

CURRICULUM VITAE (Updated Oct. 2021) Asso. Prof. (Dr.) Anil Kumar, Ph.D. (IIT Delhi), PDF (Thailand), FIE, C.Eng. <i>Energy Technology, Renewable Energy, Solar Energy Applications, Heat Transfer, Natural Rubber Sheet Drying, Techno-Economics of Energy Systems, Natural resources Managements and Environmental Issues</i> Google Scholar: h-Index 35; i10-Index: 81; Total Citation 4200+ SCOPUS: h-Index 28; Total Citation 2600+ PUBLONS: h-Index 25; Total Citation 1864+	
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Details of current research areas

- Design and Development of innovative products and systems for promoting renewable energy.
- Design and Development of Solar thermal application; dryers, desalination, water heating system, Distributed energy generation, Clean energy technologies in buildings, Heat transfer applications and Natural rubber sheet drying.
- Disseminating Renewable Energy Technology for students, professionals and institutions.

PERSONAL DETAILS											
Name (as in passport)								Nationality			
Kumar Anil								Indian			
Date of Birth				Place of Birth				Marital Status		Religion	
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Communication											
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DTU-IRINS:								SCOPUS: https://www.scopus.com/authid/detail.uri?authorId=57202725615			
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EDUCATION				
Degree	Institution	Year	Discipline	Performance
Post-Doctoral Researcher	Energy Technology Research Center, Dept. of Mech. Engg., Prince of Songkla University, Hat Yai, 90110, Thailand	June 2015 to May 2017	Energy Technology	Outstanding researcher award
Ph.D.	Indian Institute of Technology, Delhi (India)	Feb 2007	Solar Thermal Energy	CGPA 8.0 on 10.00
M. Tech.	Tezpur University (A Central University) Tezpur (India)	Dec 2001	Energy Technology	CGPA 7.56 on 10.00
B. Tech.	Jamia Millia Islamia, (A Central University) New Delhi (India)	Aug 2000	Mechanical Engineering	FCPI 70.08 on 100.00

ACADEMIC AWARDS & PROFESSIONAL HONOURS
• Experts: Energy Solutions, BRICS-YSF, Expert Selection Committee, 2021, DST, Govt. of India. • "Outstanding Scientist Award 2021" in the International Scientist Awards on Engineering, Science and Medicine from VDGGOOD Professional Association. • "Distinguished Scientist Award 2021" in the International Scientist Awards on Engineering, Science and Medicine from VDGGOOD Professional Association. • Featured at most cited # Information Systems (IS) researchers in the World Ranking of Top 2% scientist created by Stanford University, USA, 2020. • "Expert" 1st SCO-YOUNG SCIENTISTS CONCLAVE on Shaping SCO-STI Partnership: Young Scientists Perspectives (24 -28 November 2020) organized by Department of Science and Technology, Ministry of Science and Technology, Govt. of India and Shanghai Cooperation Organisation. • "Commendable Research Award 2019" for publishing a quality research paper in Delhi Technological University, Delhi (India). • Guest of Honor, National Conference on Futuristic Trends in Mechanical Engineering, held from 22-23rd November 2019 organized by Dept. of Mech. Engg., UIT, Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal. • Project granted entitled "Development of a Stand-Alone Spray Assisted Solar Thermal Desalination System" India-Iran Bilateral Scientific and Technological Cooperation, DST, Govt. of India, August 2018. Amount of Grant: 5,17,880/- • Advisory Member, Anchor Institute in Solar Energy, Gujarat Power Engineering and Research Institute (GPRI), Since 2017. • Rashtriya Gaurav Award 2017 from India International Friendship Society, New Delhi (India) • Research Excellence Award 2016: The researcher has Top 20 Publications from the Web of Science database, honoured by President Dr. Chusak Limsakul, Prince of Songkla University, Hat Yai, Thailand. • Appreciation for outstanding service in the reviewer's committee and active reviewers from Elsevier. • Appreciation for outstanding service in the reviewer's committee and active reviewers during the year 2015 from International Institute of Engineers. • Best Paper Award in Global Conference on Energy and Sustainable Development (GCESD 2015), February 24-26, 2015 at Coventry University Technology Park, Puma Way, Coventry, West Midlands CV1 2TT. • Session Chair, Global Conference on Energy and Sustainable Development (GCESD 2015), February 24-26, 2015 at Coventry University Technology Park, Puma Way, Coventry, West Midlands CV1 2TT. • International Travel Support Scheme (ITS) from SERB, DST, Govt. of India awarded grants for attending International conference in UK (7 SB/ITS/04898/2014-2015). • Appreciation from Chairman BOG and Director, MANIT in 2015. • Session Chair, 2nd International Conference on Inter-Disciplinary Research in Engineering Management, Pharmacy and Science, 19-22 February 2015, Sagar Society of Interdisciplinary Research & Technology, Bhopal. • Session Chair, Renewable Energy Session, Industrial, Mechanical and Production Engineering: Advancements and Current Trends, MANIT Bhopal, International Conference, Madhya Pradesh, November 27-29, 2014. • Member, Academic Advisory Committee, Sagar Institute of Tech.-Excellence, Bhopal, since 2014.

- **Guest of Honor**, National Level Working Model Competition "Nirmaan 2k14" organized by Sagar Institute of Science & Technology (SISTec), Bhopal during 3rd & 4th April 2014, 2015.
- **Co-Chair and Guest Speaker** in International Conference on Emerging Trends in Science & Technology organized by AISECT University, Bhopal, 14-15th Feb 2014.
- **Session Chair** in International Conference on Global and Scenario in Environment and Energy, organised by Dept. of Energy & Chemical Engg, Maulana Azad National Institute of Technology (MANIT), Bhopal, during 14-16 March 2013.
- **Observer** in JEE (Mains) 2012, 2013, 2014, 2015 and 2019
- **Observer** in Pre Engineering Test, for Madhya Pradesh, May 2012.
- Selected as **Assistant Professor (AGP-8000)** in Dept. of Mech. Engg., Gautam Buddh University, NOIDA, DCE) in 2010.
- Selected under the scheme of **Early Faculty Induction Programme-2004** sponsored by AICTE and conducted by IIT Bombay.
- **Senior Research Fellowship** (SRF) Award for pursuing Ph.D. in 2001, Indian Institute of Technology, Delhi.

EXPERIENCE (15+ Years)

University / Organization	Designation	From	To	Total Period	Nature of Experience
Department of Mechanical Engineering, Delhi Technological University, Delhi (Formerly Delhi College of Engineering), Delhi (INDIA)	Associate Professor	Dec 2018	Till Date	Cont....	Teaching, Research and Administrative work
Energy Centre, Maulana Azad National Institute Technology, Bhopal (INDIA)	Assistant Professor	May 2010	Dec 2018	08 Yrs and 06 Months	Teaching and Research (Sustainable Development)
Dept. of Mech. Engg., University Institute of Technology, Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal Bhopal - 462 036 (INDIA)	Lecturer	Augu st 2005	May 2010	04Yrs and 09 Months	Teaching and Research (Science, Technology, Society and Sustainable Development)

TEACHING EXPERIENCE

Post Graduate	Graduate
○ Renewable Energy Sources (DTU, RGPV, MANIT Bhopal) ○ Energy Conservation and Management (MANIT Bhopal) ○ Energy Environment Ecology & Society (MANIT Bhopal) ○ Solar Energy and its Utilizations (RGPV, MANIT Bhopal) ○ Energy Economics, Policy & Planning (MANIT Bhopal) ○ Green Building (MANIT Bhopal) ○ Advance Energy Systems (DTU, Delhi)	○ Power Plant Engineering (DTU, Delhi) ○ Basic Mechanical Engineering (DTU, RGPV, Bhopal) ○ Engineering Thermodynamics (RGPV, MANIT Bhopal) ○ Heat and Mass Transfer (RGPV, MANIT Bhopal) ○ Combustion Generated Pollution (DTU, Delhi) ○ Non-Conventional Energy Sources (RGPV, Bhopal) ○ Energy Environment Ecology & Society (RGPV, MANIT Bhopal)

RESEARCH PUBLICATIONS

Category	Published	Under Review
a. Publications in Referred journals (International National)	146+02	04
b. Publications in Conferences (International National)	64+11	02
c. Books (International National)	7+4 =11	01
d. Chapters in Books	28	01
e. Patent	03	01
f. Conference Proceeding	06	00

RESEARCH PROJECT AND CONSULTANCY

Category	Completed	Ongoing
a. Research Project	04	01
b. Consultancy	05	00

RESEARCH GUIDANCE

Level of Guidance	Completed	Ongoing
a. Doctoral Level	09	04
b. Masters Level	35	02
c. Bachelor's Level	44	00

REFERENCES		
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Prof. Ameenur Rehman Siddiqui	Professor, Department of Mech. Engg., Maulana Azad National Institute of Technology, Bhopal- 462051, India	Mobile: +91-7772903985 nitars90@gmail.com
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(Dr. Anil Kumar)

PUBLICATIONS

International Journal:

