

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

Name Dr. Sanjay Mathur
Designation and Department Dean (Planning & Development)
Professor, Department of Civil Engineering
Malaviya National Institute of Technology, Jaipur

Qualifications

| Qualification | University/Institute | Year |
|---------------------------|---|------|
| B.E. (Civil Engg.) | M. B. M. Engineering College Jodhpur University | 1987 |
| M.E. (Environmental Engg) | M. B. M. Engineering College Jodhpur University | 1990 |
| Ph.D. | Malviya National Institute of Technology, University of Rajasthan | 2002 |

Teaching & Research Experience

28 Years, Malviya National Institute of Technology Jaipur

Patents/Technology Transferred

1. Patent Title: 'Natural ventilation system for buildings through solar and/or wind energy'
Patent no. 32666/ 25 April 2008

Invited Membership

1. Member, State Expert Appraisal Committee, for Rajasthan State, *Ref: The Gazette of India, Dated Aug 8, 2012 (part II, Section 3, Sub Section(ii), No. 1549)*
2. Member, EtkON, EIA Training and Knowledge Network, World Bank
3. Member, Panel for Sustainability, Bureau of Indian Standards.
4. Corresponding Member, IRC – Environmental Committee (G-3)

Edited Books

| S. No | Title | Publisher | Co- Author |
|-------|--|---------------------|--------------------------------------|
| 1 | Hydraulics, water resources and environment. | Genius Publications | Gupta A. B., Goyal R., Khandelwal S. |
| 2 | Waste to Energy | Prime Publishers | Poonia M. P., Pandel U., Mathur J. |
| 3 | Social Aspects of Engineering | Parag Prakashan | Mathur Y. P., Sharma G. |

Details of Academic Events Organized

1. 2nd National Conference of IBPSA-India on **“Simulation of Buildings for Energy Efficiency and Better Built Environment”** Dec 21-22, 2012
2. National Workshop on **“Environmental Impact Assessment”**, Nov 20-21, 2012.
3. Training program for Evaluators and Trainer of **Green Building Rating System: GRIHA** on Jan 18-20, 2012.
4. Vision Workshop for Centre of Energy & Environment, July 31, 2010
5. National Conference on **Hydraulics, Water Resources, & Environment; HYDRO-2008**, December 15-15, 2008
6. Two day Workshop on **“Industrial Pollution Management”** February 22,23, 2008
7. International Conference on **“Energy & Environmental Technologies for Sustainable Development”** ,Oct. 8-10, 2003
8. International Conference on **“Techno Commercial Aspects of Decentralized Approach in Waste to Energy”**, March 1-3, 2002)

Details of Research Publication

List of Publications in Reviewed Journals

1. Gyanesh Gupta, Sanjay Mathur, Jyotirmay Mathur, Bibhu Kalyan Nayak, Comparison of energy-efficiency benchmarking methodologies for residential buildings, Energy & Buildings 285 (2023), <https://doi.org/10.1016/j.enbuild.2023.112920>
2. Gyanesh Gupta, Sanjay Mathur, Jyotirmay Mathur, Bibhu Kalyan Nayak, Blending of energy benchmarks models for residential buildings, Energy and Buildings, 292 (2023), <https://doi.org/10.1016/j.enbuild.2023.113195>
3. Sankar Barman a, Amartya Chowdhury, Sanjay Mathur, Jyotirmay Mathur, Effectiveness of spectrally selective layer and airflow strategies in photovoltaic double pane window system Journal of Building Engineering, <https://doi.org/10.1016/j.jobee.2022.105417>
4. Sajan Preet, Jyotirmay Mathur, Sanjay Mathur, Influence of geometric design parameters of double skin façade on its thermal and fluid dynamics behavior: A comprehensive review, Solar Energy 236 (2022) 249–279
5. Sunil Kumar Sansaniwal, Shailendra Kumar, Nikhil Jain, Jyotirmay Mathur, Sanjay Mathur; Towards implementing an indoor environmental quality standard in buildings: A pilot study, Building Services Engineering Research and Technology <https://doi.org/10.1177/0143624421997989>
6. Sajan Preet, Manoj Kumar Sharma, Jyotirmay Mathur, Amartya Chowdhury, Sanjay Mathur; Analytical model of semi-transparent photovoltaic double-skin facade system (STPV-DSF) for natural and forced ventilation modes, INTERNATIONAL JOURNAL OF VENTILATION <https://doi.org/10.1080/14733315.2021.1971873>
7. Enhancing hydrolysis and syntropy simultaneously in solid state anaerobic digestion: Digester performance and techno-economic evaluation, Kunwar Paritosh, Sanjay Mathur, Nidhi Pareek, Vivekanand Vivekanand, Bioresource Technology 338 (2021) 125538, <https://doi.org/10.1016/j.biortech.2021.125538>
8. Sankar Barman, Amartya Chowdhury, Sanjay Mathur, Jyotirmay Mathur, "Energy performance of window integrated photovoltaic system in actual operating condition", Solar Energy 224 (2021) 480–490, <https://doi.org/10.1016/j.solener.2021.06.014>
9. Manoj Kumar Sharma, Sajan Preet, Jyotirmay Mathur, Amartya Chowdhury, Sanjay Mathur, "Thermal performance analysis of naturally ventilated and perforated sheet based double

skin facade system for hot summer conditions"
<https://doi.org/10.1080/14733315.2021.1901003>

