

Dr. Amit Chauhan

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**UNIVERSITY INSTITUTE OF ENGINEERING & TECHNOLOGY
PANJAB UNIVERSITY, CHANDIGARH – 160014**

Name Dr. Amit Chauhan
Designation: Professor [06 June, 2022]
Department: Mechanical Engineering
Research Areas: **Tribology** (Metal Matrix
Composites and Journal
Bearings)



Education:

Course Details	Year	Institute	University/Board
Ph. D in Mechanical Engg. (Tribology)	Jan. 2006 - June 2011	NIT Hamirpur (HP), India	NIT Hamirpur (HP)
M. E. (Mechanical Engg.)	2002-2004	PEC Chandigarh, India	Panjab University, Chandigarh
B. Tech. (Mechanical Engg.)	1998-2002	NIT Hamirpur (HP) India	HPU Shimla, (HP)

Professional Teaching Experience:

20 Years

Publication:

88 (Published)

[Annexure-I]

Courses/FDP Attended:

16

[Annexure-II]

Conferences/Seminar Organized

06

[Annexure-III]

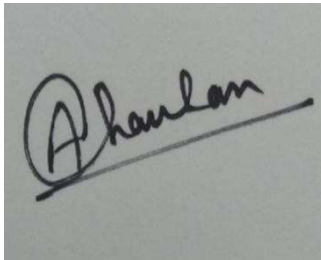
Management Experience

Dean of Student Welfare, PU Chandigarh; Incharge-cum-Principal Investigator, Incubation Centre, PU Chandigarh; Warden [BH-06];

Coordinator Engineering Wing and
Coordinator, Mechanical Department
[PUSSGRC Hoshiarpur (Pb.);

		[Annexure-IV]
Number of Ph. D Guided:	06 Completed, 02 Under Progress	[Annexure-V]
Number of M.E Guided:	13 Completed, 01 Under Progress	[Annexure-V]
Expert Lecture	09	[Annexure-VI]
Book Published	02	[Annexure-VII]
Book Chapter:	03	[Annexure-VII]
Paper Presented in Conferences:	10	[Annexure-VII]
Sponsored Projects/Consultancy Work:	04 (02 Completed, 02 Ongoing)	
	[Rs. 245.63/- Lac]	[Annexure-IX]
Membership of Professional Body	04	[Annexure-X]
Session Chaired in international conferences:	04	[Annexure-X]

Editor Volume 28, Part 3, Pages 1279-2030 (2020), Materials Today: Proceedings



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Publication (88)

a) International Journal (55)

SCI/SCIE/ESCI indexed (23)

1. **Amit Chauhan**, Rakesh Sehgal and Rajesh Kumar Sharma, “Thermohydrodynamic Analysis of Elliptical Journal Bearing with Different Grade Oils”, **Tribology International**, Vol. 43, 11 (2010) pp. 1970-1977, **SCI (ISSN: 0301-679X), Impact Factor=2.903**
2. **Amit Chauhan**, Rakesh Sehgal and Rajesh Kumar Sharma, “A study of thermal effects in offset-halves journal bearing profile using different grade oils”, **Lubrication Science**, Vol. 23, 5 (2011) pp. 233-248, **SCI (ISSN: 1557-6833), Impact Factor=1.414**
3. **Amit Chauhan**, Rakesh Sehgal and Rajesh Kumar Sharma, “Thermohydrodynamic studies based on different oils in offset halves journal bearing”, **Lubrication Science**, Vol. 23, 8 (2011) pp. 375-392, **SCI (ISSN: 1557-6833), Impact Factor=1.414**
4. **Amit Chauhan**, Rakesh Sehgal and Rajesh Kumar Sharma, “Investigations on the Thermal Effects in Non-Circular Journal Bearings”, **Tribology International**, Vol. 44, 12 (2011) pp. 1765-1773, **SCI (ISSN: 0301-679X), Impact Factor=2.903**
5. Jaswinder Singh, and **Amit Chauhan**, “Characterization of hybrid aluminum matrix composites for advanced applications-A review”, **Journal of Materials Research and Technology**, Vol. 5, 2 (2016) 159–169, **SCIE (ISSN: 2238-7854), Impact Factor=5.289**
6. Jaswinder Singh, and **Amit Chauhan**, “Overview of wear performance of aluminium matrix composites reinforced with ceramic materials under the influence of controllable variables” **Ceramic Internationals**, Vol. 42, 1 (2016) 56–81, **SCI (ISSN: 0272-8842), Impact Factor=2.814**
7. Amit Singla and **Amit Chauhan**, “Simulation studies on static thermal behaviour of true elliptical and orthogonally displaced non-circular journal bearing”, **Industrial Lubrication and Tribology**, Vol. 68, 3 (2016) 349-360, **SCIE (ISSN: 0036-8792), Impact Factor=0.688**
8. Amit Singla and **Amit Chauhan**, “Experimental study for performance evaluation of steadily loaded true elliptical and orthogonally displaced non-circular journal bearing profiles”, **Industrial Lubrication and Tribology**, Vol. 68, 6 (2016) 702-711, **SCIE (ISSN: 0036-8792), Impact Factor=0.688**
9. Jaswinder Singh, and **Amit Chauhan**, “Influence of Reinforcement Parameters and Ageing Time on Mechanical Behavior of Novel Al2024/SiC/Red Mud Composites Using Response Surface Methodology”, **The Journal of The Minerals, Metals and Materials Society**, Vol. 69, Issue 12, pp. 2471-2479(2017), **SCI (ISSN: 1047-4838), Impact Factor=1.860**
10. Jaswinder Singh, and **Amit Chauhan**, “Fabrication characteristics and tensile strength of novel Al2024/SiC/red mud composites processed via stir casting route”, **Transactions of Nonferrous Metals Society of China**, Vol.27, 12, pp. 2573-2586 (2017), **SCIE (ISSN: 1003-6326), Impact Factor=1.523**