Year 2021

1. Naman Goyal, Akshansh Aggarwal and **Anil Kumar**. Concentrated Solar Power Plants: A Critical Review of Regional Dynamics and Operational Parameters. Energy Research & Social Science-Elsevier **SCI Impact Factor 6.8 (Accepted)**
2. Cosmas Ngoichukwu Anyanwu, Chiemelu Onyia, Adobi Jane Uchendu, Nneoma Nkem Aneke, Jude Chukwuemeka Ohagwu, Onyekwere Ojike, **Anil Kumar**, Abraham Kalu-Uka, and Okechukwu Ogadinma Ukadike. Solar PV-driven Active Crop Drying System for Plantain (MUSA SPP): Design, Development and Performance evaluation. Journal of Food Process Engineering. **SCI Impact Factor 2.356 (Accepted)** [Article DOI: 10.1111/jfpe.13892](https://doi.org/10.1111/jfpe.13892)
3. Rohan Sawant, Anand Pandey, Hitesh Panchal, Kishore Sadasivuni and **Anil Kumar**. Numerical Simulation of Cascaded Cyclone Separator for Nano size Aerosol. Energy Sources. Part A: Recovery, Utilization and Environment Effects. **SCI Impact factor: 3.447 (Accepted)**
4. Jignesh Vala, Hitesh Panchal, D.K. Patel, Kishor Kumar Sadasvuni, **Anil Kumar** and Mohammad Khalid. Computational analysis on improving the effectiveness of low-speed axial flow fan with blade profile. **Chemical Engineering Communications**. **SCI Impact Factor 2.49 (Accepted)**
5. Chandrakant R. Sonawane, Kuldeep Tolia, Anand Pandey, Atul Kulkarni, Hitesh Panchal, Kishor Kumar Sadasivuni, Anil Kumar & Mohammad Khalid. Experimental and numerical analysis of heat transfer and fluid flow characteristics inside pulsating heat pipe. **Chemical Engineering Communications**. **SCI Impact Factor 2.49** <https://doi.org/10.1080/00986445.2021.1974413>
6. Srijit Basu, Alfred John, Akshay, **Anil Kumar**. Design and Feasibility Analysis of Hydrogen based Hybrid Energy System: A Case Study. International Journal of Hydrogen Energy 46 (2021) 34574-34586. **SCI Impact Factor 5.8**. <https://doi.org/10.1016/j.ijhydene.2021.08.036>
7. Om Prakash, Asim Ahmad, **Anil Kumar**, S.M. Mozammil Hasnain, Ali Zare, Puneet Verma. Thermal performance and energy consumption analysis of retail buildings through daylighting: A numerical model with experimental validation. **Materials Science for Energy Technologies-Elsevier** 4 (2021) 367–382. **SCOPUS**. <https://doi.org/10.1016/j.mset.2021.08.008>
8. Sanjeev Kumar Verma, Subhashish Gaur, Tabish Akram, Samsher Gautam, **Anil Kumar**. Emissions from Homogeneous Charge Compression Ignition (HCCI) Engine Using Different Fuels: A Review. Environmental Science and Pollution Research- Springer. **SCI Impact factor: 3.056** <https://doi.org/10.1007/s11356-021-15602-x>
9. Ankit Srivastava, Abhishek Anand, Amritanshu Shukla, **Anil Kumar**, D. Buddhi and Atul Sharma. A comprehensive overview on solar grapes drying: modeling, energy, environmental and economic analysis. Sustainable Energy Technologies and Assessments. Volume 47, October 2021, 101513 **SCI Impact Factor 5.353**. DOI: <https://doi.org/10.1016/j.seta.2021.101513>
10. **Anil Kumar**, Ravi Kant, Samsher. Review on Spray Assisted Solar Desalination: Concept, Performance and Modelling. Arabian Journal for Science and Engineering. **SCI Impact factor: 1.711** <https://doi.org/10.1007/s13369-021-05846-7>
11. Anand Kushwah, **Anil Kumar**, Manoj Kumar Gaur and Amit Pal. Garlic Dehydration inside Heat Exchanger-Evacuated Tube Assisted Drying System: Thermal Performance, Drying Kinetic and Color Index. Journal of Stored Products Research, Volume 93, September 2021, 101848. **SCI Impact Factor: 2.123**. <https://doi.org/10.1016/j.jspr.2021.101852>
12. Mahesh Kumar, Ravinder Kumar Sahdev, Sumit Tiwari, Himanshu Manchanda, **Anil Kumar**. Environmental feasibility of groundnut drying under greenhouse and indoor forced convection hot air dryers. Journal of Stored Products Research, Volume 93, September 2021, 101848. **SCI Impact Factor: 2.123**. <https://doi.org/10.1016/j.jspr.2021.101848>
13. Alfred John, Srijit Basu, Akshay and **Anil Kumar**. Design and Evaluation of Stand-Alone Solar-Hydrogen Energy Storage System for Academic Institute: A Case Study. Materials Today: Proceedings. <https://doi.org/10.1016/j.matpr.2021.04.461>
14. Tarik Hadibi, Abdelghani Boubekri, Djamel Mennouche, Abderrahmane Benhamza, **Anil Kumar**. Economic analysis and drying kinetics of geothermal-assisted solar dryer for tomato paste drying. Journal of the Science of Food and Agriculture-Wiley. **SCI Impact factor: 2.614** DOI: <https://doi.org/10.1002/jsfa.11326>
15. Abhishek Anand, Amritanshu Shukla, **Anil Kumar**, D. Buddhi, Atul Sharma. Cycle test stability and corrosion evaluation of phase change materials used in thermal energy storage systems. Journal of

- Energy Storage Volume 39, July 2021, 102664. **SCI Impact Factor: 3.762.**
<https://doi.org/10.1016/j.est.2021.102664>
16. Sanjeev Kumar Verma, Subhashish Gaur, Tabish Akram, Samsher, **Anil Kumar**. Performance Characteristic of HCCI Engine for different fuels. *Materials Today: Proceedings*.
<https://doi.org/10.1016/j.matpr.2021.04.609>
 17. Mukul Sharma, Deepali Atheaya, **Anil Kumar**. Recent advancements of PCM based indirect type solar drying systems: A state of art. *Materials Today: Proceedings*.
<https://doi.org/10.1016/j.matpr.2021.04.280>.
 18. Anand Kushwah, **Anil Kumar**, Amit Pal and Manoj Kumar Gaur. Experimental analysis and thermal performance of evacuated tube solar collector assisted solar dryer. *Materials Today: Proceedings*.
<https://doi.org/10.1016/j.matpr.2021.04.243>
 19. Akshansh Aggarwal, Naman Goyal, **Anil Kumar**. Thermal characteristics of sensible heat storage materials applicable for concentrated solar power systems. *Materials Today: Proceedings*.
<https://doi.org/10.1016/j.matpr.2021.04.174>
 20. Aseem Dubey, Samsher, **Anil Kumar**. Energetic and exergetic study of dual slope solar distiller coupled with evacuated tube collector under force mode. *Materials Today: Proceedings*.
<https://doi.org/10.1016/j.matpr.2021.04.135>
 21. Ravi Kant, **Anil Kumar**. Advancements in steam distillation system for oil extraction from peppermint leaves. *Materials Today: Proceedings*. <https://doi.org/10.1016/j.matpr.2021.04.123> **SCOPUS**
 22. Ashwani Goel, Ahmad Faizan Sherwani, Deepak Tiwari, **Anil Kumar**. Sensitivity analysis and multi-objective optimization of organic Rankine cycle integrated with vapor compression refrigeration system. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*. **SCI Impact factor: 3.447** <https://doi.org/10.1080/15567036.2021.1916132>.
 23. Saxena, Lovebrat and Soni, Archana and **Kumar, Anil**, Design and Performance of a Small Parabolic Trough System for Process Heat (February 26, 2021). Available at SSRN: <https://ssrn.com/abstract=3808546> or <http://dx.doi.org/10.2139/ssrn.3808546> **SCOPUS**
 24. Khemshika Ram, Prasannakumar Swain, Ruchita Vallabhaneni and **Anil Kumar**. Critical assessment on application of software for designing hybrid energy systems. *Materials Today: Proceedings*.
<https://doi.org/10.1016/j.matpr.2021.02.452>
 25. Anshika Rani, Ravikant, S. Suresh, **Anil Kumar**. Experimental Investigation on Thermal Behavior of Hybrid Single Slope Solar Still. *Journal of Thermal Engineering*, Vol. 7, No. 3, pp. 677-689, March, 2021. ISSN: 2148-7847 **March 2021. SCOPUS, ESCI. DOI: 10.18186/thermal.889191**
 26. Pranshu Shrivastava, **Anil Kumar**, Perapong Tekasakul, Su Shiung Lam and Arkom Palamanit. Comparative Investigation of Yield and Quality of Bio-Oil and Biochar from Pyrolysis of Woody and Non-Woody Biomasses. *Energies* 2021, 14(4), 1092; <https://doi.org/10.3390/en14041092> **SCI Impact Factor 2.7.**
 27. Sankalp Kumar, Aviral Agarwal and **Anil Kumar**. Financial Viability Assessment of Concentrated Solar Power Technologies under Indian Climatic Conditions. *Sustainable Energy Technologies and Assessments* 43 (2021) 100928. <https://doi.org/10.1016/j.seta.2020.100928>
 28. Geetam Richhariya, **Anil Kumar**. Performance evaluation of mixed synthetic organic dye as sensitizer based dye sensitized solar cell. *Optical Materials* Volume 111, January 2021, 110658. **SCI Impact Factor 3.08.** <https://doi.org/10.1016/j.optmat.2020.110658>
 29. Ravindra Kumar, **Anil Kumar**, Amit Pal. An overview of conventional and non-conventional hydrogen production methods. *Materials Today: Proceedings-Elsevier*.
<https://doi.org/10.1016/j.matpr.2020.08.793> **SCOPUS**
 30. Om Prakash, Bharath Bhushan, **Anil Kumar**, Asim Ahmed. Thermal analysis of domestic type single Slope-Basin solar still under two different water depths. *Materials Today: Proceedings-Elsevier*.
<https://doi.org/10.1016/j.matpr.2020.09.239> **SCOPUS**

Year 2020

31. **Anil Kumar**, Savita Vyas and Dan Nchelatebe Nkwetta. Experimental study of single slope solar still coupled with parabolic trough collector. *Materials Science for Energy Technologies-Elsevier*. Volume 3, 2020, Pages 700-708. <https://doi.org/10.1016/j.mset.2020.07.005>
32. Asim Ahmad, **Anil Kumar**, Om Prakash, Ankish Aman. Daylight availability assessment and the application of energy simulation software – A literature review. *Materials Science for Energy Technologies-Elsevier*, Volume 3, 2020, Pages 679-689. <https://doi.org/10.1016/j.mset.2020.07.002>
33. Vijayan Selvaraj, T.V. Arjunan Vellingri, **Anil Kumar**, M. M. Matheswaran. Experimental and Thermal Performance Investigations on Sensible Storage Based Solar Air Heater. *Journal of Energy*

Storage-Elsevier, 31 (2020) 101620. <https://doi.org/10.1016/j.est.2020.101620> **SCI Impact Factor: 3.762.**

34. Sanjeev Kumar Bhukesh **Anil Kumar** Suresh Kumar Gaware. Bismuth telluride (Bi_2Te_3) thermoelectric material as a transducer for solar energy application. **Materials Today: Proceedings**, 26 (2020) 311-3137 <https://doi.org/10.1016/j.matpr.2020.02.646> **SCOPUS**
35. Pranshu Shrivastava, Phonthip Khongphakdi, Arkom Palamanit, **Anil Kumar**, Perapong Tekasakul. Investigation of physicochemical properties of oil palm biomass for evaluating potential of biofuels production via pyrolysis processes. **Biomass Conversion and Biorefinery**. <https://doi.org/10.1007/s13399-019-00596-x> . **SCI Impact Factor 2.326.**
36. Lovebrat Saxena, **Anil Kumar**, Archana Soni. Design and Performance of a Parabolic trough System for Process Heat Application. *International Journal of Recent Technology and Engineering (IJRTE)* ISSN: 2277-3878, Volume-9 Issue-1, May 2020. DOI:10.35940/ijrte.A2445.059120. **SCOPUS**
37. Chandramohan VP, Abhay Lingayat, V Rajesh Khana Raju, **Anil Kumar**. Development of Indirect Type Solar Dryer and Experiments for Estimation of Drying Parameters of Apple and Watermelon. *Thermal Science and Engineering Progress* Volume 16, 1 May 2020, 100477. <https://doi.org/10.1016/j.tsep.2020.100477>.
38. Ebrahim Taghinezhad, Antoni Szumny, Mohammad Kaveh, Vali Rasooli Sharabiani, **Anil Kumar**, Naoto Shimizu Shimizu. Parboiled Paddy Drying with Different Dryers: Thermodynamic and Quality Properties, Mathematical Modeling using ANNs Assessment. *Foods* 2020, 9(1), 86; <https://doi.org/10.3390/foods9010086>. ISSN/eISSN 2304-8158. MDPI, Switzerland, **SCI Impact Factor 3.011.**
39. Deepak Tiwari, Ahmad Faizan Sherwani, Deepali Atheaya, Nishant Kumar, **Anil Kumar**. Thermodynamic analysis of Organic Rankine Cycle driven by reversed absorber hybrid photovoltaic thermal compound parabolic concentrator system. *Renewable Energy* 147 (2020) 2118-2127. <https://doi.org/10.1016/j.renene.2019.10.018>. **SCI Impact Factor 5.439.**
40. S. Vijayan, T.V. Arjunan, **A Kumar**. Exergo-Environmental Analysis of an Indirect Forced Convection Solar Dryer for Drying Bitter Gourd Slices. *Renewable Energy* 146 (2020) 2210-2223. <https://doi.org/10.1016/j.renene.2019.08.066>. **SCI Impact Factor 5.439.**
41. Abhishek Anand, Amritanshu Shukla, **Anil Kumar**, Atul Sharma. Development and Characterization of Ternary Mixture Series of Medium & Long Chain Saturated Fatty Acids for Energy Applications. *Energy Storage*. 2020; 2:e112. Wiley. <https://doi.org/10.1002/est2.112> **Online ISSN:2578-4862.**

