Vineet V. Tyagi, M.S. (Physics), Ph.D.

RESEARCH FIELD & ACTIVITIES

Extensive multidisciplinary research in Clean Energy Technologies and Materials (Solar Thermal Energy Storage with Phase Change Materials (temperature range of 20°C - 120°C), PV/Thermal Systems and Applications, Energy & Exergy Analysis, Solar Energy based Wastewater Treatment Technology, Biomass to Energy.

ACHIEVEMENTS

- Recognition as World level Scientist–Name is listed in Energy Subject of **World Ranking of top 2% Indian Scientist** published by Scopus in 2020,2021, 2022, 2023 and 2024 and conducted by an independent team of scientists at Stanford University, USA.
- University of Malaya Postdoctoral Research Fellowship (2011) at UMPEDAC, Faculty of Engineering, **University of Malaya, 50603, Kuala Lumpur, Malaysia.** (Q. S. Rank -65)
- Research Associate (2009), Council of Scientific & Industrial Research (CSIR) at **Centre for Energy Studies, Indian Institute of Technology Delhi, New Delhi, India**.
- Research Associate (2008), Ministry of New and Renewable Energy (MNRE), Government of India, New Delhi, India.
- Senior Research Fellowship (Extended), 2008, Council of Scientific & Industrial Research (CSIR) New Delhi at Centre for Energy Studies, Indian Institute of Technology Delhi, New Delhi, India.

RESPONSIBILITIES/FELLOWSHIP

- Dean (Research & Development) from September 2022 Jan 2025, Shri Mata Vaishno Devi University, Katra, Jammu, India
- Head, School of Energy Management from August 2019 to Continue, Shri Mata Vaishno Devi University, Katra, Jammu, India
- Associate Dean (R &D) from December 2021 to September 2022, Shri Mata Vaishno Devi University, Katra, Jammu, India
- Academic Council Member, Shri Mata Vaishno Devi University, Katra, Jammu, India
- Executive Council Member, Shri Mata Vaishno Devi University, Katra, Jammu, India
- Chairman, School Research Committee, School of Energy Management, Shri Mata Vaishno Devi University, Katra, Jammu, India
- Chairman, Board of Studies, School of Energy Management, Shri Mata Vaishno Devi University, Katra, Jammu, India

RESEARCH PUBLICATION – CITATION INDICES

Total publications (Publisher–Elsevier, Springer, Taylor and Francis, Wiley)	228
Book Published	03
Book Chapters	15
Total Cumulative impact factor of published papers based on Clarivate Analytics	1120
Total Citations (Google Scholar)	22500
Total Citations (Scopus)	18500
h-index (Source: Google scholar)	63
h-index (Source: Scopus)	61
Invited Talk in International & National Conferences	23
International & National Conferences/FDP/Workshop/Seminar Organized	15
Total Project Grant Received (As PI/Co-PI)	06

RESEARCH/ACADEMIC EXPERIENCE

25th October 2024 to Till Date	**Associate Professor** School of Physics Shri Mata Vaishno Devi University, (State University), (J&K), India
23rd March 2015 to 24th October 2024	**Assistant Professor** School of Energy Management Shri Mata Vaishno Devi University, (State University), (J&K), India
30th October 2014 to 21st March 2015	Research Scientist DST-Centre for Policy Research, B. B. A. University, Lucknow, U.P, India
22nd August 2012 to 30th October 2014	Associate Professor, Department of Physics, ManavRachna University, Faridabad,121001, Haryana, India
1st August 2011 to 31st July 2012	Post Doctoral Research Fellow, University of Malaya Power Energy Dedicated Advance Centre (UMPEDAC), Faculty of Engineering, University of Malaya, 50603, Kuala Lumpur, Malaysia
20th March 2009 to 31st July 2011	Research Associate (CSIR), Centre for Energy Studies, IIT Delhi, New Delhi, India
3rd April 2008 to 19th March 2009	Research Associate, Solar Energy Center, Ministry of Newand Renewable Energy, Government of India,New Delhi, India
1st June, 2007 to 30th November 2007	Visiting Researcher, Department of Mechanical Engineering, Kun Shan University, Tainan, 71003, Taiwan

EDUCATION

Ph. D.

Devi Ahilya University, Indore India, Title of Thesis "Studies on the Solar Thermal Energy Storage System Having Phase Change Material for Space Heating and Cooling" in **November 2007**.

M.Sc. Physics (2001), with First Division, M.J.P. Rohilkhand University, Bareilly (UP) India

B.Sc. Physics, Chemistry, Mathematics (1998) with First Division, M.J.P. Rohilkhand University, Bareilly, (UP) India.

RESEARCH & TEACHING EXPERIENCE

Post Ph.D. Teaching and Research Experience – 16 Years

SUBJECT TAUGHT AT M. S./M. Tech. and Ph. D. Students

- Thermodynamics,
- Solar PV System & Design,
- Solar Energy,
- Thermal Energy Storage & Applications,
- Non-conventional Energy Sources
- Renewable Energy,
- Energy Storage Systems and Applications,
- Biomass and Bioenergy,
- Energy Auditing

STUDENT SUPERVISION (Ph.D. & M.Tech.)

Degree	**Completed**	**Ongoing**
Ph. D.	06	01
M. Tech.	32	----

Ph.D. Thesis Supervised/Awarded

Name of Student	**Title of Thesis**
Arya Pandey (*Awarded)*	Studies on the thermal energy storage based photobioreactor for algal biomass production and its use for different biofuel production.
Aditya Chauhan (*Awarded)*	Thermal Modelling and Experimental Validation of PV/Thermal System for Different Applications.
Kapil Chopra (*Awarded)*	Thermal performance study of heat pipe solar collector system with TES for Air/water heating application.
Atin K. Pathak (*Awarded)*	Solar Energy Utilization for Wastewater Treatment and Its Application for Bioenergy Generation
Har Mohan Singh (*Awarded)*	Studies on the Solar Energy based photo-bioreactor system to harvest Algal Biomass with the use of Bioflocculants
Sudhir K. Pathak (Awarded)	Studies on the ETC solar collector system with TES for water heating application
Mriduta Sharma	On going

Master of Technology (M. Tech.) in Energy Thesis Supervised

S. No.	Name of Student	Title of Thesis
1.	Nural A. A. Rahim	Design and performance study of PV-thermal collector with solar energy and indoor environment
2.	Har Mohan Singh	A case study of clean development mechanism and its effects on renewable energy projects and green house gas emission in India
3.	Amit Kumar Gautum	Assessment of cdm potential of solar energy sector in India
4.	Anurag Chandra Shekhar	Designing of solar water heating system of 30 litter capacity with three side reflectors for efficiency water heating
5.	Manish Kumar	Designing of a 30 litre capacity solar water heater with 3 sides reflecting mirrors and its comparative performance study with evacuated tube collectors
6.	Aditya Chauhan	Thermodynamic study of power recovery from liquefied air using solar thermal energy, students
7.	HarmeetKour	Performance evaluation of a typical solar photovoltaic power plant students
8.	KapishMattoo	Thermal and electrical utility audit for a typical industrial set up
9.	Navneet	Design and economical analysis of grid connected solar photovoltaic system in J&K
10.	AnuradhaKhajuria	Energy auditing in Vaishno college of engineering
11.	ShaivyaManhas	Design and fabrication of double basin single slope etc based desalination system with and without reflectors
12.	Anam Mukhtar	Experimental performance evaluation of l-shaped fin roughness geometry for flat plate solar air heater
13.	Afshan Rashid	Experimental performance evaluation of parabolic dish collector for efficient solar desalination
14.	JasleenKour	Energy analysis of solar air heater with different surfaces shapes
15.	Sharan Gupta	Performance evaluation of SPV modules using passive cooling techniques
16.	Umar Maqbool	Optimization of the renewable energy based micro-grid for rural electrification in J&K region
17.	AaquibFirdous	Optimal allocation and environment assessment of distributed energy resource in distribution systems with varying load and generation
18.	MunibMunir	Optimization of design and performance assessment of on-ground solar PV plant
19.	IshaniKohli	Study of the effect of different electrolytic concentration, voltage and temperature on hydrogen production rate
20.	ShubamPangotra	Effect of temperature on the resistance of a solar cell
21.	HamezUlHaq	Techno-Economic analysis of Grid-Tied solar photovoltaic systems
22.	Mrinal Yadav	Thermal performance evaluation of continuous flow solar water heating system
23.	ShiekhZeeshanFazil	Environmental impact analysis on solar photovoltaic system

24.	Muskan Sharma	Forecasting model for electric vehicle integration in India
25.	AzleeAnjum	Performance evaluation of a single basin solar still for fresh water production
26.	MohsinaNazir	Reactive power capability of solar inverter
27.	PallaviSarngal	Impact of government initiatives on renewable energy policy in Jammu region
28.	Hardik Sharma	
29.	Manit Pal Singh	Assessment for EV charging station and carbon emission in India through solar PV systems
30.	TagamudTazmeen	
31.	MahimaGandotra	Solar parameters prediction using machine learning and deep learning
32.	SimranBogia	Ongoing

LIST OF PUBLICATIONS *(Published in SCI/Scopus Journals)*

1. Vineet V. Tyagi and D. Buddhi, PCM Thermal Storage in Buildings a State of Art, , Renewable and Sustainable Energy Reviews, volume 11 pp. 1146-1166, 2007. (Impact Factor – 14.982)
2. V. V. Tyagi, and D. Buddhi, Thermal Cycle Test of Calcium Chloride Hexahydrate as a PCM for Latent Heat Storage application In Buildings, Solar Energy Materials & Solar Cells, Volume 92, Issue 8, pp. 891-899, 2008. (Impact Factor – 7.267),
3. Atul Sharma, V.V. Tyagi, C.R. Chen and D. Buddhi, Review on thermal energy storage with phase change materials and applications, Renewable and Sustainable Energy Reviews, volume 13, Issue 2, pp. 318-345, 2009. (Impact Factor – 14.982).
4. S. K. Tyagi, S. R. Park and V. V. Tyagi and S. Anand, Economic considerations and cost effectiveness among different possible options to control the visible plume from wet cooling tower in commercial buildings, Indian Journal of Pure and Applied Physics, Vol. 47, 2009. (Impact Factor – 0.85)
5. S. K. Tyagi, V. V. Tyagi, V. Chandra, R. K. Diwedi, First and second law analysis of a typical solar dryer: A case study, International Journal of Sustainable Energy, Vol. 29, No. 1, pp. 8–18, 2010. (Scopus Journal)
6. S. K. Tyagi, S. R. Park, V. V. Tyagi and S. Anand, Second law based performance evaluation and parametric study of a sea water source cascade heat pump, International Journal of Exergy Vol. 7, No. 3, 2010. (Impact Factor – 1.383)
7. Richa Kothari, V VTyagi and Ashish Pathak, Waste-to-Energy: A Way from Renewable Energy Sources to Sustainable Development, Renewable and Sustainable Energy Reviews, 14, 3164– 3170, 2010. (Impact Factor – 14.982).
8. V. V. Tyagi, S C. Kaushik, S. K. Tyagi, and T. Akiyama, Development of Phase Change Materials based Microencapsulated Technology for Buildings: A Review, Renewable and Sustainable Energy Reviews, 15, Pages 1373-1391, 2011. (Impact Factor – 14.982)
9. V. V. Tyagi, S. C. Kaushik, A. K. Pandey and S. K. Tyagi, Experimental study of the supercooling and pH behavior of a typical phase change material for thermal energy storage, Indian Journal of Pure and Applied Physics, Vol. 49, 2011, pp. 117-125. (Impact Factor – 0.85)
10. V. V Tyagi, A. K. Pandey, G. Giridhar, B. Bandyopadhyay, S R Park and S. K. Tyagi, Comparative study based on exergy analysis of solar air heater collector using thermal energy storage, International Journal of Energy Research, Volume 36, pages 724–736, 2012, (Impact Factor – 3.741)
11. 11 A. K. Pandey, V. V Tyagi, S R Park and S. K. Tyagi, Comparative experimental study of solar cookers using exergy analysis, Journal of Thermal Analysis and Calorimetry, 2012, Volume 109, pages 425-431. (Impact Factor – 4.626)