10. Sunil Kumar Sansaniwal, Jyotirmay Mathur *, Sanjay Mathur, Quantifying occupant's adaptive actions for controlling indoor environment in naturally ventilated buildings under composite climate of India, *Journal of Building Engineering* 41 (2021) 102399, <https://doi.org/10.1016/j.jobbe.2021.102399>.
11. Manoj Kumar Sharma, Sajan Preet, Jyotirmay Mathur, Amartya Chowdhury, Sanjay Mathur, Parametric analysis of factors affecting thermal performance of photovoltaic triple skin façade system (PV-TSF), *Journal of Building Engineering* 40 (2021) 102344, <https://doi.org/10.1016/j.jobbe.2021.102344>
12. Sankar Barman, Amartya Chowdhury, Sanjay Mathur, Jyotirmay Mathur, Angular loss of window integrated thin film semi-transparent photovoltaic module, *Journal of Building Engineering* 40 (2021) 102353, <https://doi.org/10.1016/j.jobbe.2021.102353>
13. Manoj Kumar Sharma, Sajan Preet, Jyotirmay Mathur, Amartya Chowdhury, Sanjay Mathur, (2021) Exploring the advantages of photo-voltaic triple skin façade in hot summer conditions, *Solar Energy* 217 (2021) 317–327, <https://doi.org/10.1016/j.solener.2021.02.020>
14. Sajan Preet, Manoj Kumar Sharma, Jyotirmay Mathur, Amartya Chowdhury, Sanjay Mathur, Performance evaluation of Photovoltaic double-skin facade with forced ventilation in the composite climate, *Journal of Building Engineering*, vol 32 (2020)
15. Sunil Kumar Sansaniwal, Priyam Tewari, Shailendra Kumar, Sanjay Mathur & and Jyotirmay Mathur (2020) Impact assessment of air velocity on thermal comfort in composite climate of India, *Science and Technology for the Built Environment*, 26:9, 1301-1320,
16. Sunil Kumar Sansaniwal, Jyotirmay Mathur & Sanjay Mathur (2020) Review of practices for human thermal comfort in buildings: present and future perspectives, *International Journal of Ambient Energy*, DOI: 10.1080/01430750.2020.1725629
17. Priyam Tewari, Sanjay Mathur, Jyotirmay Mathur, Sanjay Kumar, Vivian Loftness, Field study on indoor thermal comfort of office buildings using evaporative cooling in the composite climate of India, *Energy & Buildings*, vol 199(2019) pp154-163
18. Priyam Tewari, Sanjay Mathur, Jyotirmay Mathur, Thermal performance prediction of office buildings using direct evaporative cooling systems in the composite climate of India, *Building and Environment* vol. 157 (2019) pp64–78
19. Priyam Tewari, Sanjay Mathur, Jyotirmay Mathur, Vivian Loftness, Azizan Abdul-Aziz, Advancing building bioclimatic design charts for the use of evaporative cooling in the composite climate of India, *Energy & Buildings*, Vol 184 (2019) pp177–192
20. Paras Gandhi, Kunwar Paritosh, Nidhi Pareek, Sanjay Mathur, Javier Lizasoain, Andreas Gronauer, Alexander Bauer, and Vivekanand Vivekanand, "Multicriteria Decision Model and Thermal Pretreatment of Hotel Food Waste for Robust Output to Biogas: Case Study from City of Jaipur, India", *BioMed Research International* 2018 / 1-13 / 2018
21. Kunwar Paritosh, Monika Yadav, Sanjay Mathur, Venkatesh Balan, Wei Liao, Nidhi Pareek and Vivekanand Vivekanand, "Organic Fraction of Municipal Solid Waste: Overview of Treatment Methodologies to Enhance Anaerobic Biodegradability", *Frontiers in Energy Research* 6 / 1-17 / 2018
22. Sanjay Kumar, Manoj Kumar Singh, Anuj Mathur, Sanjay Mathur, Jyotirmay Mathur, Thermal performance and comfort potential estimation in low-rise high thermal mass naturally ventilated office buildings in India: An experimental study *Journal of Building Engineering* Vol 20, (2018) pp 569-584

