: Polybuytl acrylate Case Study, CHEMCON 2017, Indian Institute of Chemical Engineers, Haldia, Dec. 27-30, 2017.
20. Reena Sharma and **A. Sood**, Modelling of Emulsion Polymerization of Styrene in a Semi-batch Reactor, Fourth International Symposium on Advances in Sustainable Polymers (ASP 17), Centre of Excellence for Sustainable Polymers, Department of Chemical Engineering, IIT Guwahti and Polymer Processing Academy, India, Jan. 8-11, 2018.[POSTER]
21. Akanksha Singh Rajput and **A. Sood**, Modeling of Methyl Methacrylate Emulsion Polymerization in a Seeded Semi-batch Reactor, International Conference on Academic Science and Engineering (ICASAE-2019) organized by Institute for Engineering Research and Publication (IFERP), Chennai, June 8, 2019.
22. Swati Gangwar and **A. Sood**, A Detailed Model for Methyl Methacrylate Emulsion Polymerization in a Seeded Semi-batch Reactor, CHEMCON 2019, Indian Institute of Chemical Engineers, NRC, New Delhi, Dec. 15-19, 2019.
23. Anushree Trivedi and **A. Sood**, Study of the Role of Radical Exit in Butyl Acrylate Emulsion Polymerisation, 36th National Convention of Chemical Engineers and National Conference on 'Frontier Technologies for 21st Century's Process Industries' hosted virtually by Durgapur Local Centre of the Institution of Engineers (India) during 06-07 March 2021. (**Full Paper published in Proceeding**).
24. Aishwarya Tiwari and **A. Sood**, Calculations of the Average Number of Radicals per Particle in Emulsion Polymerization, Virtual International Conference on Advances in Chemistry and Chemical Engineering (ACCE 2021) organized by Department of Chemical Engineering, Sardar Vallabhbhai National Institute of Technology, Surat (India) on April 16-17, 2021.
25. Mahesh Pratap Singh and **A. Sood**, Reduction of Plant Sludge by Process Optimization for Eco-Friendly Automotive PaintShop, 2nd International Conference on Emerging Trends in Science, Engineering and Management-2021 organized by Institute for Engineering Research and Publication (IFERP), Chennai, July 15-16, 2021. (**Best Research Paper Award**)

Served as Reviewer for:

1. Polymer International.
2. Colloid & Polymer Science (Received a letter of appreciation from the editor of Colloid & Polymer Science for a thoughtful review).
3. Iranian Polymer Journal (reviewed 2 different manuscripts).
4. Macromolecular Theory and Simulation.
5. Polymer Bulletin.
6. Advances in Polymer Technology.
7. Polymer (reviewed 5 different manuscripts).
8. Journal of Applied Polymer Science (reviewed 2 different manuscripts).

9. Journal of Chemical, Environmental and Biological Engineering (reviewed 2 different manuscripts).
10. Journal of Chemistry.
11. Bioprocess Engineering.
12. Ultra Engineer.
13. Chemical Engineering Science (reviewed four different manuscripts).
14. Colloids and Surfaces A: Physicochemical and Engineering Aspects.
15. Journal of the Institution of Engineers (India): Series E (reviewed two different manuscripts).
16. Journal of Chemical Engineering Research Updates.
17. Materials Today:Proceedings.
18. Macromolecular Reaction Engineering

- Reviewed 29 different manuscripts since 2008 till date.

Guided Ph. D. Thesis:

1. Modeling of Particle Size Distribution in Butyl Acrylate Emulsion Polymerization (Tulika Gaur (awarded 2021)) – Three papers have resulted from this work. They are listed as papers 26, 31 and 33 under papers published in journals. Two international conferences papers have also resulted from this work. They are listed as papers 17 and 19 under List of Papers presented as oral presentations/posters/abstracts.

Guiding Ph. D. Thesis:

1. Augmentation of Liquid Fuel Properties by Adding Solid Fuel Particles and other Additives for using in Air-breathing Aerospace Engines (Ashish Kumar Singh(Started 2020-21)).