Year 2019

42. S. Phaijit, M. Suklueng, S. Marthosa, S. Niyomwas, N.Y. Voo, **A. Kumar**. Novel Micro-Solid Oxide Fuel Cell (μ -SOFC) for Detecting Methane Content in Biogas. **Bulletin of Materials Science**. (2019) 42:129. <https://doi.org/10.1007/s12034-019-1789-1>. **SCI Impact Factor 1.26.**
43. Arun Kumar Dwivedi **Anil Kumar**, Prashant Baredar and Om Prakash. Bamboo as a complementary crop to address climate change and livelihoods - Insights from India. **Forest Policy and Economics-Elsevier** 102 (2019) 66–74. <https://doi.org/10.1016/j.forpol.2019.02.007>. **SCI Impact Factor: 3.673.**
44. Dang Nguyen Thoai, Chakrit Tongurai, **Anil Kumar**, Kulchanat Prasertsit. Review on biodiesel production by two-step catalytic conversion. **Biocatalysis and Agricultural Biotechnology** 18 (2019) 101023. <https://doi.org/10.1016/j.bcab.2019.101023>. **Emerging Sources Citation Index (ESCI). SCOPUS**
45. Anand Jain, Mukul Sharma, **Anil Kumar**, Atul Sharma and Arkom. Palamaint. Computational fluid dynamics simulation and energy analysis of domestic direct type multi-shelf solar dryer. **Journal of Thermal Analysis and Calorimetry** (2019) 136:173–184. **SCI Impact Factor 2.471.** <https://doi.org/10.1007/s10973-018-7973-5> (Online)
46. Anshika Rani, S. Suresh, **Anil Kumar**. Review on thermal modeling of solar desalination systems. **Research Journal of Chemistry and Environment**. Vol. 23(4), 90-102, 2019. E-ISSN No. 2278-4527. **SCOPUS, UGC Journal No. 6429**
47. Racha Dejchanchaiwong, **Anil Kumar** and Perapong Tekasakul. Performance and Economic Analysis of Natural Convection based Rubber Smoking Room for Rubber Cooperatives in Thailand. **Renewable Energy-Elsevier** 132 (2019) 233-242. <https://doi.org/10.1016/j.renene.2018.07.145>. **SCI Impact Factor 5.439.**
48. Uday Raj Singh, **Anil Kumar**. Heat loss analysis of a parabolic type dish cooker. *International Journal of Energy Technology*, vol. 1(1), pp. 1-10 <https://doi.org/10.32438/IJET.33181>
49. Anshika Rani, S. Suresh, **Anil Kumar**. Different techniques for separation of sea-water. **Asian Journal of Chemistry**; Vol. 31, No. 1 (2019), 9-17. <https://doi.org/10.14233/ajchem.2019.21614>. **SCOPUS.**

Year 2018

50. Prashant Singh Chauhan, **Anil Kumar**, Chayut Nuntadusit and Shyam Sunder Mishra. Drying Kinetics, Quality Assessment, and Economic Analysis of Bitter Gourd Flakes Drying Inside Forced Convection Greenhouse Dryer. **Journal of Solar Energy Engineering: Including Wind Energy and Building Energy Conservation (ASME)**. 2018, Vol. 140(5), 051001 Transactions of the ASME. [doi:10.1115/1.4039891](https://doi.org/10.1115/1.4039891).
51. A. M. Abdel-Ghany, I. M. Al-Helal, **Anil Kumar**, A. A. Alsadon, M. R. Shady, A. A. Ibrahim. Effect of Aging on the Spectral Radiative Properties of Plastic Film-Covered Greenhouse under Arid Conditions. **International Journal of Thermophysics** (2018) 39:115 <https://doi.org/10.1007/s10765-018-2434-8>. **SCI Impact Factor 0.853**. Science Citation Index Expanded (SCIE)
52. Uday Raj Singh and **Anil Kumar**. Review on Solar Stirling Engine: Development and Performance. **Thermal Science and Engineering Progress-Elsevier** Volume 8, 2018, Pages 244-256. <https://doi.org/10.1016/j.tsep.2018.08.016>
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5. **Energy Management: Conservation and Audits**, 1st Edition Authored by **Anil Kumar**, Om Prakash, Prashant Singh Chauhan, Samsher, CRC Press, Taylor & Francis, 2020, eBook ISBN 9780429325458, ISBN 9780367343835. DOI: <https://doi.org/10.1201/9780429325458>
6. **Solar Drying Systems**, 1st Edition Authored by Om Prakash and **Anil Kumar**, CRC Press, Taylor & Francis 2020, eBook ISBN 9780429299353, ISBN 9780367280437. <https://doi.org/10.1201/9780429299353>.
7. **Recent Advances in Mechanical Engineering**, Series Title: Lecture Notes in Mechanical Engineering, Springer, Book Subtitle: Select Proceedings of RAME 2020, Editors: **Anil Kumar**, Amit Pal, Surendra Singh Kachhwaha, Prashant Kumar Jain. DOI: <https://doi.org/10.1007/978-981-15-9678-0>

National:

8. **Energy Environment Ecology and Society**, 2010 Edition, Authored by **Anil Kumar** and K. Sudhakar, B S Publication (ISBN: 978-81-7800-257-6).
9. **Fundamentals of Mechanical Engineering**, 2012 Edition, Authored by **Anil Kumar**, and K. Sudhakar, B S Publication (ISBN: 978-93-81075-58-6).
10. **Advance Internal Combustion Engine** 2014 Edition, Authored by K. Sudhakar, and **Anil Kumar** B S Publication, (ISBN: 978-93-83635-06-1).
11. **Manufacturing Process** 2017 Edition, Authored by Bhupendra Gupta, Mukesh Pandey, **Anil Kumar**, Dhanpat Rai Publishing Company (P) Ltd., New Delhi-India (ISBN: 978-93-5216-171-3).

CONFERENCE/SEMINAR PROCEEDING

1. International Conference on "Recent Advances in Mechanical Engineering" Edited by Amit Pal, **Anil Kumar**, Surendra Singh Kachhwaha, Prashant Kumar Jain, SS. Kachhwaha and PK Jain, Lecture Notes in Mechanical Engineering, Springer, ISSN 2195-4356, ISBN: 978-981-15-9677-3. Number of Pages: XI, 1023, Publication date: **23 March 2021**. DOI: [10.1007/978-981-15-9678-0](https://doi.org/10.1007/978-981-15-9678-0).
2. International Conference "IDEA (Innovative Development in Engineering Applications) 2021" Edited by Vikram Kumar, Biplab Goswami, Prashant S. Chauhan, Deepak K. Sinha Ambast and **Anil Kumar**, WEENTECH Proceedings in Energy, vol. 7(1). ISSN: 2059-2353 ISBN: 978-0-9932795-6-0. Publisher: World Energy and Environment Technology Ltd., Coventry, United Kingdom, Pages 1-526, Publication date: **10 February 2021**.
3. International Conference on "Recent Advances in Mechanical Engineering" Edited by **Anil Kumar**, Girish Kumar, Amit Pal and Samsher, WEENTECH Proceedings in Energy, vol. 6(2). ISSN: 2059-2353 ISBN: 978-0-9932795-5-3. Publisher: World Energy and Environment Technology Ltd., Coventry, United Kingdom Publication date: **18 September 2020**.
4. International Seminar on Renewable Energy and Sustainable Development-RES2015. Edited by Mr. Tshering, College of Science and Technology, Royal University of Bhutan, Dr. Tshewang Lhendup, College of Science and Technology, Royal University of Bhutan, Bhutan, Dr. R Singh, IARI, New Delhi, India, **Dr. A. Kumar, PSU, Thailand**. WEENTECH Proceedings in Energy- Volume 2, ISSN:

- 2059-2353 ISBN: 978-0-9932795-1-5. Publisher: World Energy and Environment Technology Ltd., Coventry, United Kingdom Publication date: **05 September 2015**.
5. International Conference on Energy, Environment and Economics -ICEEEE2016. Edited by Dr. R Singh, IARI, New Delhi, India, **Dr. Anil Kumar, Prince of Songkla University, Hat Yai, Thailand**. WEENTECH Proceedings in Energy- Volume 3, ISSN: 2059-2353 ISBN: 978-0-9932795-2-2. Publisher: World Energy and Environment Technology Ltd., Coventry, United Kingdom Publication date: 12 September 2016.
 6. Bio-Fuels and Bio-Energy: An International Conference and Exhibition (BICE-2016)23-25, February 2016 organised by Chemical Engineering Department and World Energy and Environment Technology, UK. Biofuels and Bioenergy (BICE2016) Edited by Suresh, S., **Kumar, A.**, Shukla, A., Singh, R., Krishna, C.M. Springer International Publishing AG, eBook ISBN: 978-3-319-47257-7, DOI: [10.1007/978-3-319-47257-7](https://doi.org/10.1007/978-3-319-47257-7).

