

CURRICULAM VITAE



Dr. DAN BAHADUR PAL

Assistant Professor, Department of Chemical Engineering,

Harcourt Butler Technical University, Nawabganj

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Career Objective:

Seeking a challenging career where I can utilize my academic, technical and analytical knowledge and significantly contribute to the growth of the organization with hard work and dedication.

Professional Experience:

- **Assistant Professor** in Department of Chemical Engineering, Harcourt Butler Technical University, Nawabganj Kanpur-208002, Uttar Pradesh India from 10/06/2022.
- **Assistant Professor** in Department of Chemical Engineering, Birla Institute of Technology, Mesra, Ranchi, Jharkhand, India from 04/01/2018 to 09-06-2022.
- **Teaching Assistantship:** During Ph. D in IIT (BHU) Varanasi, India from 24/09/2012 to 10/08/2017: Chemical Engineering Laboratory such as Heat transfer, fluid flow and Mechanical operation lab.
- **Assistant Professor** in Department of Chemical Engineering, Moradabad Institute of Technology, Moradabad, Uttar Pradesh India, from 08/08/2011 to 31/08/2012.
- **Lecturer** in Department of Chemical Engineering, Bundelkhand Institute of Engineering & Technology, Jhansi, Uttar Pradesh India, from 07/08/2008-05/06/2009.

Professional Qualification:

Doctor of Philosophy, Chemical Engineering, Indian Institute of Technology (BHU), Varanasi, Uttar Pradesh, India 2012-2017.

- **Studies on Ceria Nanofiber Catalysts in Water Gas Shift Reaction**, under the supervision of **Prof. P. K. Mishra** IIT (BHU), Varanasi, Uttar Pradesh.
- Comprehensive fields: Nanotechnology and Chemical Reaction Engineering.

M.Tech, Chemical Engineering, Indian Institute of Technology (BHU), Varanasi, Uttar Pradesh, India 2009-2011

- **Study of Water Gas Shift Reaction in Medium Temperature Range**, under the supervision of **Prof. R. Prasad** IIT (BHU), Varanasi Uttar Pradesh India.
- Comprehensive fields: Chemical Reaction Engineering

Academic Qualification:

- **Ph.D.** completed (September, 2012 to August, 2017) Chemical Engineering (86.7%), Indian Institute of Technology (BHU) Varanasi, Uttar Pradesh India.
- **M. Tech. Chemical Engineering** (81.2%), Indian Institute of Technology (BHU) Varanasi, Uttar Pradesh India.
- **B. Tech. Chemical Engineering** (65.1%), M.I.E.T Meerut, Uttar Pradesh Technical University, Lucknow, India.

Research & Development Project:

1. **Topic:** Synthesis and Characterization of Biomaterials & Nanomaterials and Its Application in Heavy Metals Removal, **Funding Agency:** MHRD, New Delhi, **TEQIP Collaborative Research Scheme**, Amount in **Rs (Lakh): 16.24.**
2. **Topic:** synthesis of nanomaterials and its application in energy & environment, **Funding Agency:** SEED Money Scheme 2018 (financial support by NPIU TEQIP-III), **Amount in Rs (Lakh): 02**

Memberships:

- Life time associate membership: Indian Institute of Chemical Engineers (IICHE), LAM-61807
- 2022-Life time membership: Indian Desalination Association (InDA), LM - 572
- World Research Council (WRC), 2019- Life time membership WRC-RRF-IND-1092.

Extracurricular Activities:

Awards and Fellowships:

- **Research Ratna Award, 2019** for outstanding research in the field of Performance of catalytic water gas shift reaction given by International Journal for research under Literal Access.
- Got **First Prize** in Poster Presentation on the occasion of **Institution Day** at IIT (BHU), on 3, April-2016, Varanasi, India

- Got **First Prize** in Poster Presentation on the occasion of **Institution Day** at IIT (BHU), on 26 Feb-2015, Varanasi, India
- GATE -2009 qualified with GATE score 366 in Chemical Engineering

Research Interests/Research Profile: I have completed my doctorate degree entitled “**Studies on ceria nanofiber catalysts in water gas shift reaction**”. These nanofibers have very promising potential to provide benefits to nanotechnologies, energy, environment, catalysts, sensors etc. While pursuing research I got the total number of **75** publications in the reputed **SCI/Scopus/referred** journals and one book, two book chapters. From all the publication I got **1659 citations** with **18 h-index** and **32i-10-indexes**. In the near future, I would like to pursue my research in similar area.

My Research work is mainly focused on synthesis and characterization of nanofiber and its application in water gas shift reaction. I have synthesized nanofiber and use it as catalyst samples using of preparation as; sol-gel solution for synthesis of nanofiber by electrospinning method etc. and performed catalyst activity test using Gas Chromatograph and characterize these samples with BET surface area technique, EDS, FTIR, SEM, XPS, XRD, TGA etc, isothermal kinetics study is also performed over the best screened catalyst.

Invited Talk:

Talk on “**Synthesis and Characterization of Cu/CeO₂ Nanofiber Catalyst**” in Online workshop on “Synthesis, Characterization and Performance of Advanced Materials (SCPAM-2021)” during 10-14th May, 2021 in MANIT Bhopal MP India

Coordinators/Session Chairs in Conference\Workshops:

1. **Worked as Coordinator: Two-day** International Workshop on Advances in water Purification and wastewater treatment, Jointly Indian Desalination Association & HBTU, Kanpur on **18th & 19th Nov. 2022**.
2. **Worked as Coordinator in** International Chemical Engineering Congress: **CHEMCON 2022 & 75th Annual Session (Platinum Jubilee)** of Indian Institute of Chemical Engineers on **27 to 30 December, 2022** at Harcourt Butler Technical University, Kanpur, India
3. **Session Chair for Technical Session Under “Wastewater Treatment” Theme:** International Chemical Engineering Congress: **CHEMCON 2022 & 75th Annual Session (Platinum Jubilee)** of Indian Institute of Chemical Engineers on **27 to 30 December, 2022** at Harcourt Butler Technical University, Kanpur, India

4. Session Chair for Technical Session Under “Nano Technology and Nano Science” Theme:
International Chemical Engineering Congress: **CHEMCON 2022** & 75th Annual Session (Platinum Jubilee) of Indian Institute of Chemical Engineers on **27 to 30 December, 2022** at Harcourt Butler Technical University, Kanpur, India

5. Session Chair for Technical Session Under “Biomass Utilization and Bioenergy” Theme:
International Chemical Engineering Congress: **CHEMCON 2022** & 75th Annual Session (Platinum Jubilee) of Indian Institute of Chemical Engineers on **27 to 30 December, 2022** at Harcourt Butler Technical University, Kanpur, India

6. Session Chair for Poster presentation in International Chemical Engineering Congress: **CHEMCON 2022** & 75th Annual Session (Platinum Jubilee) of Indian Institute of Chemical Engineers on **27 to 30 December, 2022** at Harcourt Butler Technical University, Kanpur, India