Guided M. Tech. Thesis:

1. Modeling of Styrene Emulsion Polymerization (Shruti Sengar (2008)).
2. Modeling of Methyl Methacrylate Emulsion Polymerization (Meghna Kapoor (2008)).
3. A Lumped Model for Styrene Emulsion Polymerization (Pankaj Kr. Lodhi (2009)).
4. Modeling of Butyl Acrylate Emulsion Polymerization (Aparna Singh (2010)).
5. A Detailed Lumped Model for Butyl Acrylate Emulsion Polymerization (Ranjana (2013).
6. A Particle Size Distribution Model for Butyl Acrylate Emulsion Polymerization (Anjali Awasthi (2013)).
7. A Lumped Model for Butyl Acrylate Emulsion Polymerization (Ambereen Aziz Niaze (2014)).
8. A Population Balance Model for Butyl Acrylate Emulsion Polymerization (Ankit Srivastava (2014)).
9. Application of Viscosity Depressant in Manufacture of Synthetic Leather (Rakesh Kumar (2014)).
10. Modeling of Vinyl Acetate Emulsion Polymerization in a Batch Reactor (Virendra Kumar (2015)).

11. A Detailed Lumped Model for Vinyl Acetate Emulsion Polymerization (Shalini (2016)).
12. Modeling of Vinyl Acetate Emulsion Polymerization in a Semi-batch Reactor (Sandeep Tripathi (2016)).
13. Modeling of Methyl Methacrylate Emulsion Polymerization in Batch and Semi-batch Reactors (Neha Mishra (2017)).
14. Modeling of Styrene Emulsion Polymerization in a Semi-batch Reactor (Reena Sharma (2017)).
15. Modeling of Vinyl Chloride Emulsion Polymerization in a Batch Reactor (Pulkit Garg (2017)).
16. Modeling of Methyl Methacrylate Emulsion Polymerization in a Seeded Semi-batch Reactor (Akanksha Singh Rajput (2018))
17. A Detailed Model for Methyl Methacrylate Emulsion Polymerization in a Seeded Semi-batch Reactor (Swati Gangwar (2019))
18. Secondary Nucleation in Emulsion Polymerization (Shanjul Srivastava ((2020))
19. Calculations of Average Number of Radicals per Particle in Emulsion Polymerization (Aishwarya Tiwari ((2021))
20. Reduction in environmental load through automotive paint shop process optimization (Mahesh Pratap Singh ((2021))
21. Parametric Sensitivity Study of a Butyl Acrylate Emulsion Polymerization Model (Sachin Kumar (2022))

Co-guided M. Tech. Thesis:

22. Studies on the Effect of Additives during Glycerol Hydrogenolysis to Propylene Glycol (Ashna Srivastava (2011)).
23. Studies on the Effect of Inorganic Additives on Glycerol Conversion to Propylene Glycol in the Presence of (Ni, W, Cu)/Keiselguhr Catalyst (Tulika Gaur(2012)).

Consultancy Assignments Conducted:
1. Conducted Consultancy for Bajrang Petrochemicals Limited, Kanpur worth Rs. 29500/- in 2018.

Training Courses, Teaching-Learning-Evaluation Technology Programmes and Faculty Development Programmes (Not less than one week duration) participated or organized

S.No.	Programme	Duration	Organised by
1,	Intellectual Property Rights and Patent Information	27/9/2004-1/10/2004	H. B. T. I. Kanpur
2. .	Newer Optimization Techniques for Chemical Engineering Applications	June 09-14, 2008	Department of Science and Technology, New Delhi at

			IIT Kanpur
3.	Modern Analytical Techniques for Research and Industry	Nov. 10-14, 2008	Deptt. Of Chemistry and Deptt. of Chemical Engg., HBTI Kanpur
4.	Advances in Bioprocess and Food Processing Technologies	Feb. 09-15, 2009	Deptt. Of Biochemical Engg. and Food Technolgy, HBTI Kanpur
5.	Modeling and Simulation of Chemical Processes	Feb. 24-28, 2009	Deptt. of Chemical Engg., HBTI Kanpur
6.	Software Applications in Chemical Engineering. And Technology	March 25-29, 2009	Deptt. of Chemical Engg., HBTI Kanpur
7.	Essentials of Teaching Learning Process	18-23 March, 2013	Deptt. of Humanities, HBTI Kanpur
8..	Summer Training Program on Active Learning for Senior Faculty	11-15 June, 2018	Knowledge Incubation for TEQIP, IIT Kanpur
9.	FDP on Mathematical Modeling & Research Methodology	08-12 October, 2018	Department of Mathematics, HBTU Kanpur
10.	FDP on Methods and Techniques for Enhanced Teaching and Learning in Technical Education	15-20 October, 2018	Department of Chemical Engineering, HBTU Kanpur

Training Courses, Teaching-Learning-Evaluation Technology Programmes and Faculty Development Programmes (less than one week duration) participated or organized

