

CURRICULUM VITAE

Dr. Jodh Singh

Assistant Professor (Mechanical Engineering)

Dr. SSB UICET, Panjab University, Chandigarh (India) 160014

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Research Area:

- ✓ Welding
- ✓ Nanofluidics
- ✓ Thermal engineering



SCOPUS: www.scopus.com/authid/detail.url?authorId=57217455878

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ORCID: <https://orcid.org/0000-0001-7873-6825>

IRINS: <https://pu.irins.org/profile/114293>

Life membership of Professional Bodies

1. High Energy Material Society of India (HEMSI).
2. The Institution of Engineers (India) [M-164689-8]
3. International Association of Engineers (IAENG) [Membership No:144740]

Academic and administrative responsibilities (before joining Dr. SSB UICET, 2013)

1. Lecturer in Mechanical Engineering at CIEVS (sister concern of Sri Sukhmani Institute of Engineering & Technology, Dera Bassi, Punjab. (2002 - 2004)
2. Lecturer cum Head of Mechanical Department at GGSCMT (Guru Gobind Singh College of Modern Technology), Kharar, Mohali, Punjab. (2004 - 2006)
3. Head of Mechanical Engineering Department at DIET (Doaba Institute of Engineering & Technology), Kharar, Mohali, Punjab. (2007 – 2009)
4. Deputy Dean of Academic Affairs at DIET (Doaba Institute of Engineering & Technology), Kharar, Mohali, Punjab. (2009-2010)
5. Assistant Professor in Mechanical Engineering at PUSSGRC (Panjab University Swami Sarvanand Giri Regional Centre, Hoshiarpur, Punjab. (2010 - 2013)

Academic and Other Responsibilities

1. Performed Centre/Deputy/Assistant Superintendent duties for conducting External Regular/Reappear/Viva-voce and internal Examinations as and when assigned by the higher authority.
2. Member of the Joint Admission Committee (JAC) for Undergraduate admissions.
3. Member of the Screening committee for admission to UG/PG Courses (M.E. Courses).
4. Member of the Syllabus Committee for revising the Syllabus.
5. Secretary/Member of various statutory committees (Technical-cum Purchase/Administrative/Academic).

6. Performed the duties of Paper Setter as and when assigned by the Secrecy Branch, PU Chandigarh, and other universities; PTU Jalandhar, KUK Kurukshetra, CU Mohali.
7. Chairman, Technicians' Chapter of Punjab & Chandigarh State Centre, The Institution of Engineers (India) 2019.
8. Executive committee member (Mechanical Division) of Punjab & Chandigarh State Centre, The Institution of Engineers (India) for the Session 2022-2024.
9. Editorial Board Member of the American Journal of Nanosciences from 22 December 2021 to December 22, 2023 (<https://www.sciencepg.com/j/ajn>)
10. Member of the Board of Studies in Environmental Education PU Chandigarh from 01.04.2023 to 31.03.2025
11. Warden Boys Hostel No. 6, Panjab University Chandigarh w.e.f. 1st June, 2023

Selected Published Manuscripts

Book: Welding of Aluminium-An Experimental Approach, LAMBERT Academic Publishing [ISBN: 978-3-659-43646-8.]

Patent: Singh Jodh et al.2024. Intellectual Property India. Design No. 417768-001. filed 23.05.2024. issued.11.07.2024

Research Paper:

