



Name of Faculty

Dr. Atul Lanjewar

Designation

Professor

Address

Mechanical Engineering Department, MANIT Bhopal

Phone

9425303410 (M)

E-mail

atulmlanjewar@gmail.com, _lanjewaram@manit.ac.in

Name

Dr. Atul Lanjewar

Date of Birth

13-06-1975

Educational Qualification

- B.E (V.R.C.E., Nagpur now VNIT Nagpur)
- M.Tech (I.I.T., Bombay)
- Ph.D (M.A.N.I.T., Bhopal)

Experience

- 22 years and continuing teaching at M.A.N.I.T. Bhopal
- 16 months teaching experience at N.I.T. Kurukshetra

Specialization

- Heat Transfer, Solar Thermal Energy, Thermal Engineering

Publication

- International Journal- 45
- National Journal- 02
- International Conference- 08
- National Conference- 06
- Book Chapter-01
- Details given in Annexure A below

Lab Developed

- Developed Solar Energy PG Research Laboratory

Reviewer of Journals

- Energy, Elsevier Publication
- Part C: Journal of Mechanical Engineering Science, SAGE Publication
- International Journal of Ambient Energy, Taylor and Francis Publication
- International Journal of Green Energy, Taylor and Francis Publication
- Experimental Heat Transfer, Taylor and Francis Publication

Member of professional bodies

- Associate Member, The Institution of Engineers (India)

Number of P.G. /Ph.D guided	• P.G. Projects Guided: 43 • Ph.D Guided: 07 Awarded, 01 Ongoing
STTP/Workshop Organised	• Co-Cordinator Staff Development Programme on Solar and Wind Energy: Theory and Practice, Sponsored by MHRD-AICTE, 27 Feb – 12 March 2009, MANIT, Bhopal. (2-Week) • Coordinator National Workshop on Recent Trends in Renewable Energy, Co-Sponsored by TEQIP, 09 November-10 November 2012, MANIT, Bhopal (2-day) • Coordinator Short Term Training Programme on Solar Energy and its Applications, Co-Sponsored by TEQIP II, 24 June-28 June 2013, MANIT Bhopal (1-Week) • Coordinator Short Term Training Programme on Recent Trends in Solar and Wind Energy, Co-Sponsored by TEQIP II, 07 February-11 February 2014, MANIT Bhopal (1-Week) • Coordinator of Self Sponsored Short Term Training Programme on Recent Trends in Solar and Wind Energy (RTSWE-2015) from 13 February-17 February 2015, MANIT Bhopal (1-Week) • Coordinator of Self Sponsored Short Term Training Programme on Recent Trends in Solar and Wind Energy (RTSWE-2016) from 20 June - 24 June 2016, MANIT Bhopal (1-Week) • Coordinator of 5-Day Workshop on Modeling and Analysis of Turbo Machinery (MATM-2016) from 21st September – 25th September 2016, MANIT Bhopal Sponsored by TEQIP-II (1-Week)
Conference Organised	• Coordinator of National Conference on Frontiers in Mechanical Engineering, FIME 2013, Mechanical Engineering Department, M.A.N.I.T., Bhopal, August 29-31, 2013. • Co-Coordinator of International Conference on Advances in Renewable Energy, ICARE-2010, Mechanical Engineering Department, M.A.N.I.T., Bhopal, June 24-26, 2010.
Expert Lecture Delivered	• Delivered Keynote Lecture on “Roughened Solar Water Heater” in International Conference on Sustainable Energy & Environment (ICSEE