23. Sanjay Kumar, Manoj Kumar Singh, Anuj Mathur, Jyotirmay Mathur, Sanjay Mathur, Evaluation of comfort preferences and insights into behavioural adaptation of students in naturally ventilated classrooms in a tropical country, India, *Building and Environment*, Vol 143 (2018), pp 532-547
24. Sankar Barman, Amartya Chowdhury, Sanjay Mathur, Jyotirmay Mathur, Assessment of the efficiency of window integrated CdTe based semi-transparent photovoltaic module, vol(37) 2018, pp 250-262
25. Aditya Choudhary, Sanjay Mathur, Performance evaluation of 3D rotating anode in electro coagulation reactor: Part I: Effect of impeller, *Journal of Water Process Engineering*, Vol19(2017), pp 322-330
26. Aditya Choudhary, Sanjay Mathur, Performance evaluation of 3D rotating anode in electro coagulation reactor: Part II: Effect of rotation, *Journal of Water Process Engineering*, Vol19(2017), pp 352-362
27. A. Choudhary, S. Mathur (2017). Removal Kinetics and performance evaluation of 3D Rotating Cylindrical Anode Reactor for textile wastewater treatment, *Nature Environment and Pollution Technology*
28. K. Paritosh, S. Mathur, N. Pareek, V. Viekanand, Feasibility Study of waste(d) potential: Co-digestion of organic wastes, synergistic effect and kinetics of biogas production ,*International journal of Environ. Sci. Technol*, DOI 10.1007/s13762-017-1453-5
29. Sanjay Kumar, Priyam, **Sanjay Mathur**, Jyotirmay Mathur, Development of mathematical correlations for indoor temperature from field observations of the performance of high thermal mass buildings in India, *Building and Environment*, 122(2017)324-342
30. Anuj Mathur, Priyam, **Sanjay Mathur**, GD Agrawal, Jyotirmay Mathur, Comparative study of straight and spiral earth air tunnel heat exchanger system operated in cooling and heating modes, *Renewable Energy* 108 (2017) 474-487
31. Sanjay Kumar, Jyotirmay Mathur, **Sanjay Mathur**, Manoj Kumar Singh, Vivian Loftness, An adaptive approach to define thermal comfort zones on psychrometric chart for naturally ventilated buildings in composite climate of India, *Building and Environment*, 109 (2016) 135-153
32. Sanjay Kumar, Manoj Kumar Singh, Vivian Loftnes, Jyotirmay Mathur, **Sanjay Mathur**, Thermal comfort assessment and characteristics of occupant's behaviour in naturally ventilated buildings in composite climate of India, *Energy for Sustainable Development* 33 (2016) 108–121
33. Anuj Mathur, Ankit Surana, **Sanjay Mathur**, " Numerical investigation of the performance and soil temperature recovery of an EATHE system under intermittent operations", *Renewable Energy*,95(2016), 510-521
34. Anuj Mathur, Ankit Surana, Poonam Verma, **Sanjay Mathur**, G. D. Agarwal, Jyotirmay Mathur: "Investigation of soil thermal saturation and recovery under intermittent and continuous operation of EATHE", "Energy and Buildings, doi.: 10.1016/j.enbuild.2015.10.010
35. Richa Sinha, **Sanjay Mathur**, "Use of activated silica sol as a coagulant aid to remove aluminium from water defluoridated by electrocoagulation" *Desalination and Water Treatment*, doi: 10.1080/19443994.2015.1084536
36. Richa Sinha, **Sanjay Mathur**, "Control of aluminium in treated water after defluoridation by electrocoagulation and modelling of adsorption isotherms" *Desalination and Water Treatment*, doi: 10.1080/19443994.2015.1060538