CHAPTERS IN BOOKS

1. Hargovind Soni, S. Narendranath, M.R. Ramesh, Dumitru Nedelcu, Madindwa Mashinin and **Anil Kumar**. **Chapter 4: Development of Ti50Ni50-XCo_x (X = 1 and 5 at. %) Shape Memory Alloy and Investigation of Input Process Parameters of Wire Spark Discharge Machining**. Intelligent Manufacturing. Editors: Sunil Pathak. Springer. https://doi.org/10.1007/978-3-030-50312-3_4.
2. Geetam Richhariya, **Anil Kumar**, Samsher. **Chapter 2: Solar cell technologies**. Book Title: *Photovoltaic Solar Energy Conversion: Technologies, Applications and Environmental Impacts*, 1st Edition. Academic Press **Elsevier** Editors: Shiva Gorjian Ashish Shukla, August 2020. Paperback ISBN: 9780128196106. <https://doi.org/10.1016/B978-0-12-819610-6.00002-8>
3. Asim Ahmad, Om Prakash and **Anil Kumar**; Anukul Pandey. Chapter 1: **A Review of Solar Air Heater**. Book Title: *Low Carbon Energy Supply Technologies and Systems*. 1st Edition Editors: Atul Sharma, Amritanshu Shukla, Renu Singh, **CRC Press**, 2020. pp 1-10, eBook ISBN: 9780429353192. DOI <https://doi.org/10.1201/9780429353192>
4. Prinshu Pandey, Om Prakash, **Anil Kumar**. Chapter 1: Desalination and Solar Still: Boon to Earth, Springer Singapore Press Ed. Anil Kumar and Om Prakash. ISBN-10: 9811368864, ISBN-13: 978-9811368868, 2019
5. Ajay Kumar Kaviti, **Anil Kumar**, Om Prakash. Chapter 3: Effect of Design Parameters on Productivity of Various Passive Solar Stills. Springer Singapore Press, Editors: Anil Kumar and Om Prakash, ISBN-10: 9811368864, ISBN-13: 978-9811368868, 2019. https://doi.org/10.1007/978-981-13-6887-5_3
6. Anirshu Dev Roy, Om Prakash, Shobhana Singh and **Anil Kumar**. Chapter 5: Application of Software in Predicting Thermal Behaviours of Solar Stills. https://doi.org/10.1007/978-981-13-6887-5_5
7. Dheeraj Kumar, Anukul Pandey, Om Prakash, **Anil Kumar** and Anirshu DevRoy. Chapter 6: Simulation, Modeling, and Experimental Studies of Solar Distillation Systems. https://doi.org/10.1007/978-981-13-6887-5_6
8. M. K. Gaur, G. N. Tiwari, Anand Kushwah, **Anil Kumar** and Gaurav Saxena. Chapter 10: Integrated PVT Hybrid Active Solar Still (HASS) with an Optimized Number of Collectors. https://doi.org/10.1007/978-981-13-6887-5_10
9. Ravi Kant, Om Prakash, Rajesh Tripathi and **Anil Kumar**. Chapter 12: Exergy Analysis of Active and Passive Solar Still. https://doi.org/10.1007/978-981-13-6887-5_12
10. Mukul Sharma, Om Prakash, Atul Sharma and **Anil Kumar**. Chapter: **Fundamentals and Performance Evaluation Parameters of Solar Dryer**. Low Carbon Energy Supply Trends, Technology, Management Editors: Atul Sharma, Amritanshu Shukla, Lu Aye. Green Energy and Technology. ISBN 978-981-10-7325-0, ISSN 1865-3529. <https://doi.org/10.1007/978-981-10-7326-7>. pp 37-49. 2018
11. Anirshu Dev Roy, Om Prakash, **Anil Kumar**, A. K. Kaviti, and Anukul Pandey. **Chapter: Design and Selection Criteria of Biogas Digester**. Low Carbon Energy Supply Trends, Technology, Management Editors: Atul Sharma, Amritanshu Shukla, Lu Aye. Green Energy and Technology. ISBN 978-981-10-7325-0, ISSN 1865-3529. <https://doi.org/10.1007/978-981-10-7326-7>. pp 91-112.
12. Anand Singh, Prashant Baredar, Hitesh Khare and **Anil Kumar**. **Chapter: Fuel Cell: Fundamental, Classification, Application, and Environmental Impact**. Low Carbon Energy Supply Trends, Technology, Management Editors: Atul Sharma • Amritanshu Shukla, Lu Aye. Green Energy and Technology. ISBN 978-981-10-7325-0, ISSN 1865-3529. <https://doi.org/10.1007/978-981-10-7326-7>. pp 363-385.

13. Om Prakash **Anil Kumar**, and Atul Kumar. Chapter 11: **Solar Drying**, Geothermal, Wind and Solar Energy Applications in Agriculture and Aquaculture Sustainable Energy Developments Editors: Jochen Bundschuh, Guangnan Chen, D. Chandrasekharam, Janusz Piechocki, Publisher: **CRC Press**, 2017, ISBN: 135165814X, 9781351658140.
14. S. Vijayan, T.V. Arjunan, and **Anil Kumar**. Chapter 1: Fundamental Concepts of Drying. Book entitled "Solar Drying Technology: concept design testing modeling economics and the environment" published by Springer Singapore, 2017. DOI 10.1007/978-981-10-3833-4_1
15. **Anil Kumar**, Harsh Deep, Om Prakash, O. V. Ekechukwu, Chapter 5: **Advancement in Greenhouse Drying System**, Book entitled "Solar Drying Technology: concept design testing modeling economics and the environment" published by Springer Singapore in 2017. Series Title: Green Energy and Technology, eBook ISBN 978-981-10-3833-4, Hardcover ISBN 978-981-10-3832-7, Series ISSN 1865-3529. DOI 10.1007/978-981-10-3833-4_5
16. **Anil Kumar**, Saurabh Ranjan, Om Prakash, Ashish Shukla. Chapter 8: **Exergy Analysis of Solar Dryer**. a book entitled "Solar Drying Technology: concept design testing modeling economics and the environment" published by Springer Singapore in 2017. Series Title: Green Energy and Technology, eBook ISBN 978-981-10-3833-4, Hardcover ISBN 978-981-10-3832-7, Series ISSN 1865-3529, Chapter 8. (2017). DOI 10.1007/978-981-10-3833-4_8
17. Om Prakash, Saurabh Ranjan, **Anil Kumar**, P. P. Tripathy. Chapter 14: **Applications of Soft Computing in Solar Drying Systems**. A book entitled "Solar Drying Technology: concept design testing modeling economics and the environment" published by Springer Singapore in 2017. Series Title: Green Energy and Technology, eBook ISBN 978-981-10-3833-4, Hardcover ISBN 978-981-10-3832-7, Series ISSN 1865-3529, Chapter 14. (2017). DOI 10.1007/978-981-10-3833-4_14.
18. Om Prakash, Saurabh Ranjan, **Anil Kumar**, Ravi Gupta. Chapter 17: **Economic Analysis of Various Developed Solar Dryers**. Book entitled "Solar Drying Technology: concept design testing modeling economics and the environment" published by Springer Singapore in 2017. Series Title: Green Energy and Technology, eBook ISBN 978-981-10-3833-4, Hardcover ISBN 978-981-10-3832-7, Series ISSN 1865-3529, Chapter 17. (2017). DOI 10.1007/978-981-10-3833-4_17
19. Om Prakash, **Anil Kumar**, Prashant Singh Chauhan, Daniel I. Onwude. Chapter 19: **Energy Analysis of the Direct/Indirect Solar Drying System**, a book entitled "Solar Drying Technology: concept design testing modeling economics and the environment" published by Springer Singapore in 2017. Series Title: Green Energy and Technology, eBook ISBN 978-981-10-3833-4, Hardcover ISBN 978-981-10-3832-7, Series ISSN 1865-3529. (2017). DOI 10.1007/978-981-10-3833-4_19.
20. Partha Pratim Dutta and **Anil Kumar**. Chapter 21: Development and Performance Study of Solar Air Heater for Solar Drying Applications. DOI 10.1007/978-981-10-3833-4_21.
21. Anand Jain, **Anil Kumar**, A. Shukla, and Atul Sharma. Chapter 23: Development of Phase Change Materials (PCMs) for Solar Drying Systems. DOI 10.1007/978-981-10-3833-4_23.
22. **Anil Kumar**, Tekasakul Perapong, Prashant Singh Chauhan. **Application of Nano Particle/Fluid in Performance Enhancement of Solar Still: A Review** In Springer Proceedings in Energy, G. Anand et al. (eds.), Nanotechnology for Energy and Water, Springer International Publishing AG, DOI 10.1007/978-3-319-63085-4_1. (2017).
23. Anshika Rani, S. Suresh, **Anil Kumar**. **A Review on Application of Integrated Solar and Bioenergy Based Technology** (Pages 33-39), Biofuels and Bioenergy (BICE2016), International Conference, Bhopal, India, 23-25 February 2016; Editors S. Suresh, Anil Kumar, Ashish Shukla, Renu Singh and C.M. Krishna. Print ISBN 978-3-319-47255-3, DOI 10.1007/978-3-319-47257-7. (2016)
24. Om Prakash, Saket Pratap, and **Anil Kumar**. Chapter 10: **Energy Security and Sustainability through Wind Energy**. *Energy Security and Sustainability* Edited by Amritanshu Shukla Atul Sharma Taylor & Francis Group, CRC Press Print ISBN: 978-1-4987-5443-9, eBook ISBN: 978-1-4987-5444-6. (2016)
25. Geetam Richhariya and **Anil Kumar**. Chapter 4: **Review on Performance Affected Parameters for Dye Sensitized Solar Cell**. *Energy Security and Sustainability* Edited by Amritanshu Shukla Atul Sharma Taylor & Francis Group, CRC Press Print ISBN: 978-1-4987-5443-9, eBook ISBN: 978-1-4987-5444-6. (2016)
26. **Anil Kumar**, Biswajit Mandal, Atul Sharma. Chapter: **Advancement in Biogas Digester**. *Energy Sustainability Through Green Energy*, edited by Atul Sharma, Sanjay Kumar Kar, 04/2015: chapter 14: pages 351-382; Springer, ISBN: 978-81-322-2336-8. (2015). DOI 10.1007/978-81-322-2337-5_14
27. **Anil Kumar**, Geetam Richhariya, Atul Sharma. Chapter: **Solar Photovoltaic Technology and Its Sustainability**. *Energy Sustainability Through Green Energy*, edited by Atul Sharma, Sanjay Kumar Kar, 04/2015: chapter 1: pages 3-25; Springer, ISBN: 978-81-322-2336-8. (2015). DOI 10.1007/978-81-322-2337-5_1

28. Atul Sharma, Jaya Srivastava, **Anil Kumar**. **A comprehensive overview of renewable energy status in India**. In “**Environmental Sustainability – Role of green technologies**”. Eds. P. Thangavel, G.Sridevi. Springer India. ISBN: 978-81-322-2055-8. Pages 91-105 (2015). DOI 10.1007/978-81-322-2056-5_5

PATENT

1. Patent entitled “**Modified Greenhouse Dryer**”, **Anil Kumar** and Om Prakash (2013), Application No.: 783/MUM/2013 A, Official Journal of the Patent Office Issue No. 36/2013 date 06/09/2013, International Classification F26B19/00. **Patent No.: 369859, Granted on 22-06-2021.**
2. Patent entitled “**A Solar Photovoltaic System**”, **Anil Kumar**, Uzma Qureshi and Mohammed Amaan. Application No.: 3350/MUM/2014A, Official Journal of the Patent Office Issue No. 45/2014 date 07/11/2014, International Classification G05F1/67.
3. **Anil Kumar**, Rajesh Kumar Tripathy, Om Prakash, Neetu Sood, Butta Singh, Barjinder, Singh Saini, Anukul Pandey, TEMP/E-1/43311/2019-KOL, Automotive Adaptive Electrocardiogram QRS Pattern Design for Data Compression.
4. Patent entitled “**An Edge Computing Based Automation System for Dental Services**”, Dr. Aupama Kaushik, Dr. Prabhjot Kaur Sidhu, Mr. Rakshit Satija, Dr. Nitul Dutta and **Dr. Anil Kumar**, Application No.: 202111024736 A, Official Journal of the Patent Office Issue No. 25/2011. Application Filing Date: 03-06-2021, Publication date 18/06/2021.

