CHITRANJAN AGRAWAL

Assistant Professor
Department of Mechanical Engineering
College of Technology and Engineering
Maharana Pratap University and Technology, Udaipur
INDIA
chitranjanagr@gmail.com

+91-0294-2470510(O); +91-9413025570 (M); +91-0294-2471770(R);
+91-294-2471056 (fax)

EDUCATION

Ph. D.	Mechanical	2013	Indian Institute of Technology Roorkee, Roorkee
M. Tech.	Energy Studies	2004	Indian Institute of Technology Delhi, Delhi
PGDIM	Management	2001	Indhira Gandhi National Open University, New Delhi
B. E.	Mechanical	1995	Malviya Regional Engineering College, Jaipur
B. Sc.	Science Math's	1990	Maharaja College University of Rajasthan, Jaipur

AREA OF SPECIALISATION

Heat Transfer; Refrigeration & Air-conditioning; Thermal Engineering, Energy Systems

EXPERIENCE

Academic

1. Assistant Professor, Mechanical Engineering,
   May 2005 – To Date,
   College of Technology and Engineering, MPUAT, Udaipur, Rajasthan

   Developed and implemented interesting and interactive learning mediums to increase student understanding of course materials. Developed interesting course plans to meet academic, intellectual and social needs of students. Lectured on heat transfer, refrigeration air conditioning, internal combustion engine, gas dynamics and turbine, automobile, modernized instrumentation, heat transfer, refrigeration and fluid lab. Authored text book on engineering mechanics, publications in SCI indexed journals, lab manual on thermal engineering. Edited book on computational and measurement techniques in research and on nanotechnology. Organized theme-related courses, training program, workshops and seminars. Member of several review and editorial board for journal of national and international level.

2. Lecturer, Mechanical Engineering,
   July 2000 – July 2002,
   Maharisi Arvind Institute of Engineering and Technology, Jaipur, Rajasthan.

   Developed infrastructure for Mechanical Engineering department as per intake of 120 students. Established complete Mechanical Engineering lab, Automobile Engineering lab and Mechanical Workshop. Supervised sports and cultural activities, Organized the sports and cultural event with a cross-country race "A RACE FOR THE ENVIRONMENT". Introduced collage Magazine "SRAJAN", coordinated college and university level examination with proper liaising with university personnel.

Industrial

3. Jr. Works Manager,
   March 2004 – May 2005.
   Ministry of Defense Govt. of India Ordnance Factory MPF Ambarnath, Maharastra

   Supervised inspection of incoming raw material, on process components and outgoing finished defense store to ensure on time delivery. Coordinated and developed new methods to reduce inspection time in collaboration with production team. Implemented root cause and corrective actions to remove production constraints and improve product quality. Coordinated preventative maintenance on existing and new production equipment, including routine calibration. Trained, developed and counseled employees to develop a high performing team.

4. Product Development R & D Engineer,
   Apr. 1997 – July 2000,
   Autolite India Ltd. 100% EOU, Jaipur, Rajasthan

   Coordinated and developed new product design of automotive Halogen bulbs in collaboration with other engineering and tool room staff. Assist in the research of new product design production. Improved efficiency and productivity by eliminating waste and production constraints. Established and adjusted work procedures to meet production schedules. Supervised production schedules, production quality and on time delivery.

5. Graduate Engineering Trainee,
   May 1996 - March 1997,
   Vikram Cement, GRASIM Industries, Khor, M.P.

   Coordinated preventative maintenance activities as per schedule to ensure uninterrupted working of plant. Resolved part and assembly discrepancies, carried our break down maintenance of equipment's being used in dry process cement plant e.g. Kline, ball mill, crusher, compressor, pump, heat exchanger, conveyors etc. Maintained and enforced a safe and clean working environment at all times.