1.	Advances in Oil Processing	28-29, 2013	Department of Oil and Paint Technology, HBTI Kanpur
2.	State Level Faculty Interaction Seminar	8-9 June, 2015	Department of Technical Education, Government of Uttar Pradesh, Sponsored by World Bank TEQIP-II, Organized at HBTI Kanpur
3.	Chemical Engineering Curriculum Review	10-11 June, 2015	Chemical Engineering Department, HBTI Kanpur
4.	Occupational Health and	03-05 October,	Engineering Staff College

	Safety Management Practices	2016	of India, An Autonomous Organ of the Institution of Engineers (India) in Collaboration with HBTU Kanpur
5.	Energy Conservation and Energy Audit in Academic Institutions	07-09 March 2017	Chemical Engineering Department, HBTU Kanpur in Collaboration with Engineering Staff College, The Institution of Engineers (India), TEQIP II Sponsored Workshop

Professional Experience:

1 May, 2017 - Present
Professor
Department of Chemical Engineering,
School of Chemical Technology,
H.B. T. U. Kanpur

- Teaching Advanced Mathematical Methods in Chemical Engineering (M. Tech. Course), Chemical Reaction Engineering II, Process Heat Transfer.
- Jointly Conducting Chemical Reaction Engineering Lab, Industrial Training Report Presentation.
- Served as External Expert, DRTC Assessment Board DMSRDE at DMSRDE, Kanpur, July 21 and 24, 2017.
- Served as Paper-setter for Heat Transfer Operation Course for AKTU, Lucknow in 2018
- Appointed by the Vice Chairman, Board of Governors & Secretary, Technical Education, U. P. Lucknow as an expert for interview of Guest Faculty in Chemical Engineering Department, Dr. Ambedkar Institute of Technology for Handicapped, Kanpur, U. P. on 18th July, 2018
- Taught a 20 lecture course on Polymer Reactor Engineering to B. Tech. (Third year) students of Rajiv Gandhi Institute of Petroleum Technology, Amethi, U, P. during 19 February to 26 March, 2021

17 April, 2013 – 30 April, 2017
Associate Professor
Department of Chemical Engineering,
School of Chemical Technology,
H. B. T. U., Kanpur-208002

- Taught Advanced Mathematical Methods in Chemical Engineering (M. Tech. Course), Chemical Reaction Engineering-I, Chemical Reaction Engineering-II, Chemical Reaction Engineering (to Chemical Technology Students), Heat Transfer Operations.

- Jointly Conducted Chemical Reaction Engineering Lab, Seminar, Computer Application and Design Lab.
- Served as item-writer, reviewer and paper-setter for U. P. Public Service Commission's Chemical Engineering Examination in 2013.
- Served as Paper-setter for CRE-II and Transport Phenomena Courses for B. T. Kumaon Institute of Technology, Dwarahat, Almora in 2014.
- Served as a Subject Expert for giving final shape to the course structure and syllabus of the course B. Tech. in Chemical Engineering with specialization in Sugar & Alcohol Technology, Madan Mohan Malviya University of Technology, Gorakhpur on 17-10-2015.
- Served as an External Expert for AITH's recruitment interview for the post of Guest Lecturer in 2015.
- Served as a Lab Examiner for Heat Transfer Operation Lab, Department of Chemical Engineering, AITH, Kanpur in 2016.
- Served as External Expert, DRTC Assessment Board DMSRDE at DMSRDE, Kanpur, June 28-29, 2016.

17 April, 2010 - 16 April, 2013
Assistant Professor - Stage 3
Department of Chemical Engineering,
H. B. T. I., Kanpur-208002

- Taught Advanced Mathematics and Statistical Design of Experiments (M. Tech. Course), Chemical Reaction Engineering-I, Chemical Reaction Engineering-II, Chemical Reaction Engineering (to Chemical Technology Students), Heterogeneous Catalysis (Final Year Elective Course)
- Conducted Chemical Reaction Engineering Lab, CAD Lab, Seminar
- Acted as an External Expert for DRDO's recruitment interview for the post of Senior Technical Officer-Grade A
- Conducted training sessions on the Chemical Engineering Topics: Reaction Chemistry, reaction equilibrium and chemistry, catalyst: basics and catalyst used in Ammonia Plant at Tata Chemicals Ltd., Babrala during November 28-29, 2012.