37. Manish Yadav, Priya Tripathi, Aditya Choudhary, Urmila Brighu, **Sanjay Mathur** , "Adsorption of fluoride from aqueous solution of Bio-F sorbent: A fixed -bed Column study" , Desalination and Water Treatment 10 / 1-9 / 2015
38. Richa Sinha, **Sanjay Mathur** and Urmila Brighu , "Aluminium removal from water after defluoridation with electrocoagulation process" , Environmental Technology 10 / 1-26 / 2015
39. Manish Yadav, Nitin Kumar Singh, Richa Sinha, Urmila Brighu, **Sanjay Mathur**, A. B. Gupta , "Performance evaluation of community level de-fluoridation plants: A case study from Nagaur and Jodhpur, Rajasthan" , Nature Environment and Pollution Technology 14 / 83-88 / 2015 ISBN: 0972-6268
40. Anuj Mathur, Ayushman Srivastava, **Sanjay Mathur**, Jyotirmay Mathur, G.D. Agrawal, "Transient effect of soil thermal diffusivity on performance of EATHE system", Energy Reports, Vol 1/ 2015/ pp 17-21.
41. Richa Sinha, Amit Singh, **Sanjay Mathur**, "Multi-objective optimization for minimum residual fluoride and specific energy in electrocoagulation process" , Desalination and Water Treatment Volume :10 / 1-11 / 2014
42. Anuj Mathur, Ayushman Srivastava, G.D. Agrawal, **Sanjay Mathur**, Jyotirmay Mathur , "CFD analysis of EATHE system under transient conditions for intermittent operation" , Energy & Buildings vol 87/ 2015 / pp 37-44
43. Manish Yadav, Nitin Kumar Singh, Urmila Brighu & **Sanjay Mathur**, Adsorption of F on Bio-Filter sorbent: kinetics, equilibrium, and thermodynamic study, Desalination and Water Treatment, (2014)
44. Richa Sinha, **Sanjay Mathur**, Development of Regression Equation for Defluoridation by Continuous Flow Electrocoagulation, International Journal of Applied Engineering Research. ISSN 0973-4562, Volume 9, Number 2 (2014) pp. 201-206
45. Tyagi N., Mathur S, Electrocoagulation process for textile wastewater treatment in continuous upflow reactor, Journal of Scientific and Industrial Research, Vol 73, 2014, pp 195-198.
46. Mevin Chandel, G.D.Agrawal, **Sanjay Mathur**, Anuj Mathur Techno-economic analysis of solar photovoltaic power plant for garment zone of Jaipur city, Case Studies in Thermal Engineering, Vol.2, 2014, pp1-7
47. Sinha R., Khajanchi I., **Mathur S.**, Fluoride Removal by a Continuous Flow Electrocoagulation Reactor from Groundwater of Shivdaspura, International Journal of Engineering Research and Application, Vol. 5 (2), 2012, pp 1336-1341.
48. Sharma S., **Mathur S.**, Sharma R.; Efficacy of Electrocoagulation in Textile Wastewater treatment; Nature Environment & Pollution Technology Vol 10(2) 2011, pp225-228,.
49. Mathur J., **Mathur S.**, Anupma,; Summer Performance of Inclined Roof Solar Chimney for natural Ventilation. I.J. Energy and Buildings, Vol (36) 2006, pp1156-1163.
50. Mathur J., Bansal N.K., **Mathur S.**, Meenakshi Jain, Anupma;. Experimental Investigations on Solar Chimney for Room Ventilation. I.J. Solar Energy, Vol. (80) 2006, pp 927-935.
51. Bansal N.K., Mathur J., **Mathur S.**, Meenakshi Jain. Modeling of window size solar chimney for ventilation. I.J. Buildings and environment. Vol. (40) 2005, pp.1302-1308.

List of Papers Presented in Conferences

1. Gyanesh Gupta, Jyotirmay Mathur, Sanjay Mathur. 2022 A new approach for benchmarking of residential buildings: A Case study of Jaipur city. In the 1st ACM Workshop on Advancements in Building Energy Benchmarking Systems (BenchSys 2022), November 9–10, 2022, Boston, MA, USA. ACM, New York, NY, USA, 7 pages.
<https://doi.org/10.1145/3563357.3566145>,
2. Kumar, Sanjay, Jyotirmay Mathur, **Sanjay Mathur**, "Adaptive Use of Environmental Controls for Thermal Comfort in Composite Climate of India" the 9th International Conference on IAQVEC, Incheon Sondgo, Republic of Korea, October 23-26, 2016
3. Sumit Sharma, Himanshu Gupta, **Sanjay Mathur**, Jyotirmay Mathur, "Comparison of Different Type of Configurations for Photo-Voltaic Facade in Composite Climate Zone of India" The 2nd Asia Conference of International Building Performance Simulation Association by International Building Performance Simulation Association at Nagoya, Japan / Nov. 28-29 2014
4. Sumit Sharma, Mayuri Rajput, **Sanjay Mathur**, Jyotirmay Mathur, "Optimum Shading Design in Building Integrated Photo Voltaic Overhang" The 2nd Asia Conference of International Building Performance Simulation Association by International Building Performance Simulation Association at Nagoya, Japan / Nov. 28-29 2014
5. Sinha R., **Mathur S.**, Performance evaluation of continuous flow electrocoagulation with Aluminium electrodes for fluoride removal, ICESE 2013, 21-22, April 2013, Beijing, China
6. Lunia A., Mathur S., Water Management System: An approach towards ensuring water safety in organized sector, pp 964-973, Hydraulic, Water Resources & Environment, 2012
7. Sinha R., **Mathur S.**, Study of laboratory scale Electrocoagulation for Defluoridation of water, India Water Week- 2013, Ministry of Water Resources, Gol
8. Sinha R., **Mathur S.**, Performance of Continuous Flow Electrocoagulation System in Removing Fluoride from Groundwater of Shivdaspura, National Conference on Water Quality Management (NCWQM-2012),
9. Industrial Pollution Management : Pollution Prevention, pp1-8, National Workshop on Industrial Waste Management, 2010
10. **Mathur S.**, Water Conservation through water efficiency, Seminar on Water Management, Military Engineering Services, Sep 15-16, 2009.
11. **Mathur S.**, Sharma S., Sharma R., Efficacy of Electro-coagulation in Textile wastewater treatment, International Symposium on Environmental Pollution, Ecology, and Human Health, S.V. University, Tirupati, July 25-27, 2009.
12. **Mathur S.**, Lunia A., Water Management System : At approach towards water safety in organized sector, National Conference on water resources, hydraulics, and environment – HYDRO 2008, Jaipur
13. **Mathur S.**, Water efficiency for Green Building, keynote Address, All India Seminar on Green Buildings. Institute of Engineers, Kota, April 18-19, 2009
14. **Mathur S.**, The role of NGOs in rural development and environmental strategies, National conference on water conservation in arid region, M.B. M. Engineering College , Jodhpur, 31st March,2008.
15. Mathur J., **Mathur S.**, Comparative study of vertical, inclined and cylindrical absorber solar chimneys for natural ventilation, 12th symposium on Building Physics, Dresden, Germany, March 2007. *Mathur J., Mathur S., Anupma*,