11. Narender Panwar and **Amit Chauhan**, “Optimizing the effect of reinforcement, particle size and aging on impact strength for Al 6061-red mud composite using Taguchi technique”, *Sadhana*, Volume 43, Issue 7, pp. 1-10 (July.2018), **SCIE (ISSN: 0973-7677), Impact Factor=0.592**
12. Narender Panwar and **Amit Chauhan**, “Analyzing on the Effects of Process Parameters on Tensile strength for Al 6061-Red Mud Composite”, *Journal of Scientific and Industrial* **Volume 77, pp. 646-651 (2018), SCIE (ISSN: 0975-1084), Impact Factor=0.5557**
13. Jaswinder Singh, and **Amit Chauhan**, “Investigations on dry sliding frictional and wear characteristics of SiC and red mud reinforced Al2024 matrix hybrid composites using Taguchi's approach”, *Proceedings of the institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications*, Vol. 0, Issue 0, pp. 1-16 (2018) (**ISSN: 1464-4207**), **Impact factor= 1.281.**
14. Jaswinder Singh, and **Amit Chauhan**, “A review of microstructure, mechanical properties and wear behavior of hybrid aluminium matrix composites fabricated via stir casting route”, *Sadhana*, Volume 43, Issue 7, pp. 1-10 (July.2018), **SCIE (ISSN: 0973-7677), Impact Factor=0.592**
15. Aditi Gupta, YP Verma and **Amit Chauhan**, “Financial analysis of reactive power procurement in pool-based deregulated power market integrated with DFIG-based wind farms”, *International Transition on Electrical Energy Systems*, Vol. 29, pp. 1-20 (2019) **ISSN:2050-7038. Impact Factor= 1.619.**
16. Narender Panwar and **Amit Chauhan**, “Parametric Behaviour optimization of Macro and Micro hardness for Heat Treated Al 6061-Red Mud Composite”, *Journal of Materials Research and Technology*, Vol. 8, Issue 1, pp. 660-669 (2019), **SCIE (ISSN: 2238-7854), Impact Factor=5.289.**
17. Aditi Gupta, YP Verma and **Amit Chauhan** , “Contribution of frequency linked pricing control on ALFC and AVR power system integrated with DFIG based wind farms, *Engineering Science and Technology*, Vol. 23, Issue 2, pp. 325-333 (April 2020), **SCIE, Impact Factor=3.219**
18. Aditi Gupta, YP Verma and **Amit Chauhan** Wind-Hydro Combined Bidding Approach for Congestion Management Under Secured Bilateral Transactions in Hybrid Power System, *IETE Journal of Research*, pp. 1-14 (Sep. 2020), **SCIE, (ISSN-0974-780X), Impact Factor= 2.333**
19. Rajeev Kumar Dang, **Amit Chauhan** and SS Dhama, “Static thermal performance evaluation of elliptical journal bearings with nanolubricants,” *Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology*, Vol. 235 (8), pp. 1627-1640 (2020), **SCIE, Impact Factor=1.397**
20. Rajeev Kumar Dang, Deepam Goyal, **Amit Chauhan** and SS Dhama, “Numerical and Experimental Studies on Performance Enhancement of Journal Bearings Using Nanoparticles Based Lubricants”, *Archives of Computational Methods in Engineering*, Vol. 28, pp. 3887-3915 (2021), **SCIE, Impact Factor=7.351**

21. Gavish Uppal, Amit Thakur, **Amit Chauhan** and Saroj Bala, "Magnesium based implants for functional bone tissue regeneration – A review", *Journal of Magnesium and Alloys*, Vol. 10, Issue 2, pp. 356-386 (2022), **SCIE, (ISSN-2213-9567), Impact Factor=17.6**
22. **Amandeep Singh and Amit Chauhan**, "Fabrication and multi- performance optimization of mechanical properties of novel Babbitt-Ilmenite metal matrix composite using entropy based hybrid Taguchi - grey relational analysis", *Engineering Research Express*, 5 (2023) **ESCI, (ISSN-2631-8695), Impact Factor=1.7**
23. **Amandeep Singh and Amit Chauhan**, "Investigation and Optimization of Tribological aspects of Babbitt-Ilmenite composite using weighted Grey relation analysis", *International Journal of Engineering Transactions B: Applications*, Vol. 36, No. 5, pp. 894-903 (2023), **ESCI (ISSN-1025-2495).**

Scopus Indexed (23)

