

Cirriculum Vitae

Personal Profile

Dr. P. K. S. Yadav

Associate Professor

Department of Oil Technology

School of Chemical Technology, HBTU, Kanpur

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D.O.B. : 27.08.1974



Area of Interest

Renewable Energy, Oleochemicals, Refining of Oils

Academic Qualifications

Sl. No.	Degree	Year	Institution / Board/University	Percentage Marks
1.	Ph.D.	2012	G.B. Technical University	-
2.	B.Tech	1998	HBTI, Kanpur	70
3.	B.Sc.	1994	P.P.N. Degree College, Kanpur	63
4.	Intermediate	1991	S.S. Inter College, Kanpur	73

5.	High School	1989	Kendriya Vidyalaya, Kanpur Cantt	73
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Topic of Ph.D. “*Development, Characterization and Performance Evaluation of Biodiesel*”

Work Experience

1. Working as **Associate Professor, Oil Technology** in the Department of Oil and Paint Technology, H.B.T.I., Kanpur from January 31, 2016 to till date.
2. Working as **Assistant Professor, Oil Technology** in the Department of Oil and Paint Technology, H.B.T.I., Kanpur from January 2006 to January 30, 2016.
3. Worked as **Lecturer, Oil Technology** in the Department of Oil and Paint Technology, H.B.T.I., Kanpur from February 2003 to December, 2005.
4. Worked as **Guest Lecturer, Oil Technology** in the Department of Oil and Paint Technology, H.B.T.I., Kanpur from July 2001 to January 2003.

Administrative Experience

1. Working as **Head, Department of Oil Technology** from 30.07.2022 to till date.
2. Working as **Associate Dean, School of Chemical Technology, H.B.T.U., Kanpur** from 15.11.2018 to till date.
3. Worked as **In-charge Department of Oil Technology** from December 12, 2019 to 29.07.2022
4. Worked as **Nodal Officer, School of Chemical Technology, TEQIP-III, World Bank** project from 26.08.2017 to September 30, 2021.
5. Worked as **Associate Dean Academic Affairs, H.B.T.U., Kanpur** from June 03, 2017 to 26.08.2017.
6. Worked as **Member Secretary, Center of Excellence on Applied Research, Training and Education in Lipid Science** established at H.B.T.I., Kanpur from December, 2013 to July 31, 2017.
7. **Member, Selection Committee** for *Junior Technicians and Junior Technical Superintendents* at I.I.T., Kanpur (2013).

8. Worked as **Member, Training and Placement**, H.B.T.I., Kanpur.
9. Working as **Coordinator, Training and Placement, Oil Technology**, Department of Oil Technology, H.B.T.I., Kanpur.
10. Worked as **Convener, Photography Cell** of Council of Students Activities, H.B.T.I. , Kanpur.
11. Worked as **Convener, Sports Sub Council** during July 2004 – September, 2005.

Research Guidance

Ph. D.

S. No.	Name of the student	Topic of Research	Year	Remark
1.	Ms. Neeta Singh Rana	Development, Characterization and Performance Evaluation of Polymeric Surfactants for Detergency	2017	In progress
2.	Ms. Surabhi Rajwani	Synthesis of Biolubricant from Modified Vegetable Oil using Heterogeneous catalyst	2018	In progress (Thesis Submitted)

M. Tech.

S. No.	Name of the student	Topic of Research	Year	Remark
1.	Ms. Manica Arora	Natural antioxidants and synthetic antioxidants: A comparative study	2014	Completed
2.	Ms. Niyati Tandon	Synthesis and characterization of polyurethane resin from used soybean oil	2014	Completed
3.	Ms. Sarita Saxena	Isolation of nutraceuticals from crude palm oil	2014	Completed
4.	Mr. Rahul Mishra	Studies on Production of Biodiesel from waste cooking oil using heterogeneous catalyst	2015	Completed
5.	Ms. Farha Afrin	Synthesis of Polymeric Surfactants	2016	Completed
6.	Ms. Nazia Fatima	Preparation of Biosurfactant from Pseudomonas Aeruginosa with novel substrate	2017	Completed
7.	Mr. Vishal Kumar Singh	Production of Bio-Lubricant from Waste Cooking Oil	2017	Completed
8.	Mr. Gaurav Singh	Synthesis of Fatty Acid Dimers using waste cooking oil	2021	Completed

9.	Mr. Sameer Singh	Synthesis of Lecithin from different Feedstocks and Comparison of their Nutritional Value	2021	Completed
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Special lecture/ Keynote delivered in short term course, seminars, workshops, Conferences