2024) organized by Chemical Engineering Department MANIT Bhopal on 24/02/2024

- Delivered an Expert Lecture on “Research Identification” at Faculty Development Programme on Research Methodology and How to Write a Good Scientific Research Paper Organised by Department of Mechanical Engineering Bansal Institute of Science and Technology, Bhopal on 11 January 2023
- Delivered an Online Expert Lecture on “Solar Air Heater” at Online Faculty Development Programme on Renewable Energy Organized by Rajasthan Technical University, Kota and Poornima College of Engineering, Jaipur on 16 December 2020
- Delivered an Expert Lecture on “Enhancement in performance of solar air heater using artificial roughness” at Recent Advances in Solar Energy Utilization for Agro-Produce Processing and Production System Organized by ICAR-Central Institute of Agricultural Engineering, Bhopal on 17 December 2019
- Delivered an Expert Lecture on “Heat Transfer Enhancement in Solar Air Heater” at Self Sponsored Short Term Training Programme on Recent Trends in Solar and Wind Energy (RTSWE-2016), Organised by Department of Mechanical Engineering, MANIT Bhopal during 20-24 June 2016.
- Delivered an Expert Lecture on “Solar Air Heater Design” at Short Term Training Programme on Advances in Thermal and Renewable System Design, Organised by Department of Mechanical Engineering, MANIT Bhopal during 30 November-04 December 2015.
- Delivered an Expert Lecture on “Heat Transfer Enhancement in Solar Air Heater” at Self Sponsored Short Term Training Programme on Recent Trends in Solar and Wind Energy (RTSWE-2015), Organised by Department of Mechanical Engineering, MANIT Bhopal during 13-17 February 2015.
- Delivered an Expert Lecture on “Turbo Machinery” at Faculty Development Programme for teaching fraternity of Bansal Group of

	Institute (BGI) in Mechanical Engineering and Civil Engineering Disciplines in Bansal College of Engineering, Mandideep on 27th June 2014. - Delivered an Expert Lecture on “Solar Air Heater” at Short Term Training Programme on Advances in Renewable Energy Systems, Cosponsored by TEQIP-II, Organised by Department of Energy, MANIT Bhopal during 21-25 October 2013. - Delivered an Expert Lecture on “Thermal Performance Improvement of Solar Air Heater Using Artificial Roughness” at Short Term Training Programme on Solar Energy and its Applications, Cosponsored by TEQIP II, Organised by Department of Energy and Department of Mechanical Engineering, MANIT Bhopal during 24-28 June 2013. - Delivered an Expert Lecture on “Heat Transfer Enhancement in Thermal Systems” at Staff Development Programme on Solar & Wind Energy Theory & Practice (Sponsored by MHRD-AICTE) Organised by Department of Mechanical Engineering M.A.N.I.T. Bhopal from Feb 27-March 12, 2009.
Administrative work done	- Member UG Admission Committee for the session 2019-2022 - Professor I/c Air Conditioning from 18/08/2017 to 29/04/2020 - Warden Hostel No. 5 for period 03/06/2016 to 29/04/2020 - Faculty Advisor SAE from 26/07/2013 to 25/07/2017 - Member PG Admission Committee for the session 2010-2011 - Deputy Controller of Examination of the Institute for the period August 2005 to March 2008 - Ph.D Mechanical Department DRPC Coordinator 07 July 2019 to 07 Jan 2022 - M.Tech Thermal Coordinator 31 Jan 2022 to 05 Jan 2025 - M.Tech Thermal Co-Coordinator 13 Sept 2017-12 Sept 2018 - Overall Coordinator Heat Engines Laboratory from 10 July 2015 to 10 July 2017. - Exam Coordinator of Mechanical Engineering Department since September 2009 to September 2014

	• PG Coordinator M.Tech Thermal Engineering of Mechanical Department since August 2011 to December 2013 • Incharge IC Engine Lab from July 2013 and continuing • Incharge Solar Energy Lab from September 2014 and continuing
	Annexure A: Publications Papers Published in International Journals: 45 1. Jitendra Singh, Atul Lanjewar. Thermal performance of solar air heater having discrete symmetrical arc rib with staggered rib roughness, Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, January 2024, 238(2), pp. 598-617 SCIE(Q2) Impact Factor: 1.9 2. Jitendra Singh, Atul Lanjewar. Experimental investigation and performance prediction of SAH using discrete arc rib roughness geometries – A comparative study, Archives of Thermodynamics, May 2024, 45(1), pp. 33-44 Scopus(Q3) Impact Factor: 0.8 3. Sanjeev Kumar Yadav and Atul Lanjewar. Experimental analysis of solar air heater duct with discrete arc-pattern combined staggered element roughness on absorber plate, Environment, Development and Sustainability, 2023, 25(8), pp. 8651–8675 SCIE(Q1) Impact Factor: 4.9 4. Piyush Kumar Jain, Atul Lanjewar, Prem Kumar Chaurasiya, Damodar Tiwari and Vinod Kumar Sharma. Experimental testing of solar-based air heater roughed with discrete V-down rib and staggered element, Environmental Science and Pollution Research, 2023, 30(15), pp. 43137–43151 SCIE(Q1) Impact Factor: 5.8 5. Jitendra Singh and Atul Lanjewar. Effect of physiognomic behaviour of symmetrical arc rib roughness having gaps and staggered rib on the thermal performance of solar air heater, Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2023, 45(1), pp. 1030–1047 SCIE(Q2) Impact Factor: 2.9