Paper Published in Research Journal: (Total Impact Factors 432.70(58))

- 1. D. B. Pal, R. Chand, S. N. Upadhyay, P. K. Mishra, Performance of Water Gas Shift Reaction Catalysts: A Review, Renew & Sustainable Energy Reviews 93 (2018) 549-565. (ISSN: 13640321) (IF: 16.8)**
- 2. P. Singh, D. B. Pal, R. Singh, S. Madhav, P. srivastava, D. Tiwary & P. K. Mishra, Current and emerging trends in bioremediation of petrochemical waste: A review. Critical Reviews in Environ. Sc. and Tech., 47:3, 155-201, 2017. (ISSN: 1064-3389) (IF: 12.56). (T&F)**
- 3. D.B. Pal, A. Singh, J. Jha, N. Srivastava, A. Hashem, M. A. Alakeel, E. F. Abd_Allah, V. K. Gupta., Low-Cost Biochar Adsorbents Prepared from Date and Delonix Regia Seeds for Heavy Metal Sorption, Bioresource Technology, 339, 2021, 125606. (ISSN: 0960-8524) (IF: 11.89).**
- 4. D B Pal, N Srivastava, A Mohammad, M Srivastava, A Syed, A M. Elgorban, P.K. Mishra, T Yoon, V K Gupta., Biogenic enabled in-vitro synthesis of nickel cobaltite nanoparticle and its application in single stage hybrid biohydrogen production. Bioresource Technology 342 (2021) 126006. (ISSN: 0960-8524) (IF: 11.89).**
- 5. N Srivastava, A Mohammad, R Singh, M Srivastava, A Syed, D B Pal, A M. Elgorban, P.K. Mishra, V K Gupta., Evaluation of enhanced production of cellulose deconstructing enzyme using natural and alkali pretreated sugar cane bagasse under the influence of graphene oxide. Bioresource Technology 342 (2021) 126015. (ISSN: 0960-8524) (IF: 11.89).**

6. **D B Pal**, A Singh, S Kumar, N Srivastva, A Syed, A M. Elgorban, R Singh, V K Gupta., Studies on Zero-cost Algae based Phytoremediation of Dye and Heavy Metal from Simulated Wastewater. *Bioresource Technology*, 342 (2021) 125971. (ISSN: 0960-8524) (IF: 11.89).
7. **D B Pal**, N Srivastava, S L Pal, M Kumar, A Syed, A M. Elgorban, R Singh, V K Gupta., Lignocellulosic Composition Based Thermal Kinetic Study of Mangifera indica Lam, Artocarpus Heterophyllus Lam and Syzygium Jambolana Seeds. *Bioresource Technology* 341 (2021) 125891. (ISSN: 0960-8524) (IF: 11.89).
8. **D B Pal**, A Singh, A Mohammad, A Alhazmi, S Haque, T Yoon, N Srivastava, V K Gupta., Biological Remediation Technologies for Dyes and Heavy Metals in Wastewater Treatment: New Insight. *Bioresource Technology*, 343 (2022) 126154. (ISSN: 0960-8524) (IF: 11.89).
9. **D B Pal**, A K Tiwari, N Prasad, N Srivastva, AH Almalki, S Haque, V K G., Thermo-chemical Potential of Solid Waste Seed Biomass obtained from Plant Phoenix Dactylifera and Aegle Marmelos L. Fruit Core Cell. *Bioresource Technology*, 345 (2022) 126441 (ISSN: 0960-8524) (IF: 11.89).
10. N Srivastava, R Singh, M Srivastava, A Syed, **D B Pal**, A H Bahkali, P.K. Mishra, V K Gupta., Impact of mixed lignocellulosic substrate and fungal consortia to enhance cellulase production and its application in NiFe₂O₄ nanoparticles mediated enzymatic hydrolysis of wheat straw. *Bioresource Technology*, 345 (2022) 126560 (ISSN: 0960-8524) (IF: 11.89).
11. **D. B. Pal**, Saini, R., Srivastava, N., Ahmad, I., Alshahrani, M. Y., & Gupta, V. K. Waste Biomass Based Potential Bioadsorbent for Lead Removal from Simulated Wastewater. *Bioresource Technology*, 349 (2022) 126843. (ISSN: 0960-8524) (IF: 11.89).
12. N Srivastava, M Srivastava, R Singh, A Syed, **D B Pal**, A M. Elgorban, D Kushwaha, P.K. Mishra, V K Gupta., Co-fermentation of residual algal biomass and glucose under the influence of Fe₃O₄ nanoparticles to enhance biohydrogen production under dark mode. *Bioresource Technology* 342 (2021) 126034. (ISSN: 0960-8524) (IF: 11.89).
13. **D B Pal**, DD Giri, H Dwivedi, AKD Alsukaibi, AA Otaibi, M Y Areeshi, S Haque, V K Gupta. Sustainable Production of Algae-Bacteria Granular Consortia Based Biological Hydrogen: New insights. *Bioresource Technology* 352 (2022) 127036. (ISSN: 0960-8524) (IF: 11.89).
14. **D B Pal**, A K Tiwari, A Mohammad, N Prasad, N Srivastava, K. R. Srivastava, R Singh, T Yoon, A Syed, A H. Bahkali and V K Gupta. Enhanced Biogas Production Potential Analysis of