12. V. V. Tyagi, A. K. Pandey, S.C. Kaushik and S. K. Tyagi, Thermal performance evaluation of a solar air heater with and without thermal energy storage: An experimental study, International Journal of Thermal Analysis and Calorimetry, 2012, Volume 107, Issue 3, pages 1345-1352 (Impact Factor – 4.626)

13. R. P. Singh, V VTyagi, Tanu Allen, M. Hakimi Ibrahim and Richa Kothari, An Overview for Exploring the Possibilities of Potential Energy Generation from Municipal Solid Waste (MSW) in Indian Scenario, Renewable and Sustainable Energy Reviews, Volume 15, December 2011, 4797-4808. (Impact Factor – 14.982)

14. V. V. Tyagi, S C. Kaushik and S. K. Tyagi, Advancement in Photovoltaic/Thermal (PV/T) Hybrid Solar Collector Technology, Renewable and Sustainable Energy Reviews, Volume16, issue 3, 2012, 1383-1398. (Impact Factor – 14.982)

15. V. V. Tyagi, N. L. Panwar, N. A. Rahim and Richa Kothari, Review on Solar Air Heating System with and without Thermal Energy Storage System, Renewable and Sustainable Energy Reviews, 16 , 2012, pp. 2289– 2303, (Impact Factor – 14.982)

16. N. L. Panwar, Richa Kothari, V. V. Tyagi, Thermo chemical conversion of biomass – Eco friendly energy routes, Renewable and Sustainable Energy Reviews, volume 16, 2012, pp 1801– 1816, (Impact Factor – 14.982)

17. .Richa Kothari, D. P. Singh, S. K. Tyagi and V. V. Tyagi, Fermentative Hydrogen Production – An Alternative Clean Energy Source, Renewable and Sustainable Energy Reviews, volume 16, 2012,pp 2337-2346, (Impact Factor –14.982)

18. Kothari Richa, Kumar Virendra, &Vineet Veer Tyagi, Assement of waste treatment and energy recovery from dairy industrial waste by anaerobic digestion. The Official Journal of Institute of Integerative Omics and Applied Biotechnology (IIOABJ), 2011; Vol. 2 (1): ISSN: 0976-3104. (Scopus Journal)

19. S. K. Tyagi, A. K. Pandey, V. V. Tyagi, P. C. Pant, Formation, Potential and Abatement of Plume from Wet Cooling Towers in Commercial Building: A Review, Renewable and Sustainable Energy Reviews, volume 16, 5, 2012, Pages 3409-3429. (Impact Factor –14.982)

20. Eneja Osterman, V. V. Tyagi, UrošStritih, N. A. Rahim, VincencButala, Review of PCM based cooling technologies for buildings, International Journal of Energy and Buildings, volume 49, 2012, Pages 37-49. (Impact Factor – 5.879)

21. V. V. Tyagi, N. A. A. Rahim, N. A Rahim, J. Selvaraj, Progress in Solar PV: Research and Achievement, Renewable and Sustainable Energy Reviews, 20, 2013, Pages 443-46. (Impact Factor – 14.982)

22. V. V. Tyagi, D. Buddhi, Richa Kothari and S. K. Tyagi, Phase change material (PCM) based thermal management system for cool energy storage application in building: An experimentalstudy, International Journal of Energy and Buildings, Volume 51, 2012, Pages 248-254. (Impact Factor –5.879).

23. A K. Pandey, V. V. Tyagi and S. K. Tyagi, Exergetic analysis and parametric study of multi-crystalline solar photovoltaic system at a typical climatic zone, International Journal of Clean Technology and Environmental Policy, April 2013, Volume 15, Issue 2, pp 333-343, (Impact Factor - 3.636)

24. V. V. Tyagi A. K. Pandey, D.Buddhi and S. K. Tyagi, Energetic and Exergetic analysis of two different types PCM based thermal management systems for space air conditioning applications, International Journal of Energy Conversion and Management, Volume 69, May 2013, Pages 1-8. (Impact Factor- 9.709)

25. Sam Koohi-Kamali, V VTyagi, N.A. Rahim, N L Panwar, H. Mokhlish, Emergence of energy storage technologies as the solution for reliable operation of smart power systems: A review, Renewable and Sustainable Energy Reviews, Volume 25, September 2013, Pages 135-165. (Impact Factor – 14.982)

26. V. V. Tyagi, Adarsh K. Pandey, Richa Kothari and S. K. Tyagi, Thermodynamics and Performance Evaluation of Encapsulated PCM based Energy Storage Systems for Heating Application in Building, Journal of Thermal Analysis and Calorimetry. 2014, Volume 115, Issue 1, pp 915-924. (Impact Factor – 4.626)

27. S. R. Park, A. K. Pandey, V. V. Tyagi and S. K. Tyagi, Energy and exergy analysis of different renewable energy systems: A critical review, Renewable and Sustainable Energy Reviews 30, 2014, 105-123. (Impact Factor – 14.982).

28. Richa Kothari, A. K Pandey, V. V. Tyagi, S. K.Tyagi, Different aspects of dry anaerobic digestion for Bioenergy: An overview, International Journal of Renewable and Sustainable Energy Reviews 39, 2014, 174-195. (Impact Factor – 14.982).

29. R.K. Sharma, P.Ganesan, V. V. Tyagi, H.S.C. Metselaar, S.C. Sandaran, Developments in organic solid-liquid PCM materials and their applications in thermal energy storage, Energy Conversion and Managements, 95, 2015, 193–228. (Impact Factor – 9.709)

30. A K. Pandey, V. V. Tyagi, N.A Rahim, S.C. Kaushik, S. K. Tyagi, Thermal Performance evaluation of direct flow solar water heating system using exergetic approach, International Journal of Thermal Analysis and Calorimetery, 121, 2015, 1365–1373. (Impact Factor – 4.626)

31. A.K. Pandey, V. V. Tyagi, N.A Rahim, S. K. Tyagi, Recent Advances in Solar Photovoltaic Systems for Emerging Trends and Advanced Applications, International Journal of Renewable and Sustainable Energy Reviews, 53, 2016, 859-884. (Impact Factor – 14.982).

32. S. Koohi-Kamali, NA Rahim, H Mokhlis, V. V. Tyagi, Photovoltaic electricity generator dynamic modeling methods for smart grid applications: A review, Renewable and Sustainable Energy Reviews 57, 2016, 131-172. (I.F. – 14.982)

33. R. K. Sharma, P Ganesan, V. V. Tyagi, Accelerated thermal cycle and chemical stability testing of polyethylene glycol (PEG) 6000 for solar thermal energy storage, Solar Energy Materials and Solar Cells 147, 2016, 235-239 . (I.F. – 7.267)

34. R. K. Sharma, P Ganesan, V. V. Tyagi, Long term thermal and chemical reliability study of different organic phase change materials for thermal energy storage applications, Journal of Thermal Analysis and Calorimeter, 10973-016-5281-5, (2016), (I.F.- 4.626)

35. R. K. Sharma, P Ganesan, V. V. Tyagi, Thermal properties and heat storage analysis of palmitic acid-TiO2 composite as nano-enhanced organic phase change material (NEOPCM), Applied Thermal Engineering, 99, 2016, 1254–1262 (I.F.- 5.295)

36. V. V. Tyagi, A.K. Pandey, D. Buddhi, Richa Kothari. Thermal performance assessment of encapsulated PCM based thermal management system to reduce peak energy demand in buildings. Energy and Buildings 117 (2016) 44–52, 1 April 2016. (Impact Factor – 5.879)

37. Richa Kothari, V. Kumar, V.V. Pathak, V. V. Tyagi, Sequential hydrogen and methane production with simultaneous treatment of dairy industry wastewater: Bioenergy profit approach, International Journal of Hydrogen Energy, online 20 December 2016, (Impact Factor –5.816)

38. V. V. Pathak, S. Ahmad, A. Pandey, V. V. Tyagi, D. Buddhi, Richa Kothari, Deployment of Fermentative Biohydrogen Production for Sustainable Economy in Indian Scenario: Practical and Policy Barriers With Recent Progresses, Current Sustainable/Renewable Energy Reports, December 2016, Volume 3, Issue 3, pp 101–107. (Scopus Journal)

39. Ali Karaipekli, AlperBiçer, Ahmet Sarı, V. V. Tyagi, Thermal characteristics of expanded perlite/paraffin composite phase change material with enhanced thermal conductivity using carbon nanotubes, Energy Conversion and Management, Volume 134, 15 February 2017, Pages 373– 381 (Impact Factor – 9.709)

40. Richa Kothari, V. V. Pathak, A .Pandey, S. Ahmad, V.V. Tyagi, A novel method to harvest Chlorella sp. via low cost bioflocculant: Influence of temperature with kinetic and thermodynamic functions, Bioresource Technology, Volume 225, February 2017, Pages 84–89. (Impact Factor – 9.642)

41. Richa Kothari, Virendra Kumar Vinayak V. Pathak, S. Ahmad, Ochieng, Aoyi, V. V. Tyagi, A critical review on factors influencing fermentative hydrogen production, Frontiers in Bioscience, Landmark, 22,1195-1220, March 2017. (I.F. 4.009)

42. R Kothari, A Pandey, S Ahmad, A Kumar, V V Pathak, V VTyagi. Microalgal cultivation for value-added products: a critical enviro-economical assessment. 3 Biotech 7 (4), 243, 14 July 2017 (I.F.2.406)

43. S Sikarwar, S Singh, R Srivastava, BC Yadav, V VTyagi. Design and development of lab model of piezo-optic sensor for Structural Health Monitoring. Smart Materials and Structures 26 (10), 105047, 21 September 2017. (I.F. - 3.585.)