- 1 **Jodh Singh**, Rajesh Kumar, Harmesh Kumar, Munish Gupta. Viscosity Analysis of Water-based Copper Oxide Nanofluids. *International Journal of Engineering*, 36, 3, 2023, <https://doi: 10.5829/ije.2023.36.03c.07> (ESCI indexed)
- 2 **Jodh Singh**, Rajesh Kumar, Harmesh Kumar, Munish Gupta. Preparation of GO/DW nanofluids for heat transfer applications, *Materials Today: Proceedings*, Volume 45, Part 6, 2021, Pages 5134-5138, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2021.01.645>. (Scopus indexed)
- 3 Munish Gupta, **Jodh Singh**, Harmesh Kumar, Rajesh Kumar (2021). Thermal Conductivity Analysis of Graphene Oxide Nanofluid Using Three-Level Factorial Design. *Lecture Notes in Mechanical Engineering*. Springer, Singapore, <https://doi.org/10.1007/978-981-15-5151-2-16>. (Scopus indexed)
- 4 **Jodh Singh**, Rajesh Kumar, Munish Gupta, Harmesh Kumar. Thermal conductivity Analysis of GO-CuO/DW Hybrid Nanofluid, *Materials Today: Proceedings*, Volume 28, Part 3, 2020, Pages 1714-1718, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2020.05.134>. (Scopus indexed)
- 5 **Jodh Singh**. Nanofluids for Sustainability of Thermal Industries, *Advances in Thermodynamics and Heat Transfer*, Vol.-5, 2020, ISBN 978-81- 950662-1-6 (2020).
- 6 **Jodh Singh**, Munish Gupta, Rajesh Kumar, Harmesh Kumar. Heat Transfer using Nanofluid. *International Journal of Engineering and Advanced Technology*, Vol.9(2)2019, pp. 3205-3211 [ISSN: 2249-8958]

- 7 **Jodh Singh**, Rajesh Madan, HK Kansal. *Nanofluids as Innovative Coolants*. International Journal of Innovative Research in Science and Engineering, Vol.3 (1), January 2017 [ISSN(P) 2454-0663], <http://data.conferenceworld.in/SGTB/P327-331.pdf?>
- 8 Surinder Singh, **Jodh Singh**, Pawan Dadra. Nanotechnology- Scope, Applications and Challenges. Journal of Engineering & Technology Education, Vol.8, No. 2 July-December,2014. [ISSN 2229-631 X]
- 9 **Jodh Singh**. Nanofluids for Sustainability of Thermal Industries, Advances in Thermodynamics and heat transfer, IE(India), Annual Technical Volume of Mechanical Engineering Division- 5 (2020), (ISBN 978-81-950662-1-6)
- 10 **Jodh Singh**, Surinder Singh Bhinder. Effect of Welding Speed on Depth of Penetration During Arc Welding of Mild Steel Plates, International Journal of Research in Mechanical Engineering and Technology (IJRMET), Vol.4 Issue 2, (2014) pp. 50-52. [ISSN: 2249-5762]
- 11 MP Garg, Sarabjit Singh, **Jodh Singh**. Experimental Investigation of Mechanical Properties of MIG Weldment of Aluminum Alloys Plates. Journal of Engineering and Technology, Vol.1, Issue-2, July-Dec- 2011, pp. 100 to 106. (DOI:10.4103/0976-8580.86643) (ISSN: 0976-8580)
- 12 **Jodh Singh**, “Effects of welding parameters on the mechanical strength of MIG welded Mild steel plates”, in Proceeding of National conference on Mechanical Engineering NCME-2014, PU SSG Regional Centre, Hoshiarpur (Punjab), pp 300-303(November-2014). (ISBN 978-81-930353-0-6)
- 13 **Jodh Singh**, “Innovative manufacturing practice using arc welding of mild steel”, in Proceeding of International conference on Harnessing Engineering, Technology, and Innovation for Sustainable Development, SSB UICET, PU Chandigarh (19-20 September 2014).

Research Papers Presentations in conferences/Seminar:

1. Review Paper on Artificial Intelligence, pp. 8 to 11 (EAN: 8903072071843)
2. Experimental Approach to the Micro study of MIG welded Aluminium Alloy plates, pp. 368 to 373 (EAN: 8903072071843)
3. Study of Effects of Primary Welding Parameters on the Mechanical Strength – An Experimental Approach, pp. 92 to 96 (ISBN: 978-81- 920913-8-9)
4. Paper titled “*Nanofluids as Innovative Coolants*” in 6th International Conference on Recent Trends in Engineering Science and Management (ICRTESM-17) held on 8 Jan. 2017 at NITTTR Chandigarh.
5. Paper titled “Effects of welding parameters on the mechanical strength of MIG welded mild steel plates”, in National conference on Mechanical Engineering NCME-2014 at PU SSG Regional Centre, Hoshiarpur (Punjab) on 7-8 Nov.2014.