1. Delivered an expert lecture on Processing of Non- Conventional Feedstocks for Biodiesel Production in a National Workshop on Innovative Practices in Vegetable Oil Processing during September 27-28, 2014 at H.B.T.I., Kanpur
2. Delivered an expert lecture on Emerging Trends and Benefits of Bio-Lubricants in a National Workshop on Opportunities and Challenges in Bio-Fuels & Bio-Lubricants during November 21-22, 2015 at H.B.T.I., Kanpur
3. Delivered an Invited talk on Introduction of Oil Processing at D.D. U. State Institute of Rural Development, Lucknow on December 02, 2015.
4. Delivered an Invited talk on Newer Feedstocks for biodiesel at D.M.S.R.D.E., Kanpur on February 04, 2016
5. Delivered an expert lecture on Biodiesel: Production and Challenges in Faculty Development Programme on development in Sustainable Energy and Environment Protection during March 27-31, 2017 at B.I.E.T. Jhansi.
6. Delivered an expert lecture on Qualities and Characteristics of a Good Teacher in Faculty Development Programme on Pedagogical Approaches in Science, Technology, Engineering & Management during October 04-08, 2018 at B.I.E.T. Jhansi.
7. Delivered an invited talk on “Importance of Energy Audit in Oil Industries in India” in a National Conference on Process Audit in Oilseeds & Oil Processing Industries organized during September 28-29, 2019 at HBTU, Kanpur.
8. Delivered expert lecture in online mode on the topic " Theory and application of GLC and HPLC in oils and fats" for the participants of University Institute of Chemical Technology North Maharashtra University, Jalgaon on 14.September 2020

Seminar / Conferences / Training programmes Organized

1. Organized a **National Seminar** on “*Technological Development in the field of production of Consumer Grade Refined Oils & Vanaspati*” at H.B.T.I., Kanpur, During Oct. 03,2004 as **member**.

2. Organized **Engineering Seminar** for *Oil Industry/Solvent Extraction Plants/ Other Allied Industries* during 24-25 Feb., 2007 at HBTI, Kanpur as **member**.
3. Organized a **Training Programme** on *Non Edible Oilseeds* as **Co- Coordinator** at H.B.T.I., Kanpur during March 04-10, 2010, sponsored by Seed Division, Department of Science and Technology, Government of India, New Delhi.
4. Organized an **International Seminar & Expo** on *Oils, Fats & Oleo Chemicals: Food Security, Green Energy & Environment* at New Delhi during 3-5 December, 2010 as **General Program Secretary**.
5. Organized a **National Seminar** on *Advances in Lipids, Surfactants, Surface Coating's & Polymers* at H.B.T.I., Kanpur during April 24-25, 2010 as **member**.
6. Organized **CONFLUENCE -2013 A National Seminar cum Technical Fest** on "*Newer Technologies in Oil and Paint Industries*" as **Convener** during March 8-9, 2013 at H.B.T.I., Kanpur.
7. Organized a **Faculty Development Program** on "*Essentials of Teaching Learning Process*" during March 18-23, 2013 as **Coordinator** at H.B.T.I., Kanpur.
8. Organized a **Workshop** on "*Advances in Oil Processing*" organized by the Department of Oil and Paint Technology, H.B.T.I., Kanpur, sponsored by TEQIP-II, project of World Bank during September 28-29, 2013 as **Convener** at H.B.T.I., Kanpur.
9. Organized a **Workshop** on "*Advances in Soaps and Detergents*" organized by the Center of Excellence on Applied Research, Training and Education in Lipid Science, Department of Oil and Paint Technology, H.B.T.I., Kanpur, sponsored by TEQIP-II, project of World Bank during March 27- 28, 2014 as **Convener** at H.B.T.I., Kanpur.
10. Organized **Confluence-2014: A National Seminar** on "*Newer Technologies in Oil & Paint Industries*" organized by the Department of Oil and Paint Technology, H.B.T.I., Kanpur, during March 29-30, 2014 as **Faculty Convener** at H.B.T.I., Kanpur.
11. Organized a **Workshop** on "*Innovative Techniques in Vegetable Oil Processing*" under the Center of Excellence on Applied Research, Training and Education in Lipid Science, Department of Oil and Paint Technology, H.B.T.I., Kanpur, sponsored by TEQIP-II, project of World Bank during September 27- 28, 2014 as **Convener** at H.B.T.I., Kanpur.
12. Organized a **National Conference** on "*Newer Oleochemicals: Production and Industrial Applications*" under by the Center of Excellence on Applied Research, Training and Education in Lipid Science, Department of Oil and Paint Technology,

H.B.T.I., Kanpur, sponsored by TEQIP-II, project of World Bank during January 10-11, 2015 as **Convener** at H.B.T.I., Kanpur.