6. Piyush Kumar Jain and Atul Lanjewar. Experimental study of thermal augmentation in solar air heater roughened with aligned gaps in V-rib roughness with staggered element geometry, *Heat and Mass Transfer*, 2022, 58(4), pp. 531–559
SCIE(Q2) Impact Factor: 2.2
7. Sumer Singh Patel and Atul Lanjewar. A critical review on different roughness geometries and their effect on heat transfer and friction factor, *Environmental Science and Pollution Research*, 2022, 29(11), pp. 15391–15431
SCIE(Q1) Impact Factor: 5.8
8. Sushant Suresh Bhuvad, Rajnish Azad and Atul Lanjewar. Thermal performance analysis of apex-up discrete arc ribs solar air heater-an experimental study, *Renewable Energy*, 2022, 185, pp. 403–415
SCIE(Q1) Impact Factor: 8.7
9. Piyush Kumar Jain, Atul Lanjewar and Jiwan Lal Bhagoria. Heat transfer analysis of double discrete arc roughness with different relative rib altitudes and relate to a single discrete arc in the solar air heater, *International Journal of Ambient Energy*, 2022, 43(1), pp. 6806–6828
Scopus(Q2) Impact Factor: 0.421
10. Sanjeev Kumar Yadav and Atul Lanjewar. Comprehensive thermo-fluid analysis of staggered rib arc roughness in single pass solar air heater duct, *International Journal of Green Energy*, 2022, 19(9), pp. 986–1004
SCIE(Q2) Impact Factor: 3.3
11. Rajnish Azad, Sushant Bhuvad and Atul Lanjewar. Study of solar air heater with discrete arc ribs geometry: Experimental and numerical approach, *International Journal of Thermal Sciences*, 2021, 167, 107013
SCIE(Q1) Impact Factor: 4.5
12. Piyush Kumar Jain, Atul Lanjewar, Rahul Jain and Kunj Bihari Rana. Performance analysis of multi-gap V-roughness with staggered elements of solar air heater based on artificial neural network and experimental investigations, *Environmental Science and Pollution Research*, 2021, 28(25),

pp. 32905–32920

SCIE(Q1) Impact Factor: 5.8

13. Sumer Singh Patel and Atul Lanjewar. Heat transfer enhancement using additional gap in symmetrical element of V-geometry roughened solar air heater, *Journal of Energy Storage*, 2021, 38, 102545

SCIE(Q1) Impact Factor: 9.4

14. Piyush Kumar Jain, Atul Lanjewar, Kunj Bihari Rana and Makkhan Lal Meena. Effect of fabricated V-rib roughness experimentally investigated in a rectangular channel of solar air heater: a comprehensive review, *Environmental Science and Pollution Research*, 2021, 28(4), pp. 4019–4055

SCIE(Q1) Impact Factor: 5.8

15. Sumer Singh Patel and Atul Lanjewar. Experimental investigation of solar air heater duct with discrete V-rib integrated with staggered elements, *International Journal of Sustainable Engineering*, 2021, 14(2), pp. 162–171

Scopus(Q2) Impact Factor: 3.7

16. Sumer Singh Patel and Atul Lanjewar. Heat transfer and friction factor correlations for solar air heater with gap in v-rib with symmetrical gap and staggered ribs, *Journal of Thermal Science and Engineering Applications*, 2020, 12(3), 031018