44. R Kothari, V Kumar, V V Pathak, V VTyagi. Sequential hydrogen and methane production with simultaneous treatment of dairy industry wastewater: Bioenergy profit approach. International Journal of Hydrogen Energy 42 (8), 4870-4879, 23 February 2017. (I.F. - 5.816)

45. R. Kothari, A Pandey, S Ahmad, A Kumar, V. V. Pathak, V. V. Tyagi, Microalgal cultivation for value-added products: a critical enviro-economical assessment. 3 Biotech 7 (4), 243, 14, 2017, (I.F. 2.406)

46. A K Pandey, MS Hossain, V. V.Tyagi, NA Rahim, AJeyraj, L Selvaraj, A Sari. Novel approaches and recent developments on potential applications of phase change materials in solar energy. Renewable and Sustainable Energy Reviews 82, 281-323, February 2018. (I.F. – 14.982)

47. R. Kothari, S. Ahmad, V. V Pathak, A. Pandey, S Singh, K Kumar, V. V. Tyagi, Experiment based thermodynamic feasibility with co-digestion of nutrient-rich bio-waste materials for biogas production, 3 Biotech 8 (1), 34, 2018. (I.F. 2.406)

48. H. M. Singh, A. K. Pathak, K. Chopra, V. V. Tyagi, S. Anand, R Kothari, Microbial fuel cells: a sustainable solution for bioelectricity generation and wastewater treatment, Biofuels, 1-21, 2018. (I.F.- 1.496)

49. A Sarı, A. Bicer, FA Al-Sulaiman, A. Karaipekli, V. V. Tyagi, Diatomite/CNTs/PEG composite PCMs with shape-stabilized and improved thermal conductivity: Preparation and thermal energy storage properties, Energy and Buildings 164, 166-175, 2018. (I.F. – 5.879)

50. Aditya Kumar, V. V. Tyagi, Sanjeev Anand, Futuristic Approach for Thermal Management in Solar PV/Thermal Systems with Possible Applications, Energy Conversion and Management, 2018. (I.F.– 9.709)

51. J.K. Singh, P. Vyas, A. Dubey, C. P Upadhyaya, R. Kothari, V. V. Tyagi, A Kumar, Assessment of different pretreatment technologies for efficient bioconversion of lignocellulose to ethanol. Frontiers in bioscience (Scholar edition) 10, 350-371, 2018. (Scopus Journal)

52. U. Stritih, V. V. Tyagi, R Stropnik, H Paksoy, F Haghighat, MM Joybari, Integration of passive PCM technologies for net-zero energy buildings, Sustainable Cities and Society 41, 286-295, 2018. (I.F. – 7.587)

53. K. Chopra, V. V. Tyagi, A. K. Pandey, A. Sari, Global advancement on experimental and thermal analysis of evacuated tube collector with and without heat pipe systems and possible applications, Applied Energy 228, 351-389, 2018. (I.F. – 9.746).

54. G Singh, P.J. Singh, V. V. Tyagi, P Barnwal, AK Pandey, Energy, Exergy and exergoeconomic analysis of high temperature short time milk pasteurisation plant, International Journal of Exergy, (In Press), (I.F. – 1.383)

55. HM Singh, R Kothari, R Gupta, V. V.Tyagi, Bio-fixation of flue gas from thermal power plants with algal biomass: Overview and research perspectives, Journal of Environmental Management, 2019, SCI (I. F. – 6.789)

56. G. Singh, P.J. Singh, V. V. Tyagi, P Barnwal, A. K. Pandey, Exergy and exergoeconomic analysis of cream pasteurisation plant, Journal of Thermal Analysis and Calorimetry, 2019, (I. F. –4.626)

57. G. Singh, P.J. Singh, V. V. Tyagi, P Barnwal, A. K. Pandey, Thermal and exergoeconomic analysis of a dairy food processing plant, Journal of Thermal Analysis and Calorimetry, 2019, (I. F. –4.626)

58. G. Singh, P.J. Singh, V. V. Tyagi, P Barnwal, A. K. Pandey, Exergy and thermo-economic analysis of ghee production plant in dairy industry, Energy, 2019, (I. F. – 7.147)

59. A Sarı, R. K. Sharma, G Hekimoğlu, V. V. Tyagi, Preparation, characterization, thermal energy storage properties and temperature control performance of form-stabilized sepiolite based composite phase change materials, Energy and Buildings, Energy and Buildings, 2019, 188, 111-119, (I.F. - 5.879)

60. M.S. Hossain, A. K. Pandey, J Selvaraj, NA Rahim, MM Islam, V.V. Tyagi, Two side serpentine flow based photovoltaic-thermal-phase change materials (PVT-PCM) system: Energy, exergy and economic analysis, Renewable Energy, 2019, 136, 1320-1336, (I.F. –8.001)

61. M George, AK Pandey, N A Rahim, V. V. Tyagi, S Shahabuddin, R Saidur, Concentrated photovoltaic thermal systems: A component-by-component view on the developments in the design, heat transfer medium and applications, Energy Conversion and Management, 2019, 186, 15-41, (I.F. - 9.709)

62. A Pandey, V. V. Pathak, R. Kothari, P N Black, V. V. Tyagi, Experimental studies on zeta potential of flocculants for harvesting of algae, Journal of Environmental Management, 2019, 231, 562-569, (I.F. – 6.789)

63. S. K Tyagi, R Kothari, V. V. Tyagi Recent advances in biofuels in India, Biofuels 10 (1), 1-2, 2019, (I.F. -1.496)

64. M. S Hossain, A. K. Pandey, J Selvaraj, N A Rahim, A Rivai, V. V. Tyagi, Thermal performance analysis of parallel serpentine flow based photovoltaic/thermal (PV/T) system under composite climate of Malaysia, Applied Thermal Engineering, 2019, (I.F. -5.295)

65. S. K. Sinha, K. A. Subramanian, H. M. Singh, V. V. Tyagi, A Mishra, Progressive Trends in Bio-Fuel Policies in India: Targets and Implementation Strategy, Biofuels, 1-12, 2019, (I.F.- 1.496)

66. S. Ahmad, R. Kothari, D. Pathania, V. V. Tyagi, Optimization of nutrients from wastewater using RSM for augmentation of Chlorella pyrenoidosa with enhanced lipid productivity, FAME content, and its quality assessment using, Biomass Conversion and Biorefinery, 1-18, 2019, (I.F.- 4.987)

67. A Chauhan, VV Tyagi, S Anand, Minimum entropy generation and its validation against Hottel Whillier model for PV/T and FPC collectors, Solar Energy 188, 143-157, 2019, (I.F.- 5.742)

68. K Chopra, VV Tyagi, AK Pathak, AK Pandey, A Sari, Experimental performance evaluation of a novel designed phase change material integrated manifold heat pipe evacuated tube solar collector system, Energy Conversion and Management 198, 2019, (I.F.- 9.709).

69. Kothari, R. Ahmad, S .Pathak, V.V. Black, P.N. Tyagi, V.V., Algal-based biofuel generation through flue gas and wastewater utilization: a sustainable prospective approach, Biomass Conversion and Biorefinery, 2019, (I.F. 4.987)

70. K. Chopra, V. V Tyagi, A. K. Pandey, Thermodynamic and techno-economic analysis of heat pipe ETC water heating system for Indian composite climate, Journal of Thermal Analysis and Calorimetry 139 (2), 1395-1407, 2020, (I.F.- 4.626).

71. K. Chopra, A. K. Pathak, V. V.Tyagi, A. K. Pandey, S.Anand, A. Sari, Thermal performance of phase change material integrated heat pipe evacuated tube solar collector system: An experimental assessment, Energy Conversion and Management 203, 112205, 2020, (I.F.–9.709).

72. S Ahmad, R Kothari, R Shankarayan, V VTyagi, Temperature dependent morphological changes on algal growth and cell surface with dairy industry wastewater: an experimental investigation, 3 Biotech 10 (1), 24, 2020, (I.F. - 2.406).

73. U Maqbool, A. Tyagi, V. V. Tyagi, R. Kothari, Optimization of the renewable-energy-based micro-grid for rural electrification in northern region of India, Clean Technologies and Environmental Policy, 1-12, 2020, (I.F. - 3.636).

74. K Chopra, V VTyagi, A K Pandey, R. Sharma, A. Sari, PCM integrated glass in glass tube solar collector for low and medium temperature applications: Thermodynamic & techno-economic approach, Energy, 117, 238, 2020, (I.F. – 7.147).

75. G Singh, VV Tyagi, PJ Singh, AK Pandey, Estimation of thermodynamic characteristics for comprehensive dairy food processing plant: An energetic and exergetic approach, Energy 194, 116, 799, 2020, (I.F. – 7.147).

76. R Azam, R Kothari, HM Singh, S Ahmad, VA Kumar, V. V. Tyagi, Production of algal biomass for its biochemical profile using slaughterhouse wastewater for treatment under axenic conditions, Bioresource Technology, 306, 123116, (Impact Factor – 9.642)

77. A K. Ansu, R K Sharma, V. V Tyagi, A. Sarı, P. Ganesan, D. Tripathi, A cycling study for reliability, chemical stability and thermal durability of polyethylene glycols of molecular weight 2000 and 10000 as organic latent heat thermal energy, International Journal of Energy Research 44 (3), 2183-2195, 2020, (Impact Factor – 3.741).

78. Mathew George, A. K. Pandey NasrudinAbd Rahim V. .V. Tyagi, Syed Shahabuddin, R.Saidur, A novel polyaniline (PANI)/ paraffin wax nano composite phase change material: Superior transition heat storage capacity, thermal conductivity and thermal reliability, Solar Energy, Volume 204, 448-458, 2020, (I.F. - 5.742).

79. A K. Pathak, R. Kothari, V. V. Tyagi, S. Anand, Integrated approach for textile industry wastewater for efficient hydrogen production and treatment through solar PV electrolysis, International Journal of Hydrogen Energy, 2020, In Press, (I.F. – 5.816).

80. Richa Kothari, V. V. Tyagi, Adsorptive behavior of free and immobilized Chlorella pyrenoidosa for decolorization, Biomass Conversion and Biorefinery, 2020, In Press, (I.F. – 4.987).