16. Mathur J., **Mathur S.**, Anupma; *Experimental study of five different design options for solar chimney, Proceedings of National Seminar on Advances in Energy Systems, IIT Mumbai, December 2006.*
17. Mathur J., **Mathur S.**, Anupma; Effect of absorber inclination on performance of inclined solar chimney; Accepted for presentation in 2nd Solar Cities Conference, Oxford, UK, April 2006.
18. Bansal N.K., Mathur J., **Mathur S.**: Modeling of Solar Chimney for Ventilation; 8th World Renewable Energy Congress, Colorado, USA; July 2004.
19. Mathur Y. P., **Mathur S.**, Sharma G., A new method of alum dosing for hand-pump attached Defluoridation, National workshop on control and mitigation of excess fluoride in drinking water plant, Feb 5-7, 2004
20. Bharati S., **Mathur S.**, Chaudhary S., Effective Waste Management –Twin Benefits, International Conference on Waste to Energy, March 1-3, 2002, Department of Mechanical Engineering, Malaviya Regional Engineering College, Jaipur
21. **Mathur S.**, Kaul N., Development of a unified equation and flocculation factor for type II sedimentation., National Seminar on Recent Trends in Civil Engineering, February 22-23, 2002, Department of Civil Engineering, University of Jodhpur
22. **Mathur S.**, Mathur J., Sustainable energy options in resource development system, National Seminar on Earth Resource, Industrial Development, and Environmental Issues, March 20-22, 1995, Department of Geology, University of Rajasthan, Jaipur
23. Mathur Y.P., **Mathur S.**, Mathur J.; An Integrated Approach to Population, Resources, Environment and Development; IEI National Seminar on “In Defense of Natural Resources” Jaipur; 1994.

Details of Thesis Supervised

Ph.D. thesis supervised

| S. No | Name of student | Title/ Area of Thesis | Year |
|-------|------------------|---|------|
| 1 | Richa Sinha | Techno-commercial evaluation of activated alumina and electrocoagulation process for fluoride removal from water | 2015 |
| 2 | Anuj Mathur | Comparative study of design and operational strategies for performance enhancement of earth air tunnel system | 2016 |
| 3 | Sanjay | Development of building bio-climatic chart for high thermal mass strategy using adaptive thermal comfort approach | 2017 |
| 4 | Aditya Choudhary | Electrochemical treatment of textile wastewater using 3D rotating anode | 2017 |
| 5 | Sankar Barman | Development and performance analysis of thin film semi-transparent solar photovoltaic window system | 2018 |
| 6 | Priyam Tewari | Development of a Building Bio Climatic Design Chart for Evaporative Cooling in Composite Climate | 2020 |
| 7 | Sunil Sinsinwar | Quantification of occupant’s adaptive action for improving the indoor environmental quality in buildings. | 2021 |
| 8 | Sajan Preet | Performance evaluation of Photovoltaic Double skin façade | 2022 |

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| | | with forced ventilation | |
| 9 | Manoj Kumar | Improving stack effect in semi-transparent Photovoltaic integrated Double Skin Façade for performance enhancement | 2022 |
| 11 | Gyanesh Gupta | Development of a framework for energy-efficiency-based benchmarking of residential buildings in India | 2023 |
| 12 | Archana Singh | | |
| 13 | Palak Agarwal | | |
| 14 | Virendra Kumar | | |