SCIE(Q2) Impact Factor: 2.1

17. Jaigopal Ambade and Atul Lanjewar. Experimental investigation of solar air heater with new symmetrical GAP ARC GEOMETRY and staggered element, *International Journal of Thermal Sciences*, 2019, 146, 106093

SCIE(Q1) Impact Factor: 4.5

18. Sumer Singh Patel and Atul Lanjewar. Performance study of solar air heater duct with gap in V-rib with symmetrical gap and staggered ribs, *Heat and Mass Transfer*, 2019, 55(9), pp. 2517–2532

SCIE(Q2) Impact Factor: 2.2

19. Piyush Kumar Jain and Atul Lanjewar. Overview of V-rib geometries in solar air heater and performance evaluation of a new V-rib geometry, *Renewable Energy*, 2019, 133, pp. 77–90

SCIE(Q1) Impact Factor: 8.7

20. Sumer Singh Patel and Atul Lanjewar. Experimental and numerical investigation of solar air heater with novel V-rib geometry, *Journal of Energy Storage*, 2019, 21, pp. 750–764

SCIE(Q1) Impact Factor: 9.4

21. Sumer Singh Patel and Atul Lanjewar. Exergy based analysis of solar air heater duct with W-shaped rib roughness on the absorber plate, *Archives of Thermodynamics*, 2019, 40(4), pp. 21–48

Scopus(Q3) Impact Factor: 0.9

22. Jaigopal Ambade and Atul Lanjewar. Evaluation of roughened duct with similar wideness gap of arc with staggered link and comparison with similar rib roughness geometries, *International Journal of Mechanical and Production Engineering Research and Development*, 2019, 9(5), pp. 1015–1022

Scopus

23. Sanjeev Kumar Yadav and Atul Lanjewar. Performance evaluation of solar collector having broken arc ribs of symmetrical gap with staggered elements, *International Journal of Engineering and Advanced Technology*, 2019, 9(1), pp. 7611-7615

Scopus

24. Sanjeev Kumar Yadav and Atul Lanjewar. The experimental studies of heat transfer and friction factor in a roughened solar air heater using arc rib geometries, *International Journal of Mechanical and Production Engineering Research and Development*, 2019, 9(2), pp. 91-98

Scopus

25. Sumer Singh Patel and Atul Lanjewar. Experimental analysis for augmentation of heat transfer in multiple discrete V-patterns combined with staggered ribs solar air heater, *Renewable Energy Focus*, 2018, 25, pp. 31–39

Scopus(Q2) Impact Factor: 4.8

26. Sanjeev Kumar Yadav and Atul Lanjewar. Experimental investigation of heat transfer and friction factor on a roughened solar air heater, *International*

Journal of Current Trends in Engineering & Technology, November 2018, 4(6), pp. 311-313

27. Piyush Kumar Jain and Atul Lanjewar. Effect of staggered rib length on performance of solar air heater using v-rib with symmetrical gap and staggered rib, ARPN Journal of Engineering and Applied Sciences, 2017, 12(22), pp. 6291–6300

Scopus

28. Piyush Kumar Jain and Atul Lanjewar. Improved thermal performance of solar air heater using v-rib with symmetrical gap and staggered rib, International Journal of Engineering Research and Application, March 2017, 7(3), pp. 13-20

29. Alok Kumar Rohit, A.M. Lanjewar. Assessment of Performance Characteristic of Solar Air Heater with Assorted Geometries - A Review, International Journal of Engineering Research and Applications, January 2016, 6(1), pp. 40-48

30. Alok Kumar Rohit, A.M. Lanjewar. Performance Evaluation of Solar Air Heater by Using W- Discrete Rib Pattern, American Scientific Research Journal for Engineering, Technology and Sciences, 2016, 16(2), pp. 90-97

31. A.M. Lanjewar, J.L. Bhagoria and M.K. Agrawal. Review of Development of Artificial Roughness in Solar Air Heater and Performance Evaluation of Different Orientations for Double Arc Rib Roughness, Renewable and Sustainable Energy Reviews, 2015, 43, pp. 1214–1223