81. Ahmad, S.K othari, R. Pathania, D. Tyagi, V.V., Optimization of nutrients from wastewater using RSMfor augmentation ofChlorella pyrenoidosa with enhanced lipid productivity, FAME content, and itsquality assessment using fuel quality index, Biomass Conversion and Biorefinery, 2020, 10(2), pp. 495–512, (Impact Factor -4.987)

82. Tyagi, V.V. Pathak, A. Anand, S. Pandey, A. Rahman, S., Thermal performance study of the single slope evacuated tube integrated desalination system, International Journal of Advanced Science and Technology, 2020, 13(1), 213–228, (I.F. – 0.4).

83. Sharma, R.K. Sarl, A. Hekimoğlu, G. Zahir, M.H. Tyagi, V.V., Effects of Thermal Cycling Operation on Solar Thermal Energy Storage Morphology, Chemical/Crystalline Structure, and Thermal Degradation Properties of Some Fatty Alcohols as Organic PCMs, Energy and Fuels, 2020, 34(7), 9011-9019, (I.F. – 3.605).

84. Hossain, M.S. Pandey, A.K. Rahim, N.A. Tyagi, V.V. Islam, M.M, Self-cleaning assisted photovoltaic system with thermal energy storage Design and performance evaluation, Solar Energy, 2020, Volume 206, 487-498, (I.F. – 5.742).

85. Ansu, A.K. Sharma, R.K. Tyagi, V.V. Tripathi, D., Prediction of Thermal Properties and Reliability Testing of Binary Eutectic Mixture of Polyethylene Glycol 2000 and 10000 as Phase Change Materials, ChemistrySelect, 2020, 5(31),9745-9757, (I.F. – 2.109).

86. George, M. Pandey, A.K. Rahim, N.A. Shahabuddin, S. Saidur, R., Long-term thermophysical behavior of paraffin wax and paraffin wax/polyaniline (PANI) composite phase change materials,Journal of Energy Storage, 2020, Volume 31, 101,568, (I.F. – 6.583).

87. Laghari, I.A. Samykano, M. Pandey, A.K. Kadirgama, K. Tyagi, V.V., Advancements in PV-thermal systems with and without phase change materials as a sustainable energy solution: energy, exergy and exergoeconomic (3E) analytic approach, Sustainable Energy and Fuels, 2020, 4(10), 4956-4987, (I.F. – 6.367).

88. Deka, P.P. Ansu, A.K. Sharma, R.K. Tyagi, V.V. Sarı, A., Development and characterization of form-stable porous TiO /tetradecanoic acid based composite PCM with long-term stability as solar thermal energy storage material, International Journal of Energy Research, 2020, 44(13), 10044-10057, (I.F. – 3.741).

89. Kothari, R. Vashishtha, A. Singh, H.M. Ashokkumar, V. Singh, D.P., Assessment of Indian bioenergy policy for sustainable environment and its impact for rural India: Strategic implementation and challenges, Environmental Technology and Innovation, 2020, Volume 20,101078, (I.F. – 5.263).

90. Mohan Singh, H. Tyagi, V.V. Kothari, R. Singh Slathia, P. Singh, B., Bioprocessing of cultivated Chlorella pyrenoidosa on poultry excreta leachate to enhance algal biomolecule profile for resource recovery, Bioresource Technology, 2020, Volume 316, 123850, (I.F. – 9.642).

91. Reji Kumar, R. Samykano, M. Pandey, A.K. Kadirgama, K. Tyagi, V.V., Phase change materials and nano-enhanced phase change materials for thermal energy storage in photovoltaic thermal systems: A futuristic approach and its technical challenges, Renewable and Sustainable Energy Reviews, 2020, Volume 133, 110341, (I.F. – 14.982).

92. Ashish Pathak, Richa Kothari, Mari Vinoba, Nazima Habibi, V.V. Tyagi, Fungal bioleaching of metals from refinery spent catalysts: A critical review of current research, challenges, and future directions, Journal of Environmental Management, 2020, Volume 280, 111789, (I.F. – 3.266).

93. Gurjeet Singh, K. Chopra, V.V. Tyagi, A.K. Pandey, Zhenjun Ma, Haoshan Ren, A comprehensive energy, exergy and enviroeconomic (3-E) analysis with carbon mitigation for multistage evaporation assisted milk powder production unit,Sustainable Energy Technologies and Assessments, 2020, Volume 43, 100925, (I.F. – 5.353)

94. Javid, I., Chauhan, A., Thappa, S., Verma, S. K., Anand, Y., Sawhney, A., V. V. Tyagi&Anand, S. (2021). Futuristic decentralised clean energy networks in view of inclusive-economic growth and sustainable society. Journal of Cleaner Production, 127304. (SCI) (Impact Factor – 9.297)

95. B K, Pandey A.K, Shahabuddin S, George M, Sharma K, Samykano M, V.V. Tyagi, Saidur R, Synthesis and characterization of conducting Polyaniline@cobalt-Paraffin wax nanocomposite as nano-phase change material: Enhanced thermophysical properties, Renewable Energy, Volume 173, Pages 1057 – 1069, 2021. (SCI) (Impact Factor – 8.01)

96. Ahmad, S., Kothari, R., Singh, H.M., V. V. Tyagi, Singh, B., Sari, A., Experimental investigation of microalgal harvesting with low cost bottom ash: Influence of temperature and pH with zeta potential and thermodynamic function, Environmental Technology and Innovation, 2021, 22, 101376. (SCI) (Impact Factor – 5.263)

97. Chopra, K., V. V. Tyagi, Pandey, A.K., Ma, Z., Ren, H., Energy, exergy, enviroeconomic & exergoeconomic (4E) assessment of thermal energy storage assisted solar water heating system: Experimental & theoretical approach, Journal of Energy Storage, 2021, 35, 102232. (SCI) (Impact Factor – 6.583)

98. Singh, G., Chopra, K., V.V.Tyagi, Ma, Z., Ren, H., A comprehensive energy, exergy and enviroeconomic (3-E) analysis with carbon mitigation for multistage evaporation assisted milk powder production unit, Sustainable Energy Technologies and Assessments, 2021, 43, 100925, (SCI) (Impact Factor – 5.353)

99. Ansu, A.K., Sharma, R.K., Hagos, F.Y., Tripathi, D., V.V.Tyagi, Improved thermal energy storage behavior of polyethylene glycol-based NEOPCM containing aluminum oxide nanoparticles for solar thermal applications, Journal of Thermal Analysis and Calorimetry, 2021, 143(3), pp. 1881–1892, (SCI) (Impact Factor – 4.626)

100. Chauhan, A., V. V. Tyagi, Sawhney, A., Anand, S., Comparative enviro-economic assessment and thermal optimization of two distinctly designed and experimentally validated PV/T collectors, Journal of Thermal Analysis and Calorimetry, 2021, (SCI) (Impact Factor – 4.626)

101. Tyagi, S.K., Tyagi, N., Himanshu, H.Sharma, U., V. V.Tyagi, Emission reduction and fuel-saving potentials in jaggery industry via cleaner combustion, International Journal of Ambient Energy, 2021. (Scopus)

102. Kour, G., Kothari, R., Dhar, S., Pathania, D., V. V.Tyagi, Impact assessment on water quality in the polluted stretch using a cluster analysis during pre- and COVID-19 lockdown of Tawi river basin, Jammu, North India: an environment resiliency, Energy, Ecology and Environment, 2021, (Scopus)

103. Tyagi, V.V. Chopra, K. Kalidasan, B.Sarı, A. Kothari, R., Phase change material based advance solar thermal energy storage systems for building heating and cooling applications: A prospective research approach, Sustainable Energy Technologies and Assessments, 2021, 47, 101318, (Impact Factor – 5.353)

104. Singh, G. Tyagi, V.V., Chopra, K. Sharma, R.K. Sari, A, Energetic and exergetic assessment of two- and three-stage spray drying units for milk processing industry, Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2021, 43(7), 359 , (Impact Factor – 2.220)

105. Singh, P. Sharma, R.K. Ansu, A.K. Sarı, A. Tyagi, V.V., A comprehensive review on development of eutectic organic phase change materials and their composites for low and medium range thermal energy storage applications, Solar Energy Materials and Solar Cells, 2021, 223, 110955, (Impact Factor – 7.267)

106. Bai, S. Amirruddin, A.K. Pandey, A.K. Sharma, K .Tyagi, V.V., Advancements in the development of various types of dye-sensitized solarcells: A comparative review, Energy Engineering: Journal of the Association of Energy Engineering, , 2021, 118(4), pp. 737–759, (Impact Factor – 0.56)

107. Kumar, R. Goel, V. Bhattacharyya, S. Tyagi, V.V. Abusorrah, A.M, Experimental investigation for heat and flow characteristics of solar air heaterhaving symmetrical gaps in multiple-arc rib pattern as roughness elements, Experimental Heat Transfer, 2021, (Impact Factor – 4.058)

108. Dheeraj Kumar Nagilla, JeyrajSelvaraj , Kapil Chopra, Richa Kothari, A. K. Pandey, V. V. Tyagi, Thermal Energy Storage in Phase Change Material Integrated Solar Collectors for Air Heating Application, Materials Science and Engineering, 2021, 1127, 012006.

109. Dheeraj Kumar Nagilla, Kumaran Kadirgama, K. Chopra, A. K. Pandey , Richa Kothari & V. V. Tyagi, Application of Phase Change Materials in Solar Water Heating Systems for Thermal Energy Storage, Materials Science and Engineering, 2021, 1127, 012012.

110. Richa Kothari, Shamshad Ahmad, M Samykano, V.V. Tyagi, A K Pandey and R. Saidur, Optimization of Extraction Process of Jatropha Oil by Using Quenching Agent, Materials Science and Engineering, 2021, 1127, 012003.

111. K. Chopra, Pratik Kumar Pathak, Mahendran Samykano, V. V Tyagi and A. K Pandey, Recent Advancements in Design of Flat Plate Solar Collectors, Materials Science and Engineering, 2021, 1127, 012007.