- Rice Straw: Biomass characterization, Kinetics and Anaerobic Co-Digestion investigations. *Bioresource Technology* 352 (2022) 127036. (ISSN: 0960-8524) (IF: 11.89).
15. N Srivastav, R Singh, R Srivastava, M Srivastava, **DB Pal**, VK Gupta; Enhanced Production of Biogas and Fabrication of CuO/Cu₂O based nanocatalyst using Application of Pressmud waste. *Bioresource Technology* 362, 2022, 127814. (ISSN: 0960-8524) (IF: 11.89).
 16. Srivastava, N., Singh, R., Srivastava, M., Mohammad, A., Harakeh, S., Singh, R.P., Pal, D.B., Haque, S., Tayeb, H.H., Moulay, M. and Gupta, V.K., 2022. Impact of nanomaterials on sustainable pretreatment of lignocellulosic biomass for biofuels production: An advanced approach. *Bioresource Technology*, 128471. (ISSN: 0960-8524) (IF: 11.89).
 17. D. D. Giri, J. Jha, A K Tiwari, N. Srivastava, A Hashem, A. A. Alqarawi, Elsayed F and **D. B. Pal**. Java plum and Amaltash Seed Biomass Based Bio-adsorbents for Synthetic Wastewater Treatment. *Environmental Pollution* (2021): 280, 116890. (ISSN: 0269-7491) (IF: 9.99).
 18. **D B Pal**, S Haque, N Srivastava, M F Alkhanani, A H Almalki, M Y Areeshi, R Naidu, V K Gupta. Functional microbiome strategies for the bioremediation of petroleum-hydrocarbon and heavy metal contaminated soils: A review. *Science of the Total Environment* 833 (2022) 155222 (ISSN: 1879-1026) (IF: 10.75).
 19. **D B Pal**, S Haque, M F Alkhanani, A H Almalki, M Y Areeshi, R Naidu, V K Gupta N Srivastava. Prospects of soil microbiome application for lignocellulosic biomass degradation: An overview. *Science of the Total Environment* (2022) 155966 (ISSN: 1879-1026) (IF: 10.75).
 20. D D Giri, N Srivastava, A Alhazmi, A Mohammad, S Haquee, V K Thakur, V K Gupta, **D B Pal**. Lead Removal from Synthetic Wastewater by Biosorbents Prepared from Seeds of *Artocarpus Heterophyllus* and *Syzygium Cumini*. L. *Chemosphere* 287 (2022) 132016 (ISSN: 0045-6535) (IF: 8.94).
 21. D D Giri, N Srivastava, A Alhazmi, A Mohammad, S Haquee, V K Thakur, V K Gupta, **D B Pal**., Sustainable Removal of Arsenic from Simulated Wastewater using Solid Waste Seed Pods Biosorbents of *Cassia Fistula* L. *Chemosphere* 287 (2022) 132308 (ISSN: 0045-6535) (IF: 8.94).
 22. **D B Pal**, S Haque, R Singh, H Faidah, S S. Ashgar, M Y. Areeshi, A H. Almalki, N Srivastava and VK Gupta; Thermophilic Biohydrogen Production from Agro industrial waste: Current Update, Challenges, and Sustainable solutions. *Chemosphere* 307, 2022, 136120 (ISSN: 0045-6535) (IF: 8.94).

23. T Singh, Srivastava, N., Teklemariam, A.D., Mishra, P.K., Almuhayawi, M.S., Haque, S., Harakeh, S., **Pal, D.B.** and Gupta, V.K. Kinetics investigation of phenolic pollutant degradation via *Serratia marcescens* ABHI 001 and its application in wastewater treatment. *Chemosphere*, 309, 2022, 136532 (ISSN: 0045-6535) (IF: 8.94).
24. **Pal, D.B.**, Tiwari, A.K., Prasad, N., Syed, A., Bahkali, A.H., Srivastava, N., Singh, R.P. and Gupta, V.K. Sustainable valorization of water hyacinth waste pollutant via pyrolysis for advance microbial fuel investigation. *Chemosphere*, 2023, 137602. (ISSN: 0045-6535) (IF: 8.94).
25. **D. B. Pal**, N. Srivastava; R. Singh; A. Mohammad; A. Syed; A. M. Elgorban; P.K. Mishra; T. Yoon; M. Srivastava; V. K. Gupta., Graphene oxide mediated enhanced cellulase production using pomegranate waste following co-cultured condition with improved pH and thermal stability. *Fuel*, 312, 2021, 122807. (ISSN: 0016-2361) (IF: 8.03).
26. **D. B. Pal**, P. Srivastava, A. Mishra, D. D. Giri, K. R. Srivastava, P. Singh, S. Awasthi, L. Kumari, P. K. Mishra. Synthesis and characterization of bio-composite nanofiber for controlled drug release. *J. of Env. Chemical Engg.* 5 (2017) 5843-5849. (ISSN: 2213-3437) (IF: 7.97)
27. **D. B. Pal**, R. Lavania, P. Srivastava, P. Singh, S. Madhav, P. K. Mishra. Photo-catalytic degradation of methyl tertiary butyl ether from wastewater using CuO/CeO₂ composite nanofiber catalyst. *J. of Env. Chemical Engg.* 6 (2018) 2577-2587. (ISSN: 2213-3437) (IF: 7.97)
28. Tiwari, A. K., Prasad, N., Jana, S. K., Srivastava, N., Alshahrani, M. Y., Ahmad, I., **Pal, D. B.** (2022). Waste biomass valorisation of *Bambusa vulgaris* dust and *Delonix regia* pods: Characterization and kinetic study. *Sustainable Energy Technologies and Assessments*, 53, 102590. (ISSN: 2213-1388) (IF: 7.63).
29. **D B Pal**, AK Rathore, A Singh, Investigation of surface interaction in rGO-CdS photocatalyst for hydrogen production: An insight from XPS studies. *Int. J. of Hydrogen Energy*, 46 (2021) 26757-26769. (ISSN: 0360-3199) (IF: 7.14)
30. N Srivastava; A Alhazmi; A Mohammad; S Haque; M Srivastava; **D B Pal**; R Singh; P K Mishra; D V Vo; T Yoon., Biohydrogen production via integrated sequential fermentation using magnetite nanoparticles treated crude enzyme to hydrolyze sugarcane bagasse. *Int. J. of Hydrogen Energy*, 2021. (ISSN: 0360-3199) (IF: 7.14)
31. **D. B. Pal**, A. Singh, A. Bhatnagar. A Review on Biomass Based Hydrogen Production Technologies. *Int. J. of Hydrogen Energy*, 47 (2022) 1461-1480. (ISSN: 0360-3199) (IF: 7.14)

32. A. K Arya, R Katiyar, P S Kumar, A Kapoor, **D. B. Pal**, G Rangasamy. A multi-objective model for optimizing hydrogen injected-high pressure natural gas pipeline networks. *Int. J. of Hydrogen Energy*, x (2023) xxx. (ISSN: 0360-3199) (IF: 7.14)
33. D D Giri, Mn Shah, N Srivastava, A Hashem, E F Abd_Allah, **D B Pal**. Sustainable Recovery of Chromium as a Value-Added Product from Wastewater Using Mango, and Jackfruit Seeds Kernel Bioadsorbent. *Front. Microbiol.* 12 (2021)717848. (ISSN: 1664-302X) (IF: 6.06).
34. M Sharma, S Agarwal, R Aggarwal, G Kumar, **D B Pal**, M Mandal, A Sarkar, F Bantun, S Haque, P Singh, N Srivastava, VK Gupta. Recent Advances in Microbial Engineering Approaches for Wastewater Treatment: A Review, accepted in *Bioengineered* 2023 (ISSN: 21655987) (IF: 6.47).
35. **D B Pal**, A K Tiwari, N Srivastava, I Ahmad, M Abohashrh and V K Gupta, Biomass Valorization of Eichhornia Crassipes Root using Thermogravimetric Analysis. *Env Research* 214 (2022) 114046. (ISSN: 1096-0953) (IF: 6.5).
36. **D B Pal**, S Haque; R Singh, S Harakeh, M A, A D Teklemariam, T S. Abujamel, N Srivastava, Recent Update on Anaerobic Digestion of Paddy Straw for Biogas Production: Advancement, Limitation and Recommendations. *Env Research* 215, 2022, 114292. (ISSN: 1096-0953) (IF: 6.5).
37. **D. B. Pal**, P. Singh, P. K. Mishra. Composite ceria nanofiber with different copper loading using electrospinning method. *J. of Alloys and Comp.* 694 (2017) 10-16. (ISSN: 0925-8388) (IF: 6.37)
38. Pardeep Singh, Vishnu M.C, Karan K Sharma, **D B Pal**, Dhanesh Tiwary, Pradeep K Mishra. Photocatalytic degradation of acid red dye in the presence of activated carbon-TiO₂ composite and its kinetic enumeration. *J. of Water Process Engineering* 12 (2016) 20-31. (ISSN: 2214-7144). (IF: 7.34).
39. Srivastava, K. R., S. Dixit, **D. B. Pal**, P. K. Mishra, P. K. Srivastava, N Srivastava, A Hashem, A A. Alqarawi, and E F Abd_Allah. Effect of nanocellulose on mechanical and barrier properties of PVA-banana pseudostem fiber composite films. *Environmental Technology & Innovation* (2020): 101312. (ISBN: 2352-1864) (IF: 7.76).
40. L Kapoor, A Mohammad, J M Jha, N Srivastava, S K Jana, M Y Alshahrani, I Ahmad, V. K Gupta and **D. B. Pal**, Biofuel Production Using Fast Pyrolysis of Various Plant Waste Biomasses in Fixed Bed and Twin-Screw Reactors. *Int J Energy Res.* 2022; 1-9. (ISBN: 1099-114X) (IF: 4.67). Wiley