M. E./ M. Tech. Thesis supervised

| S. No | Name of student | Title of Thesis | Year | Status |
|-------|--------------------|---|------|-----------|
| 1 | Sunil Joshi | Study of sewage treatment plant, jaipur | 1995 | Completed |
| 2 | A. Thangpandian | Treatment of sago waste water by anaerobic down flow contact filter | 1995 | Completed |
| 3 | Janak Singh | Study of effect of time lag in coagulation | 1996 | Completed |
| 4 | K. C. Sharma | Optimization of Intz Type Elevated Water Tank | 1996 | Completed |
| 5 | K. B. Gupta | Performance evaluation of rotating biological contactor for dairy wastewater. | 1996 | Completed |
| 6 | Sandeep Nag | Shell foundation for tank in effluent treatment plant | 1998 | Completed |
| 7 | Bhuvnesh Mathur | Recycling and Reclamation Techniques for Management of Hazardous Waste ; A case study of Oil Bearing Sludge | 1999 | Completed |
| 8 | S.Uthamraj | Case study of a Sago Industry Effluent Treatment Plant | 2000 | Completed |
| 9 | Kapil Shukla | Control of Pollution in Udaipur Lakes | 2000 | Completed |
| 10 | Arun Srivastav | Environmental Impact Assessment of Jaipur Sanitation Project | 2000 | Completed |
| 11 | Nivedita Kaul | Development of a Unified Equation and Flocculation Factor for Type II Sedimentation | 2000 | Completed |
| 12 | Ram Dutt Sharma | Comparative Study of Removal of Cr (VI) by rice husk and activated Carbon | 2001 | Completed |
| 13 | Badri Prasad Meena | Bio-Medical Waste Management – A case study of Jaipur | 2002 | Completed |
| 14 | Ms. Meena Jain | Study of Emission Load Due to idling of Two Wheelers on M. I. Road | 2002 | Completed |

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| 15 | Sanjay Kumar | Environmental Impact Assessment of Birla Cement For Commissioning of New Green Field Project at Chanderia, Chittorgarh | 2002 | Completed |
| 16 | Ms Alpana Vashistha | Mini Energy and Environmental Audit of a Hotel; A Case study of Hotel Gold Palace | 2003 | Completed |
| 17 | P. N. Bhargav | Environmental Impact Assessment of Marine Port | 2003 | Completed |
| 18 | Ms. Meenakshi Jain | Modelling of Window size chimney for solar ventilation with vertical absorber (in Progress) | 2004 | Completed |
| 19 | Deepak Saxena | Performance Enhancement of Solar Chimney by Inclination of Panels for Improved Indoor Environment | 2004 | Completed |
| 20 | Neeraj sharma | A study of Various Wastewater Treatment Methods in Marble Industry | 2005 | Completed |
| 21 | Sudhir Sharma | Defluoridation of Wayerwith FB-101 Activated Alumina- Batch Studies | 2005 | Completed |
| 22 | Manoj Sharma | Evaluation of Jaipur Sewage Treatment Plant for Carbonaceous BOD | 2005 | Completed |
| 23 | Neetu Dabi | Evaluation of Jaipur Sewage Treatment Plant for Nitrification-Denitrification | 2005 | Completed |
| 24 | Anupama | Evaluation of Performance of Analysis of Cylindrical Chimney for Enhanced Natural Ventilation | 2006 | Completed |
| 25 | Neeraj Sharma | Experimental Study of Improved Performance of Cylindrical Solar Chimney with Transparent Cover for enhanced Natural Ventilation | 2006 | Completed |
| 26 | Sunil Jain | Performance evaluation of Electro-coagulation for textile wastewater treatment | 2008 | Completed |
| 27 | Shilpi Sharma | Efficacy of Electro-coagulation for textile wastewater treatment | 2009 | Completed |
| 28 | Neha Tyagi | COD Removal of Simulated Textile waste water by Continuous Electro coagulation Process | 2010 | Completed |
| 29 | Yashwant Laxkar | Stability Analysis Of Vermi-compost | 2010 | Completed |
| 30 | Umesh | Optimization of Operational Parameters for Treatment of Textile Waste Water through Electro-coagulation | 2011 | Completed |
| 31 | Sonali | Comparative Analysis of Treatment of Textile Wastewater by Electro-coagulation in Horizontal Continuous and Horizontal Batch Reacto | 2011 | Completed |
| 32 | Ishita Khajanchi | Feasibility Study for Defluoridation of Drinking Water by Electro-coagulation Using Aluminium Electrodes | 2011 | Completed |