112. Shamshad Ahmad, Richa Kothari, Vinayak V. Pathak, V. V. Tyagi, A. K. Pandey & Ahmet Sari , Response surface methodology–based extraction optimization with application of ZrCl4 as novel quenching agent for enhancement of bio-oil yield from Jatropha curcas and Chlorella pyrenoidosa, Biomass Conversion and Biorefinery, 2021, (Impact factor - 4.987)

113. IqraJavid, Aditya Chauhan,SahilThappa, S.K. Verma, Y. Anand, A. Sawhney, V.V. Tyagi, S. Anand, Futuristic decentralized clean energy networks in view of inclusive-economic growth and sustainable society, Journal of Cleaner Production, Volume 309, 2021, 127304, (impact Factor- 9.297)

114. Richa Kothari, Arya Pandey, Shamshad Ahmad, Har Mohan Singh, Vinayak V. Pathak, V. V. Tyagi, Kapil Kumar & Ahmet Sari , Utilization of Chlorella pyrenoidosa for Remediation of Common Effluent Treatment Plant Wastewater in Coupling with Co-relational Study: An Experimental Approach, Bulletin of Environmental Contamination and Toxicology, 2021, 54, (Impact Factor- 2.151)

115. Wenye Lin, Zhenjun Ma, KehuaLi, V.V. Tyagi, A.K. Pandey, A dynamic simulation platform for fault modelling and characterization of building integrated photovoltaics, Renewable Energy, 2021, (Article in Press), (Impact Factor- 8.001)

116. Har Mohan Singh, V.V. Tyagi, Richa Kothari, RifatAzam, Puja Khare, Ahmet Sari, Novel approach for harvesting of microalgal biomass using electric geyser waste material 2 deposit as flocculant in coupling with poultry excreta leachate , Bioresource Technology, September 2021, (Article in Press), (Impact Factor- 9.642)

117. Singh, S.K. Kaushik, S.C., V.V.Tyagi, S.K. Tyagi, Comparative Performance and parametric study of solar still: A review, Sustainable Energy Technologies and Assessments, 2021, 47, 101541, (Impact Factor - 5.353)

118. Kothari, R. Sahab, S. Singh, H.M. Singh, S., V.V. Tyagi, COVID-19 and waste management in Indian scenario: challenges and possible solutions, Environmental Science and Pollution Research, 2021, 28(38), pp. 52702–52723, (Impact Factor - 4.223)

119. Majhi, P.K. Kothari, R. Pandey, A., V.V. Tyagi, Adsorptive behavior of free and immobilized Chlorella pyrenoidosa for decolorization, Biomass Conversion and Biorefinery, 2021, 11(6), pp. 3023–3036, (Impact Factor - 4.987)

120. Singh, H.M., V.V. Tyagi, Kothari, R. Khare, P. Sari, A., Novel approach for harvesting of microalgal biomass using electric geyser waste material deposit as flocculant in coupling with poultry excreta leachate, Bioresource Technology, 2021, 341, 125646, (Impact Factor - 9.642)

121. Jeeja Jacob,A.K. Pandey, Nasrudin Ab Rahim, JeyrajSelvaraj,M. SamykanoV.V.Tyagi,R. Saidur, Investigation on thermo physical properties of metallic oxide nano particle dispersed in fatty acid, Materials Today: Proceedings , 2021, 47, Pages 2864-2868, (Impact Factor - 31.041)

122. Richa Kothari, Bhaskar Singh, Abhishek Guldhe, V. V. Tyagi, Anita Singh, Editorial: Thematic issue "Bio-based materials for biorefineries: innovative processes and concepts", Biomass Conversion and Biorefinery, 2021, 394,(Impact Factor - 4.987)

123. Tyagi. S.K., Kamboj. S, Himanshu Narayanan R, V.V. Tyagi , Technological advancements in jaggery-making processes and emission reduction potential via clean combustion for sustainable jaggeryproduction: An overview, Journal of Environmental Management, 2022, 301, 113792, (Impact Factor- 6.789)

124. V. V. Tyagi, Chopra K, Sharma R.K., Sarı, A., Kothari R., A comprehensive review on phase change materials for heat storage applications: Development, characterization, thermal and chemical stability, Solar Energy Materials and Solar Cells, 2022, 234, 111392, (Impact Factor - 7.267)

125. Majhi, P.K.Azam, R.Kothari, R.Arora, N.K., V.V. Tyagi, Impact of Flow Rate in Integration with Solar Radiation on Color and COD Removalin Dye Contaminated Textile Industry Wastewater: Optimization Study, Energy Engineering: Journal of the Association of Energy Engineering, 2022, 119(1), pp.419–427, (Impact Factor – 0.56)

126. Singh, G. Chopra, V.V.Tyagi, Sharma, R.K. Sari, A., Estimation of thermodynamic and enviroeconomic characteristics of khoa (milk food) production unit, Environment, Development and Sustainability, 2022, (Article in Press), (Impact Factor - 3.219)

127. Azam, R. Kothari, R. Singh, H.M. Sari, A., V. V. Tyagi, Cultivation of two Chlorella species in Open sewage contaminated channel waste water for biomass and biochemical profiles: Comparative lab-scale approach, Journal of Biotechnology, 2022, 344, pp. 24–31, (Impact Factor - 3.307)

128. Hekimoğlu, G. Sarı, A. Gencel, O, V.V. Tyagi, Thermal conductivity enhancement of silica fume based composite thermal energy storage material using different carbon nano materials, Energy and Buildings, 2022, 257, 111789, (Impact Factor - 5.879)

129. K.Chopra, V.V.Tyagi, A. K. Pandey, SakshiPopli, Gurjeet Singh, R. K. Sharma, Ahmet Sarig, Effect of simultaneous & consecutive melting/solidification of phase change material on domestic solar water heating system, Renewable Energy, 2022, (Article in press), (Impact Factor -8.79)

130. ShubhamKumarVerma, Y. Anand, Navin Gupta, B. B. Jindal, V. V. Tyagi, S. Anand, Hygrothermal dynamics for developing energy-efficient buildings: Building materials and ventilation system considerations, Energy and Buildings, 2022, (Article in press), (Impact Factor - 5.879)

131. Atin K. Pathak, V. V. Tyagi, Sanjeev Anand, A. K. Pandey, Richa Kothari, Advancement in Solar Still Integration with Phase Change Materials based TES Systems and Nano-fluid for Water & Wastewater Treatment Applications, Journal of Thermal Analysis and Calorimetry, 2022, (Article in Press) (Impact Factor – 4.626)

132. Gurjeet Singh, V. V. Tyagi, A. K. Pandey, Varun Goel, Ahmet Sari, Comparative exergoeconomic analysis of single, two and three stage spray drying systems, Journal of Thermal Analysis and Calorimetry, 2022, (Article in Press) (Impact Factor – 4.626)

133. Ahmet Sari, V. V. Tyagi, Thermal Energy Storage Characteristics of Polyacrylic Acid/Dodecanol/Carbon Nanofiber Composites as Thermal Conductive Shape-Stabilized Composite Phase Change Materials, International Journal of Energy Research, 2022, (Article in Press) (Impact Factor – 5.16)

134. B. Kalidasan, A. K. Pandey, Saidur Rahman, Aman Yadav, M. Samykano& V. V. Tyagi Graphene–Silver Hybrid Nanoparticle based Organic Phase Change Materials for Enhanced Thermal Energy Storage, Sustainability, 2022, (Impact Factor – 4.089)

135. Kumar R, Kharub M, Sharma R, Hrisheekesha PN, Goel V, Bhattacharyya S, Tyagi VV. A novel design for solar collector used for water heating application having nanofluid as working medium: CFD modeling and simulation. Environmental Science and Pollution Research. 2022 Aug 12:1-1(Impact Factor - 4.223)

136. Pathak AK, Tyagi VV, Anand S, Kothari R. Experimental investigation of designed solar parabolic concentrator based desalination system for textile industry wastewater treatment. Energy & Environment. 2022 Aug;33(5):870-96. (Impact Factor –3.15)

137. Chauhan A, Thappa S, Tyagi VV, Anand S. Numerical simulation and exergetic optimization of a PV/T integrated dual expansion heat pump. Journal of Thermal Analysis and Calorimetry. 2022 Jul 1:1-8. (Impact Factor –4.755)

138. Kumar R, Samykano M, Pandey AK, Kadirgama K, Tyagi VV. A comparative study on thermophysical properties of functionalized and non-functionalized Multi-Walled Carbon Nano Tubes (MWCNTs) enhanced salt hydrate phase change material. Solar Energy Materials and Solar Cells. 2022 Jun 15;240:111697. (Impact Factor – 7.305)

139. Paul J, Pandey AK, Mishra YN, Said Z, Mishra YK, Ma Z, Jacob J, Kadirgama K, Samykano M, Tyagi VV. Nano-enhanced organic form stable PCMs for medium temperature solar thermal energy harvesting: Recent progresses, challenges, and opportunities. Renewable and Sustainable Energy Reviews. 2022 Jun 1;161:112321. (Impact Factor –16.79)

140. Sarı A, Hekimoğlu G, Karabayır Y, Sharma RK, Arslanoğlu H, Gencel O, Tyagi VV. Capric-stearic acid mixture impregnated carbonized waste sugar beet pulp as leak-resistive composite phase change material with effective thermal conductivity and thermal energy storage performance. Energy. 2022 May 15;247:123501. (Impact Factor – 8.85)

141. Nagar S, Sharma K, Pandey AK, Tyagi VV. Effect of graphene and its derivatives on thermo-mechanical properties of phase change materials and its applications: a comprehensive review. Frontiers in Energy. 2022 Apr;16(2):150-86. (Impact Factor – 3.85)

142. Kalidasan B, Pandey AK, Saidur R, Samykano M, Tyagi VV. Nano additive enhanced salt hydrate phase change materials for thermal energy storage. International Materials Reviews. 2022 Mar 24:1-44. (Impact Factor – 15.75)

143. Hekimoğlu G, Sarı A, Önal Y, Gencel O, Tyagi VV, Aslan E. Utilization of waste apricot kernel shell derived-activated carbon as carrier framework for effective shape-stabilization and thermal conductivity enhancement of organic phase change materials used for thermal energy storage. Powder Technology. 2022 Mar 1;401:117291. (Impact Factor – 5.56)

144. Kumar RR, Samykano M, Pandey AK, Said Z, Kadirgama K, Tyagi VV. Experimental investigations on thermal properties of copper (II) oxide nanoparticles enhanced inorganic phase change materials for solar thermal energy storage applications. In2022 Advances in Science and Engineering Technology International Conferences (ASET) 2022 Feb 21 (pp. 1-6). IEEE.

145. Laghari IA, Samykano M, Pandey AK, Said Z, Kadirgma K, Tyagi VV. Thermal conductivity and Thermal properties enhancement of Paraffin/Titanium Oxide based Nano enhanced Phase change materials for Energy storage. In2022 Advances in Science and Engineering Technology International Conferences (ASET) 2022 Feb 21 (pp. 1-5). IEEE.