13. Organized a **Workshop** on “Opportunities and Challenges in Biofuels and Biolubricant” under the Center of Excellence on Applied Research, Training and Education in Lipid Science, Department of Oil and Paint Technology, H.B.T.I., Kanpur, sponsored by TEQIP-II, project of World Bank during November 21-22, 2015 as **Convener** at H.B.T.I., Kanpur.
14. Organized a practical training for "Manufacturing Cosmetic Products" under the Center of Excellence on Applied Research, Training and Education in Lipid Science, Department of Oil and Paint Technology, H.B.T.I., Kanpur, sponsored by TEQIP-II, project of World Bank during May30 - June 04, 2016 as **Convener** at H.B.T.I., Kanpur.
15. Organized a workshop on Analytical Solutions for Today's Science in Collaboration with M/s Agilent Technologies, Manesar during March 22-23, 2017.
16. Organized a Three day Training workshop for Faculty Mentors on Induction Programme for New Students during Sept. 22-24, 2017 as member organizing committee at HBTU, Kanpur under TEQIP-III.
17. Participated in organizing Induction Programme for New Entrants, 2017-18 (As per Mandate of AICTE, New Delhi) as faculty mentor during Jan. 15-21, 2018 at HBTU, Kanpur
18. Organized a Training Workshop on " Academic Process for the Implementation of Outcome Based Education (OBE)" during Feb. 19-23, 2018 at HBTU, Kanpur.
19. Organized a Workshop on “ Outcome Based Accreditation for Undergraduate Engineering Programs” during March 22-23, 2018 at HBTU, Kanpur.
20. Organized a Workshop on “ Advanced Analytical Techniques” during September 19-20, 2018 at HBTU, Kanpur.
21. Organized a National Conference on Process Audit in Oilseeds & Oil Processing Industries during September 28-29, 2019 at H.B.T.U., Kanpur sponsored by TEQIP-III
22. Organized a Workshop in online mode on “Tribology basics and their real life applications” on September 3, 2021 at HBTU, Kanpur.
23. Organized a Workshop in online mode on “Gas Chromatography & its applications Applications in Oils & Fats Analysis” on October 13, 2021 at HBTU, Kanpur.

24. Organized a Workshop in online mode on “HPLC and its Applications in Oils & Fats Analysis” on October 28, 2021 at HBTU, Kanpur

Sponsored project

- Completed a project entitled “ *Production and Characterization of Biodiesel from Low Value Industrial By Products*” sponsored by A.I.C.T.E., New Delhi as Co- Principal Investigator worth Rs. 13.80 lacs.

Awards & Honours and Other Achievements

1. Received best project award at B.Tech. level.
2. Received second prize in Oral paper presentation in the research session of International Conference on “Oils, Fats, Fuels and Surfactants” during Dec. 09-11, 2009 at New Delhi on the topic “Production of Biodiesel from Industrial By-Products at Pilot Scale”.
3. Completed NPTEL Online Certification course on Waste to Energy Conversion funded by the Ministry of HRD, Govt. of India.
4. Nominated as Vice President Research Investigation and Implementation Committee of Oil Technologists’ Association of India.
5. Nominated as Associate Editor, Journal of Lipid Science and Technology
6. Reviewer of JLST
7. Member of Bureau of Indian Standards of CHD 25, CHD 25:1 & CHD 25:2.
8. Elected as **Hony. Treasurer** “*Oil Technologists’ Association of India (CZ)*” (August, 2003 – October, 2007).
9. Elected as **Hony. General Treasurer** “*Oil Technologists’ Association of India (HQ)*” (December, 2007 – December, 2009).
10. Elected as **Hony. General Secretary** “*Oil Technologists’ Association of India (HQ)*” (December, 2009 – 31.03.2012).