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| 33 | Shiv Kumar | Critical Evaluation of Biomedical Waste Management and Techno-Economic Evaluation of Common Biomedical Waste Treatment Facilities in Rajasthan | 2011 | Completed |
| 34 | Kulvinder Singh | Comparative Study of Various Prevalent Technologies of Modular Sewage Treatment Plants | 2011 | Completed |
| 35 | Saurav | Benchmarking Greenhouse Gases Emissions and Water footprint for Indian Industries | 2011 | Completed |
| 36 | Richa Sinha | Performance evaluation of continuous electrocoagulation system to reduce fluoride from groundwater of shivdaspura. | 2012 | Completed |
| 37 | Aditya Chaudhary | Treatment of textile wastewater using double stage electrocoagulation reactor | 2012 | Completed |
| 38 | Achyutdhar Dwivedi | Treatment of textile wastewater of Sanganer industrial area Jaipur, using Electro coagulation | 2012 | Completed |
| 39 | Siddhant Srivastav | Optimization of Operating Parameters for Textile Waste Water Treatment using a Double-Stage Electro coagulation System | 2013 | Completed |
| 40 | Rajneesh | Performance Evaluation of Double Stage Electro Coagulation Process for COD and Color Removal from Textile Waste Water | 2013 | Completed |
| 41 | Meenakshi | Multi-objective optimization for de-fluoridation of drinking water through electro-coagulation process | 2013 | Completed |
| 42 | Aushaman Srivastava | Thermal performance investigations of EATHE under transient soil conditions for different soil thermal diffusivity | 2014 | Completed |
| 43 | Shivendr Choudhary | Performance analysis of straight and spiral EATHE : An experimental study | 2014 | Completed |
| 44 | Ankur Jayaswal | Socioeconomic impact assessment of rural electrification through conventional and solar AC mini grid on households in UP. | 2015 | Completed |
| 45 | Swati Panwar | Development of Correlation for Predicting Transient Performance of Earth Air Tunnel Heat Exchanger (EATHE) | 2015 | Completed |
| 46 | Neha Tiple | Risk constrained short term trading decision making for wind power producer under renewable policies | 2015 | Completed |
| 47 | Lekhraj Kumawat | Performance Enhancement of Solar Photovoltaic Module by Active Water Cooling | 2015 | Completed |
| 48 | Ankit Surana | CFD Analysis of straight EATHE System under Transient Conditions for Intermittent Operation | 2015 | Completed |

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| 49 | Poonam Verma | CFD Analysis of straight and Spiral EATHE System under Transient Conditions for Continuous Operation | 2015 | Completed |
| 50 | Amit Kumar | Performance Evaluation of Dairy Wastewater Treatment by Electro-coagulation Using Vertical Rotating Cylindrical Aluminum Electrode | 2016 | Completed |
| 51 | Saurabh Gupta | Multi-objective optimization of Treatment of Dairy Wastewater by Electro-coagulation and Modeling of Adsorption Kinetics, Adsorption Isotherms | 2016 | Completed |
| 52 | Kunwar Paritosh | Alternate Fuel: Energy value of organic waste from institutional campus | 2016 | Completed |
| 53 | Naveen Kanjolia | Evaluation of Different Configuration of Air Flow in EATHE for Performance Improvement | 2016 | Completed |
| 54 | Prathma Dolas | Environmental Impact Assessment of Green Energy Projects | 2017 | Completed |
| 55 | Rishabh Machiwal | Experimental investigations of indoor air quality : A case study of computer lab with 50 seats | 2017 | Completed |
| 56 | Ankur Tailor | CFD modeling of indoor air quality : A case study of computer lab with 50 seats | 2017 | Completed |
| 57 | Simrandeep Singh | Performance enhancement of EAT by effective use of heat exchanger with flow reversal | 2018 | Completed |
| 58 | Pratik Sanadhya | Evaluation of neighborhood assessment tools prevalent in India | 2018 | Completed |
| 59 | Sisir Choudhary | Performance evaluation of EC reactor with rotating anode for treatment of mix textile wastewater | 2018 | Completed |
| 60 | Minakshi Patel | Experimental Study of Thermal Performance of BIPV-DSF System Under Different Ventilation Modes | 2019 | Completed |
| 61 | Shashank Mishra | Intent of Daylight Credit in Different Standards and Study of Effects of Varying Daylight Parameters | 2019 | Completed |
| 62 | Abhishek Barayach | | 2019 | Completed |
| 63 | Anjali Agarwal | Performance analysis of electrocoagulation followed by flocculation and settling strategies for the treatment of textile wastewater | 2019 | Completed |
| 64 | Rituraj Singh | COD Removal by Electro-Coagulation Process With Rotating and Non-Rotating Anode on Dual Dye Synthetic Textile Waste-Water | 2019 | Completed |
| 65 | Mahesh Kumar | An experimental investigation to evaluate the | 202 | Completed |

| | | | | |
|----|---------------|---|------|-----------|
| | Gupta | thermal performance of Photo Voltaic Double Skin Façade system under natural and forced ventilation modes | 0 | d |
| 66 | Mamta Dhayal | Evaluation of Thermal Performances Of BIPV-DSF Under natural and forced Ventilation Mode | 2020 | Completed |
| 67 | Palak Agarwal | Improving the performance of the EC reactor through efficient flocculation | 2021 | Completed |
| 68 | Alyas Ahmed | Treatment of dairy wastewater by electro-coagulation using 3d rotating anode | 2021 | Completed |
| 69 | Pooja Pandey | Effect on the thermal performance of perforated sheet-based PV-DSF | 2021 | Completed |