41. N Srivastava, M Srivastava, A Alhazmi, A Mohammad, **D B Pal**, S Khan, S Haque, R Singh, P.K. Mishra, V K Gupta. Acid tolerant multicomponent bacterial enzymes production enhancement under the influence of corn cob waste substrate. *International Journal of Food Microbiology* 2022. (ISBN: 18793460) (IF: 5.90).
42. N Srivastava, M Srivastava, A Alhazmi, A Mohammad, S Khan, **D B Pal**, S Haque, R Singh, P.K. Mishra, V K Gupta., Sustainable green approach to synthesize Fe₃O₄/α-Fe₂O₃ nanocomposite using waste pulp of *Syzygium cumini* and its application in functional stability of microbial celluloses. *Scientific Reports*, 2021, 11:24371. (ISBN: 2045-2322) (IF: 4.99).
43. A Singh, N Srivastava, M Shah, A Hashem, E F Abd_Allah, **D B Pal.**, Investigation on Chromium Removal from Simulated Wastewater Using a Low-Cost Royal Poinciana-Derived Bio-adsorbent. *Biomass Conversion and Biorefinery* 2021. (ISSN:2190-6815) (IF: 4.05).
44. **DB Pal**, B Lal, AK Rathore, A Singh, Studies on acidity and activity of kaolin-supported Ag-doped HZSM-5 in methanol to olefins process. *Biomass Conversion and Biorefinery* 2021, 1-15. (ISSN:2190-6815) (IF: 4.05).
45. **D B Pal**, R Selvasembian, P Singh, Cadmium removal by composite copper oxide/ceria adsorbent from synthetic wastewater. *Biomass Conversion and Biorefinery*, 2021, 1-10. (ISSN:2190-6815) (IF: 4.05).
46. **D. B. Pal**, A. K. Tiwari, N. Srivastava, A. Hashem, F. A Elsayed. Thermal studies of biomass obtained from the seeds of *Syzygium cumini* and *Cassia fistula* L. and peel of *Cassia fistula* L. fruit, *Biomass Conversion and Biorefinery* 2021, 1-12. (ISSN:2190-6815) (IF: 4.05).
47. D. D. Giri, J Jha, N. Srivastava, M. Shah, A. Hashem, **D. B. Pal.**, Waste Seeds of *Mangifera Indica*, *Artocarpus Heterophyllus* and *Schizizium Commune* as Biochar for Heavy Metal Removal from Simulated Wastewater. *Biomass Conversion and Biorefinery* 2022. (ISSN:2190-6815) (IF: 4.05).
48. Khan, M., Singh, T., Pal, D.B., S. Khan., Saheem A., Suresh B. J., Shafiul H., Rajeev S., Srivastava N., Enhanced production of bacterial hydrolytic endoglucanase enzyme using waste leaves of water hyacinth and its thermal stability under the influence of TiO₂ nanoparticles. *Biomass Conv. Bioref.* (2022). (ISSN: 2190-6815) (IF: 4.05).
49. A K Tiwari, S L Pal, N Srivastava, M Shah, I Ahmad, M Y Alshahrani, **D B Pal.**, Bioadsorbent and Adsorbent Based Heavy Metals Removal Technologies from Wastewater: New Insight. *Biomass Conversion and Biorefinery* 2022, 1-15. (ISSN:2190-6815) (IF: 4.05).

50. D D Giri, N Srivastava, B C Ruidas, M Y Areeshi, S Haque, **D B Pal**, Bioremediation of Organoarsenic Pollutants from Wastewater: A Critical Review. *Biomass Conversion and Biorefinery* 2022, 1-11. (ISSN:2190-6815) (IF: 4.05).
51. **D B Pal**, P Singh, A Mohammad, M Y Alshahrani, I Ahmad, P.K. Mishra, T Yoon, N Srivastava; Improved production of thermo-alkali tolerant fungal cellulolytic cocktail following Co-fermentation of sugarcane bagasse and secondary sewage sludge. *Biomass Conversion and Biorefinery* 2022. (ISSN:2190-6815) (IF: 4.05).
52. M. Subhas, S. K. Jana, **D. B. Pal**, Synthesis of Different Heteropoly Acid Catalysts for Transesterification of Bio-derived glycerol to produce oxygenated fuel additive for Energy Utilization. *Biomass Conversion and Biorefinery* 2022, 1-11. (ISSN:2190-6815) (IF: 4.05).
53. Srivastava, N., Mohammad, A., **Pal, D. B.**, Srivastava, M., Alshahrani, M. Y., Ahmad, I., Gupta, V. K. (2022). Enhancement of fungal cellulase production using pretreated orange peel waste and its application in improved bioconversion of rice husk under the influence of nickel cobaltite nanoparticles. *Biomass Conversion and Biorefinery*, 1-10. (ISSN:2190-6815) (IF: 4.05).
54. T. Singh, **D. B. Pal**, A.K. Bhatiya, P.K. Mishra, N. Srivastava, A. A. Alqarawi, A. Hashem, F. A Elsayed, V.K. Gupta. Integrated process approach for degradation of p-cresol pollutant under photocatalytic reactor using activated carbon/TiO₂ nanocomposite: application in wastewater treatment, *Environ Sci Pollut Res* (2021) 1-10. (ISSN: 0944-1344) (IF: 5.2).
55. **D B Pal**, A Singh, R Saini, N Srivastava, V K Gupta, Studies on Adsorption Behavior of Electrospun Nanofibers for Pollutant Remediation from Simulated Wastewater Applied Nanoscience, 2022. <https://doi.org/10.1007/s13204-022-02516-4> (ISSN: 2190-5517) (IF: 3.67).
56. **D B Pal**, T Singh, A H Almalki, Y S Althobaiti, M F. Alkhanani, S Haque, S Sharma, N Srivastava. Green Synthesis of TiO₂ bionanocomposite using Waste Leaves of Water Hyacinth: Application in Antibacterial Activity of Toilet bacteria *Serratia marcescens*, *Materials Letters* 316 (2022) 132012. (ISSN: 0167-577X) (IF: 3.57)
57. H. Kumar, P. N. Tengli, V. K. Mishra, P. Tripathi, **D. B. Pal**, P. K. Mishra. Synthesis and Catalytic Activity of Cu-Cr-O-TiO₂ Composites on Thermal Decomposition of Ammonium Perchlorate: Enhanced Decomposition Rate of Fuel for Solid Rocket Motors" *RSC Adv.*, 2017, 7, 12486. (ISSN: 2046-2069) (IF: 4.03)
58. Khan, S., Khan, M., Ahmad, S., Sherwani, S., Haque, S., Bhagwath, S.S., Kushwaha, D., **Pal, D.B.**, Mishra, P.K., Srivastava, N. and Gupta, V.K., 2022. Towards enhancement of fungal