Papers presented and published

1. Praveen K.S. Yadav and R.P. Singh; “*Industrial Applications of Mustard Oil and its Derivatives*” Brassica; Vol.5 No. 1&2, June, 2003 Pg.73-79.
2. Praveen K.S. Yadav, R.P. Singh and Onkar Singh; Presented and Published “*Theoretical study of Jatropha and other vegetables oils as Biodiesel fuel Internal Combustion Engines*”;

- Proceeding's of first International Conference on Renewable Energy during Oct. 6-8, 2004, Pg. ET-10-ET-13.
3. Praveen K.S. Yadav and R.P. Singh; Presented a paper on "*Industrial Application of Oleo chemicals derived from Mustard Oil*" in a Conference on Resource Development and Marketing Issues in Rapeseed Mustard, during March 28-29, 2005.
 4. Praveen K.S. Yadav, R.P. Singh and Onkar Singh; Presented a paper on "*Biodiesel: A Renewable Energy Source and A green Fuel*" in a Seminar on frontier Areas of Chemical Engineering Strategies for Future, during March 18-19, 2006.
 5. Praveen K.S. Yadav, R.P. Singh and Onkar Singh; Presented and published a paper on "*Biodiesel production Using Vegetable Oils and Low value Lipids as Feed stock*" in an International Conference on Challenges and Strategies for Sustainable Energy, Efficiency and Environment, during June, 10-11, 2006.
 6. Praveen K.S. Yadav, R.P. Singh and Onkar Singh; Presented Paper and Abstract published on the topic "*Production of Biodiesel from Industrial By-Products at Pilot Scale*" in proceeding's of International Conference on "Oils , Fats, Fuels and Surfactants" during Dec. 09-11, 2009 at New Delhi
 7. Praveen K.S. Yadav, R.P. Singh and Onkar Singh; Presented Paper and Abstract published in book of abstracts of 1st International Conference on "New Frontiers in Biofuels" on the topic "*Biodiesel Production from Soap-Stock and its Characterization*" during January 18-19, 2010 at New Delhi
 8. Praveen K.S. Yadav, R.P. Singh and Onkar Singh; "*Palm Fatty Acid Biodiesel: Process Optimization and Study of Reaction Kinetics*" Journal of Oleo Science , Vol.59, No.11 (2010).
 9. Praveen K.S. Yadav, R.P. Singh and Onkar Singh; "*Performance Test of Palm Fatty Acid Biodiesel on Compression Ignition Engine*" Journal of Petroleum Technology and Alternate Fuels, Vol. 1, 2010.
 10. Rahul Shukla and P.K.S. Yadav; Theoretical study of biodiesel production from waste cooking oil using heterogeneous acid catalyst" Presented in National Conference on "*Newer Oleochemicals: Production and Industrial Applications*" during January 10-11, 2015 at H.B.T.I., Kanpur.
 11. Nikhil Kumar Gupta, P.K.S. Yadav, Rajan Eadara and R.P. Singh; "Process optimization for synthesis of epoxy resin from waste soybean oil" Journal of Lipid Science and Technology, Vol. 47, No. 3 , 2015.

12. Nikhil Kumar Gupta, P.K.S. Yadav, Rajan Eadara and R.P. Singh; " Synthesis of Epoxy Resin From Waste Ricebran Oil" Journal of Polymers from Renewable Resources, Vol. 7, No. 1, 2016.
13. Nikhil Kumar Gupta, Shiv Charan Prajapati, P.K.S. Yadav and R.P. Singh; " Synthesis of Polyol from Waste Ricebran Oil" Journal of Lipid Science and Technology, Pg. 10-14, Vol. 49 No. (1), 2017.
14. Rahul Shukla and P.K.S. Yadav, " Production of Biodiesel from Low Grade Feedstock using Pyrolyzed Rice Husk Catalyst", Journal of Lipid Science and Technology, Pg. 43-48, Vol. 50 No. (2), 2018.
15. Gaurav Singh, Surabhi Rajwani & P.K.S. Yadav, "Biolubricants and Nanolubricants Additives: A Review", Journal of Lipid Science and Technology, Pg. 81-98, Vol. 51 No. (3), 2019.
16. Surabhi Rajwani and P.K.S. Yadav, "Chemical Modification of Dehydrated Castor oil for synthesis of Biolubricant", Proceedings of International conference on Advances in Chemical engineering, AdChE- 2020 at UPES Dehradun, 6 Feb, 2020 (PUBLISHER Elsevier on SSRN.com <http://dx.doi.org/10.2139/ssrn.3701154>).
17. Surabhi Rajwani and Praveen K.S. Yadav, "Biolubricant Synthesis from a Blend of Dehydrated Castor Oil and Waste Cooking Oil", Journal of Test Engineering & Management, ISSN: 0193-4120, Vol. 83, Pg. 23414-23424, 2020.
18. Surabhi Rajwani and P.K.S. Yadav, "Synthesis of Biolubricant and their Applications: An Overview", Journal of Test Engineering & Management, ISSN: 0193-4120, Vol. 83, Pg. 23444-23460, 2020.
19. Neeta Singh, S.K. Gupta, P.K.S. Yadav, "Strategies and Characterization Methods in the Preparation of Polymeric Surfactants for Various Applications" Rasayan Journal of Chemistry, ISSN: 0974-1496, Vol. 13. No. 3 Pg. 1644-1652, 2020.
20. Surabhi Rajwani and P.K.S. Yadav, "Comparative study of the methods of chemical modification of dehydrated castor oil for synthesis of biolubricant, Asian Journal of Chemistry, Vol. 33, No.5 (2021) pg. 1013-1018 <http://dx.doi.org/10.14233/ajchem.2021.23128>.
21. Surabhi Rajwani and P.K.S. Yadav, "Synthesis of biolubricant via Chemical Modification from Vegetable Oil Blend using Hetrogeneous Catalyst, Asian Journal of Chemistry, Vol. 33, No.9 (2021) pg. 2021-2026 <http://dx.doi.org/10.14233/ajchem.2021.23263>.