SCIE(Q1) Impact Factor: 15.9

32. Rahul Rathee, Atul lanjewar. Thermal performance analysis of EAHE with and without fins arrangements, International Journal of Engineering and Applied Sciences, June 2015, 2(6), pp. 67-71

33. Rahul Rathee, Atul lanjewar. A Review Paper Different Models of Earth Air Heat Exchanger, International Journal of Recent Research Aspects, June 2015, 2(2), pp. 189-192

34. Alok Kumar Rohit and A.M. Lanjewar. W-Discrete Rib for Enhancing the Thermal Performance of Solar Air Heater, International Research Journal of

Engineering and Technology, December 2015, 2(9), pp. 2181-2186

35. Ajay Kumar Singh, Atul Lanjewar and A. Rehman. Current Status of Direct Fuel Injection in Two Stroke Petrol Engine- A Review, IOSR Journal of Mechanical and Civil Engineering, March-April 2015, 12(2), pp. 86-93
36. Ajay Kumar Singh, A.M. Lanjewar, A. Rehman, Direct Fuel Injection System in Gasoline Engine – A Review, International Journal of Innovative Technology and Exploring Engineering, September 2014, 4(4), pp. 21-28
37. Manoj Kumar Dubey, J.L. Bhagoria, Atul Lanjewar, Earth Air Heat Exchanger in Parallel Connection, International Journal of Engineering Trends and Technology, June 2013, 4(6), pp. 2463-2467
38. Neeraj Sen, Siraj Ahmed, Atul Lanjewar, Re-Powering Potential of Indian Wind Farms: A Review, International Journal of Engineering Research and Applications, July-Aug 2012, 2(4), pp. 1269-1276
39. Sachin Baraskar, K.R. Aharwal, A. Lanjewar, Experimental investigation of heat transfer and friction factor of V-shaped rib roughed duct with and without gap, International Journal of Engineering Research and Applications, Nov-Dec 2012, 2(6), pp. 1024-1031.
40. A.M. Lanjewar, J.L. Bhagoria, R.M. Sarviya, Thermohydraulic performance of solar air collector using w-shaped artificial roughness, Journal of Environmental Research and Development, Jan March 2012, 6(3A), pp. 874-878
41. Atul Lanjewar, J.L. Bhagoria, R.M. Sarviya, Heat transfer and friction in solar air heater duct with W-shaped rib roughness on absorber plate, Energy, 2011, 36(7), pp. 4531–4541
SCIE(Q1) Impact Factor: 9.0
42. A. Lanjewar, J.L. Bhagoria, R.M. Sarviya, Experimental study of augmented heat transfer and friction in solar air heater with different orientations of W-Rib roughness, Experimental Thermal and Fluid Science, 2011, 35(6), pp. 986–995
SCIE(Q1) Impact Factor: 3.2
43. Atul Manikrao Lanjewar, Jiwan Lal Bhagoria, Rishindra Mohan Sarviya,

Performance analysis of W-shaped rib roughened solar air heater, Journal of Renewable and Sustainable Energy, 2011, 3(4), 043110

SCIE(Q2) Impact Factor: 2.5

44. A.M. Lanjewar, J.L. Bhagoria, R.M. Sarviya, Enhancement of heat transfer ratio in a solar air duct with w-shaped roughened absorber plate, Journal of Environmental Research and Development 2010, 5(1), pp. 53-59
45. S.P. Chincholkar, S. Srivastava, A. Rehman, S. Dixit, A. Lanjewar, Biodiesel as an alternative fuel for pollution control in diesel engine, Asian Journal of Experimental Sciences, 2005, 19(2), pp. 13-22.