146. Hekimoğlu G, Sarı A, Gencel O, Tyagi VV. Thermal conductivity enhancement of silica fume based composite thermal energy storage material using different carbon nanomaterials. Energy and Buildings. 2022 Feb 15;257:111789. (Impact Factor – 5.879)

147. Verma SK, Anand Y, Gupta N, Jindal BB, Tyagi VV, Anand S. Hygrothermal dynamics for developing energy-efficient buildings: Building materials and ventilation system considerations. Energy and Buildings. 2022 Feb 10:111932, (Impact Factor – 5.879)

148. Azam R, Kothari R, Singh HM, Ahmad S, Sari A, Tyagi VV. Cultivation of two Chlorella species in Open sewage contaminated channel wastewater for biomass and biochemical profiles: Comparative lab-scale approach. Journal of Biotechnology. 2022 Jan 20;344:24-31. (Impact Factor - 3.307)

149. Paul J, Kadirgama K, Samykano M, Pandey AK, Tyagi VV. A comprehensive review on thermophysical properties and solar thermal applications of organic nano composite phase change materials. Journal of Energy Storage. 2022 Jan 1;45:103415. (Impact Factor – 6.583)

150. Jacob J, Pandey AK, Abd Rahim N, Selvaraj J, Samykano M, Saidur R, Tyagi VV. Concentrated Photovoltaic Thermal (CPVT) systems: Recent advancements in clean energy applications, thermal management and storage. Journal of Energy Storage. 2022 Jan 1;45:103369. (Impact Factor – 6.583)

151. Tyagi VV, Chopra K, Sharma RK, Pandey AK, Tyagi SK, Ahmad MS, Sarı A, Kothari R. A comprehensive review on phase change materials for heat storage applications: Development, characterization, thermal and chemical stability. Solar Energy Materials and Solar Cells. 2022 Jan 1;234:111392. (Impact Factor – 7.305)

152. P. Singh , R.K. Sharma , R. Goyal , G. Hekimoğlu, A. Sarı, Pushpendra Kumar Singh Rathore , V.V. Tyagi Development and characterization a novel leakage-proof form stable composite of graphitic carbon nitride and fatty alcohol for thermal energy storage Journal of Energy Storage, 2022, 105761, (Impact Factor – 9.4)

153. Reji Kumar, M. Samykano, W.K. Ngui, A.K. Pandey, Kalidasan B, K. Kadirgama, V.V. Tyagi, Investigation of thermal performance and chemical stability of graphene enhanced phase change material for thermal energy storage, Physics and Chemistry of the Earth, Parts A/B/C, Volume 128, December 2022, (Impact Factor – 3.7)

154. Reji Kumar, A.K. Pandey, M. Samykano, YogeshwarNath Mishra, R.V. Mohan, Kamal Sharma, V. V. Tyagi, Effect of surfactant on functionalized multi-walled carbon nano tubes enhanced salt hydrate phase change material, Journal of Energy Storage, Volume 55, 25 November 2022, (Impact Factor – 9.4)

155. P. Singh, R.K. Sharma, M. Khalid, R. Goyal, A. Sarı, V.V. Tyagi, Evaluation of carbon based-supporting materials for developing form-stable organic phase change materials for thermal energy storage: A review, Solar Energy Materials and Solar Cells, Volume 246, 2022. , (Impact Factor – 6.9)

156. Pandya M, Ansu AK, Sharma RK, Pandey AK, Tripathi D, Sarı A, Tyagi VV. Development and Laboratory Scale Characterization of a New Hybrid Nano-enhanced Phase Change Material for Solar Thermal Energy Storage. ChemistrySelect. 2022 Dec 6;7(45):e202202709. (Impact Factor- 2.307)

157. Ouikhalfan M, Sarı A, Hekimoğlu G, Gencel O, Tyagi VV. Thermal energy storage properties, thermal conductivity, chemical/and thermal reliability of three different organic phase change materials doped with hexagonal boron nitride. Surfaces and Interfaces. 2022 Aug 1;32:102176. , (Impact Factor – 6.137)

158. Kumar R, Pandey AK, Samykano M, Aljafari B, Ma Z, Bhattacharyya S, Goel V, Ali I, Kothari R, Tyagi VV. Phase change materials integrated solar desalination system: An innovative approach for sustainable and clean water production and storage. Renewable and Sustainable Energy Reviews. 2022 Sep 1;165:112611. , (Impact Factor – 14.982)

159. Fikri MA, Samykano M, Pandey AK, Kadirgama K, Kumar RR, Selvaraj J, Abd Rahim N, Tyagi VV, Sharma K, Saidur R. Recent progresses and challenges in cooling techniques of concentrated photovoltaic thermal system: A review with special treatment on phase change materials (PCMs) based cooling. Solar Energy Materials and Solar Cells. 2022 Jul 1;241:111739. , (Impact Factor –7.267)

160. Awan, M.B., Ma, Z., Lin, W., Pandey, A.K., Tyagi, V.V., A characteristic-oriented strategy for ranking and near-optimal selection of phase change materials for thermal energy storage in building applications, Journal of Energy Storage, 2023, 57, 106301, (Impact Factor – 6.583)

161. Kothari, R., Singh, H.M., Azam, R., ...Pandey, A.K., Tyagi, V.V., Potential avenue of genetic engineered algal derived bioactive compounds: influencing parameters, challenges and future prospects, Phytochemistry Reviews, 2023, , (Impact Factor – 7.741)

162. B., K., Pandey, A.K., Saidur, R., Tyagi, V.V., Energizing organic phase change materials using silver nanoparticles for thermal energy storage, Journal of Energy Storage, 2023, 58, 106361, (Impact Factor – 6.583)

163. Kalidasan, B., Pandey, A.K., Rahman, S., Sharma, K., Tyagi, V.V., Experimental Investigation of Graphene Nanoplatelets Enhanced Low Temperature Ternary Eutectic Salt Hydrate Phase Change Material, Energies, 2023, 16(4), 1574, , (Impact Factor – 3.252)

164. Pathak, S.K., Tyagi, V.V., Chopra, K., ...Saxena, A., Ma, Z., Energy, exergy, economic and environmental analyses of solar air heating systems with and without thermal energy storage for sustainable development: A systematic review, Journal of Energy Storage, 2023, 59, 10652, (Impact Factor – 6.583)

165. Chopra, K., Tyagi, V.V., Popli, S., Pandey, A.K., Technical & financial feasibility assessment of heat pipe evacuated tube collector for water heating using Monte Carlo technique for buildings, Energy, 2023, 267, 126338, (Impact Factor – 8.857)

166. Goel, V., Bhattacharyya, S., Kumar, R., ...Tyagi, V.V., Saini, R.P., Identification of barriers and drivers to implementation of solar drying technologies,Journal of Thermal Analysis and Calorimetry, 2023, 148(7), pp. 2977–3000, (Impact Factor –4.755)

167. Chopra, K., Tyagi, V.V., Pathak, S.K., ...Singh, G., Pandey, A.K., Thermal and chemical reliability of paraffin wax and its impact on thermal performance and economic analysis of solar water heater, Energy for Sustainable Development, 2023, 73, pp. 39–53, (Impact Factor –5.655)

168. Pathak, S.K., Tyagi, V.V., Chopra, K., Rejikumar, R., Pandey, A.K.,Integration of emerging PCMs and nano-enhanced PCMs with different solar water heating systems for sustainable energy future: A systematic review, Solar Energy Materials and Solar Cells, 2023, 254, 112237, (Impact Factor – 7.305)

169. Singh, P., Sharma, R.K., Hekimoğlu, G., ...Gencel, O., Tyagi, V.V., Expanded waste glass/methyl palmitate/carbon nanofibers as effective shape stabilized and thermal enhanced composite phase change material for thermal energy storage, Journal of Energy Storage, 2023, 64, 107205, (Impact Factor – 9.4)

170. Pathak, S.K., Tyagi, V.V., Chopra, K., Pandey, A.K.,Recent advancements in thermal performance of nano-fluids charged heat pipes used for thermal management applications: A comprehensive review, Applied Thermal Engineering, 216, Applied Thermal Engineering, (Impact Factor – 6.4)

171. Kajol Goria, Har Mohan Singh, Anita Singh, Richa Kothari , V.V. Tyagi, Insights into biohydrogen production from algal biomass: Challenges, recent advancements and future directions, International Journal of Hydrogen Energy, 2023, (Impact Factor – 7.2)

172. Kalidasan B., A. K. Pandey, R. Saidur, V. V. Tyagi, Energizing organic phase change materials using silver nano-particles for thermal energy storage, Journal of Energy Storage, Volume 58, 2023, (Impact Factor – 9.4)

173. Pathak SK, Tyagi VV, Chopra K, Pandey AK, Sari A, Abdulateef AM. Energetic, Exergetic, and Heat Transfer Assessment of PCM-Integrated Heat-Pipe-Based ETSC for Clear and Cloudy Weather Conditions. Sustainability. 2023 Jun 19;15(12):9780. , (Impact Factor – 3.889)

174. Pandey AK, Kalidasan B, Reji Kumar R, Rahman S, Tyagi VV, Krismadinata, Said Z, Salam PA, Juanico DE, Ahamed JU, Sharma K. Solar Energy Utilization Techniques, Policies, Potentials, Progresses, Challenges and Recommendations in ASEAN Countries. Sustainability. 2022 Sep 7;14(18):11193. , (Impact Factor – 3.889)

175. Singh HM, Tyagi VV, Kothari R, Sari A. Influence of Different Angles in the Photobioreactor on Algal Biomass Growth with Optimized Poultry Excreta Leachate: A Batch-Scale Study. Fermentation. 2023 Mar 7;9(3):265. , (Impact Factor –3.700)

176. Chopra K, Tyagi VV, Pathak SK, Khajuria A, Pandey AK, Rahman NA, Mansor M, Sari A. Impact of Stearic Acid as Heat Storage Material on Energy Efficiency and Economic Feasibility of a Vacuum Tube Solar Water Heater. Energies. 2023 May 24;16(11):4291. , (Impact Factor – 3.252**)**

177. Paul J, Samykano M, Pandey AK, Kadirgama K, Tyagi VV. Nano Engineered Paraffin-Based Phase Change Material for Building Thermal Management. Buildings. 2023 Mar 29;13(4):900. , (Impact Factor – 3.324)

178. Pathak SK, Tyagi VV, Chopra K, Pandey AK, Sari A. Hot Water Generation for Domestic Use in Residential Buildings via PCM Integrated U-Tube Based Solar Thermal Collector: A 4-E Analysis. Buildings. 2023 May 4;13(5):1212. , (Impact Factor –3.324)

179. Ahmad, S., Kothari, R., Pathak, V.V., Tyagi, V.V., Pandey, A.K. and Sari, A., 2021. Response surface methodology–based extraction optimization with application of ZrCl 4 as novel quenching agent for enhancement of bio-oil yield from Jatropha curcas and Chlorella pyrenoidosa. Biomass Conversion and Biorefinery, 2023, 13(9), pp. 7585–759, (Impact Factor 3.6)