Details of Sponsored Project

| Name of Project/ Consultancy | Funding Agency | Amount | Co- Worker |
|---|--|-------------|--|
| Ongoing Projects | | | |
| Development and performance analysis of double pane Semi-Transparent Solar Photovoltaic Window/Facade system | DST | 1.11 Crore | Mathur J., Chowdhury A. |
| The U.S.-India Joint Centre for Building Energy Research and Development (CBERD) | IUSSTF, DST | 5.93 crore | Mathur J |
| Completed Projects | | | |
| Development of Status Reports for Sewage Treatment Plants, Common Treatment Facility for Bio Medical Waste, and Solid Waste Management in Rajasthan | Rajasthan State Pollution Control Board, Jaipur | 12,00,000/- | Gupta A. B. |
| Feasibility assessment for de-fluoridation of drinking water by electro coagulation using alumina electrodes | UNICEF | 5,58,000 | Gupta A. B. |
| Development of Manual for Design, Construction and Maintenance of Anicut | UNICEF | 50,000/- | Prof.. Y. P. Mathur Prof. G. Sharma |
| Experimental and theoretical analysis of combined solar and wind induced enhanced ventilation system | Ministry of Non-Conventional Energy, Govt. of India. | 8,22,000/- | Dr. J. Mathur |
| Knowledge Transfer in building climatology – CLIMON | European Commission | 50,000 € | Dr. J. Mathur |
| Development of Desk Review of Water Management Practices in Rajasthan | UNICEF | 1,50,000/- | Prof.. Y. P. Mathur Prof. G. Sharma |

| | | | |
|--|---|-------------|--|
| EIA of world Bank Funded DPIP Projects | World Bank | 40,00,000/- | Prof. A. B. Gupta |
| Development of disposal system for RIICO industrial area, NIC, Majrakath | RIICO | 80,000/- | Prof.. Y. P. Mathur Prof. G. Sharma |
| Comparative Study of Centralized and Decentralized sewage treatment plants for watering of garden in Jaipur City | Rajasthan State Pollution Control Board, Jaipur | 1,00,000/- | Gupta A. B., Goyal R. |

Short Term Courses Attended

| S.No | Institute | Name of Course | From | To |
|------|---|--|----------|----------|
| 1 | Malviya Regional Engineering College, Jaipur | Engineering Materials Characteristics & Processing | 19/02/96 | 02/03/96 |
| 2 | Malviya Regional Engineering College, Jaipur | Industry Institute Partnership | 17/03/97 | 22/03/97 |
| 3 | M.B.M. Engg. College, Jodhpur | Analysis & Design of Tall Buildings. | 23/06/97 | 28/06/97 |
| 4 | Malviya Regional Engineering College, Jaipur | Quality Philosophy & Techniques Practiced Around The World | 15/12/97 | 20/12/97 |
| 5 | Malviya Regional Engineering College, Jaipur | Casting Technology & Quality Management And Pollution Control In Foundries | 22/12/97 | 03/01/98 |
| 6 | Malviya Regional Engineering College, Jaipur | Application of mathematical programming techniques for reservoir operation | 05/10/98 | 17/10/98 |
| 7 | Malaviya National Institute of Technology, Jaipur | Recent Advances in Technologies for Waste to Energy Conversion | 23/12/02 | 03/01/03 |
| 8 | Malaviya National Institute of Technology, Jaipur | Environmental Impact Assessment of Highway Projects | 03/03/03 | 14/03/03 |

Other Information

Administrative Responsibilities in the Institute

- 1 Coordinator, M.E./ M. Tech (Environmental Engineering) Feb. 1996 to June 2003
- 2 Coordinator, International course in Environmental Engineering in 1996-97, 1998-99
- 3 Assistant Proctor in 1997-98
- 4 Assisted Faculty-in-charge, Training & Placement 1998-99

- 5 Twice member of Editorial Board of College brochure, 1996, 1997
- 6 Warden of boy's Hostel 1998-2007
- 7 Faculty In-charge, Hostel Accounts 2003-07
- 8 Proctor, Students Affairs, Since August 2010.

Present Administrative Responsibilities in the Institute

- 1 Chief Warden
- 2 Faculty Advisor, Horticulture

List of courses taught at B. Tech., M. Tech. level

Courses taught at M. Tech. level

1. Environmental Impact Assessment
2. Industrial Waste Treatment
3. Building & Environment
4. Engineering Hydrology

Courses taught at B. Tech. level

1. Engineering Graphics
2. Environmental Science
3. Environmental Engineering I
4. Environmental Engineering II

Specialized courses/laboratories developed

In last decade activities in Building sector in India has increased in a large way, and have great potential to effect the environment. It is essential to plan, develop, and carry out building projects in environmentally sustainable manner.

A course on Building & Environment was included in the curriculum of M. Tech program in Environmental Engineering. The course was developed and is being taught by the applicant. The students of M. Tech (Energy Engg.) have also chosen this course as Institute elective. The course covers the environmental aspects in the design, analysis, and operation of energy-efficient, healthy, and comfortable buildings. The course material includes site analysis, water efficiency, building material, demolition & construction waste management, indoor environment and energy conservation aspects of building projects.