SPONSORED RESEARCH & INDUSTRIAL CONSULTANCY

<i>Projects</i>		
Project Title	Sponsor, Period	Investigators
Experimental thermal performance analysis of Earth Air Heat Exchanger for hot and dry. Amount of grant: 05.96 Lakhs (INR)	MHRD-MANIT Scheme July 2011- July 2013	Anil Kumar
Installation of Pyranometer for study on Diffuse Solar Radiation in Bhopal Climatic Conditions. Amount of grant: 07.00 Lakhs (INR)	TEQIP, MANIT-Bhopal July 2014- Feb 2015	Anil Kumar
Development of High Efficiency Ribbed Smoked Sheet Rubber Production Using Renewable Energy for Small Entrepreneurs in All Regions Amount of grant: 2,516,000 Thai Baht	National Research Project, Thailand Oct 2010- Oct2015	Anil Kumar (Student Mentor)
A Heat-Recirculating Combined-Energy- Source Banana Dryer Amount of grant: 473,000 Thai Baht	Annual Government Research Fund through University, Hat Yai, Thailand Oct 2015- Dec 2016	Anil Kumar (Team Member)
Optimization of operating parameters for rubber sheet fast drying Amount of grant: 440,000 Thai Baht	National Research University Grant, Thailand Year: March 2016- Dec 2017	PI Prof. Perapong Tekasakul, CO-PI, Dr. Anil Kumar
Development of a Stand-Alone Spray Assisted Solar Thermal Desalination System Amount of grant: 5,17,880/-	India-Iran Bilateral Scientific and Technological Cooperation, DST, Govt. of India December 2019	PI, Dr. Anil Kumar CO-PI, Dr. Samsher
Development of a Sustainable Model for Innovation Ecosystem of Uttarakhand" with the total value of Rs. 3,00,000/- (Three Lakh Only) under TEQIP III collaborative research project proposal.	TEQIP-III University Cell, Uttarakhand Technical University, Dehradun 2019	PI Dr. Himadri Phukan Co-Investigator, Dr. Anil Kumar

<i>Consultancy</i>			
Name of firm	Title of consultancy	Amount	Coordinator/Co-coordinator

M/S Laxmi Construction	Checking and approval of design and drawing of 14 MLD design of sewage treatment plant	Rs.59,000/-	Dr. Prashant Baredar Dr. Anil Kumar
M/S LC Infra Projects Pvt Ltd Dewas	Checking and approval of design and drawing of pumping machinery and rising main for sewage treatment plant and disbursement note.	Rs.90,000/-	Dr. Prashant Baredar Dr. Anil Kumar
M/S LC Infra Projects Pvt Ltd Dewas	Checking and approval of Electro Mechanical Equipment for sewage treatment plant Dewas municipal corporation, Dewas, M.P	Rs.1,18,000/-	Dr. Prashant Baredar Dr. Anil Kumar
MP Urja Vikas Nigam, Bhopal April 2011 to June 2011	Investment Grade Energy Audit of Rajgarh Collectorate	Rs.25,000/-	Anil Kumar and Others
Sriram Deo & Company, Bhopal November 2012	Testing of Thermal Efficiency of Biomass Stove	Rs.2,000/-	Dr. Prashant Baredar Dr. Anil Kumar

CONFERENCES & WORKSHOPS ORGANISED

1. **Coordinator**, One-week Short Term Training Program (Online) on "Role of Renewable Energy Sources in Indian Energy Security" organized by the Department of Mechanical & Production Engineering, Delhi Technological University, Delhi during 05.07.2021 – 10.07.2021.
2. **Convenor**, 44th (XLIV) Indian Social Science Congress, Focal Theme New Global Technological Society, "Interdisciplinary Themic Panel: Ecological and Environment Protection Movement" Organised by Indian Social Science Academy and SATI, Vidisha from March 15-19, 2021.
3. **Coordinator FDP** on "Renewable Energy Sources and Future Energy Needs" "Renewable Energy Sources and Future Energy Needs" at MITS Gwalior from Feb. 15-19, 2021.
4. **Coordinator** (Technical), International conference "IDEA (Innovative Development in Engineering Applications) 2021", February 08-10 2021 at Gaya College of Engineering, Gaya at Bodhgaya (India).
5. **Organizing Secretary**, International Conference on "Recent Advances in Mechanical Engineering" (RAME-2020) during 18th & 19th, September 2020 at Department of Mechanical Engineering, Delhi Technological University, Delhi (India).
6. **Coordinator**, National Seminar on "Bharat Stage-VI Enforcement: Challenges and Strategies for Implementation" on 28th February 2019 organized by Department of Mechanical, Production & Industrial and Automobile Engineering in Collaboration with International Centre for Automotive Technology (ICAT).
7. **Co-Coordinator**, TEQIP-III Sponsored Faculty Development Programme on "Recent Developments in Renewable Energy Systems" organized by the Department of Mechanical & Production Engineering, Delhi Technological University, Delhi during 25-29th November, 2019.
8. **Co-Coordinator**, "Global Conference on Renewable Energy" (GCRE-2015) 04-06 March, 2016 organised by National Institute of Technology Patna. NIT, Patna in collaboration with CESD-Net.
9. **Coordinator**, Bio-Fuels and Bio-Energy: An International Conference and Exhibition (BICE-2016) 23-25, February 2016 organised by Chemical Engineering Department, MANIT-Bhopal in collaboration with World Energy and Environment Technology Limited (WEENTECH), United Kingdom in M.A.N.I.T, Bhopal.
10. **Coordinator**, self-sponsored One-week STTP on Recent Trends in Solar and Wind Energy (RTSWE-2015) from 13-17- Feb 2015, Organized at Dept. of Mechanical Engineering, MANIT, Bhopal.
11. **Coordinator**, self-sponsored Two Days International Workshop on Physics of Passive House Design during 24-25th December 2014, Organized Jointly with WEENTECH. Ltd, UK and Energy Centre MANIT, Bhopal, MANIT, Bhopal.
12. **Coordinator**, self-sponsored One Week Short Term Training Programme on Energy Conversion Systems-Fundamentals and Applications during 26-30th May 2014, Organized at Energy Centre, MANIT, Bhopal.
13. **Coordinator**, one-week Short Term Training Programme on Bio-Energy Conversion Technologies during 24-28th December 2013, Organized at Dept. of Chemical Engg., MANIT, Bhopal.
14. **Coordinator**, one-week Short Term Training Programme on Recent Advances in Renewable Energy System during 21-25th October 2013, Organized at Dept. of Energy, M.A.N.I.T., Bhopal.
15. **Coordinator**, Tatkal Bhashad Pratiyogita organized for contract teachers, under Rajya Bhasha Karayavan Simiti, MANIT, Bhopal on 19th Sept. 2013.

16. **Coordinator**, one-week Short Term Training Programme on **Solar Energy and its Applications** during 24-28th June 2013, organized at Dept. of Energy and Mechanical Engineering, M.A.N.I.T., Bhopal.
17. **Coordinator** Two Days National Workshop on **Emerging Technologies for Conversion of Biomass to Bio-fuel** during 22-23 September, 2012, Dept. of Energy, M.A.N.I.T., Bhopal.
18. **Coordinator**, Poster Competition of National Science Day Celebrations 2012 on **Clean Energy Options & Nuclear Safety** organized by Dept. of Energy, MANIT, Bhopal on 26th March 2012.
19. **Coordinator**, Slogan Competition of National Science Day Celebrations 2012 on **Clean Energy Options & Nuclear Safety** organized by Dept. of Energy, MANIT, Bhopal on 26th March 2012.
20. **Coordinator**, Two Days National Seminar on **Energy, Environment and Sustainability** during 01-02 March, 2012, Dept. of Energy, M.A.N.I.T., Bhopal.

INVITED TALKS/LECTURES DELIVERED IN SHORT TERM COURSES/FACULTY DEVELOPMENT PROGRAMMES/INTERNATIONAL CONFERENCE/NATIONAL CONFERENCE

1. **Keynote Speaker** in International Conference on Futuristic Sustainable Energy & Technology, 19-20 Sept 2021 Organised by Hillytech Starter.
2. **Expert Lecture** delivered on "Solar Drying Technology and Application" in the One Week online Faculty Development Program under AICTE Training & Learning Academy (ATAL) on "Green Technology & Sustainability Engineering" from 15th to 19th March 2021, organized by School of Energy & Environment Management, Rajiv Gandhi Proudyogiki Viswavidyalaya, Bhopal, M.P. - 462033.
3. **Chief Guest:** National Level Online Workshop on "Thermal Power Plant" on **19th March, 2021** organised by PKG College of Engineering and Technology, Panipat.
4. **Expert Lecture** in One Week Online Short Term Course on "Advances in Energy Conversion Technologies and Management" from 1st to 5th March 2021, Department of Mechanical Engineering, Institute of Engineering and Technology, Bundelkhand University Jhansi
5. **Expert Lecture** delivered on "Industrial application of Solar Energy" in the One Week online Faculty Development Program under AICTE Training & Learning Academy (ATAL) on "Energy Engineering" from 08th to 12th February 2021, organized by School of Energy & Environment Management, Rajiv Gandhi Proudyogiki Viswavidyalaya, Bhopal, M.P. - 462033.
6. **Guest of Honor:** National Level Online Workshop on "Recent Trends in Mechanical Engineering & Management" held on **19th February, 2021** organised by PKG College of Engineering and Technology, Panipat.
7. **Expert Lecture** FDP on "Renewable Energy Sources and Future Energy Needs" "Renewable Energy Sources and Future Energy Needs" at MITS Gwalior from Feb. 15-19, 2021 on Feb. 16, 2021.
8. **Expert Speaker:** GUJCOST-DST sponsored Webinar "Solar Energy Application in Present Era" organized at Mechanical Engineering Department, Government Engineering College Patan on **16 October 2020**.
9. **Lecture "Application of Solar Energy in Biomass Energy Conversion Process"** in AICTE approved ATAL online FDP "Alternate Fuel" **21-25 September 2020**, organized by Dept. of Mech. Engg., Gurukul Kangri Vishwavidyalaya, Haridwar.
10. **Expert talk** in the one week Faculty Development Programme on "Solar Thermal Engineering for Sustainable Future" held from **24/08/2020 to 28/08/2020** at Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur.
11. **Invited Talk "Solar Drying Prospective"** in International Conference on Energy, Environment and Economics (ICEEE 2020) **18-19 August 2020**, Virtual Event.
12. **Expert Lecture "Industrial Applications of Advance Solar Thermal Energy Conversion Systems"** in Five days FDP on "Advancement in Thermal System and Design" organised by Department of Mechanical Engineering, Mahakal Institute of Technology, Ujjain (MP) under TEQIP - III, RGPV, Bhopal on **05 August 2020**.
13. **Expert Lecture "Solar Drying: Energy Conservation Opportunity in Drying Industries"** in Live webinar under the banner of **The Institution of Engineers (India) Bahrain Chapter** on 26 June 2020.
14. **Expert Lecture "Solar Drying: Energy Conservation Opportunity in Drying Industries"** in Five days FDP on "Energy Conservation and renewable Energy" organised by School of engineering and Technology, IGNOU, New Delhi on **11 June 2020**.
15. **Speaker**, one day awareness program on "Energy Conservation" sponsored by TEQIP-III and organized by Energy Centre, Maulana Azad National Institute of Technology, Bhopal (India).