17 April, 2005-16 April, 2010
Assistant Professor - Stage 2
Department of Chemical Engineering,
H. B. T. I., Kanpur-208002

- Taught Chemical Reaction Engineering, Heat Transfer Operations, Fluid Mechanics
- Conducted Laboratories in Chemical Reaction Engineering, Fluid Mechanics.
- Served as Paper Setter for Heat Transfer Operations and Fluid Mechanics for UPTU Lucknow.
- Received Ph. D. Degree from U. P. Technical University, Lucknow

17 April, 2000-16 April, 2005
Assistant Professor - Stage 1
Department of Chemical Engineering,

H. B. T. I., Kanpur-208002

- Taught Chemical Reaction Engineering, Heat Transfer Operations, Fluid Mechanics, Process Equipment Design.
- Conducted Laboratories in Chemical Reaction Engineering, Heat Transfer, Fluid Mechanics, Unit Operations.
- Readmitted for Ph. D. degree in U. P. Technical University, Lucknow .
- Presented Ph. D. proposal and work before Research Degree Committee for a number of times.
- Wrote and submitted Ph. D. thesis for experts' evaluation.

15 Feb 1999 – 5 December, 1999

Visiting Faculty

Sachdeva New P.T. College & K. K. Tutorials, Subhash Road, Dehradun

- Taught Physics and Mathematics for Engineering Entrance Examinations

6 October 1997 – 5 April 1998

Project Engineer

Indian Institute of Petroleum, Dehradun

- Worked on a Project on Alpha-Olefin Sulfonation

:

26 February 1996 – 30 August 1997

Sr. System Analyst (R & D)

Jubilant Industries Ltd. (Formerly Vam Organic Chemicals Limited), Gajraula

- Proposed and Jointly Conducted Pilot Scale Studies on Batch Time Reduction in Emulsion Polymerization Processes.
- Evaluated Number of Properties of the Latex so formed During the Course of Polymerization and at the End.
- Presented a Seminar on Rheology of Dispersed Phase Systems
- Evaluated Tackifiers for Performance Improvement of Pressure Sensitive Adhesives
- Evaluated Performance Parameters of Pressure Sensitive Adhesives

31 January 1995 – 26 December 1995

Asst. Product Manager (Plant & Process)

Hindustan Office Products Ltd., New Delhi

- Headed the Chemical Engg. Segment .
- Marketed Plant Design CAD Software Packages.
- Presented Seminars.
- Conducted Interviews.

1 Sep. 1993- 31 January, 1994

Student Consultant at Lehigh University Computing Center

- Helped students solve their computing related problems

16 December 1991 – 30 Aug. 1993

Research Assistant,
Emulsions Polymer Institute,
Lehigh University, Bethlehem, PA 18015, U. S. A

- Developed, Solved and Validated a Detailed Model for the Evolution of Particle Size Distribution in Miniemulsion polymerization from a Monodisperse Droplet Size Distribution.
- Developed, Solved and Validated a Model for the Particle Size Distribution in Miniemulsion Polymerization. that Incorporated the Full Droplet Size Distribution as a Monodisperse Distribution.
- Developed and Solved a Model for Miniemulsion Polymerization in which Normal Droplet Size Distribution was discretized into Five Classes resulting in Five Classes of Particle Size Distributions
- Conducted Stability Analysis of Miniemulsion Droplet Size Distribution.

16 January 1989 – 15 December 1991

Research Assistant,
Center for Process Modeling and Control
& Emulsion Polymers Institute,
Lehigh University, Bethlehem, PA 18015,U. S. A.

- Initiated a Joint Project on Modeling, Monitoring and Control of Particle Size Distribution in Emulsion Polymerization.
- Developed, Solved and Validated a Model for the Particle Size Distribution in Emulsion Polymerization.
- Developed Model Based Open Loop Control Strategies.
- Jointly conducted experiments for the off-line monitoring of Particle Size Distribution in Emulsion Polymerization.
- Assisted in Developing a Computer Interfaced Process Control Facility.
- Attended a Short Course on Polymer Reaction Engineering at McMaster University, Canada, 1990.

1 September 1988 – 15 January 1989

Teaching Assistant,
Department of Chemical Engineering,
Lehigh University, Bethlehem, PA 18015, U. S. A.

- Assisted in Teaching a Course on Physical Polymer Science

15 May, 1987- 1 July, 1987

Summer Trainee,
L.P.G. Plant, O.N.G.C., Ankleshwar

- Calculated Column Efficiencies of De-Ethanizer and De-Butanizer

Total Professional Experience: above 29 years.

Date: 03 April, 2023 (Dr. Ashwini Sood)