1. **Amit Chauhan** and Rakesh Sehgal, "An Experimental Determination of Temperature Profile in an Offset-halves Journal Bearing with Different Oils", *Tribology Online*, Vol. 2, 3 (2007) pp. 83-88 (**ISSN 1881-2198**).
2. Manpreet Singh Bhatia and **Amit Chauhan**, "Recumbent Human Powered Trike with Compounded Electric Drive System", *International Journal of Applied Engineering Research*, Vol. 6, 18 (2011) pp. 3126-3130 (**ISSN:0973-4562**)
3. Rakesh Sehgal, **Amit Chauhan**, and Rajesh Kumar Sharma, "An Experimental Investigation of Oil Film Temperatures in Elliptical Profile Journal Bearing", *Tribology Online*, Vol. 8, 1 (2013) pp. 1-6 (**ISSN 1881-2198**)
4. Saroj Bala, and **Amit Chauhan**, "Simulation Studies on Vertical Offset Non-Circular Journal Bearing Profile", *Tribology Online*, Vol. 9, 2 (2014) pp. 31-36 (**ISSN 1881-2198**)
5. Jaswinder Singh, and **Amit Chauhan**, "A Review on Sliding Wear Behaviour of Aluminium Matrix Composites with Hybrid Reinforcements for Automotive Applications", *Tribology Online*, Vol. 9, 2 (2014) 121-134 (**ISSN 1881-2198**)
6. Aditi Gupta, Yajvender Pal Verma, and **Amit Chauhan**, "Effect of Physical Constraints on Load Frequency Control of Deregulated Hybrid Power System Integrated with DFIG Wind Turbine", *International Journal of Engineering and Technology*, Vol. 6, 6 (Dec. 14-Jan 2015) 2629 – 2640 (**ISSN 0975-4024**)
7. Jaswinder Singh, and **Amit Chauhan**, "Assessment of Biomass Resources for Decentralized Power Generation in Punjab", *International Journal of Applied Engineering Research*, Volume 9, Number 8 (2014) pp. 869-875 (**ISSN 0973-4562**)
8. Jaswinder Singh, and **Amit Chauhan**, "Overview of Aluminium Matrix Composites for Automotive Applications", *International Journal of Applied Engineering Research*, Volume 9, Number 8 (2014) pp. 959-966 (**ISSN 0973-4562**)

9. Amit Singla and **Amit Chauhan**, “Evaluation of Oil Film Pressure and Temperature of an Elliptical Journal Bearing - An Experimental Study”, **Tribology in Industry**, Vol. 38 (2016) 74-82 (ISSN: **2217-7965**).
10. Narender Panwar, Ravi Prakash Poonia, Gagandeep Singh, Rahul Dabral, and **Amit Chauhan**, “Effect of lubrication on sliding wear of red mud particulate reinforced aluminium alloy 6061”, **Tribology in Industry**, Vol. 39, No. 3, pp. 307-318, 2017 (ISSN: **2217-7965**).
11. R. Dabral, N. Panwar, R. Dang, R.P. Poonia, **A. Chauhan**, “Wear Response of Aluminium 6061 Composite Reinforced with Red Mud at Elevated Temperature”, **Tribology in Industry**, Vol. 39, No. 3, pp. 391-399, 2017 (ISSN: **2217-7965**).
12. Narender Panwar and **Amit Chauhan**, “Fabrication methods of particulate reinforced Aluminium metal matrix composite-A review”, *Materials Today: Proceedings*, Vol. 5 (14), pp. 5933-5939, 2018.
13. Ayush Awasthi, Narender Panwar, Amandeep Singh Wadhwa and **Amit Chauhan**, “Mechanical Characterization of hybrid aluminium composite-a review”, *Materials Today: Proceedings*, Vol. 5 (14), pp. 27840-27844, 2018.
14. Narender Panwar, Sehdev Saini and **Amit Chauhan**, “Frictional Study of Al 6061 Red-Mud Composite Under the Influence of Different Process Parameters”, *Tribology in Industry*, Vol. 41, No. 2, pp. 199-211, 2019 (ISSN: 2217-7965).
15. Narender Panwar, **Amit Chauhan**, Harveer Singh, and Mukund Dutt Sharma, “Fabrication of Aluminum 6061 Red-mud Composite using Stir Casting and Micro Structure Observation”, *Material Today Proceedings*, Vol. 21 (4), pp. 2014–2023, 2020
16. Narender Panwar and **Amit Chauhan**, “Study of friction force behaviour of red-mud based aluminium matrix composites under influence of various operating parameters”, *Material Today Proceedings* (In press).
17. Rajeev Kumar Dang, Deepam Goyal, **Amit Chauhan** and SS Dhama, “Effect of non-newtonian lubricants on static and dynamic characteristics of journal bearings”, *Material Today Proceedings*, Vol. 28 (3), pp. 1345-1349, 2020.
18. Sudesh Kumar Mittal, Deepam Goyal, **Amit Chauhan** and Rajeev Kumar Dang, “Graphene nanoparticles: The super material of future”, *Material Today Proceedings*, Vol. 28 (3), pp. 1290-1294, 2020.
19. Amandeep Singh and **Amit Chauhan**, “An overview of the controllable process parameters in mechanical characterization of developed hybrid metal matrix composites and their optimization for advanced engineering applications”, *Material Today Proceedings*, Vol. 28 (3), pp. 1295-1301, 2020.
20. Aditi Gupta, YP Verma and **Amit Chauhan**, “Performance comparison of different materials-based energy storage devices in ALFC and AVC power system under frequency linked pricing environment”, *Material Today Proceedings*, Vol. 28 (3), pp. 1546-1553, 2020.
21. RK Dang, SS Dhama, D. Goyal, and **A. Chauhan**, “Effect of TiO₂ and CuO Based Nanolubricants on the Static Thermal Performance of Circular Journal Bearings”, Vol. 43, No. 3, pp. 420-433 (2021), *Tribology in Industry*, (ISSN: **2217-7965**).

22. A. Awasthi, N. Panwar, M. Pant, S. Bala, MD Sharma, and A. **Chauhan**, “Characterization, Fabrication and Dry Sliding Wear Analysis of Hybrid Aluminium 6061 Composite, Vol. 43 (4), pp. 643-653 (2021), Tribology in Industry, (ISSN: **2217-7965**).

23. Amandeep Singh and **Amit Chauhan**, “An Overview of the Mechanical and Tribological Characteristics of Non-Ferrous Metal Matrix Composites for Advanced Engineering Applications”, Tribology in Industry, Vol. 45, No. 1, pp. 51-80, 2023 (ISSN: 2217-7965).