hydrolytic enzyme cocktail using waste algal biomass of *Oscillatoria obscura* and enzyme stability investigation under the influence of iron oxide nanoparticles. *Journal of Biotechnology*. (ISSN: 0168-1656) (IF: 3.35)

59. Pardeep Singh, Rishikesh Singh, **D. B. Pal**, Deen Dayal Giri, Nand Lal Singh, Dhanesh Tiwary, Pradeep Kumar Mishra. "Assessment of ground and surface water quality along the river Varuna, Varanasi, India" *Environ Monit Assess* (2015) 187:170. (ISSN: 1573-2959) (IF: 3.31)
60. T Singh, S Sharma, **D B Pal**, I Ahmad, M M Alam, N L Singh, N Srivastava; Sustainable approaches towards green synthesis of TiO₂ nanomaterials and their applications in photocatalysis mediated sensing to monitor environmental pollutions. *Luminescence: The J of Biological and Chemical Luminescence* 2022, 1-12. (ISSN: 1522-7243) (IF: 2.6).
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64. D. B. Pal, A K Tiwari, D D Giri, Jackfruit, Jamun and Amaltash for their Morphology, Mineral and Nutritional Properties, *Fourrages*, 202, 244-253 (ISBN: 0429-2766) (IF:0.20)
65. A. Singh, **D B Pal**, A new perspective on the green strategy of close cycle dissociation of H₂S. *Journal of the Institution of Engineers (India): Series E*, 2022. (ISBN: 2250-2491) (IF:0.00)
66. Singh, P., **Pal, D.B.**, Srivastava, P., Tiwary, D. and Mishra, P.K., 2017. Utilization of temple floral waste for extraction of valuable products: A close loop approach towards environmental sustainability and waste management. *Pollution*, 3(1), 39-45. (ISSN: 2383-4501)
67. Nirupama, Pranav Thakur, **D. B. Pal**; Cadmium removal from aqueous solution by jackfruit seed bio-adsorbent, *Springer Nature Applied Sciences* (2020), 2(6):1-10. (ISSN: 2523-3963)
68. **D.B. Pal**, Harish Kumar, D. D. Giri, P. Singh, P. K. Mishra "Synthesis and Characterization of Cu/CeO₂ Composite Nanofibers by Electrospinning Method" *Adv. Sci. Lett.* 20, 1582-1584 (2014). (ISSN: 1936-7317) (IF: 1.25)

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70. S.K. Srikar, D.D. Giri, **D.B. Pal**, P.K. Mishra, S.N. Upadhyay. (2016) Light Induced Green Synthesis of Silver Nanoparticles Using Aqueous Extract of Prunus amygdalus. Green and Sustainable Chemistry, 6, 26-33. (ISSN: 2160-6951)
71. S.K. Srikar, D.D. Giri, **D.B. Pal**, P.K. Mishra, S.N. Upadhyay. (2016) Green Synthesis of Silver Nanoparticles- A review. Green and Sustainable Chemistry, 6, 34-56. (ISSN: 2160-6951)
72. **D.B. Pal**, R. Chand, P. K. Mishra. “Fabrication of copper-ceria nanofiber by electrospinning technique for application in water gas shift reaction. Int. J. of advanced Technology in Engineering Science, Vol. (4) 90-96, (2016) (ISSN: 2348-7550).
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74. **D B Pal**, S Sinha, N Prasad, Effect of Ammonium Phosphate on the Thermal and Flammability Behaviour of Sisal/Epoxy Composite, Intl. J. Engg. Sci. Adv. Research 2020; 6(2): 21-23 (ISSN NO: 2395-0730).
75. A Kumar, Niupama Prasad, A K Tiwari, **D B Pal**, Thermal Kinetics and Its Behaviour of Waste Amaltash Seeds and Peels Biomass Using Thermo Gravimetric Analysis, Intl. J. Engg. Sci. Adv. Research 2020; 6(1): 15-22 (ISSN NO: 2395-0730)

Book editing:

1. D.B. Pal, R. Prasad. 2014 “Study of Water Gas Shift Reaction”. Lambert Academic Publisher, Germany, 2014 (ISBN- 978-3-659-57547-1)
2. Utilization of Waste Biomass in Energy, Environment and Bio-catalyst (**Editors:** Dr. Dan Bahadur Pal and Dr Pardeep Singh) published 25 March 2022 Taylor & Francis/CRC Press page 360 (ISBN: 9781003196358) (DOI: <https://doi.org/10.1201/9781003196358>)
3. Sustainable and Clean Energy Production Technologies (**Editors:** Dr. Dan Bahadur Pal and Dr Jay Mant Jha) published in Springer Nature press, 2022 (ISBN: 978-981-16-9135-5) (DOI: <https://doi.org/10.1007/978-981-16-9135-5>)
4. Agricultural/Kitchen Waste for energy and environment (**Editors:** Dr. Dan Bahadur Pal and Dr Amit Kumar Tiwari) book to be published in Taylor & Francis/CRC Press, 2022.

Recent Technologies for Waste to Clean Energy and its Utilization (**Editors:** Dr. Dan Bahadur Pal) book to be published from Springer Nature press in, **2022**. (DOI:

<https://doi.org/10.1007/978-981-19-3784-2>) (ISBN: 978-981-19-3786-6)

5. Sustainable Valorization of Waste Biomass (Agriculture-Food) and its Application in Bioenergy & useful Chemicals (**Editors:** Dr. Dan Bahadur Pal and Dr Amit Kumar Tiwari) published in Springer Nature press, **2022**.