6. Paper titled "Effect of Welding Speed on Depth of Penetration During Arc Welding of Mild Steel Plates" in 4th International Conference on Advances in Materials and Manufacturing Technology on 10th Oct. 2014 at Chitkara University Punjab.
7. Paper titled "Bio dielectric Fluids and EDM" in 9th Chandigarh Science Congress-2015 held at PU Chandigarh from 25-27 February 2015.
8. Paper titled "NDT as Primary Tool to Evaluate Weld Joints" in 2nd National Conference on Mechanical Engineering & Technology organized by UIET PU SSG Regional Centre, Hoshiarpur from 6-7 November 2015.
9. Paper titled "Stability of Nanofluids- A technical Challenge" in 2nd National Conference on Mechanical Engineering & Technology organized by UIET PU SSG Regional Centre, Hoshiarpur from 6-7 November 2015.
10. Paper "Nanofluids as New Generation Heat Transfer fluids" in 2nd International Conference on Harnessing Engineering, Technology & Innovation for Sustainable Growth (HETIS-2016) organized by SSB UICET PU Chandigarh from 30 September- 01 October 2016.
11. Paper titled "Challenges in Nanofluid Technology" in 2nd International Conference on Harnessing Engineering; Technology & Innovation for Sustainable Growth (HETIS-2016) organized by SSB UICET PU Chandigarh from 30 September- 01 October 2016.
12. Paper titled "*Review of the Latest Development in Hybrid Nanofluids*" at Int. Conf. on Green Chemistry/Engineering and Technologies for Sustainable Development (GCET-2017), held from 20-22 April 2017 at the Department of Chemistry, PU, Chandigarh.
13. Paper titled "*Production and Stability Concern of nanofluids*" in Int. Conf. on Advanced Materials, Energy and Environmental Sustainability, held from 14-15 Dec 2018 at UPES, Dehradun, India.
14. Paper titled "*Thermal conductivity analysis of CuO/water nanofluid using two-level factorial design*" in 7th Int. Conf. on Advances in Engineering and Technology held from 15-16 March 2019 at BGIET, Sangrur, Panjab, India.
15. Paper titled "*Thermal conductivity analysis of graphene oxide nanofluids using three-level factorial design*" in Int. Conf. on Functional Materials, Manufacturing, and Performances (ICFMMP-2019) held from 12-13 Sept. 2019 at LPU, Panjab, India.
16. Paper titled "*Effect of temperature and Particle loading on Thermophysical properties of Nanofluid*" in Int. Conf. on Progressive Research in Industrial and Mechanical Engineering, held from 5-7 Aug. 2021 organized by NIT Patna, India in online mode.
17. Paper titled "*Preparation of GO/DW nanofluids for heat transfer applications*" in Int. Conf. on Aspects of Materials Science and Engineering (ICAMSE-2021) held from 5-6 March 2021 at UIET, PU, Chandigarh. **(Best Research Paper Award)**

18. Paper titled “*Thermal conductivity Analysis of GO-CuO/DW Hybrid Nanofluid*” in Int. Conf. on Aspects of Materials Science and Engineering (ICAMSE-202) held from 29-30 May 2020 at UIET, PU, Chandigarh.