180. Pathak SK, Tyagi VV, Chopra K, Rejikumar R, Pandey AK. Integration of emerging PCMs and nano-enhanced PCMs with different solar water heating systems for sustainable energy future: A systematic review. Solar Energy Materials and Solar Cells. 2023 Jun 1; 254:112237, (Impact Factor 6.3)

181. Chopra K, Tyagi VV, Pathak SK, Khajuria A, Pandey AK, Rahman NA, Mansor M, Sari A. Impact of Stearic Acid as Heat Storage Material on Energy Efficiency and Economic Feasibility of a Vacuum Tube Solar Water Heater. Energies. 2023 May 24;16(11):4291, (Impact Factor 3.0)

182. Pathak SK, Tyagi VV, Chopra K, Pandey AK, Sari A, Abdulateef AM. Energetic, exergetic, and heat transfer assessment of PCM-integrated heat-pipe-based ETSC for clear and cloudy weather conditions. Sustainability. 2023 Jun 19;15(12):9780. (Impact Factor 3.3)

183. Singh HM, Sharma M, Tyagi VV, Goria K, Buddhi D, Sharma A, Bruno F, Sheoran S, Kothari R. Potential of biogenic and non-biogenic waste materials as flocculant for algal biomass harvesting: Mechanism, parameters, challenges and future prospects. Journal of Environmental Management. 2023 Jul 1;337:117591., (Impact Factor 13.7)

184. Kumar R, Sharma A, Goel V, Sharma R, Sethi M, Tyagi VV. An experimental investigation of new roughness patterns (dimples with alternative protrusions) for the performance enhancement of solar air heater. Renewable Energy. 2023 Jul 1;211:964-74. (Impact Factor 18.4)

185. Chopra K, Tyagi VV, Pathak SK, Sharma RK, Mansor M, Goel V, Sari A. 5E analysis of a novel designed hot water storage header integrated vacuum tube solar water heater. Thermal Science and Engineering Progress. 2023 Jul 1;42:101929. (Impact Factor 7.2)

186. Pandya M, Ansu AK, Sharma RK, Tripathi D, Tyagi VV, Sari A. Investigation on thermal energy storage properties of polyethylene glycol with hybrid nanoparticles of Al2O3 and CuO for solar thermal energy storage. ECS Journal of Solid State Science and Technology. 2023 Jul 13;12(7):071004., (Impact Factor 1.8)

187. Kothari R, Singh HM, Azam R, Goria K, Bharti A, Singh A, Bajar S, Pathak A, Pandey AK, Tyagi VV. Potential avenue of genetic engineered algal derived bioactive compounds: influencing parameters, challenges and future prospects. Phytochemistry Reviews. 2023 Aug;22(4):935-68. (Impact Factor 7.9)

188. Singh P, Sharma RK, Hekimoğlu G, Sarı A, Gencel O, Tyagi VV. Expanded waste glass/methyl palmitate/carbon nanofibers as effective shape stabilized and thermal enhanced composite phase change material for thermal energy storage. Journal of Energy Storage. 2023 Aug 1;64:107205., (Impact Factor 11.8)

189. Pathak SK, Tyagi VV, Chopra K, Sari A. Thermal performance and design analysis of U-tube based vacuum tube solar collectors with and without phase change material for constant hot water generation. Journal of Energy Storage. 2023 Aug 30;66:107352., (Impact Factor 11.8)

190. Pathak AK, Chopra K, Tyagi VV, Anand S, Kothari R, Sari A, Pandey AK. Solar heat pipe ETC integrated with solar still system for water treatment and hot water production: novel hybrid experimental approach. Journal of Thermal Analysis and Calorimetry. 2023 Sep;148(17):8969-89., (Impact Factor 3.2)

191. Bhutto YA, Pandey AK, Saidur R, Sharma K, Tyagi VV. Critical insights and recent updates on passive battery thermal management system integrated with nano-enhanced phase change materials. Materials Today Sustainability. 2023 Sep 1;23:100443., (Impact Factor 7.1)

192. Laghari IA, Pandey AK, Samykano M, Aljafari B, Kadirgama K, Sharma K, Tyagi VV. Thermal energy harvesting of highly conductive graphene-enhanced paraffin phase change material. Journal of Thermal Analysis and Calorimetry. 2023 Sep;148(18):9391-402., (Impact Factor 3.2)

193. Hekimoğlu G, Sarı A, Gencel O, Tyagi VV, Sharma RK. Activated carbon/expanded graphite hybrid structure for development of nonadecane based composite PCM with excellent shape stability, enhanced thermal conductivity and heat charging-discharging performance. Thermal Science and Engineering Progress. 2023 Sep 1;44:102081. (Impact Factor 7.2)

194. Pathak SK, Tazmeen T, Chopra K, Tyagi VV, Anand S, Abdulateef AM, Pandey AK. Sustainable energy progress via integration of thermal energy storage and other performance enhancement strategies in FPCs: a synergistic review. Sustainability. 2023 Sep 14;15(18):13749. (Impact Factor 3.3)

195. Goel V, Dwivedi A, Kumar R, Kumar R, Pandey AK, Chopra K, Tyagi VV. PCM-assisted energy storage systems for solar-thermal applications: Review of the associated problems and their mitigation strategies. Journal of Energy Storage. 2023 Oct 1;69:107912. (Impact Factor 11.8)

196. Singh K, Meena RS, Kumar S, Dhyani S, Sheoran S, Singh HM, Pathak VV, Khalid Z, Singh A, Chopra K, Bajar S. India's renewable energy research and policies to phase down coal: Success after Paris agreement and possibilities post-Glasgow Climate Pact. Biomass and Bioenergy. 2023 Oct 1;177:106944. (Impact Factor 5.8)

197. Kalidasan B, Pandey AK, Saidur R, Kothari R, Sharma K, Tyagi VV. Eco-friendly coconut shell biochar based nano-inclusion for sustainable energy storage of binary eutectic salt hydrate phase change materials. Solar Energy Materials and Solar Cells. 2023 Oct 15;262:112534, (Impact Factor 6.3)

198. Hekimoğlu G, Çakır E, Sarı A, Gencel O, Tyagi VV, Sharma RK. Shape stabilized microcrystalline cellulose/methyl stearate/graphene nanoplatelet composite with enriched thermal conductivity and thermal energy storage/release performance. Cellulose. 2023 Nov;30(16):10199-214. (Impact Factor 5.3)

199. Sharma M, Tyagi VV, Chopra K, Kothari R, Singh HM, Pandey AK. Advancement in solar energy-based technologies for sustainable treatment of textile wastewater: Reuse, recovery and current perspectives. Journal of Water Process Engineering. 2023 Dec 1;56:104241., (Impact Factor 6.3)

200. Pathak A, Rana MS, Marafi M, Kothari R, Gupta P, Tyagi VV. Waste petroleum fluid catalytic cracking catalysts as a raw material for synthesizing valuable zeolites: A critical overview on potential, applications, and challenges. Sustainable Materials and Technologies. 2023 Sep 28:e00733. (Impact Factor 8.6)

201. Kalidasan B, Pandey AK, Saidur R, Mishra YN, Ma Z, Tyagi VV. Thermal performance and corrosion resistance analysis of inorganic eutectic phase change material with one dimensional carbon nanomaterial. Journal of Molecular Liquids. 2023 Dec 1;391:123281. (Impact Factor 5.3)

202. Yadav A, Samykano M, Pandey AK, Aljafari B, Tyagi VV. Synthesis and characterization of polyethylene glycol-polymethyl methacrylate infused multiwalled carbon nanotube nanocomposite as an efficient thermal energy storage. Materials Today Communications. 2023 Dec 1;37:107472. (Impact factor 3.7)

203. Bhutto YA, Pandey AK, Saidur R, Aljafari B, Tyagi VV. Analyzing the thermal potential of binary 2D (h-BN/Gr) nanoparticles enhanced lauric acid phase change material for photovoltaic thermal system application. Journal of Energy Storage. 2023 Dec 15;73:109116., (Impact Factor 11.8)

204. Hekimoğlu G, Sarı A, Gencel O, Önal Y, Ustaoğlu A, Erdogmus E, Harja M, Tyagi VV. Thermal energy storage performance evaluation of bio-based phase change material/apricot kernel shell derived activated carbon in lightweight mortar. Journal of Energy Storage. 2023 Dec 20;73:109122., (Impact Factor 11.8)

205. Islam A, Pandey AK, Saidur R, Aljafari B, Tyagi VV. Advancements in foam-based phase change materials: Unveiling leakage control, enhanced thermal conductivity, and promising applications. Journal of Energy Storage. 2023 Dec 25;74:109380., (Impact Factor 11.8)

206. Goel V, Dwivedi A, Mehra KS, Pathak SK, Tyagi VV, Bhattacharyya S, Pandey AK. Solar drying systems for Domestic/Industrial Purposes: A State-of-Art review on topical progress and feasibility assessments. Solar Energy. 2024 Jan 1;267:112210. (Impact Factor 6.0)

207. Singh P, Balasubramanian D, Venugopal IP, Tyagi VV, Goel V, Wae-Hayee M, Kalam MA, Varuvel EG. A comprehensive review on the applicability of hydrogen and natural gas as gaseous fuel for dual fuel engine operation. Energy Sources, Part A: Recovery, Utilization, and Environmental Effects. 2024 Dec 31;46(1):1559-87. (Impact factor 2.9)

208. Pathak SK, Tyagi VV. Comparative thermal performance: An experimental study of self-stored U-pipe vacuum tube collectors operated in closed mode. Energy Sources, Part A: Recovery, Utilization, and Environmental Effects. 2024 Dec 31;46(1):3861-83. (Impact factor 2.9)

209. Balasubramanian K, Pandey AK, Bhutto YA, Islam A, Kareri T, Rahman S, Buddhi D, Tyagi VV. Evolving Thermal Energy Storage Using Hybrid Nanoparticle: An Experimental Investigation on Salt Hydrate Phase Change Materials for Greener Future. Energy Technology. 2024 Apr 14:2400248. (Impact factor 3.6)

210. Kothari R, Singh HM, Goria K, Raina S, Tyagi VV, Ahmad S, Singh R, Sharma A, Sheoran S, Bruno F, Buddhi D. Utilization of rice crop residue to fortify biogas production with mitigation of aerosols for sustainable environment: mechanism, potential strategies, and opportunities. Biomass Conversion and Biorefinery. 2024 Apr 27:1-28. (Impact Factor 3.6)

211. Goria K, Singh HM, Singh A, Kothari R, Tyagi VV. Insights into biohydrogen production from algal biomass: Challenges, recent advancements and future directions. International Journal of Hydrogen Energy. 2024 Jan 2;52:127-51.(Impact factor 8.1)

212. Singh HM, Tyagi VV, Ahmad S, Kothari R. Optimization of flocculation efficiency of Chlorella pyrenoidosa with CaCl2 using the Box-Behnken design of response surface methodology: A cost effective statistical investigation. Biomass Conversion and Biorefinery. 2024 Feb;14(3):3261-73, (Impact Factor 3.6)

213. Kothari R, Azam R, Bharti A, Goria K, Allen T, Ashokkumar V, Pathania D, Singh RP, Tyagi VV. Biobased treatment and resource recovery from slaughterhouse wastewater via reutilization and recycling for sustainable waste approach. Journal of Water Process Engineering. 2024 Feb 1;58:104712. (Impact Factor 6.3)

214. Chopra K, Kumar A, Pathak SK, Tyagi VV, Pandey AK, Mansor M. Impact of sensible storage material and copper fins on the performance of serpentine tube type vacuum tube collector system: Energy, technical and financial assessment. Thermal Science and Engineering Progress. 2024 Feb 1;48:102422. (Impact Factor 7.2)

215. Kalidasan B, Divyabharathi R, Chinnasamy S, Buddhi D, Tyagi VV. Energizing eutectic salt hydrate phase change material using 2D carbon based graphene nanoparticle. InE3S Web of Conferences 2024 (Vol. 488, p. 02018). EDP Sciences.