Book Chapters:

1. DD Giri, P. Singh, **D.B. Pal**, K.D. Pandey, P K Mishra. **2015** “Methylotropic bacteria in relation to soil and plant health. In: Microbes in the soil and their agricultural prospects”. Nova science publishers USA. (**ISBN-** 978-1-63482-824-6)
2. Singh, P, V K Singh, R Singh, A Borthakur, S Madhav, A Ahamad, A Kumar, **D. B. Pal**, D Tiwary, and P. K. Mishra. "Bioremediation: a sustainable approach for management of environmental contaminants." In Abatement of Environmental Pollutants, pp. 1-23. Elsevier, 2020. (**ISBN:** 978-0-12-818095-2)
3. AK Tiwari, **D B Pal**, Recent Trends in Groundwater Conservation and Management. Groundwater Geochemistry: Pollution and Remediation Methods, 379-391, 2021. CRC Wiley (**ISBN:** 9781119709695).
4. **D B Pal**, AK Tiwari, DD Giri, Various Purification Techniques of Groundwater; Ground water Geochemistry: Pollution and Remediation Methods, 310-325, 2021 CRC Wiley (**ISBN:** 9781119709695).
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6. **D. B. Pal**, D. D. Giri, (2020). Green Synthesis of Nanofiber and Its Affecting Parameters. In Nanofibers. Intech Open. DOI: 10.5772/intechopen.94539
7. **D B Pal**, AK Tiwari, Hydrogen Production by Utilizing Bio-Processing Techniques. Bioenergy Research: Biomass Waste to Energy, 169-193, 2021. (**Springer**). (**ISBN:** 978-981-16-1861-1)
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11. AK Tiwari, **D B Pal**, Beneficial bacterial microbes and their role in green remediation. Sustainable Environmental Clean-up, 315-332, 2021. **Elsevier** (**ISBN: 978-0-12-823828-8**).
12. A K Tiwari, J Jha: **D. B. Pal**, Biosorption of Precious Metals from Wastewater, Book title- biosorption for wastewater contaminants, CRC Wiley, 185, 2022. (**ISBN: 9781119727599**).
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14. Giri, D. D., Khan, J., Giri, A., **Pal, D. B.**, & Tiwari, A. K. Biomass of Microalgae as Potential Biodiesel Source for Future Energy Needs. In Utilization of Waste Biomass in Energy, Environment and Catalysis (pp. 261-277). CRC Press. (**ISBN: 9781003196358**).
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16. **Pal, D. B.**, & Tiwari, A. K. Biomass (Agricultural Waste) as Sustainable Reinforcement in Polymer Composite. In Utilization of Waste Biomass in Energy, Environment and Catalysis (pp. 77-96). CRC Press. (**ISBN: 9781003196358**).
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1. K Saxena, A Srivastav, S Arun, D B Pal. Waste Biomass Valorisation and Characterisation of Citrus Limetta; International Chemical Engineering Congress: **CHEMCON 2022** & 75th Annual Session (Platinum Jubilee) of Indian Institute of Chemical Engineers on 27 to 30 December, 2022 at HBTU, Kanpur, India
2. S M Dixit, A Kumar, DB Pal. Waste biomass valorisation of Punica Grantum Peel:Characterisation Study; International Chemical Engineering Congress: **CHEMCON 2022** & 75th Annual Session (Platinum Jubilee) of Indian Institute of Chemical Engineers on 27 to 30 December, 2022 at HBTU, Kanpur, India

3. Nirupama, Pranav Thakur, **D. B. Pal**; Prepared bio-adsorbent (jackfruit seed) for Cadmium removal from wastewater, paper presented in International Conference on Advanced Nanomaterials (ICAN2020)", 27th -29th February 2020.
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8. Nirupama and **D. B. Pal**. Water absorption and kinetics of treated woven jute fiber-LDPE composites. Paper presented in 2nd Int. Conference on Engg Science & Advance Research in Rama University; Utter Pradesh Kanpur UP dated on 13th-15th March, 2019. (**Proceedings**)
9. **D.B. Pal**, Srikar, D. D. Giri, P. K. Mishra, "Eletrospinning synthesis of Cu/CeO₂ composite nanofibers and their characterization" Paper presented in **International Conference,"CHEMCON 2014"**, Chandigarh University, Punjab, **Dec 27-30, 2014**.
10. **D.B. Pal**, Zeenat Arif, Pardeep Singh, P. K. Mishra. Synthesis and characterization of ceria nanofiber with variable copper loading by electrospinning method. Paper presented in Int conference (CHEMCON16) in IIT Chennai & Anna University **Dec 27-30, 2016**.
11. **D.B. Pal**, R. Chand, P. K. Mishra. "Fabrication of copper-ceria nanofiber by electrospinning technique for application in water gas shift reaction. 2nd International Conference on Recent Trends in Engineering Science and Management, YMCA, Connaught Place, New Delhi, Date: 20 February, 2016. (**Proceedings: P-** 565-571) (**ISBN-978-81-932074-3-7**)
12. **D.B. Pal**, R. Chand, P. Singh, P. K. Mishra. "Application of pure ceria and copper-ceria electrospun nanofiber in the water gas shift reaction. 3rd International Conference on Recent

Innovations in Science, Engineering and Management, Sri Venkateswara College of Engineering & Technology, NH-5, Etcherla, Srikakulam, A. P., 27 February 2016. (**Proceedings: P: 1361-67**) (**ISBN-978-81-932074-1-3**)

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- 14. D. B. Pal, R. Prasad.** “Hydrogen Production by Water Gas Shift Reaction in Medium Temperature Range copper-ceria catalyst prepared by Urea nitrate method” in **International** Conference on Recent Trends in Engineering, Technology and Management, held at BIET, Jhansi U. P. dated on **26-27 Feb. 2011.** (**Proceedings**) (**ISBN: 978-93-80697-69-7**)
- 15. P. Singh, A. Borthakur, R. Singh, D.B. Pal, D. Tiwary, P.K. Mishra,** Reduced graphene -TiO₂ nanocomposites as photocatalyst for degradation of BTEX compound in petrochemical waste water, International Conference on Solid Wastes 2015: Knowledge Transfer for Sustainable Resource Management, Hong Kong SAR, P.R. **China, 19-23 May 2015** Proceedings (**ISBN: 978-988-19988-9-7**)
- 16. D.B. Pal, Harish Kumar, D. D. Giri, Pardeep Singh, P. K. Mishra.** “Cu/CeO₂ nanofibers prepared by electrospinning and their application in water gas shift reactions. 2nd International Conference on Nanotechnology, **IChE**, HIT Haldia, West Bengal, India, dated on **19-22nd** February, 2015 (**Proceeding: ISBN: 978-81-927756-2-3**)
- 17. D.B. Pal, D. D. Giri, Manda Bhargava, Pardeep Singh, P. K. Mishra.** “Synthesis and characterization of CuO nanoparticles by aqueous precipitation method”. 2nd International Conference, **IChE**, and HIT Haldia, West Bengal, India, dated on **19-22nd** February, 2015 (**Proceeding: ISBN: 978-81-927756-2-3**)
- 18. Shraddha Awasthi, D. D. Giri, D. B. Pal, Lata Kumari, Manda bhargava, Dhanesh Tiwary, P. K. Mishra.** “Synthesis and characterization of Ceria nanofibers by solution Combustion method”. 2nd International Conference on Nanotechnology, **IChE**, and HIT Haldia, West Bengal, India, dated on **19-22nd** February, 2015 (**Proceeding: ISBN: 978-81-927756-2-3**)
- 19. D. B. Pal, Harish Kumar, Pardeep Singh, P. K. Mishra,** “Enhanced H₂ and reduced CO level by use of Electrospun CuO/CeO₂ nanofibers catalyst for water gas shift reaction” Paper presented in

the 3rd in **international** conference NANOCON014, in the Bharati Vidyapeeth Deemed University, Pune 14-15 Oct-2014, India