Others (09)

1. Amit Singla, Paramjit Singh, and **Amit Chauhan**, “Experimental Determination of Temperature and Pressure Profile of Oil Film of Elliptical Journal Bearing”, **International Journal of Advanced Mechanical Engineering**, Volume 4, Number 5 (2014), pp. 469-474 (ISSN **2250-3234**)

2. **Amit Chauhan**, Amit Singla, Narender Panwar and Prashant Jindal, “CFD Based Thermo-Hydrodynamic Analysis of Circular Journal Bearing”, **International Journal of Advanced Mechanical Engineering**, Volume 4, Number 5 (2014), pp. 475-482 (ISSN **2250-3234**)

3. **Amit Chauhan**, Amit Singla, Aditya Chhibba and Prashant Jindal, “Static Load Measurement Using Multi Walled Carbon Nanotubes”, **International Journal of Advanced Mechanical Engineering**, Volume 4, Number 5 (2014), pp. 483-487 (ISSN **2250-3234**)

4. **Amit Chauhan**, “Circular Bearing Performance Parameters with Isothermal and Thermo-Hydrodynamic Approach Using Computational Fluid Dynamics”, **International Journal of Research in Advent Technology**, Vol.2, No.7, (July 2014) pp.46-52 (E-ISSN: **2321-9637**).

5. Pranjali Bordoloi, Amit Singla and **Amit Chauhan**, “Study on Mechanical Properties and Microstructure of Aluminum Alloy 63401 Metal Matrix Composite Reinforced with Silicon Carbide Powder”, **Indian Journal of Science and Technology**, Vol. 9, Issue 36 (2016).

6. Vikrant Rana, Amit Singla and **Amit Chauhan**, “Study on Mechanical Properties and Microstructure of Aluminum Alloy 63401 Reinforced with Alumina Powder”, **Indian Journal of Science and Technology**, Vol. 9, Issue 36 (2016).

7. Rajeev Kumar Dang, Deepam Goyal, SS Dhama, and **Amit Chauhan**, “Effect of Nanoparticles based Lubricants on Static Thermal Behaviour of Journal Bearings: A Review”, Research Journal of Engineering and Technology, Vol. 8, Issue 2, pp. 149-153 (2017) ISSN: **2321-581X**

8. Harkamal Preet Singh and **Amit Chauhan**, “Fabrication of Al2024/MWCNT composite”, Research Journal of Engineering and Technology, Vol. 8, Issue 3, pp. 191-194 (ISSN: **2321-581X**).

9. Harinder Singh, Amandeep Singh, and **Amit Chauhan**, “A review on controllable parameters of metal matrix composite development and their optimization”, A Journal of Composite Theory, Vol. 12, Issue 7, pp. 546-556, 2019 (ISSN: 0731-6755) [**UGC-Care Group-II**].

b) National Journal (02)

1. Jitendra Singh, **Amit Chauhan**, Kamal Pal and D. K. Dwivedi, "Surface Roughness of a Cast Al-7% Si-0.5% Mg Alloy in Shaping Operation", **Indian Foundry Journal**, Vol. 49, 1 (January, 2003) pp. 19-23.
2. **Amit Chauhan** and Rakesh Sehgal, "An Experimental Investigation of the Variation of Oil Temperatures in Offset-halves Journal Bearing Profile Using Different Oils" **Indian Journal of Tribology**, Vol. 3, 2 (July-December, 2008) pp. 27-41.

c) International Conference (12)

1. **Amit Chauhan**, Rakesh Sehgal and Manu Dogra, "Influence of sliding velocity and Cu-addition on friction and wear behaviour of Al-Si Base Cast Alloy", **CPIE-2007, NIT Jalandhar**, March 22-24, 2007, Paper code 401 (**ISBN 1-903047-4-7**)
2. Manu Dogra, Vishal S. Sharma, Ajay Gupta and **Amit Chauhan**, "Autonomous Maintenance- A Key Strategy for Improvement in Maintenance of Process Plants", **CPIE-2007, NIT Jalandhar**, March 22-24, 2007, Paper code 636 (**ISBN 1-903047-4-7**)
3. Rakesh Sehgal, **Amit Chauhan** and Rajesh Kumar Sharma, "Development of a Test Rig for Experimental Investigation of Oil-Temperature in Some Non-Circular Journal Bearing Profiles", **Tribo-India Conference, IIT Delhi**, December 11-12, 2009, pp. 8-12.
4. Nadish Saini, Shivam Maitreya, Udit Dureja and **Amit Chauhan**, "Aerodynamic Pressure Drag utilization to Impart Thrust to the body", International Conference on Fluid Dynamics and Thermodynamics Technologies, Fluid Dynamics and Thermodynamics Technologies (**FDTT 2012**), IPCSIT, **Singapore**, March 17-18, 2012, Vol. 33, pp. 1-8 (**ISSN: 2010-460X**).
5. Narender Panwar, M.M. Goud, Yashpal, and **Amit Chauhan**, "An Experimental Study on Aluminum 2014 Composites Reinforced with Silicon Carbide and Fly Ash Particles", International Conference on Advancements and Futuristic Trends in Mechanical And Materials Engineering (AFTMME 2012), **PTU Jalandhar (India)**, Oct. 05-07, 2012, pp. 730-735.
6. Mohit Dhiman, Rakesh Sehgal, D.K. Dwivedi, and **Amit Chauhan**, "Effect of Mn on Fe-rich Intermetallics and Adhesive Wear response of Al-12Si-1Cu-0.1Mg alloy", 3rd International Conference on Production and Industrial Engineering (**CPIE-2013**), **NIT Jalandhar**, March 29-31, 2013 (Paper code: 0817).
7. **Amit Chauhan**, "Thermal Characteristics of Offset-Halves Bearing With Offset Factor", ICME, WCE 2013, **Imperial College of Engineering, London, UK**, (July 03-05, 2013) pp. 1841-1846 (**ISBN: 978-988-19252-9-9**)
8. Aditi Gupta, **Amit Chauhan**, and Rintu Khanna, "Design of AVR and ALFC for Single Area Power System Including Damping Control", Proceedings of RACES-2014, UIET, Panjab University, Chandigarh, March 06-08, 2014 (**ISBN 978-1-4799-2291-8**)
9. Amit Singla, Abhay Kumar, Saroj Bala, Paramjit Singh, and **Amit Chauhan**, "Thermo-Hydrodynamic Analysis on Temperature Profile of Circular Journal Bearing using Computational Fluid Dynamics", Proceedings of RACES-2014, UIET, Panjab University, Chandigarh, March 06-08, 2014, pp. (**ISBN 978-1-4799-2291-8**)