Papers Published in National Journals: 02

1. Alok Kumar Rohit and Atul Lanjewar. Thermo-Hydraulic Performance Evaluation Using W-Discrete Rib in Solar Air Heater, Indian Journal of Science and Technology, 2016, 9(17), 89056
Scopus
2. A.M. Lanjewar, J.L. Bhagoria, R.M. Sarviya, Heat transfer enhancement in solar air heater, Indian Journal of Science and Technology, 2010, 3(8), pp. 908–910
Scopus

Papers Published in International Conference: 08

1. Atul Lanjewar, J.L. Bhagoria, R.M. Sarviya, Augmentation of heat transfer coefficient by using W-Shape ribs on absorber plate of solar air heater, In: Proceedings of International Conference on Recent Advances in Heat Transfer, ICRAHT Coimbatore, 2006, pp. 307-314.
2. J.L. Bhagoria, A Lanjewar, Investigation of overall enhancement ratio during condensation of R-22 using coiled wire inserts, In: Proceedings of International Conference on Recent Trends in Mechanical Engineering, ICRTME Ujjain, 2007, pp. TH 111-117.
3. J.L. Bhagoria, A.M. Lanjewar, Alok Kumar Shukla, Heat transfer and friction characteristics for packed bed solar air heater, In: Proceedings of International Congress of Environmental Research, ICER-10 UoM, Reduit, Mauritius, 2010, ID. No. T-779, pp. 885.

4. A.K. Shakya, J.L. Bhagoria, A. Lanjewar, Study of thermo-hydraulic performance of rectangular duct with multi V-shaped roughened absorber plate, In: Proceedings of International Conference on Advances in Renewable Energy, ICARE Bhopal, 2010, pp. 860-867.
5. A.K. Shakya, J.L. Bhagoria, A. Lanjewar, The study of thermal efficiency and exergy analysis of a rectangular roughened duct with multi V-shape geometry of roughness on absorber plate, In: Proceedings of International Conference on Advances in Renewable Energy, ICARE Bhopal, 2010, pp. 853-859.
6. S. Raghav, J.L. Bhagoria, A.M. Lanjewar, A Review on performance evaluation of artificially roughened solar air heater, In: Proceedings of International Conference on Global Scenario in Environment and Energy, ICGSE² Bhopal, March 2013, pp. 220-233.
7. Madhur Tiwari, Manoj Kumar Dubey, J.L. Bhagoria, Atul Lanjewar, A Review: Earth tube heat exchanger, In: Proceedings of International Conference on Global Scenario in Environment and Energy, ICGSE² Bhopal, March 2013, pp. 210-219.
8. Rajeev Daimary, Atul Lanjewar, Artificial roughness geometry used in solar air heaters (SAH): A Review, IC MEETS Bhopal, January 2014, pp. 954-964.

Papers Published in National Conference: 06

1. Atul M. Lanjewar, J.L. Bhagoria, Thermal performance of solar sir heater with porous absorber: a review. In: Proceedings of National Conference on Emerging Energy Technologies, NCEET Hamirpur, 2003, pp. 105-109.
2. Atul Lanjewar, J.L. Bhagoria, R.M. Sarviya, Thermal performance of solar air collector by using W-shaped artificial roughness, In: Proceedings of National Conference of Recent Developments and Future Trends in Mechanical Engineering, RDFTME Hamirpur, 2006, pp. 155-159.
3. Madhur Tiwari, J.L. Bhagoria, Atul Lanjewar, Thermal performance of earth tube heat exchanger in series connection, In: Proceedings of National Conference on Frontiers in Mechanical Engineering, FIME Bhopal, August 2013, pp. 23-26.

4. Manoj Kumar Dubey, J.L. Bhagoria, Atul Lanjewar, Thermal performance of earth tube heat exchanger in parallel connection, In: Proceedings of National Conference on Frontiers in Mechanical Engineering, FIME Bhopal, August 2013, pp. 35-37.
5. Rajeev Daimary, Atul Lanjewar, A review on the experimental and analytical analysis of earth air heat exchanger (EAHE) systems, In: Proceedings of National Conference on Frontiers in Mechanical Engineering, FIME Bhopal, August 2013, pp. 114-118.
6. A. Rehman, Atul Lanjewar, Ajay Kumar Singh, Current status of ethanol as biofuel in 2 stroke SI engine, In: Proceedings of National Conference on Frontiers in Mechanical Engineering, FIME Bhopal, August 2013, pp. 149-153.

Book Chapter: 01

1. Atul Lanjewar and Sumer Singh Patel, V-shaped Roughened Geometries and Their Effect on Heat Transfer and Friction Factor in Solar Air Heater, In Book: Sustaining Tomorrow via Innovative Engineering,
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