20. **D.B. Pal**, Harish Kumar, D.D. Giri, P. Singh, P.K. Mishra; “Synthesis and Characterization of Cu/CeO₂ Composite Nanofibers by Electrospinning Method”. **On April 28-29, 2014. National Conference on Nanotechnology and Renewable Energy Department of Applied Sciences & Humanities Faculty of Engineering & Technology Jamia Millia Islamia New Delhi-110025. (Proceedings) (ISBN-978-93-81212-65-3)**
21. **D. B. Pal**, R. Prasad. “Hydrogen Production by Water Gas Shift Reaction in Medium Temperature Range copper-ceria catalyst prepared by co-precipitation method” in **National Conference on Recent Development in Material Science**, held at Department of Chemistry Feroze Gandhi College, Rae Bareli, U. P. dated on **11-12 Feb. 2011. (Proceedings) (ISBN : 9788189131517)**
22. **D.B. Pal**, D.D. Giri, H. Kumar, P. Singh, P.K. Mishra, Comparison of electrospun CeO₂ and CuO/CeO₂ Nanofibers. National Conference on Advances in Materials & Materials, Department of Metallurgical & Materials Engineering, NIT Srinagar on 22-23 May, 2015. (Proc: p: 67-72)

Paper/Poster Presented in Conferences:

1. **D. B. Pal**, P. K. Mishra, “Application of Cu/CeO₂ nanofiber in water gas shift reaction” **Poster** presented in the **Institute Day 2-3April, 2016**, IIT (BHU), Varanasi (U.P.) - 221005 INDIA.
2. Dan Bahadur Pal Actively Participated in “RDOAC-2020”, a Virtual Meeting held at Kalinga Institute of Industrial Technology (KIIT) Deemed to be University, Bhubaneswar, Odisha, India during 6th and 7th July, 2020
3. **D. B. Pal**, P. K. Mishra “Hydrogen Production by Water Gas Shift Reaction using Cu/CeO₂ catalyst” organized by IIT (BHU) & Department of Chemistry, BHU in collaboration with IIM Ahmadabad and IBA, **Paper** presented in **InSPIRE Conclave**, held at IIT(BHU), Varanasi during 29 -30 January, 2016
4. **D. B. Pal**, P. K. Mishra, “Application of ceria nanofiber in water gas shift reaction” **Poster** presented in the **Institute Day Feb 26, 2015**, IIT (BHU), Varanasi (U.P.) - 221005 INDIA
5. Harish Kumar, **D. B. Pal**, Pardeep Singh, P. Tripathi, N. L. Singh, P. N. Tengli, J. Rammohan, P. K. Mishra, “Study on catalytic thermal decomposition of ammonium perchlorate in presence of nanocomposite of Cu-Cr-Ti-O catalyst for solid composite

propellant, presented as **Invited Talk** in the 2nd in **International** (ICNM 2014), in the Mahatma Gandhi University, Kottayam, Kerala 19-21 Dec-2014, India

6. **D. B. Pal**, R. Prasad. “Hydrogen Production by Water Gas Shift Reaction: A short review” **Paper** presented in **National** Conference on Current Concept and Frontier Advances in Science and Educational Research, held at Department of Chemistry T.D.P.G. College, Jaunpur, U.P. dated on **5-6 March 2011**.
7. **D. B. Pal**, Harish Kumar, Pardeep Singh, P. K. Mishra, “Synthesis of CeO₂ nanofibers by electrospinning method and its application in water gas shift reaction” **Poster** presented in the 2nd in **International** (ICNM 2014), in the Mahatma Gandhi University, Kottayam, Kerala 19-21 Dec-2014, India
8. **D. B. Pal**, Harish Kumar, Lata Kumari, P. Singh, P. K. Mishra, “Synthesis of Cu/CeO₂ nanofibers by electrospinning technique” **Poster** presented in the **international** conference RASS on **March 27-29, 2014**, Department of Chemistry, IIT (BHU), Varanasi (U.P.) - 221005 INDIA
9. Harish Kumar, L. Kumari, **D.B. Pal**, P. Singh, S. Gupta, A. Sharma, P. K. Mishra, P.N. Tiwary, “Catalytic ammoxidation of o-Xylene to phthalonitrile in vapor phase” **Poster** presented in the **international** conference RASS on **March 27-29, 2014**, Department of Chemistry, IIT (BHU), Varanasi (U.P.)-221005 INDIA
10. **D.B. Pal**, D. D. Giri, Ashis Mishra, P. K. Mishra. “Composite polyvinylalcohol/polyvinyl acetate nanofibrous mats for controlled drug release” **Poster** presented in **International** Conference ICETB **2014**, JNU, Delhi, India, **6-9 Nov. 2014**.
11. **D.B. Pal**, D. D. Giri, Pardeep Singh, P. K. Mishra. “Removal of Arsenic from water by CuO nanoparticle” **Poster** presented in **International** Conference, ICETB 2014, Jawaharlal Nehru University, Delhi, India, **6-9 Nov. 2014**
12. Participated in International Conference on **Separation Processes 2010** held at Department of Chemical Engineering & Technology, Institute of Technology, Banaras Hindu University, Varanasi U. P. dated on **20-22 Oct. 2010**.

Organizing Committee in Conference\Training Courses\Workshops:

1. One week **Workshop on Industrial Process Simulation** organized by TEQIP-III sponsored, BIT Mesra, Ranchi, Jharkhand from 16st to 20th, May 2018.