16. **Expert Talk**, Faculty Development Programme on "Recent Developments in Renewable Energy Systems" organized by the Department of Mechanical & Production Engineering, Delhi Technological University, Delhi during 25-29th November, 2019.
17. **Expert Talk**, SPARC - MHRD sponsored International workshop "*Biomass Conversion Technology for Crop Residue Management*" during 19-28th November, 2019 organized by the Department of Renewable and Bio-Energy Engineering, College of Agricultural Engineering and Technology, CCS Haryana Agricultural University, Hisar (India).
18. **Expert Talk**, TEQIP-III Sponsored Faculty Development Programme on "Recent Developments in Renewable Energy Systems" organized by the Department of Mechanical & Production Engineering, Delhi Technological University, Delhi during 25-29th November, 2019.
19. **Keynote Speaker**, National Conference on Futuristic Trends in Mechanical Engineering, held from 22-23rd November, 2019 organised by Dept. of Mech. Engg., UIT, Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal.
20. **Expert Lecture** at Global Nature Care Sangathans Group of Institutions, Jabalpur on 27th September 2018.
21. **Expert Lecture** in One-week Training Program on "Clean & Sustainable Renewable Energy Technologies" jointly organised by Dept. of Biochemical Engg., B.T. Kumaon Institute of Technology, Dwarahat & Maulana Azad National Institute of Technology, Bhopal during July 9-13, 2018.
22. **Expert Lecture** in one week Faculty Development Programme (FDP) on subject "**Application of Green Energy Technologies for Environmental Sustainability**" under TEQIP-III organized by School of Energy and Environment Management (SoEEM), **Rajiv Gandhi Proudhyogiki Vishwavidyalaya (RGPV), Bhopal** during 3rd to 7th April 2018.
23. **Expert Talk** in a short term training programme (STTP) on "**Research Methodology, Tools and Techniques for Engineers**" (RMTTE-2018) organized by Department of Mechanical Engineering, Jabalpur Engineering College, Jabalpur during 09/04/2018 to 13/04/2018.
24. **Keynote Speaker** in "International workshop on "Challenges and issues in the development of distributed solar and wind energy systems" and "Fourth International Conference on Energy Systems and Developments 2017" organised by KJEI'S Trinity College of Engineering and Research, Pune from February 20-24, 2017, Pune, India.
25. **Keynote Speaker**, National Conference on "Advances in Renewable and Sustainable Energy-2015(ARSE-2015)" March 18-20, 2015 at Jai Narain College of Technology (JNCT), Bhopal (M.P.)
26. **Key Note Address** in 2nd International Conference on Emerging Trends in Agriculture, Horticulture and Environmental Engineering Conference, 15th to 17th November 2014, Bhopal, Madhya Pradesh, India.
27. Two days National Seminar on **Green Manufacturing** Organized by Department of Mech. Engg., IES College of Technology, Bhopal (India) during 13-14th October 2014.
28. National workshop on **Green Chemistry and Green Engineering for Sustainable Environment** Organised by Department of Chemical Engineering, Institute of Engineering & Science, IPS Academy, Indore (India) during 21-22 Aug 2014.
29. Short Term Training Program on **Power Electronics Applications in Renewable Energy Sources** (PARES 2014) Organised by Department of Electrical Engineering of Maulana Azad National Institute of Technology, Bhopal from 30th June - 4th July 2014.
30. Short Term Training Programme on **Green Chemistry and Engineering: Past, Present and Future** Organised by Department of Chemical Engineering, M.A.N.I.T., Bhopal from 30th June-4th July 2014.
31. Faculty Development Program on **Advanced Technologies adopted in Renewable Energy Sources** organized at Barkatullah University Institute of Technology (BUIIT) from June 23rd-27th, 2014.
32. Short Term Course on **Ordinary and Partial Differential Equation: Analysis and Applications** organized at Department of Mathematics & Computer Applications during 27-31 May, 2014.
33. Faculty Development Programme on **Recent Advances in Renewable Energy & its Application Including Automobile Industries** sponsored by Indian Society of Technical Education (ISTE) & Punjab Technical University (PTU) organized by Prestige Institute of Engineering & Science, Indore from 5th -9th May, 2014.
34. Short Term Course on **Recent Trends in Solar and Wind Energy** organised by Dept. of Mech. Engg., at Maulana Azad National Institute of Technology (MANIT), Bhopal, during 07-11 Feb, 2014.
35. Short Term Training Programme on **Emerging Trends in Electric Power and Energy Systems (ETEPES-2014)** organised by Department of Electrical Engineering of Maulana Azad National Institute of Technology, Bhopal from 1-5 Jan'14.
36. Short Term Course on **Advances in Heat and Mass Transfer** organised by Dept. of Mech. & Chemical Engg., at Maulana Azad National Institute of Technology (MANIT), Bhopal, during 03-07 June, 2013.

37. **Guest Speaker** in International Conference on Emerging Trends in Science & Technology organised by AISECT University, Bhopal, 14-15th Feb 2014.
38. **Expert Lecturer** in National Science Day Celebration on **Solar Photovoltaic -Thermal Applications** organised by Regional Science Centre, Bhopal, 12th March 2014.
39. **Expert Lecturer**, Sagar Institute of Science & Technology (SISTec), Bhopal on 21th Sept. 2013
40. **Series of Expert Lecturer**, Vindhya Institute of Technology & Science, Indore during 27-29th Dec 2012.
41. **Expert Lecturer**, Vindhya Institute of Technology & Science, Indore on 07th Jan 2012.
42. **Expert Lecturer**, Sagar Institute of Research & Technology, Bhopal on 28th March 2012
43. **Expert Lecturer**, Sagar Institute of Science & Technology (SISTec), Bhopal on 17th March 2012.

ATTENDED SHORT TERM COURSES / QIP PROGRAMMES / FDP PROGRAMMES

1. **Participate** in the 4th International Conference/Training workshop on "Energy for Sustainable Development in Africa organized by National Centre for Energy Research and Development, University of Nigeria, Nsukka in collaboration with German International Cooperation (GIZ) during **11-13 November, 2020**.
2. **Participate** in one week online Faculty Development Program on "Nascent Methodologies, Challenges and Realms of Research" held from **03 to 07 October, 2020** organized by Department of Electronics and Communication Engineering, Delhi Technological University, Delhi, India.
3. **Participated** in one week online short term course on "Energy Management for Economic Prosperity and Ecological Stability" under QIP sponsored by AICTE, New Delhi and organized by Department of Mechanical Engineering, Sant Longowal Institute of Engineering & Technology, Longowal, Sangrur-148106, Punjab during **September 21-26, 2020**
4. **Participate** in One Day Webinar on "Gender Equality and Women's Rights" Organized by National Institute of Technology, Kurukshetra on **16 July 2020** under TEQIP-III.
5. **Participate** in one week online Faculty Development Program on "Advance Research Methodology and Innovative Teaching Pedagogy" from **08 to 13 June, 2020** organized by Tulsiramji Gaikwad-Patil College of Engineering and Technology, Nagpur in association with IEI and ISTE.
6. **Participated** in webinar series started during COVID-19 pandemic "Making Education Relevant" organised by International Chamber for Services Industry on **5th June 2020**.
7. **Participated** in Webinar on "Cyber Security Post COVID-19: The new normal and way ahead" organised by Shriram Institute of Information Technology, Banmore on **May 22, 2020**.
8. **Participated** in Five Days Online Short-Term Training Program on "Bio-Energy: Technologies & Transitions" Jointly Organized by National Institute of Technology, Kurukshetra and Government Engineering College, Bikaner from **18 - 22 May, 2020** under TEQIP-III: Mentoring/Twinning System
9. **Participate** in one week online Faculty Development Program on "New Challenges & Issue of Indian Electricity Market for Upcoming Decade-2030" from **11 to 15 May, 2020** organized by Department of Electrical Engineering, Sandip Institute of Technology & Research Centre, Nashik In collaboration with MSEDCL'S Institute of Training & Safety, Eklahare, Nashik.
10. Participated in Three day TEQIP III sponsored Workshop on "**Photovoltaic Technology: From Devices Towards Systems**" Organized by the Discipline of Electrical Engineering, Indian Institute of Technology Indore during **16th-18th December, 2019**.
11. Participated in TEQIP _III Sponsored Two days Workshop on "**Recent Trends in Welding Technology**", organized by Department of Mechanical Engineering, Delhi Technological University, Delhi during **22-23 August 2019**.
12. Participated in One week faculty Development Programme on "**Advance Pedagogy, IPR Sponsored Research and Entrepreneurship**" for Delhi Technological University, Delhi during 16-23 July 2019.
13. Participated in short term training programme on "**NBA Workshop under TEQIP -III**" conducted by National Institute of Technical Teachers Training and Research, Bhopal at Maulana Azad National Institute of Technology, Bhopal during 03-07 December 2018.
14. Participated in **MHRD-GIAN** Course "**Technical Challenges and Solutions for Holistic Development of Communities**" under the Aegis of Continuing Education Programme at Centre for Rural Development and Technology, IIT Delhi during 14-19 September 2018.
15. Participate in National Seminar on "**Climate Change**" organised by State Knowledge Management Centre on Climate Change, EPCO, Department of Environment, Government of Madhya Pradesh during 22-24 March 2018.

16. Participate in One day workshop on "ECBC Energy Efficient Future for Buildings" organised by Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal in association M.P. Urja Vikas Nigam Limited, Govt. of MP on February 28th, 2018.
17. Participated in (i) **The 4th Prince of Songkla University-Kanazawa University Joint Workshop**, (ii) **The 3rd Workshop on East Asia Nanoparticle Monitoring Network** (iii) **The 3rd Workshop on Environmental Issue Related to Agriculture and Agro-Industries in South East Asia** from 8-9 December 2015 at Prince of Songkla University, Hat Yai-Thailand.
18. Participated in Training Programme on "Energy Conservation and Management in Industries", organised by PHD Chambers of Commerce and Industry of India and Konard-Agenauer -Stiftung on 31 March 2015.
19. Participated in Short Term Course on **Mathematical Modeling, MATLAB Programming and their Applications in Engineering and Sciences**, organised by Department of Mathematics of Malaviya National Institute of technology Jaipur, during 19-23 January, 2015 **(One week)**.
20. Participated in International Workshop on **Design of sub-systems for Concentrated Solar Power (CSP) Technologies**. Organised by Center for Solar Energy Technologies (CSET), Indian Institute of Technology Jodhpur during 19-22 December, 2013.
21. Participated in National Seminar on **Recent Trends in Alternative Automotive Fuels**, organised by Dept. of Mech. Engg. UIT, RGPV, Bhopal during 04-05 October, 2013.
22. Participated in Workshop on **Academic Workshop on Design and Management of Change** 24th August, 2013, organised by Maulana Azad National Institute of Technology (MANIT), Bhopal.
23. Participated in Short Term Course on **Advances in Heat and Mass Transfer** organised by Dept. of Mech. & Chemical Engg, at Maulana Azad National Institute of Technology (MANIT), Bhopal, during 03-07 JUNE, 2013. **(One week)**.
24. Participated in Conference on "Renewable Energy in Madhya Pradesh-Investment Opportunities in Solar, Wind & Biomass Energy", organised by The Associated Chambers of Commerce and Industry of India (ASSOCHAM), at Noor Us-Sabah Place, Bhopal held on 09 May, 2013.
25. Participated in National Workshop on "Advanced Tools for Material Characterizations (ATMC-2013)", organized by Department of Chemical Engineering with Department of MSME, at Maulana Azad National Institute of Technology (MANIT), Bhopal, during 01-05 April, 2013.
26. Participated in Short Term Course on **Small Hydropower Development**, organised by AHEC, IIT Roorkee, during Feb 18-22, 2013. **(One week)**.
27. Participated in Short Term Course on **Simulation and Modeling by using MATLAB**, organised by Dept. of Mech. Engg., National Institute of Teachers Training and Research, Chandigarh, during January 14-18, 2013. **(One week)**.
28. Participated in Short Term Course on **MATLAB**, organised by Dept. of Electrical Engg., M.A.N.I.T., Bhopal and sponsored by TEQIP – II, during January 07-11, 2013. **(One week)**.
29. Participated in Short term course on *Applications of Solar Energy and Photovoltaics* under Quality Improvement Program organised by Centre for Energy Studies, Indian Institute of Technology Delhi, New Delhi (INDIA) during December 12-18, 2012. **(One week)**.
30. Participated in Seminar on *Clean Energy Options & Nuclear Safety* organized by Dept. of Energy, MANIT, Bhopal on 27th March 2012. **(One day)**.
31. Participated in workshop on **Green Technologies towards Low Carbon Society** organized by Dept. of Energy, MANIT, Bhopal on 30th March 2011. **(One day)**.
32. Participated in workshop on **Regulatory and Policy Framework for Market Development for Renewable Energy** organized by World Institute of Sustainable Energy, at Bhopal during 16- 17 September, 2010. **(Two days)**
33. Participate in workshop on *Computer Modeling and Simulation* on 12th April 2010, Dept. of Mechanical Engg., Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal. **(One day)**.
34. Participate in Short Term Course on *Alternative Sources of Energy'* under Quality Improvement Programme, during February 04-10, 2010 at Centre for Energy Studies, IIT Delhi. **(One weeks)**
35. Participate in a **One Week Faculty Development Programme on Mission 10x Learning Approach organised by Finish School**, RGPV, Bhopal from 22-26 Sept 2009 at. **(One weeks)**
36. Participate in short term course on *Alternative Sources of Energy'* under faculty development programme, during July 10-25, 2008 at Centre for Energy Studies, IIT Delhi. **(Two weeks)**.
37. Participated in workshop on *Developments in Biomass Derived Fuels and Other Renewable Energy Sources and Enhanced Energy Efficiencies in Power Generation and in Other Fuels* during June 12-13, 2008, IIT Delhi. **(Two days)**.
38. Participated in workshop on *Recent Advances in Nanotechnology* during June 2-6, 2008, school of Nanotechnology, Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal. **(One week)**.