Seminars /Conferences/Workshops Organised

- 1) Member of the Organizing Team of the event WRAPAGE organized by the Indian Plastic Institute (IPI) at SSB UICET on 28 August 2013.
- 2) Member of Organizing Team of the workshop on Motivating Self and Others held at SSB UICET, PU Chandigarh on 21 September 2013.
- 3) Member of Organizing Team, FDP on Moving from Pedagogy to Andragogy organized by SSB UICET from 30 September to 5 October,2013.
- 4) Member of Organizing Team for Finishing School on Best Industrial Practices for Heat Exchanger Design on 23 October 2013.
- 5) Member of Organizing Team, National seminar on Innovative and Sustainable Engineering on 11 November 2013 at Dr. SSB UICET, PU Chandigarh.
- 6) Member of Organising Team, TEQIP-II Sponsored National Seminar on Recent Advances in Chemical, Environmental and Material Sciences (CEMS-2014) organized By UICET, PU Chandigarh on 26th April 2014
- 7) Member of Organising Team, TEQIP-II Sponsored International Conference on Harnessing Engineering, Technology and Innovation for Sustainable Development (HETIS-2014) organized By UICET PU Chandigarh on September 19-20,2014.
- 8) Member of Organizing Team of CHEMCON 2014 held at UICET, PU Chandigarh from 27-30 December 2014
- 9) Co-convener of Accommodation Committee of organizing team of CHEMCON 2014 held at UICET, PU Chandigarh from December 27-30,2014
- 10) Chairing session of CHEMCON 2014 at UICET, PU Chandigarh from Dec. 27-30, 2014.
- 11) Member of Refreshment and Catering Committee, Birth Anniversary Celebrations of Dr Shanti Swarup Bhatnagar held by UICET PU Chandigarh on 21st February 2015
- 12) Member of Organising Team, National Seminar on Environment Management, Sustainable Development, and Human Health under DST PURSE Grant-II organized by UICET PU Chandigarh on 25 March 2015
- 13) Member of Organising Team of FDP on Corporate Governance, Ethics, and e Social Responsibility organized by SSB UICET, PU Chandigarh from 27 April to 2 May 2015.
- 14) Co-coordinator, Finishing School on Heat Exchanger Design held by UICET PU Chandigarh on 11 April 2015.
- 15) Co-convener of organizing team of FDP on Teaching Pedagogies: Sharpen the Tools organized by SSB UICET, PU, Chandigarh from 19-24 September 2016.
- 16) Member of Organising Team of 2nd International Conference on Harnessing Engineering, Technology & Innovation for Sustainable Growth (HETIS-2016) organized by SSB UICET PU Chandigarh from 30 September- 01 October 2016.
- 17) Member of the Organizing Team of CHASCON 2017 held at PU Chandigarh from 9-11 March 2017.

- 18) Member of Organizing Team of workshop on Research Methodology held at UICET, PU Chandigarh from 20-22 March 2017.
- 19) Member of Organizing Team of Cleanliness & Tree Plantation Drive under Swachh Bharat Abhiyan PU Chandigarh from 26-28 September 2018.

Appreciations/Award

1. Certificate of Appreciation for contributing to the successful conduct of the 11th Chandigarh Science Congress -2017
2. Certificate of Appreciation for organizing Cleanliness & Tree Plantation Drive under Swachh Bharat Abhiyan PU Chandigarh from 26-28 September 2018.
3. Research paper titled “Preparation of GO/DW Nanofluids for Heat transfer applications” selected as the **Best Research paper** at 2nd International Conference Aspects of Materials Science & Engineering – 2021 at Panjab University, Chandigarh.
4. Certificate of Appreciation from Enactus PU Chandigarh for participating in a workshop on Menstrual Health and Hygiene held at SSB UICET on 29 April 2022.
5. Certificate of Appreciation for contributing to the successful conduct of the 16th Chandigarh Science Congress -2023

Research Supervision

- Ph.D.-** 01 (in progress)
- M.E./M.Sc.-** 5 (completed)
- M.E. -**01 (in progress)

Reviewer of the following Journals

1. American Journal of Nanosciences
2. Current Journal of Applied Science and Technology
3. Journal of Energy research and reviews
4. Asian Research Journal of Pure and Applied Mathematics

Professional Training

S. No.	Organiser	Area of training/development	Duration (days)	When (date)
1.	ASC-PU Chandigarh	UGC-sponsored Orientation Programme	28	28 November- 25 December 2013
2.	SSB UICET, PU	Workshop on Creativity and Innovation	1	20 July, 2013
3.	SSB UICET, PU	Workshop on Recent Trends in Food Processing	1	27 September,2013
4.	SSB UICET PU	FDP on Moving from Pedagogy to Andragogy	6	30 September to 5 October 2013.
5.	IIT Kanpur	International Workshop on Novel Combustion Concepts for Sustainable Energy Development at IIT Kanpur	3	2-4, January, 2014
6.	PU Chandigarh	CHASCON-2014	3	26-28, February, 2014
7.	Dr. SSB UICET	National Seminar on Recent Advances in Chemical, Environmental, and Material Sciences (CEMS-2014).	1	26 April, 2014
8.	Dr. SSB UICET	FDP on Health, Environment, and Nanotechnology	6	4-9, August, 2014
9.	Dr. SSB UICET	International Conference on Harnessing Engineering, Technology and Innovation for Sustainable Development (HETIS-2014)	2	19-20, September, 2014
10	Dr. SSB UICET	4th International Conference on Advances in Materials and Manufacturing Technology	1	10 October, 2014
11	PU Chandigarh	CHEMCON 2014	4	27-30 December, 2014
12	PU Chandigarh	CHASCON-2015	3	25-27 February 2015
13	SSB UICET PU	National Seminar on Sustainable Renewable Energy Generation- Current Scenario	1	21 March,2015
14	SSB UICET PU	National Seminar on Environment Management, Sustainable Development and Human	1	25 March,2015
15	SSB UICET PU	FDP on Corporate Governance, Ethics and Corporate Social Responsibility.	6	27 April - 2 May 2015.