22. Neeta Singh, S. K. Gupta, P. K. S. Yadav, “Synthesis and Performance Evaluation of Green Anionic Polymeric Surfactant for Detergent Application ”, Asian Journal of Chemistry Vol 33, No. 2 (2021) Pg. 333-337 [http:// doi.org/10.14233/ajchem.2021.2299](http://doi.org/10.14233/ajchem.2021.2299).
23. Neeta Singh, S. K. Gupta, P. K. S. Yadav, “RSM-Based optimization approach in production of Anionic methyl ester sulfonate for commercial detergent application”, J. Inst. Eng. India Ser. E., 2021 [http:// doi.org/10.1007/s40034-021-00234-0](http://doi.org/10.1007/s40034-021-00234-0)
24. Gaurav Singh, Surabhi Rajwani , P.K.S. Yadav “ Clay Catalyzed Dimerization of Linseed Oil: Synthesis of Linseed Oil Dimers” International Journal of Research in Engineering and Science, Vol 9 Issue 10 (2021) pg. 60-64
25. Gaurav Singh and P. K. S. Yadav, “ Synthesis of Fatty Acid Dimers and Their Applications: An Overview” Indian Journal of Advances in Chemical Science, Vol. 10, Issue 1 (2022) pg. 47-54, ISSN No.: 2320-0898 (Print); 2320-0928 (Electronic), DOI: 10.22607/IJACS.2022.1001009

Book Chapters

1. Characteristics and Qualities of a Good Teacher, Reference book entitled "Element of Teaching Learning Process" published by Elsevier India with ISBN: 9789351072867 (2014)
2. Hazardous waste characteristic and standard management approaches, Book entitled Hazardous Waste Management An Overview of Advanced and Cost-Effective Solutions, published by Elsevier Inc. with ISBN: 978-0-12-824344-2 (2022)

Certificate Course Completed

1. Completed NPTEL Online Certificate course on “ Waste to Energy Conversion” offered by I.I.T., Roorkee on Swayam Portal during Jan- March, 2020 (Eight Weeks) sponsored by Min. of HRD, Govt. of India
2. Completed Online Certificate course on “ Digital Transformation in Teaching Learning Process” offered by I.I.T., Bombay on Swayam Portal during March 16-30, 2020 sponsored by Min. of HRD, Govt. of India

Book Publication

A book entitled "Development Characterization and Performance Evaluation of Biodiesel" was published by Lap Lambert Academic Publishing with ISBN: 978-3-659-95708-6 on 27.09.2016

A reference book entitled "Element of Teaching Learning Process" was published by Elsevier India with ISBN: 9789351072867 in 2014