2. One month **Entrepreneurship Development programme (EDP)** on Herbal Extraction/ Agribusiness /Engineering/ Food processing, organized by MCIIE, IIT (BHU) Varanasi from April 18 - May 20, 2016
3. Two weeks **Summer School-cum-Workshop** on Water and Wastewater Treatment, jointly organized by MCIIE and Department of Civil Engg, IIT (BHU) Varanasi on **May 21-June 5, 2015.**
4. **InSPIRE Conclave** organized by IIT (BHU) & Department of Chemistry, BHU in collaboration with IIM Ahmadabad and IBA, held at IIT(BHU), Varanasi during 29 -30 January, 2016
5. International conference on **Kashi in 21st century** organized by Kashi katha and MCIIE, IIT (BHU) Varanasi from 6-7 Feb, 2016

Training courses and Workshops:

1. One week **Workshop on Process Modeling, Simulation, Control, and Optimization (PMSCO-2023)**’ Jointly organized by Department of Chemical Engineering, Department of Instrumentation and Control Engineering and Department of Electrical Engineering, Dr B R Ambedkar National Institute of Technology Jalandhar, Punjab from March 23-27, 2023.
2. One week **Faculty Development programme on “Microbes Potential to Bail Out the Energy Crisis”** organized by Department of Biochemical Engineering, School of Chemical Technology, HBTU Kanpur during December 15-20, 2022.
3. **Two-day** International Workshop on Advances in water Purification and wastewater treatment, Jointly Indian Desalination Association & HBTU, Kanpur on 18th & 19th Nov. 2022.
4. One Day Workshop on Powder Rheology and surface area characterization sponsored, BIT Mesra, Ranchi, Jharkhand from February 25, 2020.
5. Two weeks online **faculty development program** on delivering online course using canvas LMS organized by TEQIP-III BIT Mesra, Ranchi, Jharkhand from 27 July to 5 August, 2020.
6. One Day Webinar on “Contemporary Environmental Issues: Concepts, Tools and Practices” held on July 24, 2020 organized by Department of Environmental Sciences, Central University of Jharkhand, Ranchi India.
7. One day webinar on “Selection of Dryers in Process Industries and Troubleshooting” held on 23rd August 2020 organized by Department of Chemical Engineering B V Raju Institute Of Technology, Vishnupur, Narsapur, and Medak 502313.

8. One week **Workshop on Advanced Pedagogies** organized by **IIT Hyderabad** sponsored, TEQIP-III, 10th-14th June 2019.
9. One day **Orientation Workshop** for Collaborative Research Scheme (CRS) project for **PI** organized by AICTE Delhi, sponsored, TEQIP-III, 16th July, 2019.
10. One week **Workshop on Industrial Process Simulation** organized by TEQIP-III sponsored, BIT Mesra, Ranchi, Jharkhand from 16st to 20th, May 2018.
11. One week **Faculty Development Programme** organized and conducted by Teaching Learning Centre, IIT Madras from January, 31st to February, 4th 2018.
12. One month **Entrepreneurship Development programme (EDP)** on Herbal Extraction/ Agribusiness /Engineering/ Food processing, organized by MCIIE, IIT (BHU) Varanasi from April 18 - May 20, 2016
13. Two weeks **Summer Intensive** course on “Advances in Preparation and Characterization of Heterogeneous Catalysts”, Organized by Department of Chemical Engineering & Technology, IIT (BHU) during 8-20 June, 2015.
14. Two weeks **Summer School-cum-Workshop** on Water and Wastewater Treatment, jointly organized by MCIIE and Department of Civil Engg, IIT (BHU) Varanasi **on May 21-June 5, 2015.**
15. Two weeks **Faculty Development Programme** in Entrepreneurship sponsored by NSTED Department of Science & Technology Government of India, New Delhi Organized at IIT (BHU) Varanasi **on 4-15 March, 2014.**
16. One-week short Term Course on “Hazardous Waste, Batteries Waste and E-Waste Management” to be held during **June 11-15, 2012** at QIP Centre IIT Roorkee, Uttarakhand, India
17. One day Author workshop jointly organized by **Springer & IIT (BHU) Varanasi**, on 10 Feb. **2014**
18. One day Symposium on **Research Methodology for Future Researchers (RMFR-2015)** Members of the Teaching Learning Cell, IIT (BHU) Varanasi, **on March 22, 2015**

Under Graduate/ Post Graduate Project Supervised:

Under graduate: 13

1. Mr. Aayush Kumar, Waste Biomass Valorization in Useful Chemicals: A Review, 2022
2. Mr. Aman Chotia, Waste Biomass Valorization in Useful biofuels: A Review, 2022

3. Mr. Manish Kumar, Study of thermal degradation of Amaltash Seeds biomass, 2020
4. Mr. Atul Kumar & Sonu, Thermal kinetics of Amaltash fruit Peels using Thermo Gravimetric Analysis, 2020
5. Mr. Pranav Kumar, Thermal degradation kinetics of mango seeds waste biomass, 2020
6. Mr. Mihir & Pritam, Study of thermal degradation of jackfruit seeds biomass, 2020
7. Mr. Anunay Kumar, Thermal kinetics of Jamun seeds Using Thermo Gravimetric Analysis, 2020
8. Mr. Shounak & Ayush (co-guide), Photo-catalytic Reduction of dyes from wastewater, 2020
9. Ms. Kiran, arsenic removal from waste water by using copper oxide catalyst, 2019
10. Mr. Kislay & Gourav Malik, chromium removal from waste water by using copper oxide catalyst, 2019
11. Mr. Amit Kumar, synthesis and characterization of ceria nanofibers, 2018
12. Mr. Ankur Gupta, production of acetone from isopropyl alcohol, 2012
13. Mr. Ankur srivastava, heat exchanger design, 2009

Post Graduate: 04

1. Mr. Farhan, Nutritional Evaluation of Kigelia Africana (Balam Kheera) Fruit, 2020
2. Ms. Surabhi, Standard and instrumental techniques of detection of milk adulteration, 2019
3. Mr. Nazim, comparative microbial analysis of raw, pasteurized and market milk, 2019
4. Mr. Nishant, Heavy metal removal in Subarnarekha River Ranchi region, 2019

Courses Taught in Graduate and Post Graduate Level: 08

1. Heat Transfer Operation
2. Chemical Reaction Engineering
3. Fluid Mechanics
4. Transport Phenomenon
5. Energy Engineering
6. Pollution Control & Technology
7. Chemical Engineering Thermodynamics
8. Process Instrumentation

Paper Review in Different Reputed Journals:23

1. Journal of Hazardous Materials
2. Journal of Fuel

3. Journal of Water
4. Environmental Science and Pollution Research
5. Springer Nature Applied Sciences
6. Environmental chemistry Letters
7. Case Studies in Chemical and Environmental Engineering
8. Journal of Sustainability
9. Applied Sciences
10. BMC Chemistry (springer nature)
11. Biotechnology and Genetic Engineering Reviews
12. Resources, Environment and Sustainability
13. Biomass Conversion and Biorefinery
14. Journal of separation
15. International Journal of Environmental Research and Public Health
16. Journal of atmosphere
17. Journal of Toxics
18. Journal of Catalysis Surveys from Asia
19. Bioresource Technology Reports
20. Catalysis Surveys from Asia
21. ChemCatChem - Chemistry Europe - Wiley Online Library
22. Biotechnology and Genetic Engineering Reviews
23. Journal of Polymer Research

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Declaration:

I hereby declare that the information furnished above is true to the best of my
Knowledge.

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Date: