Dr. Anil Kumar, FIE, C.Eng.



Mechanical Engineering

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Qualifications

B. Tech. (Mech.Engg), M.Tech.(Energy Tech.) Ph.D. (IIT Delhi), Post Doc (PSU Thailand)

Areas of Interest

Energy Technology, Renewable Energy, Solar Energy Applications, Heat Transfer, Natural Rubber Sheet Drying, Techno-Economics of Energy Systems, Natural Resources Managements and Environmental Issues

h-Index 35; i10-Index: 81; Total Citation 4200+

https://scholar.google.com/citations?authuser=1&user=XKaRa44AAAAJ

https://www.scopus.com/authid/detail.uri?authorId=57202725615

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https://publons.com/researcher/2922776/anil-kumarO-1538-2019

http://www.researcherid.com/rid/A-9932-2017

Homepage URL:

http://dtu.ac.in/modules/facilities/people/faculty/page.php

http://www.ga.eng.psu.ac.th/index.php/introduce-menu/158-new-emp-mar-to-

<u>june-2015</u>

DR. ANIL KUMAR is Associate Professor in Department of Mechanical Engineering, with an additional charge of Additional Coordinator-Centre for Energy and Environment, Delhi Technological University, Delhi, India. He has completed his Ph.D. in Solar Energy from Centre for Energy Studies, Indian Institute of Technology Delhi, India in the year 2007. He was Post-Doctoral Researcher at Energy Technology Research Center, Department of Mechanical Engineering, Faculty of Engineering, Prince of Songkla University, Hat Yai, Songkhla, Thailand in the discipline of Energy Technology from June 2015 to May 2017. He has also

served as assistant professor at Energy Centre, Maulana Azad National Institute of Technology Bhopal, India from 2010 to 2018, and Assistant Professor-7000/-AGP in Department of Mechanical Engineering, University Institute of Technology, Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal, India from 2005 to 2010. His nature of experience is Teaching and Research (Science, Technology, Society, and Sustainable Development). His areas of specializations are; Energy Technology, Renewable Energy, Solar Energy Applications, Energy Economics, Heat Transfer, Natural Rubber Sheet Drying, and Environmental Issues. He has completed many research funded projects in these areas. He has more than 15 years of experience in the field of energy technology. He has published 144 papers in international peer-reviewed journals and 75 papers in the International/National conferences proceeding. His paper is being cited in all the reputed relevant journals. He has received more than 4450+ citations with 35h-index (Google Scholar) and 2600+ citations with 28 h-index (SCOPUS). He has developed a thin-layer drying model with his student in 2014. It is known as the "Prakash and Kumar model." This model is being used and cited by so many researchers around the globe. He is an author of 11 books (4 National and 7 International editions). Recent, Book title "Energy Management: Conservation and Audit" [(DOI: https://doi.org/10.1201/9780429325458, eBook ISBN9780429325458)] and "Solar Drying Systems" [https://doi.org/10.1201/9780429299353, eBook ISBN9780429299353] are published by CRC, Taylor and Francis. He is Fellow and Chartered Engineer of The Institution of Engineers (India) (vide no. F-1268879, date of election 24-08-2020). Appears at most cited number Information Systems (IS) researchers featured in the World Ranking of "Top 2% scientists created by Stanford University (2020)". He also appeared in AD Scientific Index 2021: World Scientist and University Rankings 2021 (https://www.adscientificindex.com/?university=Delhi%20Technological %20University&fbclid=IwAR3KkgM389DHcYomQl FuIb3fbgORX03e6eZCKtTknp-wWRy7PDsqQ4EGM)

01 granted patent and 03 published patents in his credit. He has supervised 9 Ph.D. scholars, 37 master students. Dr. Kumar has visited countries, namely UK, Thailand, and Malaysia.

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 VDGOOD Professional Association.

- "Distinguished Scientist Award 2021" in the International Scientist Awards on Engineering, Science and Medicine from VDGOOD 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 Proudyogiki 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 (GPERI), 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 2018.
- 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

SPONSORED RESEARCH PROJECT

- 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 PI 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 PI 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 IndiaAugust 2018 PI, Dr. Anil Kumar and 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

PUBLICATIONS-International Journal:

- Chandrakant R. Sonawane, Kuldeep Tolia, Anand Pandey, Atul Kulkarni, Hitesh Punchal, 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. https://doi.org/10.1080/00986445.2021.1974413
- 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 (Accepted)
- 3. 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 SCI Impact Factor 5.8. https://doi.org/10.1016/j.ijhydene.2021.08.036
- 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 Journal. SCI Impact Factor 2.49 (Accepted)
- 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

- 6. 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 DOI: 10.1007/s11356-021-15602-x
- 7. 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
- 8. 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
- 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
- 10.Mahesh Kumar, Ravinder Kumar Sahdev, Sumit Tiwari, Himanshu Manchanda, Anil Kumar. Enviro-Economical 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
- 11.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
- 12.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
- 13.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

- 14.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
- 15.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.
- 16.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
- 17.Akshansh Aggarwal, Naman Goyal, Anil Kumar. Thermal characteristics of sensible heat storage materials applicable for concentrated solar power systems.

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 Proceedings. https://doi.org/10.1016/j.matpr.2021.04.174
- 18.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
- 19.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
- 20.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: 0.894 https://doi.org/10.1080/15567036.2021.1916132.
- 21.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 https://ssrn.com/abstract=3808546 or http://dx.doi.org/10.2139/ssrn.3808546 SCOPUS
- 22.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
- 23.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

- 24.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.
- 25.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
- 26.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. https://doi.org/10.1016/j.optmat.2020.110658
- 27.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 SCOPU S
- 28.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

- 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
- 2. 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
- 3. 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.
- 4. Sanjeev Kumar Bhukesh Anil Kumar Suresh Kumar Gaware. Bismuth telluride (Bi₂Te₃) 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

- 5. 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.
- 6. 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
- 7. 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.
- 8. 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.
- 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.
- 10.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.
- 11.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.

- 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.
- 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: 3.099.
- 3. Dang Nguyen Thoai, Chakrit Tongurai, Anil Kumar, Kulchanat Prasertsit. production Review on biodiesel 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
- 4. 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)
- 5. 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
- 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.
- 7. 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
- 8. 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.

1. 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.
- 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 0.829
- 3. 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
- 4. Dang Nguyen Thoai. Chakrit Tongurai, Kulchanat Prasertsit, Anil Kumar. Predictive capability evaluation of RSM and ANN in modeling and optimization of biodiesel production from palm (Elaeisguineensis) oil. International Journal of Applied Engineering Research (IJAER).. ISSN 0973-4562, Vol. 13, Number 10 (2018) pp. 7529-7540. SCOPUS, UGC Journal No. 10451
- 5. Geetam Richhariya and Anil Kumar. Fabrication and characterization of mixed dye: Natural and Synthetic organic dye. Optical Materials-Elsevier Volume 79, May 2018, Pages 296–301. SCI Impact Factor: 2.572. https://doi.org/10.1016/j.optmat.2018.03.056
- 6. Anand Jain, Atul Sharma and Anil Kumar. Development of binary mixtures of palmitic acid, stearic acid and acetamide for heat storage in solar dryers. International Journal of Applied Engineering Research (IJAER).. ISSN 0973-4562, ISSN 0973-4562 Volume 13, Number 11 (2018) pp. 9460-9467. SCOPUS
- 7. Mukul Sharma, Anil Kumar. Promising biomass materials for biofuels in India's context. Materials Letters- Elsevier, 220 (2018) 175–177. SCI Impact Factor: 2.572. https://doi.org/10.1016/j.matlet.2018.03.034
- 8. Prashant Singh Chauhan, Anil Kumar and Chayut Nuntadusit. Thermoenvironomical and drying kinetics of bitter gourd flakes drying under north wall insulated greenhouse dryer. Solar Energy- Elsevier Volume 162 (2018) Pages 205–216, SCI Impact Factor: 4.018. https://doi.org/10.1016/j.solener.2018.01.023
- 9. Anil Kumar, Om Prakash & Akarshi Dube. A Review on Technology and Promotional Initiatives for Concentrated Solar Power in World. International Journal of Ambient Energy (2018) Vol. 39, Issue 3, pp 297–316. https://doi.org/10.1080/01430750.2017.1298058. SCOPUS

- 10.Prashant Singh Chauhan and Anil Kumar. Thermal analysis of insulated north-wall greenhouse with solar collector under passive mode. International Journal of Sustainable Energy, Taylor & Francis (2018) Vol. 37, No. 4, 325–339, https://doi.org/10.1080/14786451.2016.1261866 SCOPUS
- 11.Prashant Singh Chauhan, Anil Kumar, and Chayut Nuntadusit. Heat transfer analysis of PV integrated modified greenhouse dryer. Renewable Energy-Elsevier 121 (2018) 53-65. SCI Impact Factor: 4.357. https://doi.org/10.1016/j.renene.2018.01.017
- 12.Prashant Singh Chauhan, Anil Kumar, Chayut Nuntadusit and Jan Banout. Thermal modeling and drying kinetics of bitter gourd flakes drying in modified greenhouse dryer. Renewable Energy- Elsevier 118 (2018) 799-813. SCI Impact Factor 5.439. https://doi.org/10.1016/j.renene.2017.11.069
- 13.Prashant Singh Chauhan, Anil Kumar. Thermal modeling and drying kinetics of gooseberry drying inside north wall insulated greenhouse dryer. Applied Thermal Engineering- Elsevier, Vol. 130, 5 (2018), Pages 587-597. (SCI Impact Factor: 3.043). https://doi.org/10.1016/j.applthermaleng.2017.11.028
- 14.Ranchan Chauhan, Tej Singh, N.S. Thakur, Raj Kumar and Anil Kumar. Heat transfer augmentation in solar thermal collectors using impinging air jets: a comprehensive review. Renewable & Sustainable Energy Reviews. 82 (2018) 3179–3190. https://doi.org/10.1016/j.rser.2017.10.025
- 15. Pushpendra Singh, Vipin Shrivastava, Anil Kumar. Recent Developments in Greenhouse Solar Drying: A Review. Renewable & Sustainable Energy Reviews. 82 (2018) 3250–3262 https://doi.org/10.1016/j.rser.2017.10.020

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