216. Kothari R, Azam R, Singh HM, Kumar P, Kumar V, Singh RP, Tyagi VV. Nutrients sequestration from slaughterhouse wastewater with kinetic model studies using C. vulgaris for lipid production and reduction in freshwater footprint: a synergistic approach. Waste and Biomass Valorization. 2024 Mar;15(3):1807-18 . (Impact Factor 3.1)

217. Islam A, Pandey AK, Saidur R, Tyagi VV. Shape stable composite phase change material with improved thermal conductivity for electrical-to-thermal energy conversion and storage. Materials Today Sustainability. 2024 Mar 1;25:100678. (Impact Factor 7.1)

218. Jain A, Kothari R, Tyagi VV, Rajamony RK, Ahmad MS, Singh HM, Raina S, Pandey AK. Advances in organic solar cells: materials, progress, challenges and amelioration for sustainable future. Sustainable Energy Technologies and Assessments. 2024 Mar 1;63:103632. (Impact Factor 7.1)

219. Gowthami D, Sharma RK, Tyagi VV, Rathore PK, Sarı A. Development of a novel form-stable phase change material based on alkali activated date seed biochar to harvest solar thermal energy. Journal of Energy Storage. 2024 Apr 1;83:110699., (Impact Factor 11.8)

220. Rajamony RK, Pandey AK, Samykano M, Paw JK, Kareri T, Laghari IA, Tyagi VV. Heat transfer and energy performance analysis of photovoltaic thermal system using functionalized carbon nanotubes enhanced phase change material. Applied Thermal Engineering. 2024 Apr 15;243:122544. (Impact Factor 6.1)

221. Yadav A, Pandey AK, Samykano M, Kareri T, Tyagi VV. Wheat husk derived microparticle infused organic phase change material for efficient heat transfer and sustainable thermal energy storage. Journal of Energy Storage. 2024 May 1;86:111204., (Impact Factor 11.8)

222. Kumar U, Verma A, Tripathi RK, Yadav BC, Haldar T, Tyagi VV, Dixit CK, Huang WM. Excellent field emission with enhanced photodetection behavior of multiwalled carbon nanotubes: experimental and theoretical study. Energy Advances. 2024.

223. Pathak SK, Tyagi VV, Chopra K, Pandey AK. Solar thermal potential of phase change material based U-pipe ETSCs for different climatic zones: Evaluating energy matrices and economic viability. Sustainable Materials and Technologies. 2024 Jul 1;40:e00857. (Impact Factor 8.6)

224. Bhutto YA, Pandey AK, Saidur R, Mishra YN, Tyagi VV. Synergistic impact investigation of 1D/2D hybrid nanoparticles on lauric acid phase change material for thermoelectric generator and heat sink cooling application. Sustainable Materials and Technologies. 2024 Jul 1;40:e00926. (Impact Factor 8.6)

225. Gowthami D, Sharma RK, Ansu AK, Sarı A, Tyagi VV, Rathore PK. Evaluation of carbonized Cotton stalk for development of novel form stable composite phase change materials for solar thermal energy storage. Process Safety and Environmental Protection. 2024 Jun 10. (Impact Factor 6.9)

226. Laghari IA, Pandey AK, Samykano M, Rajamony RK, Bhutto YA, Soomro AH, Kadirgama K, Tyagi VV. Binary nano-enhanced phase change materials (BNePCMs) integrated serpentine flow based photovoltaic thermal system: A new approach towards performance enhancement. Thermal Science and Engineering Progress. 2024 Jun 16:102704. (Impact Factor 7.2)

227. Chopra K, Tyagi VV, Popli S, Kumawat P, Pandey P, Pathak SK, Mansor M, Pandey AK. Impact of myristic acid on novel designed manifold assimilated with domestic solar water heater: An experimental approach. Applied Thermal Engineering. 2024 May 31:123560. (Impact Factor 6.1)

228. Said Z, Pandey AK, Tiwari AK, Kalidasan B, Jamil F, Thakur AK, Tyagi VV, Sarı A, Ali HM. Nano-enhanced phase change materials: Fundamentals and applications. Progress in Energy and Combustion Science. 2024 Sep 1;104:101162. (Impact factor 32.0)

EDITED BOOKS

1. D P Singh, Richa Kothari and **V VTyagi** , Emerging Energy Alternatives for Sustainable Environment, TERI International Press, New Delhi, India (2018), ISBN: 9788179934111
2. Richa Kothari, Vinayak V Pathak and **V VTyagi** , Algal Biofuel: Sustainable Solution, TERI International Press, New Delhi, India, (2020), ISBN: 9789386530943
3. Anita Singh, Richa Kothari, SomvirBajar, Vineet Veer Tyagi. Sustainable Butanol Biofuels, CRC Press, (2023). (ISBN- 9781003165408)

CHAPTER IN EDITED BOOKS

1. V.V. Tyagi, Aditya Chauhan, Ahmet Sari Sanjeev Anand, Energy Storage by PCM for Building Applications, Handbook of Energy Systems in Green Buildings, 2018.
2. Vinayak V Pathak, Richa Kothari, V. V. Tyagi, Balchandra Yadav, Policy Reforms in Indian Energy Sector to Achieve Energy Security and Sustainability, Energy Security and Sustainability, (2016), 351-362, ISBN: 978-1-4987-5443-9, CRC Press.
3. Richa Kothari, Arya Pandey, Virendra Kumar, V. V. Tyagi, Algae-Based Biohydrogen: Current Status of Bioprocess Routes, Economical Assessment, and Major Bottlenecks, Algae and Environmental Sustainability, 77-86, (2015), (ISBN 978-81-322-2641-3) (Springer).
4. Atinkumar Pathak, Richa Kothari, V. V. Tyagi and D.P. Singh, Microbes: A Viable Mean for Wastewater Treatment and Source of Bioenergy, Microbes in Sustainable Management of Soil, Water and Agriculture, Studium Press, ISBN: 978-93-80012-83-4.
5. R. K. Sharma, V.V Tyagi, A. K. Pandey, Advancement in the phase change materials for solar thermal energy storage, Emerging Energy Alternatives for Sustainable Environment, (2016) (TERI Press, New Delhi) ISBN:9788-1799-34111.
6. Atin kumar Pathak, V. V. Tyagi, Richa Kothari, Membrane-Less Microbial Fuel Cell: A Low-Cost Sustainable Approach for Clean Energy and Environment, Emerging Energy Alternatives for Sustainable Environment, (2016) (TERI Press, New Delhi) ISBN:9788-1799-34111.
7. Vijay K. Jayswal, V. V. Tyagi, Richa Kothari, D. P. Singh and S. K. Samdarshi, Role and Initiatives of Indian Government Policies for Growth of Wind Energy Sector, Emerging Energy Alternatives for Sustainable Environment, (2016) (TERI Press, New Delhi) ISBN:9788-1799-34111.
8. Richa Kothari, Kumar Virendra, Panwar N.L., V. V. Tyagi, Municipal Solid Waste Management Strategies for Renewable Energy Options, Chapter-2.8, August 2013; Sustainable Bioenergy Production; Editor: L. Wang, CRC Press, Taylor & Francis Group; (ISBN: 1466505524).
9. Pathak Vinayak V., Chopra A.K., Richa Kothari, V. V. Tyagi, Growth Characteristics of C. Pyrenoidosa cultured in nutrient enriched Dairy wastewater for pollutant reduction and Lipid productivity, Recent Advances in Bioenergy Research, Volume II, SardarSwaran Singh National Institute of Renewable Energy Kapurthala, India, December 2012 (ISBN 978-81-927097- 1-0).
10. Richa Kothari, VermaSarita and V. V. Tyagi, Vermicomposting parameters play an effective role in green sustainable approach, Organic fertilizers: Type Production and Environmental Impact, Editor-Dr. Rajeev Pratap Singh 85-96 (2011); ISSN/ISBN No.: 978-1-62081-422-2.
11. Shamshad Ahmad, Arya Pandey, Vinayak Vandan Pathak, Vineet Veer Tyagi, Richa Kothari, Phycoremediation: Algae as Eco-friendly Tools for the Removal of Heavy Metals from Wastewaters,Bioremediation of Industrial Waste for Environmental Safety, pp 53-76, 2019, (978-981-13-3426-9)
12. Rudraksh S. Gupta, Arjun Tyagi, V. V. Tyagi, Y. Anand, A. Sawhney, S. Anand, Renewable Energy-Driven Charging Station for Electric Vehicles, Energy Systems and Nanotechnology, pp 57-78, 2021 (978-981-16-1256-5)
13. GagandeepKour, KajolGoria, Ashish Pathak, Richa Kothari, Deepak Pathania, Sunil Dhar, V. V. Tyagi, Role of Incineration in the Production of Persistent Organic Pollutants: Is It Safe?,Persistent Organic Pollutants in the Environment 2021, Pages 23, (9781003053170)

14. Richa Kothari, Anita Singh, A. K. Pandey, V. V. Tyagi, DilfuzaEgamberdieva, Sonoko D. Bellingrath-Kimura , Naveen Kumar Arora, Valorization of bio-waste material: future dimensions for path towards sustainability, Environmental Sustainability volume 4, pages199–200 (2021), (2523-8922)
15. KajolGoria,Richa Kothari, Har Mohan Singh, Anita Singh, V.V.Tyagi, Biohydrogen: potential applications, approaches, and hurdles to overcome, Handbook of Biofuels, 2022, Pages 399-418, (978-0-12-822810-4)

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I hereby declare that all statements above are true and complete to the best of my Knowledge.

Place: Jammu, India **Dr. V. V. Tyagi**