Short term courses and Workshops attended

1. Attended one week short term Course on "*Application of Science and Technology for Community Development*" at TTTI, Chandigarh during June 02, 2003 to June 06, 2003.
2. Attended two weeks short Term course on "*Advances in Hydrocarban Engineering*" at I.I.T, Roorkee, Roorkee during June 23, 2003 to July 04, 2003.
3. Attended one week short term Course on "*Environment Economics & Environmental Impact Assessment*" at I.I.T., Kanpur during May 18-24, 2004.
4. Attended one week SERC school on "*Colloids & Interfaces; Fundaments & Research challenges*" at I.I.T., Kanpur. During February 7-11, 2005.
5. Attended one week short term course on "*Instrumental Analysis and Total Quality Management in Chemical Industries*" at Institute of Chemical Technology, Mumbai during March 24-28, 2008.
6. Attended one week workshop on "*Statistics for Engineers*" during July 2-6, 2012 at I.I.T., Kanpur.
7. Attended one week faculty development program on "*Perfumery & Cosmetics*" during February 22-28, 2014 at H.B.T.I., Kanpur
8. Attended one week faculty development program on "*Engineering Education: Opportunities, Challenges and Future Directions*" during March 7-12, 2014 at H.B.T.I., Kanpur.

9. Participated in the MHRD's *National Mission for Teachers and Administrators " Management Capacity Enhancement Programme* at Indian Institute of Management, Indore during August 24 - 30, 2015
10. Attended one week faculty development program on "*Advance Algorithms in Computing*" organized by the department of Computers Science and Engineering, H.B.T.I., Kanpur during January 25-30, 2016
11. Attended a workshop on "Intellectual Property Rights (IPR) and Patenting" organized under TEQIP-II, H.B.T.I., Kanpur and Engineering Staff College of India during August 27-29, 2016.
12. Attended a workshop on "Occupational Health and Safety Management Principles" organized under TEQIP-II, H.B.T.I., Kanpur and Engineering Staff College of India during October 3-5, 2016.
13. Attended a Three day Training workshop for Faculty Mentors on Induction Programme for New Students during Sept. 22-24, 2017 as member organizing committee at HBTU, Kanpur under TEQIP-III.
14. Attended a Training Workshop on " Academic Process for the Implementation of Outcome Based Education (OBE)" during Feb. 19-23, 2018 at HBTU, Kanpur.
15. Attended Faculty Development Program on "Recent Advances in Chemical Engineering" organized by Department of Chemical Engineering, HBTU, Kanpur during July 23-27, 2018.
16. Attended Faculty Development Program on "Methods and Techniques for Enhanced Teaching and Learning in Technical Education" organized by Department of Chemical Engineering, HBTU, Kanpur during October 15-20, 2018.
17. Attended a Twinning workshop : Establish Mechanism for Enabling Peer Learning and Knowledge Sharing organized during May 30-31, 2019 at SPIU, Lucknow
18. Attended a Workshop on " Digital Intervention for Accreditation and Enhancement of Knowledge, Skill & Employability" organized on October 18, 2019 at SPIU, Lucknow
19. Faculty Development Program on "*Advancements in Material Characterization Techniques*" organized by Department of Plastic Technology at HBTU, Kanpur during December 16-21, 2019 sponsored by TEQIP-III
20. Attended Online National Seminar on Significant Role of E Education Through Social Distancing during Lockdown of COVID-19 Pandemic Organized by I.E.T., RML Awadh University during April 8-9, 2020 sponsored by TEQIP-III

21. Attended Online National Webinar on Virtual Labs Organized by I.E.T., RML Awadh University during April 16, 2020 sponsored by TEQIP-III
22. Attended Online National Webinar on Unlocking the Lockdown through E- Examination Organized by I.E.T., RML Awadh University during April 20, 2020 sponsored by TEQIP-III
23. Attended Online Webinar on MATLAB for AI, Machine Learning and Deep Learning organized by Department of Computer Science and Engineering, HBTU, Kanpur during April 30, 2020 sponsored by TEQIP-III
24. Completed MHRD sponsored TEQIP assisted course on " Sustainable Energy Technologies: Synthesis of Alternative Fuels, Characterization and Molecular Simulations" during December 07- 11, 2020 organized by IIT Roorkee.
25. Attended one week online Faculty Development Program on " Modern Innovations in Chemical Engineering & Technology" organized by Department of Chemical Engineering and Department of Food Technology, HBTU, Kanpur, during August 9-13, 2021.

Consultancy Services

1. Rendered consultancy to M/s B.L. Agro Oils Ltd. Bareilly, U.P.

Industrial Trainings

1. Completed an Industrial Training at M/s Godrej Consumer Products Limited, Malanpur during July 1- 4, 2014.
2. Completed an Industrial Training at M/s Wipro Enterprises, SIDCUL, Haridwar organized by M/s Chemical Construction International (P) Ltd. during December 22-27, 2014.