10. Narender Panwar, and **Amit Chauhan**, “Development of Aluminum Composites using Red Mud as Reinforcement- A review”, Proceedings of RACES-2014, UIET, Panjab University, Chandigarh, March 06-08, 2014, pp. **(ISBN 978-1-4799-2291-8)**.
11. Amit Singla, and **Amit Chauhan**, “Experimental Evaluation of Lubricating Oil Film Pressure and Temperature of Elliptical Non-Circular Journal Bearing Profile”, Proceedings of RACES-2015, UIET, Panjab University, Chandigarh, Dec.21-22, 2015, **(ISBN 978-1-4799-2291-8)**
12. Shubham Chawla, **Amit Chauhan**, and Saroj Bala, “Parametric Study of Hybrid Savonius-Darrieus Turbine”, Proceedings of RACES-2015, UIET, Panjab University, Chandigarh, Dec.21-22, 2015, **(ISBN 978-1-4799-2291-8)**

d) National Conference (19)

1. **Amit Chauhan**, V. P. Singh, “Determination of Natural Frequencies of Turbo-machine Blade- By Reissner Method”, **ETME, NIT Kurukshetra**, March 29-30, 2005, 163-168 **(ISBN: 81-7764-674-5)**
2. **Amit Chauhan**, Shreejit and Udayan, “Experimental Study on the Effectiveness of Maruti-800 Radiator”, **ETME, NIT Kurukshetra**, March 29-30, 2005, 259-265 **(ISBN: 81-7764-674-5)**
3. Saroj Bala, **Amit Chauhan**, “N-Type Conduction in Chalcogenide Glasses”, **RDFTME, NIT Hamirpur**, Nov. 02-04, 2006, 55-57.
4. **Amit Chauhan**, Dr. Rakesh Sehgal, “Study of Mechanical Properties of Al-7%Si-0.5%Mg Alloy using Sodium Modifier”, **RDFTME, NIT Hamirpur**, Nov. 02-04, 2006, 351-353.
5. **Amit Chauhan**, Rakesh Sehgal and Rajesh Sharma, “Determination of mid-plane oil temperatures in offset-halves journal bearing profile using different oils”, Proceedings of **NCMSTA’08 Conference, NIT Hamirpur**, Nov. 13-14, 2008, 376-381.
6. Rakesh Sehgal, **Amit Chauhan** and Rajesh Kumar Sharma “Analysis of an Offset-halves Journal Bearing using different grade oils” National Tribology Conference (NTC-2011), **IIT Roorkee**, Dec. 08-10, 2011.
7. Narender Panwar, M.M. Goud, Yashpal, and **Amit Chauhan**, “Study of Mechanical Properties for AL2014 SiC Composite”, **Advances in Manufacturing Technology, NITTTR Chandigarh**, March 15-16, 2012, 79-82.
8. Abhinav Bhardwaj and **Amit Chauhan**, “Some studies of Symmetric and Non-symmetric airfoils used in vertical wind Turbine”, **Advances in Manufacturing Technology, NITTTR Chandigarh**, March 15-16, 2012, 170-175.
9. Amit Singla and **Amit Chauhan**, “GA Based Concurrent Tolerance Design of One way Clutch Assembly Considering Quality Loss Function”, **Advances in Manufacturing Technology, NITTTR Chandigarh**, March 15-16, 2012, 176-181.
10. **Amit Chauhan**, Tanvi Jain, Narender Singh, and Narender Panwar, “Analysis of crankshaft of Diesel Engine using Finite Element Modeling”, National Conference on Recent Trends in

Engineering and Technology (RTET 2012), **PPIMT, Hisar (Haryana)**, June 4-6, 2012, 275-277.

11. Harsh Goel, Narender Panwar, Yashpal and **Amit Chauhan**, “Review of the Bernoulli’s Principle to Explain the Lift”, National Conference on Recent Trends in Engineering and Technology (RTET 2012), **PPIMT, Hisar (Haryana)**, June 4-6, 2012, 278-284.

12. **Amit Chauhan**, Nadish Saini, Shivam, Udit Dureja and Narender Panwar, “Shape optimization to utilize pressure difference at front and rear of the body”, National Conference on Trends and Advances in Mechanical Engineering (TAME 2012), **YMCA University of Science & Technology, Faridabad**, Oct. 19-20, 2012, 275-281(**ISBN: 978-93-5087-574-2**)

13. **Amit Chauhan**, “Investigations of the Variation of Bush Temperature of an Offset-halves Journal Bearing Profile”, National Conference on Trends & Advances in Mechanical Engineering (TAME 2012), **YMCA University of Science & Technology, Faridabad**, Oct. 19-20, 2012, 282-288(**ISBN: 978-93-5087-574-2**).