16	UIET PU SSG RC, Hoshiarpur	2 nd National Conference on Mechanical Engineering & Technology.	2	6-7 November 2015
17	PEC Chandigarh	One-week STC on Instrumental Techniques for Chemical and Material Analysis (ITCMA-2016).	6	6-11 June, 2016
18	SSB UICET PU	FDP on Teaching Pedagogies: Sharpen the Tools.	6	19-24 September, 2016.
19	SSB UICET PU	2 nd International Conference on Harnessing Engineering, Technology & Innovation for Sustainable Growth (HETIS-2016)	2	30 September- 01 October, 2016.
20	MHRD & PU	GIAN Course in Process Safety and Risk Engineering	6	14-19 November 2016
21	Shri Guru Teg Bahadur Khalsa College, Anandpur Sahib	6 th International Conference on Recent Trends in Engineering, Science & Management (ICRTESM-17)	1	8 January,2017
22	SSB UICET PU	Workshop on Research Methodology held at UICET, PU Chandigarh from	3	20-22 March, 2017.
23	Florida Polytechnic University, USA & Chemistry Deptt. PU, Chandigarh.	International Conference on Green Chemistry/Engineering and Technologies for Sustainable Development (GCET-2017)	3	20-22 April, 2017
24	UGC HRDC PU Chandigarh	Orientation Programme in Research Methodology in Sciences (Interdisciplinary)	21	30 August-19 September,2018
25	UPES, Dehradun, Uttrakhand, India	International Conference on Advanced Materials, Energy and Environmental Sustainability (ICAMEES-2019)	2	14-15, December,2018
26	BGIET, Sangrur, Punjab, India	International Conference on Advancement in Engineering and Technology (ICAET-2019) at BGIET, Sangrur Punjab.	2	15-16, March, 2019

27	AICTE Training & Learning (ATAL) Academy, Jaipur	FDP on 3D Printing & Design	5	25-29, November, 2019
28	Institute for Protein Research, Osaka University	SPARC International Workshop on Peptide and Nanotechnological Approaches for Novel Theranostics	1	31 October, 2019
29	UIET, PU, and GCET Jammu jointly	Int. Conference on Aspects of Materials Science and Engineering ICAMSE 2020 organized by UIET, PU, and GCET Jammu jointly	2	29-30 May 2020
30	Govt. College of Engineering Aurangabad & Karad (M.S.)	One-day Webinar on Data Science and Applications	1	23 May, 2020
31	IFSDAA, AASF Germany, SSARM India	International webinar on Sustainability through Solar and Entrepreneurship	1	4 December, 2020
32	GLA University (MED), Mathura with IIM Mathura Chapter.	One-week International FDP online on Role of materials and processing in Additive Manufacturing: 3D Printing to Industry-2020	6	19-24 July 2020
33	Coimbatore Institute of Technology, Chemical Deptt., Coimbatore	One-week online STC on expanding horizons of nanotechnology in engineering, medicine, and biotechnology (EHNEMB 2020)	6	24-29 August 2020
34	PEC Chandigarh and NIT Patna	One-week STC on Micro-manufacturing: Challenges and Opportunities	5	4-8 January, 2021

35	UIET PU Chandigarh	Int. conference on Aspects of Materials Science and Engineering ICAMSE 2021	2	5-6 March 2021
36	NIT Jalandhar and PPCB, Punjab State Govt. Punjab	National workshop on Air pollution and Health Hazards (APHH-2021)	1	31 March 2021
37	NIT Patna, Mechanical Deptt.	Int. conference on Progressive research in Industrial and Mechanical engineering	3	5-7 August 2021
38	AICTE	Face to face UHV-II FDP	8	12-19July,2023