39. Participated in Workshop on *Solid-Edge Classic 290-Software for Engineering Graphics* under Quality Improvement Program-2007 organized by Department of Industrial & Production Engineering, University Institute of Technology, Rajiv Gandhi Technological University, Bhopal (INDIA) during August 31- September 1, 2007. **(Two days)**.
40. Participated in Short Term Course on *Environmental-Hazards* under Quality Improvement Program-2007 organised by Department of Applied Science & Humanities, National Institute of Technology Hamirpur, Hamirpur (INDIA) during July 09-13, 2007. **(Two weeks)**.
41. Participated in the workshop on *Documentation of Scientific Heritage of Madhya Pradesh* organized by Vigyan Bharti, Madhya Pradesh and sponsored by M.P. council of Science and Technology held at MPCST at Vigyan Bhawan, Bhopal-MP (INDIA) during December 2-3, 2006. **(Two days)**
42. Participated in *INDEST* workshop during December 1-2, 2005, Indest Consortium, IIT Delhi. **(Two days)**.
43. Prearranged and participated in Summer Training Course on *Concept of Renewable Energy Sources* under Quality Improvement Program-2005 organised by Centre for Energy Studies, Indian Institute of Technology Delhi, New Delhi (INDIA) during June 13-27, 2005. **(Two weeks)**
44. Participated in the workshop on *ESP performance: Role of fly ash resistivity* organized by IIT Delhi and NTPC in collaboration with USAID at Indian international Centre, New Delhi (INDIA) during September 23-24, 2004. **(Two days)**.
45. Participated in Summer Training Course on *Non-Conventional Sources of Energy* under Quality Improvement Program-2003 organised by Centre for Energy Studies, Indian Institute of Technology Delhi, New Delhi (INDIA) during June 16-27, 2003. **(Two weeks)**.

MEMBERSHIP OF PROFESSIONAL BODIES

1. **Fellow** Membership, The Institution of Engineers (India) (**vide no. F-1268879**, date of election 24-08-2020).
2. **Chartered Engineer**, The Institution of Engineers (India) (**vide no. F-1268879**, date of election 03-09-2020).
3. **Fellow Membership**, International Scientific Research Organization for Science, Engineering and Technology (**ISROSET-FM-1092**).
4. **Life Membership**, India Society for Technical Education (**LM-51948**).
5. **Life Membership**, Solar Energy Society of India (**LM/1757/2012**).
6. **Member**, Institute of Engineers, (**vide no. M 147564-3**, date of election 30.09.13).
7. **Life Membership**, Global Earth Society for Environmental Energy and Development (**L/165/12**).
8. **Annual Membership**, World Researchers Associations (**AM/2018/0014**).

GUEST EDITOR

1. Special issue on Renewable Energy for International Journal of Energy Technology, WEENTECH, UK, 2020.
2. Special issue on Solar Drying for Solar Energy-Elsevier, 2020

MEMBER EDITORIAL BOARD

1. **Member, Editorial Board**, Maejo International Journal of Science and Technology (ISSN 1905-7873 © 2007) Thailand.
2. **Editorial Advisory Board Member**, Current Alternative Energy, **Bentham Science Publisher**, Malaysia
3. **Editor**, World Academics Journal of Engineering Sciences (ISSN: 2348-635X)
4. **Member, Editorial Board**, Journal of Computational and Applied Research in Mechanical Engineering - JCARME Journal, Print ISSN: 2228-7922 Online ISSN: 2251-6549.
5. **Consulting Editor**, International Journal of Advance Research in Science and Engineering (IJARSE) ISSN: 2319-8354.
6. **Member**, Scientific Board of Industrial & Mechanical Engineers, International Institute of Engineers.
7. **Editorial Board Members**: International Journal of Innovation in Engineering Research and Management (ISSN 2348 - 4918).
8. **Editorial Board Members**, International Journal of Frontier in Technology (IJFT), MANIT, Bhopal.
9. **Editorial Board Member**, International Journal of Innovative Research in Technology and Management (IJRTM).

REVIEWER FOR THE INTERNATIONAL JOURNAL

1. Solar Energy-Elsevier
2. Renewable Energy-Elsevier
3. Applied Thermal Engineering-Elsevier
4. Renewable and Sustainable Energy Reviews -Elsevier
5. International Journal of Ionics The Science and Technology of Ionic Motion- Springer
6. International Journal of Sustainable Energy-Tylor and Francis
7. International Journal of Green Energy-Tylor and Francis
8. International Journal of Pavement Research and Technology-Elsevier
9. Journal of Alternate Energy Sources & Technologies
10. Journal of Construction in Developing Countries
11. International Institute of Engineers

PH.D. GUIDED STUDENTS

S. No.	Name	Topic	Year	Supervisors
1	Trilok Singh Bisoniya (Scholar No.113213203)	Parametric Thermal Performance and Energy Analysis of Earth-Air Heat Exchanger	2014	Dr. Anil Kumar Dr. Prashant Baredar
2	Uzma Qureshi (Scholar No.113213202)	Experimental Investigation and Soft Computing Modelling of Hybrid PVT Solar Collector	2015	Dr. Prashant Baredar Dr. Anil Kumar
3	Vipin Shrivastava (Scholar No.113213204)	Drying Kinetics and Heat Transfer Analysis of Fenugreek Using Modified Indirect Solar Dryer	2015	Dr. Anil Kumar Dr. Prashant Baredar
4	Om Prakash (Scholar No. 123113202)	Design and Performance Analysis of Modified Greenhouse Dryer	2015	Dr. Anil Kumar
5	Prashant Singh Chauhan (Scholar No. 133118001)	Thermal Modeling of North Wall Insulated Greenhouse Dryer	2017	Dr. Anil Kumar
6	Geetam Richhariya (Scholar No. 143218004)	Fabrication and characterization of dye sensitized solar cell using natural and synthetic organic dyes	2019	Dr. Anil Kumar
7	Anshika Rani (Scholar No. 143117001)	Experimental & Computational Investigation of Hybrid Single Slope Solar Stills	2020	Dr. S. Suresh Dr. Anil Kumar
8	Pranshu Shrivastava (ID: 6010130048) PSU, Thailand	Bio-Oil Production from Lignocellulosic Biomass using Moving Bed Pyrolysis Reactor	2020	Dr. Arkom Palamanit Dr. Perapong Tekasakul Dr. Anil Kumar
9	Anand Jain (Scholar No- 133218001)	Numerical Characterization and Energy Analysis of Solar Drying Systems	2021	Dr. Anil Kumar Dr. Atul Sharma

M.Tech. (Master Degree) GUIDED STUDENTS

S. No.	Name of Student	Thesis Title	Year	Supervisors
1.	Kavita Bagri (092113206)	Effect of Design and Climatic Parameters on Performance of Domestic Type Single Slope Solar Still	2011	Dr. Anil Kumar
2.	Prashant Singh Chauhan (092113208)	Drying Behaviour of Tomato slice and Chillies under Open Sun Greenhouse Condition	2011	Dr. Anil Kumar Dr. Prashant Baredar

3.	Rajesh Mandapati (102113204)	Performance Assessment of Photovoltaic Thermal (PV/T) System Under Different Cooling Modes	2012	Dr. Anil Kumar Dr. Prashant Baredar
4.	Rajeev Ranjan Kumar (102113212)	Design and Performance Testing of Integrated Vertical Axis Turbine	2012	Dr. Prashant Baredar Dr. Anil Kumar
5.	Rahul Mishra (102113215)	Design, Fabrication and Performance Analysis of Hydraulic Operated Sun Tracking System	2012	Dr. Anil Kumar
6.	Arvind Kumar Gupta (102113216)	Drying Behaviour of Chilli and Tomato Slices in Indirect Solar Dryer	2012	Dr. Anil Kumar
7.	Ashutosh (112113211)	Prediction of Greenhouse Dryer Temperature and Coefficient of Diffusivity under NO LOAD condition	2013	Dr. Anil Kumar
8.	Nitin Kumar (122118106)	Power productivity Enhancement Using Performance Analysis of Biomass Gasifier	2014	Dr. Prashant Baredar
9.	Devendra Singh (122118108)	Thermo-Enviroano Analysis of Double Pass Solar Air Heater	2014	Dr. Anil Kumar
10.	Tanisha Gaur (122118118)	Simulation and Modelling of Double Pass Solar Air Collector with Storage Effect	2014	Dr. Anil Kumar
11.	Biswajit Mandal (122118209)	Experimental Study on Biogas Production in Prefabricated FRP Floating Drum Digester	2014	Dr. Prashant Baredar Dr. Anil Kumar
12.	Pankaj Patware (122118221)	Thermal Performance Analysis of Low Cost Solar Cooking Systems	2014	Dr. Anil Kumar
13.	Surendra Kumar (132118115)	Modelling and Simulation of Biomass Gasifier Connected to Synchronous Generator	2015	Dr. Prashant Baredar Dr. Anil Kumar
14.	Anushka Pradhan (132118116)	Design and Analysis of STHE for Waste Heat Recovery from 5kW Gasifier System	2015	Dr. Prashant Baredar Dr. Anil Kumar
15.	Mohit Kumar Junotja (132118121)	Micro level Study of Silicon Solar PV Industrial Process and Embodied Energy Analysis	2015	Dr. Anil Kumar Dr. Sanjay Tyagi
16.	Sanjeev Kumar Bhukesh (132118203)	Design, Development and Experimental Study of Concentrated Solar Thermo-Electric Generator	2015	Dr. Anil Kumar
17.	Mratyunjay Singh (132118219)	Modelling and Simulation of Solar Thermo Electric Generator	2015	Dr. Anil Kumar
18.	Sanjay Nirapure (132118220)	Performance Prediction and Efficiency Improvement of Downdraft Gasifier.	2015	Dr. Prashant Baredar Dr. Anil Kumar
19.	Mukul Sharma (162118205)	Modeling, Simulation and Energy Analysis of Domestic Multi-Self Solar Dryer	2018	Dr. Anil Kumar
20.	Rahul Yadav (162118207)	Performance Analysis of CSP based Single Slope Solar Still	2018	Dr. Anil Kumar
21.	Ashay Mhaeo Gaikwad (162118214)	Design and Techno-Economic Analysis of Floating Solar PV System	2018	Dr. Anil Kumar
22.	Ravi Kant (162118218)	Performance Evaluation of Hybrid Single Slope Active and Passive Solar Still	2018	Dr. Anil Kumar
23.	Lothugedda Hemagiri (162118223)	Experimental Study on End Losses Characteristics in Parabolic Trough Collector	2018	Dr. Anil Kumar
24.	Surabhi Shrivastava (Enrollment No.	Environomical Analysis of Single Slope Solar Still Coupled With	2018	Dr. Savita Vyas Dr. Anil Kumar

	0003EN16MT17), RGPV Bhopal	Parabolic Trough Collector		
25.	Arun Kr. Dwevedi (172118103)	Design and Development of Carbonizer to produce Bio-char from Crop Residue	2019	Dr. Anil Kumar Ms. Kavita Gidwani Suneja
26.	Saransh Gupta (172118105)	Design, fabrication and Thermal Analysis of Photovoltaic Compound Parabolic Concentrator (PVT-CPC)	2019	Dr. Anil Kumar
27.	Himanshu Pachori (172118110)	Experimental Analysis of Double Pass Solar Air Heater with Sensible Storage at Different Modes	2019	Dr. Anil Kumar Ms. Kavita Gidwani Suneja
28.	Uday Raj Singh (172118111)	Experimental Investigation of Heat Loss, Energy and Exergy Analysis of a Domestic Solar Parabolic Dish Cooker	2019	Dr. Anil Kumar
29.	Jitendra Kumar Patel (172118206)	Performance Analysis of Indirect Solar Drying System Operating under Active and Passive Mode	2019	Dr. Anil Kumar Ms. Meena Agrawal
30.	Falgun Keyoor Raval (172118208)	Experimental Investigation and Comparison of various PCM based Thermal Energy Storage System for Solar Applications	2019	Dr. Anil Kumar Er. Vinay Kumar
31.	Abhishek Kr. Anand (172118214)	Performance Analysis of Sensible Heat Storage based Hybrid Solar Dryer	2019	Dr. Anil Kumar
32.	Rajat Kumar Mishra	Performance evaluation of solar flat plate collector filled with different gases	2019	Dr. Amit Pal Dr. Anil Kumar
33.	Rahul Ratan 2K17/THE/11)	Thermal Performance and Simulation Analysis of Solar Power Chimney	2019	Prof. Samsher Dr. Anil Kumar
34.	Sudhanshu Dutta (2K17/THE/16)	Energy-Exergy Analysis of Solar Chimney Drying System	2019	Prof. Samsher Dr. Anil Kumar
35.	Rohit Kumar (2K17/THE/23)	Numerical Simulation of Single and Double Slope Solar Still for Different Variables	2020	Dr. Anil Kumar

COUNTRY VISITED

Academic visit to United Kingdom and Thailand, and Personal visit to Malaysia

LANGUAGE KNOWN

Hindi, English, Basic Thai and Basic Japanese

ADMINISTRATIVE EXPERIENCE / POSTS HELD

Post Held	Tenure	Responsibilities
Coordinator, M.Tech. admission, DTU Delhi	2020-2021	Screening of application form and conducting counseling for admission
Committee Member: Criterion VII: Institutional Values and Best Practice, Annual Quality Assurance Report (AQAR) of NACC for academic year 2018-19 and 2019-20	May 2021	Coordinate all activities of Criterion VII
Member Secretary, Automobile Engineering Recruitment Screening Committee	March 2021	Coordinate all activities Screening Committee
Associate Head, Dept. of Mechanical, Industrial & Production and Automobile Engineering	Jan-April 2021	Coordinate all departmental activities
Class Coordinator, B.Tech. (Evening) 3 rd Year	August-Dec 2020	Career development and professional guidance

Practical Exam Superintendent , Mech. Engg. Dept., DTU-Delhi	Aug-Dec 2019 Jan-May 2020	Coordinate and conduct smooth practical examination
In-charge, Green Energy Laboratory , Mech. Engg. Dept, DTU-Delhi	Since August 2019	To conduct research and practical classes in curriculum
Faculty Advisor , <i>Society for Automotive Engineers (SAE)</i> , DTU Delhi	Since August 2019	Coordinate all activities of SAE events
<i>Member</i> , Departmental Committee for Strategic Plan 2019-2010, DTU Delhi	July 2019	Compilation of desired information
<i>Member</i> , Departmental NBA Committee, DTU Delhi	2019	Documentation work
<i>Dy. Coordinator</i> , M.Tech. admission, DTU Delhi	2019-2020	Screening of application form and conducting counseling for admission
<i>Chairman</i> , Time Table Committee, Dept. of Mech. Engg., DTU, Delhi	Aug-Dec 2019 May-June 2020	Subject Allotment and Prepare Time Table
<i>Representative and Observer</i> , National Testing Agency, Govt. of India	2019	To conduct NEET and UGC-NET Exam
<i>Member</i> , Department Level Anti Ragging Squad, DTU Delhi	2019-20	To avoid ragging in DTU campus
<i>Member</i> , Departmental Purchase Committee, DTU Delhi	2019-2020, 2020-2021	Purchase related work
<i>Member</i> , Screening Committee, Non-Teaching Recruitment (Order No. F.DTU/Rectt./Non-Teaching/2018/L02/3/5/2019 dated 03-05-2019)	2019	Screening of Application Form
<i>Member</i> , Delhi Assembly Research Centre programme (DARC 2019), DTU Delhi	Feb 2019	Evaluation work
Convener (RE), DPPC Committee , Energy Centre, MANIT Bhopal	Aug 2018 to Dec 2018	Coordinate all academic activities of M.Tech. (RE)
Prof. I/c Departmental web site , Energy Centre, MANIT, Bhopal	April 2018 to Dec 2018	All activities of improvements of departmental web page on institute website
Departmental TPO Coordinator , TPO Cell, M.A.N.I.T., Bhopal	April 2017 to Dec 2018 Sept. 2010 to June 2015	All activities of TPO cell
Co-Coordinator, Dept. Research Progress Committee, MANIT, Bhopal.	Sept. 2014 to June 2015	All activities of DRPC
Prof. I/c Industrial Visits & Educational Tours , Energy Centre, MANIT, Bhopal	Sept. 2014 to June 2015	All related activities
Prof. I/c Time Table , Energy Centre, MANIT, Bhopal	July 2014 to June 2015	All activities in Compiling Time Table
Member SC/ST Cell, MANIT, Bhopal.	July 2014 to Dec 2018	All activities of SC/ST Cell
Coordinator , Rajya Bhasha Karyanavan Simiti, MANIT, Bhopal	2013-14	All activities of Hindi cell
Coordinator, M.Tech. (RE) , Energy Centre, M.A.N.I.T., Bhopal	July 2013 to June 2015 June 2017 to Dec 2018	All activities of PG student coordination
Warden Hostel No.1, M.A.N.I.T., Bhopal	Sept. 2012 to August 2013	Administration of the Student Hostel
Member , Board of Studies, Department of Energy, M.A.N.I.T., Bhopal	July 2010 to Dec 2018	All activities of BOS
Member , Anti-Ragging Committee, M.A.N.I.T., Bhopal	July 2010 to June 2015 June 2017 to Dec 2018	To prevent ragging in Institute

<i>Question Paper setter</i> Rajiv Gandhi Poudyogiki Vishwavidyalaya, Bhopal (MP State Technological University, Bhopal) University, Ujjain Engineering College, Ujjain, <i>Barkatullah University, Bhopal, Institution of</i> <i>Engineers (India), Peoples University, Bhopal</i>	Aug 2005 to June 2015	Setting question papers and question bank
In-charge, Solar Energy Lab, Energy Centre, M.A.N.I.T., Bhopal	May 2010 to June 2015 June 2017 to Dec 2018	All activities of Solar Energy Laboratory
Exam Coordinator, Dept. of Energy, M.A.N.I.T., Bhopal	August 2010 to October 2012	All activities of examination in energy centre
Member, Board of Studies, Department of Mech. Engg., U.I.T., RGPV, Bhopal	July 2005 to July 2010	All activities of Board
Deputy Organiser, Central Valuation, Examination Centre, RGPV, Bhopal	June 2007 to July 2008	All activities of Examination Centre
Coordinator, Electronic Checking System & Control valuation, R.G.P.V., Bhopal	July 2008 to May 2010	All activities of Examination valuation Centre

SPORTS INTEREST AND ACHIEVEMENTS

1. Participated in "**Marathon**" in the Sport Fiesta, Prince of Songkla University, Hat Yai, Thailand from September 30 April – 14 May 2016.
2. "**Silver Medal Winner**" of **Marathon** competition in Sport Fiesta, Prince of Songkla University, Hat Yai, Thailand from 13-21 May 2017.
3. "**Bronze Medal Winner**" of **Swimming Competition** in Sport Fiesta, Prince of Songkla University, Hat Yai, Thailand from 13-21 May 2017.

OTHER INFORMATION

1. **Subject Expert**, recruitment panel in several PSU's, Govt. of India.
2. **Member**, Spot inspection Committee, UGC, MHRD, Govt. of India
3. **Co-Chair** the session on '*Sustainable energy and energy storage*,' **SCO - First Young Scientists Conclave (YSC)** during 24th–28th November 2020, Organised by Department of Science and Technology under the aegis of Ministry of Science and Technology along with the Ministry of External Affairs, Government of India.
4. **Reviewer** of Innovative ideas/innovation received under the **INSPIRE Awards-MANAK**, National Innovation Foundation-India, 2020.
5. **Expert:** Third Progress Review of **Collaborative Research Scheme** at AICTE on 24th November 2020
6. **Member Advisory Committee**, *International Round Table on "PV and CSP for Cost-Effective Solar Power"* at RGPV, Bhopal, India on 28th March 2018 under TEQIP-III programme organised by RGPV (Rajiv Gandhi Technical University in Madhya Pradesh) and Tokyo Institute of technology, Japan.
7. **Ph.D. Thesis Examiner** in Anna University, Jamia Millia Islamia, Chennai, Gujarat Technological University, DAVV-Indore, RGPV-Bhopal, CHARUSAT University and K.N.Modi University, Newai.
8. Successfully completed **Thai Language Course** organised by PSU International Affair Office, Prince of Songkla University, Hat Yai, Thailand from September 8-November 3, 2016.
9. Have done **Basic-1 Japanese language** course from 30.06.1998 to 19.11.1998 from FAAAI in cooperation of Association for overseas Technical Scholarship (AOTS) New Delhi.

Date & Place: 02/10/2021 & DTU, Delhi (India)

(Dr. Anil Kumar)