14. Amit Singla and **Amit Chauhan**, “Effect of Journal Speed on Thermohydrodynamic Analysis of Circular Journal Bearing Using CFD”, **Proceedings of National Conference on Advancements in Simulation Techniques and Experimental Techniques in Mechanical Engineering** (NCASEME-2014), April 15-16, 2014, 209-214.

15. Aditi Gupta, **Amit Chauhan**, and Rintu Khanna, “Frequency Control Ancillary Service for Deregulated Hybrid Power System having GRC”, **Proceedings of National Conference on Recent Advances in Power Systems (RAPS-14)**, PEC, University of Technology, Chandigarh, June 28, 2014, pp. 349-354 (**ISBN 978-93-83842-59-9**)

16. Jaswinder Singh and **Amit Chauhan**, “Tensile behaviour and strengthening mechanism of hybrid aluminium matrix composites-A Review”, NCME 2014, UIET Regional Centre, Hoshiarpur (Pb.), Nov. 07-08, 2014, pp. 282-286 (**ISBN: 978-81-930353-0-6**)

17. Rajeev Kumar Dang, Gaurav Saini, and **Amit Chauhan**, “Synergistic effect of total productive maintenance and total quality management on improving manufacturing performance”, NCME 2014, UIET Regional Centre, Hoshiarpur (Pb.), Nov. 07-08, 2014, pp. 304-309 (**ISBN: 978-81-930353-0-6**).

18. Shubham Chawla, Sanujya Gupta, **Amit Chauhan**, and Saroj Bala, “Effect of darrieus blade number on hybrid vertical wind turbine”, NCME 2015, UIET Regional Centre, Hoshiarpur (Pb.), Nov. 06-07, 2015 (**ISBN: 978-81-930353-1-3**).

19. Amit Singla and **Amit Chauhan**, “Study of thermal behavior Non-circular hydrodynamic journal bearings-A review”, NCME 2015, UIET Regional Centre, Hoshiarpur (Pb.), Nov. 06-07, 2015 (**ISBN: 978-81-930353-1-3**).

Short-term training Courses/FDP/Events Attended:

Sl. No	Name of the Short-term training/FDP	Period	Venue	Role
1.	International Webinar on ‘Current Global Scenario and India: Challenges, Prospects & Role’	15-17.05.2020	BSM Kanpur and Shodh-Dhara [Online Mode]	Participant
2.	Short Term Course on Research Methodology (All Subjects)	25.09.2018 to 01.10.2018	UGC Academic Staff College, PU, Chandigarh	Participant
3.	Short Term Course on Environmental Awareness (All Subjects)	18.01.2019 to 24.01.2019	UGC Academic Staff College, PU, Chandigarh	Participant
4.	Information Technology (interdisciplinary) Equivalent to Refresher Course in Engineering	08-28.12.2015	Computer Science & Applications, PU Chandigarh	Participant
5.	7 Epsilon for ISO 9001:2015	23.07.2015	PEC University of Technology, Chandigarh	Participant
6.	Workshop on Quality initiatives in Technical & Higher Educational Institutes	21-23.03.2014	UIAMS, PU Chandigarh	Participants
7.	Recent Advances in Engineering and Computational Sciences	06-08.03.2014	UIET, Panjab University, Chandigarh	Participant
8.	7 th Chandigarh Science Congress 2013	26-28.02.2014	PU Chandigarh	Participant
9.	BAJA SAEINDIA 2014	21-23.02.2014	NATRIP, Pithampur	Participant
10.	7 th Chandigarh Science Congress 2013	01-03.03.2013	PU Chandigarh	Participant
11.	Advances In Manufacturing Technology	15-16.03.2012	National Institute of Technical Teachers	Participant

			Training and Research	
12.	EFFICYCLE-2011	14-16.10.2011	UIET, Panjab University, Chandigarh	Participated
13.	Interdisciplinary Refresher Course in Women Studies (Mech. Engg.)	26.02.2011 to 18.03.2011	Department of Women's Studies & Development, PU, Chandigarh	Participant
14.	Orientation Program	27.11.2010 to 24.12.2010	UGC Academic Staff College, Panjab University, Chandigarh	Participant
15.	CAD/CAM and Robotics	07-11.01.2008	Dept. of Mechanical Engineering NIT Hamirpur (H.P)	Participant
16.	Entrepreneurship Awareness Camp	06-07.10.2001	Regional Engineering College Hamirpur (H.P)	Participant

Conferences/Seminar Organized

S. No	Name	Period	Venue	Role
1.	International Conference on Aspects of Material Science and Engineering (ICAMSE-2020)	29-30.05.2020	UIET, Panjab University, Chandigarh	Coordinator
2.	National Seminar on Research Resurgence	17-18.01.2020	Golden Jubilee Hall, PU Chandigarh	Event Coordinator
3.	National Conference on Advances in Mechanical Engineering (NCAME-2011)	20-21.05.2011	UIET, Panjab University, Chandigarh	Organizing Secretary
4.	EFFICYCLE-2014	09-12.10.2014	UIET, Panjab University, Chandigarh	Co-ordinator
5.	AAVISHKAR-2013	13-15.09.2013	UIET, Panjab University, Chandigarh	Organizing Secretary
6.	EFFICYCLE-2012 (Main Round)	12-14.10.2012	UIET, Panjab University, Chandigarh	Faculty Advisor

Management Experience:

S. No.	Position held	Department/ Organization	Period		Total Years
			From	To	
1.	Dean of Student Welfare (DSW)	Panjab University, Chandigarh	06.02.2024		
2.	Incharge-cum-Principal Investigator, Incubation Centre	Panjab University, Chandigarh	18.05.2023		
3.	Warden, Boys Hostel-6	Panjab University, Chandigarh	31.05.2018	31.05.2023	05Years
4.	Co-ordinator Mechanical Engineering	SSG Panjab University Regional Center, Hoshiarpur, Punjab	01.04.2007	02.09. 2008	01 Year, 05 Months
5.	Co-ordinator Engineering Wing	SSG Panjab University Regional Center, Hoshiarpur, Punjab	01.08.2007	02.09.2008	01 Year, 01 Month

Research Guidance:

Sl. No.	Name of the Student with Regd. No.	Title of the thesis	Discipline & Faculty & Name of the University	Awarding year
Ph. D (06)				
1.	Amit Singla (2011-ez-116)	Investigations on Thermal Behavior of Non-Circular Hydrodynamic Journal Bearing Profiles	Engineering and technology, PU, Chandigarh	Sep. 2016
2.	Jaswinder Singh (02-ER-668)	Investigations on The Mechanical and Wear Properties of Hybrid Aluminum 2024 Composite Reinforced with SiC and Red Mud	Engineering and technology, PU, Chandigarh	June, 2018
3.	Narender Panwar (18897)	Development and Mechanical Characterization of Aluminum 6061 Composite Reinforced with Red Mud	Engineering and technology, PU, Chandigarh	June, 2018
4.	Aditi Gupta (2002-er-553)	Ancillary services management in De-Regulated Hybrid Power System with Significant wind power	Engineering and technology, PU, Chandigarh	Oct. 2019
5.	Rajeev Kumar (15/1106/Ph.D)	Performance Evaluation of Nano-Particles Waste Lubricants on Static Thermal Behavior of Non-Circular Journal Bearings	NITTTR, Chandigarh	Feb. 2023
6.	Amandeep Singh (19-20/332/Ph. D)	Tribo-mechanical studies and optimization of the process parameters of Babbitt-Ilmenite metal matrix composite for Bearings	Engineering and technology, PU, Chandigarh	Oct. 2023
M.E. (13)				
1.	Vikrant Rana (14MME1012)	To study the mechanical and tribological behavior of Al 63401 Reinforced with Aluminum Powder	Chandigarh University, Punjab	2016
2.	Pranjal Bordoloi (14MME1007)	Study on mechanical properties and microstructure of aluminum alloy 63401 reinforced with silicon carbide powder	Chandigarh University, Punjab	2016
3.	Ravi Prakash Poonia (10-UIT-376)	Effect of lubrication on wear behavior of red mud particulate-reinforced aluminum 6061	Engineering and technology, PU, Chandigarh	2016
4.	Rahul Dabral	Wear response of aluminum 6061	Engineering and	2016

	(09-UIT-482)	composite reinforced with red mud at elevated temperature	technology, PU, Chandigarh	
5.	Sehdev Saini (10-UIT-363)	Fabrication and mechanical characterization of thermoplastics PET and PETG	Engineering and technology, PU, Chandigarh	2017
6.	Ayush Awasthi (16-908)	Mechanical Characterization of Hybrid Aluminium (Al6061+SiC+Red-mud) Composite	Engineering and technology, PU, Chandigarh	2018
7.	Rajesh Kumar (16-918)	Tribological Characterization of Al6061 Composite reinforced with SiC and Red-mud at Elevated temperature	Engineering and technology, PU, Chandigarh	2019
8.	Harinder Singh (17-908)	Mechanical Characterization of Babbitt Metal Matrix Composite (Grade 2 Babbitt + Ilmenite)	Engineering and technology, PU, Chandigarh	2020
9.	Gavish Uppal (17-918)	Effect of Boron Addition on Mg4Zn Orthopaedic Implant	Engineering and technology, PU, Chandigarh	2020
10	Himanshu Nagar (19-907)	Mechanical Characterization of Babbitt Metal Matrix Composite (Grade 2 Babbitt + Ilmenite)	Engineering and technology, PU, Chandigarh	2021
11	Pawan Kumar (20-912)	To analyze the effect of process parameters on mechanical behavior of babbitt-ilmenite metal matrix composites and their optimization	Engineering and technology, PU, Chandigarh	2023
12	Shashank (20-915)	To fabricate and analyse wear behaviour of babbitt-ilmenite metal matrix composite	Engineering and technology, PU, Chandigarh	2023
13	Rishav Rai (21-910)	Design and Development of Fault Detection machine for Printed Circuit Board	Engineering and technology, PU, Chandigarh	2024

Ongoing:

Sl. No.	Name of the Student with Regd. No.	Title of the thesis	Discipline & Faculty & Name of the University	Awarding year
Ph. D (02)				
1	Kawalpreet Singh (19-20/55/Ph. D)	Investigations on development of environmentally sustainable paper board from Paddy Straw.	Engineering and Technology, PU, Chandigarh	Undergoing
2	Priyanshu Mohan		Engineering and Technology, PU, Chandigarh	Undergoing
ME (01)				
1				Undergoing

Expert Lecture

Sl. No	Name of Conference/ Seminar, Venue	Topic and Date	Course Dates
1	3 rd International Conference on Aspects of Materials Science and Engineering (ICAMSE2022), Golden Jubilee hall, PU Chandigarh	Red-Mud Based Aluminium Composite Materials, 04.03.2021	04.03.2021 to 04.03.2021
2.	Faculty Induction Programme-II/HRDC JNU New Delhi (Online Mode)	Need of Research Resurgence, 04.12.2020	16.11.2020 to 14.12.2020
3.	National Seminar on 'Research Resurgence', PU Chandigarh	Need of Research Resurgence, 18.01.2020	17-18.01.2020
4.	FDP on 'Pedagogy', NIT Srinagar	Research Resurgence, 02.04.2019	01-05.04.2019
5.	FDP on 'Pedagogy', NIT Srinagar	Teachers and Society, 03.04.2019	01-05.04.2019
6.	National Conference on Advancement in Mechanical Engineering, Aryans Group of College, Rajpura (Pb.)	Stability of A Journal Bearing, 12.03.2016,	12.03.2016
7.	Advanced Research in Material, Manufacturing and Mechanical Engineering, Department of Mechanical Engineering of GZS PTU campus, Bathinda	Introduction to Tribology, 27.10.2014,	27-31.10.2014
8.	Two Weeks SDP on Advancements in Manufacturing and Energy Systems, CGC Gharuan, Mohali, Punjab	Tribology Testing, 11.05.2012	07-18.05.2012
9.	Two Weeks SDP on Advancements in Manufacturing and Energy Systems, CGC Gharuan, Mohali, Punjab	Overview of Tribology, 11.05.2012	07-18.05.2012

Book/Book Chapter Published

Sl. No.	Title	Published Media
1	Vertical Axis Wind Turbine, 1-76, Amit Chauhan	LAP Lambert Academic Publishing, 2014 , ISBN: 978-3-659-52113-3
2	Non-circular Journal Bearings, 1-51, Amit Chauhan	Springer, 2016 , 978-3-319-27331-0
Book Chapter		
1	Amit Chauhan and Rakesh Sehgal, “Thermal Studies of Non-Circular Journal Bearing Profiles: Offset-Halves and Elliptical”, 3-24,	October, 2012 , InTech Publishers (ISBN 978-953-51-0786-6)
2	Amit Chauhan , “Role of Offset Factor in Offset-Halves Bearing”, Chapter-9, Transactions on Engineering Technologies,	Springer Science+Business Media Dordrecht, 2014 (ISBN 978-94-017-8831-1)
3	Amit Chauhan , Jaswinder Singh and Saroj Bala, “Optimization of Reinforcement Parameters and Turning Conditions for Improving Surface Quality of Hybrid Al-SiC-Red Mud Composite for Automotive and Aerospace Components” Chapter-12, Advanced Composites in Aerospace Engineering Applications, 237-262.	Springer, 2022 (ISBN: 978-3-030-88191-7, 513145_1)

Paper Presented in Conferences:

Sl. No	Title, Name of Conference/ Seminar and Venue	Year
1.	Graphene nanoparticles: The super material of future, ICASME2020, UIET, PU Chandigarh	29-30.05.2020
2.	Friction characteristics of hybrid aluminium 6061 composite reinforced with silicon carbide and red-mud, International Conf. on Tribology (TRIBOINDIA 2018), VJTI, Mumbai,	13-15.12.2018
3.	“Mechanical Characterization of Hybrid Aluminium Composite-A Review”International Conference on, “Composite Materials: Manufacturing, Experimental, Modeling and Simulation”, at LPU, Punjab	15-17.03.2018
4.	Recent Advances in Engineering and Computational Sciences, PU Chandigarh	21-22.12.2015
5.	Harnessing Engineering, Technology and Innovation for Substantial Development (HETIS), PU Chandigarh	19-20.09.2014
6.	Harnessing Engineering, Technology and Innovation for Substantial Development (HETIS), PU Chandigarh	19-20.09.2014
7.	International Conference of Mechanical Engineering, Imperial College London (UK)	03-05.07.2013
8.	Advancements in Mechanical Engineering & Energy Environment (AMEEE), SLIET Longowal	06-07.01.2012
9.	National conference on Research and developments and future trends in Mechanical Engineering (RDFTME), NIT Hamirpur (HP)	03-04.11.2006
10.	All India Seminar on Emerging Trends in Mechanical Engineering, NIT Kurukshetra (Hr)	29-30.03.2005

Sponsored Projects/Consultancy Work:

Sl. No .	Name of the Project/ Consultancy	Sponsoring Agency, Year	Role	Amount sanctioned	Status
1.	Experimental Determination of the Thermal Behaviour of Some Non-circular Journal Bearing Profiles	AICTE, 04.02.2013-04.02.2016,	PI	8.91 Lac	Completed
2.	Tribological Characterization of Al6061-Red Mud Composite	DST-SERB, New Delhi 31.10.2013-31.10.2016	PI	15.22 Lac	Completed
3.	Centre for Bio-mechanical engineering and medical devices, [FIST Level-1]	DST, 2019 [SR/FST/ET-I/2019/421]	Co-Investigator	123 Lac	On-going
4.	Panjab University Incubation Centre (PUIC), Under RUSA 2.0	MHRD, Department of Higher Education, GoI	Incharge-cum-PI	98.50 Lac	May, 2023-

Membership of Professional Society

- (i) Tribology Society of India, Life member, **LM 3801**
- (ii) High Energy Materials Society of India, Life Member.
- (iii) International Association of Engineers (IAENG), member (**Member Number: 128998**)

Session Chaired:

- 1. International Conference in Mechanical Engineering, 2013 (WCE 2013) at Imperial College London, UK.**
- 2. International Conference in Mechanical Engineering, 2020 (ICASME 2020) at UIET, PU Chandigarh**
- 3. International Conference in Mechanical Engineering, 2020 at NIT Jaipur.**
- 4. International Conference in Mechanical Engineering, 2021 (ICASME 2021) at UIET, PU Chandigarh**