Administrative and other responsibilities in academic institute

- Member of NBA accreditation committee of the college for Mechanical Engineering Department, July 2014, Till date
- Warden, MV Hostel, College of Technology and Engineering, Udaipur, April 2013 To Date
- Editor, College Magazine “Techview”, College of Technology and Engineering, Udaipur, August 2012 To Date
- Internal member of committee of course of Department, April 2014 To Date
- Member of selection committee for the admission of Ph. D. and M. Tech students, 2014 To Date
- Technical facilitator, TOCIC of PRISM, DSIR, Govt. of India, March 2014 To Date
- Member of MIS cell, TEQIP Project of Govt. of India, Sept. 2013- July 2016
- Convener departmental Seminar / Project evaluation committee, July 2007- July 2009, July 2012 To Date
- Member of various organizing committees for college level competitions and culture events, July 2005-July 2009, July 2012- Till date
- Member college procurement tender committee, Oct. 2012-March 2013.
- Member of physical verification committee, Maharana Pratap University of Agriculture and Technology, 2014 To Date.
- Member of college level anti ragging committee, 2012 To Date.
- Member of organizing committee university convocation Maharana Pratap University of Agriculture and Technology, 2013-2017.
- Convener and member of college games council, Oct. 2005-July 2009.
- Convener department Time Table, July 2005-July 2009.
- Convener college games and sport activities, MAIET, Jaipur, Nov. 2000-Nov. 2001.

RESEARCH PUBLICATIONS

Refereed Journals

(SCI indexed 12 Nos, ASME, Science direct, Springer, Taylor Francis, Begell house)

1. **Chitranjan Agrawal**, R. Kumar, A. Gupta, B. Chatterjee, Rewetting and Maximum Surface Heat Flux During Quenching of Hot Surface by Round Water Jet Impingement, International Journal of Heat and Mass Transfer, Vol. 55, pp. 4772-4782, 2012.
2. **C. Agrawal**, R. Kumar, A. Gupta, B. Chatterjee, Effect of Jet Diameter on the Rewetting of Hot Horizontal Surfaces During Quenching, Experimental Thermal and Fluid Science, Vol. 42, pp. 25-37, 2012.
3. J. K. Maherchandani, **Chitranjan Agarwal**, Mukesh Sahi, Economic Feasibility of Hybrid Biomass/PV/Wind System for Remote Villages Using HOMER, International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 1(2), pp 49-53, 2012.
4. **Chitranjan Agarwal**, J. K. Maherchandani, M Sahi, Effect of Nozzle Exit to Surface Spacing on the Cooling of Electrically Heated Surface with Jet Impingement, International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 1(2), pp 73-77, 2012.
5. J. K. Maherchandani, **Chitranjan Agarwal**, Mukesh Sahi, Estimation of Solar Cell Model Parameter by Hybrid Genetic Algorithm Using MATLAB, International Journal of Advanced Research in Computer Engineering & Technology, Vol. 1(6), pp 78-81, 2012.
6. **Chitranjan Agarwal**, J. K. Maherchandani, Effect of Impinging jet diameter on the Transient Cooling of Electrically Heated Stainless Steel Surface, International Journal of Advance Scientific and Technical Research, Vol. 4 (2), pp. 666-669, 2012.
7. **Chitranjan Agarwal**, J. K. Maherchandani, Effect of Flow Rate on the Cooling of Electrically Heated Hot Surface during Jet Impingement, International Journal of Scientific Research, Vol. 1(4), pp 49-50, 2012.
8. **Chitranjan Agrawal**, Sudhakar Jindal, Comparative Study of Performance of CI engine with Normal and High Performance Diesel Fuels, International Journal of Emerging Trends in Engineering and Development, Vol. 6(2), pp. 437-442, 2012.
9. **Chitranjan Agrawal**, Sensitivity Analysis for Counter Flow Cooling Tower-Part I, Exit Cold Water Temperature, International Journal of Applied Engineering and Technology, Vol. 2(3), pp 5-9, 2012.
10. **Chitranjan Agrawal**, Sensitivity Analysis for Counter Flow Cooling Tower-Part II, Cooling tower Effectiveness, International Journal of Applied Engineering and Technology, Vol. 2(3), pp 10-13, 2012.
11. **Chitranjan Agrawal**, Jet Impingement Cooling of Hot Horizontal Surface Through Sharp Edge Nozzle, International Journal of Applied Engineering and Technology, Vol. 2(3), pp 14-17, 2012.
12. **Chitranjan Agrawal**, Oisín F. Lyon, Ravi Kumar, Akhilesh Gupta, Darina B. Murray, Rewetting of a hot horizontal surface through mist jet impingement cooling, International journal of Heat and Mass Transfer, vol. 58, pp. 188-196, 2013.
13. **Chitranjan Agrawal**, R. Kumar, A. Gupta, B. Chatterjee, Determination of Rewetting Velocity during Jet Impingement Cooling of a Hot Surface, Transaction of ASME Thermal Science and Engineering Application, Vol. 5, pp 011007-1-9, 2013.
14. **Chitranjan Agrawal**, Ravi Kumar, Akhilesh Gupta, Barun Chatterjee, Determination of Rewetting on Hot Horizontal Surface with Water Jet Impingement through a Sharp Edge Nozzle, International Journal of Thermal Science, Vol. 71, pp 310-323, 2013.
15. **Chitranjan Agarwal**, R. Kumar, A. Gupta, B. Chatterjee, Effect of Jet Diameter on the Maximum Surface Heat Flux during Quenching of Hot Surface, Nuclear Engineering and Design, Vol. 265, pp. 727–736, 2013.
16. **C. Agarwal**, R. Kumar, A. Gupta, B. Chatterjee, Effect of Nozzle Geometry on the Rewetting of Hot Surface during Jet Impingement cooling, Experimental Heat Transfer, Vol. 27(3), pp. 256 – 275, 2014.
17. **C. Agrawal**, R. Kumar, A. Gupta, B. Chatterjee, Effect of Jet Diameter on Surface Quenching at Different Spatial Locations, International Journal of Mechanical, Industrial Science and Engineering, Vol. 8(1), pp. 19-22, 2014.
18. Nimhal H., **Agarwal C.**, Jindal S., Saloda M. A., Analysis of Disc Brake System, International Journal for Technological Research in Engineering, Vol. 2 (4), 2014.

19. **Chitranjan Agrawal,** Mahesh Kumar, Jagraj Singh, Bishnu Bihani, Rohan Bansal, Lalita Joshi, Performance Evaluation of a Geothermal Cooling System, International Journal of Thermal Energy and Applications, Vol. 1(1), pp. 1-6, 2015.
20. **Chitranjan Agrawal,** Ravi Kumar, Akhilesh Gupta, Barun Chatterjee, Maximum Surface Heat Flux during Jet Impingement Quenching of Vertical Hot Surface, Journal of Enhanced Heat Transf., Vol. 22 (3), pp. 199-219, 2015.
21. R. K Salvi, **C. Agrawal,** B. P. Nandwana, M. A. Saloda, Failure Mode Effect Analysis for CNC Machines Used in GG Valves Industry, International Journal of Fracture and Damage Mechanics, Vol. 1(2), pp. 11-22, 2015.
22. R. K Salvi, **C. Agrawal,** B. P. Nandwana, M. A. Saloda, Implementation of Machinery Failure Mode and Effect Analysis for CNC Machines in Valve Manufacturing Industry, International Journal of Mechanical Handling and Automation, Vol. 1(2), pp. 10-15, 2015.
23. Y.S. Chouhan, M.A. Saloda, S. Jindal, **C. Agarwal**, Optimization of Drilling Process Parameters for Thrust Force: A Review, International Journal of Fracture and Damage Mechanics, Vol. 1 (2), pp. 1-10, 2015.
24. **Chitranjan Agrawal,** Ravi Kumar, Akhilesh Gupta, Barun Chatterjee, Determination of Rewetting Velocity during Jet Impingement Cooling of Hot Vertical Rod, Journal of Thermal Analysis and Calorimetry, Vol. 123 (1), pp. 861-871, 2016.
25. **Chitranjan Agrawal,** Ravi Kumar, Akhilesh Gupta, Barun Chatterjee, Rewetting of Hot Vertical Rod during Jet Impingement Surface Cooling, Heat and Mass Transfer, Vol.52 (6), pp. 1203-1217, 2016.
26. Nimhal H., **Agarwal C.,** Jindal S., Saloda M. A., Thermoelastic Analysis of Disc Brake using Ansys Software Journal of Environmental Science, Computer Science and Engineering & Technology, Vol.5 (1), pp. 26-38, 2016.
27. Nimhal H., **Agarwal C.,** Jindal S., Saloda M. A., Thermal Analysis of Disc Brake using Ansys Software, International Journal of Advance Engineering and Research Development, Vol. 3 (3), pp. 350-356, 2016.
28. Y.S. Chouhan, M.A. Saloda, S. Jindal, **C. Agarwal**, Experimental Investigation and Optimization of Process Parameters for Thrust Force, Power Consumption and Energy Consumption During Drilling of Mild Steel on Lathe Machine, International Journal of Mechanics and Design, Vol. 2 (1), pp. 8-19, 2016
29. Y.S. Chouhan, M.A. Saloda, S. Jindal, **C. Agarwal**, Experimental Investigation of Thrust Force in Drilling Operation, International Journal of Advance Engineering and Research Development Volume 3 (4), pp. 168-174, 2016.
30. S. Barvaliya, S. Jindal, **C. Agarwal**, M.S. Khidiya, M. Mehta, Surface Roughness Analysis on the Dry Turning of En8 Steel, Imperial Journal of Interdisciplinary Research, Vol. 2 (7), pp. 342-346, 2016
31. Abhimanyu Chakravarti, S. Jindal, B. P. Nandwana, **C. Agarwal**, Mayank Mehta, Optimization of Hardness Distribution in Cold Upsetting of EN8 Steel, Imperial Journal of Interdisciplinary Research, Vol. 2 (12), pp. 1104-1108, 2016
32. **Chitranjan Agrawal,** Deepesh Gotherwal, Charandeep Singh, Charan Singh, Effect of Surface Thickness on the Wetting Front Velocity during Jet Impingement Surface Cooling, Heat and Mass Transfer, Vol. 53 (2), pp 733-741, 2017.
33. **Chitranjan Agrawal**, Ravi Kumar, Akhilesh Gupta, Barun Chatterjee, Rewetting of Vertical Hot Surface during Round Water Jet Impingement Cooling, Heat Transfer Engineering, Vol. 38 (13), pp 1209-1221, 2017.
34. Hemant K Verma, **C. Agarwal**, M. S. Khidiya, S. Jindal, Experimental Investigation for Drilling Parameters on Thrust Force, Journal of Advance Manufacturing System and Technology,Vol2(2), pp 1-14,2017.
35. M. Ganchi, S. Gindal, **C. Agarwal**, M.S. Khidiya, Surface Roughness Analysis on the Vegetable Oil Based Cutting Fluid in Turning of EN8 Steel, International Journal of Manufacturing and Materials Processing, Vol3(1) pp 1-8,2017.
36. M. Ganchi, S. Gindal, **C. Agarwal**, M.S. Khidiya, Tool Temperature Analysis on the Vegetable Oil Based Cutting Fluid in Turning of EN8 Steel, International Journal of Manufacturing and Materials Processing, Vol 3(1) pp 22-29, 2017.
37. M. Ganchi, S. Gindal, **C. Agarwal**, M.S. Khidiya, Cutting Force Analysis on the Vegetable Oil-Based Cutting Fluid in Turning of EN8 Steel, International Journal of Manufacturing and Materials Processing, Vol 3(2) pp 1-6, 2017.

38. Mukesh Kumar Lohar, S. Jindal, **Chitranjan Agarwal**, M.S. Khidiya, Optimization of Drilling Parameters in Aluminum Casting For Minimizing Power Consumption, Journal of Scientific and Engineering Research, Vol. 4(6), pp. 78-83, 2017.
39. Mukesh Kumar Lohar, S. Jindal, **Chitranjan Agarwal**, M.S. Khidiya, Optimization of Cutting Parameters for Minimizing Power Consumption in Drilling of Aluminium Casting using Taguchi Methodology and ANOVA, Journal of Scientific and Engineering Research, Vol. 4(10) pp 1-6, 2017.
40. Indresh Kumar Jain, M. S. Khidiya, M. A. Saloda, **Chitranjan Agarwal**, Investigation of Drag Coefficient at Low Velocity for Front of Two Wheels Vehicle Based on CFD method, International Journal of Scientific Research in Science, Engineering and Technology, Vol. 3(3), pp 682-685, 2017.
41. **Chitranjan Agarwal**, Wetting Speed during Quenching of Hot Surface by Impinging Jet, International Journal Of Innovative Research In Technology, Vol. 4(7), pp 429-432, 2017.
42. Indresh Kumar Jain, M. S. Khidiya, M. A. Saloda, **Chitranjan Agarwal**, Study the Change of Aerodynamic and Comfort Parameters Due to Change in Windshield Angle on the Rider for Constant Height, International Journal of Innovative Research In Technology, Vol. 4(7), pp 583-585, 2017.
43. **Chitranjan Agarwal**, Analytical Model for Rewetting Temperature during Jet Impingement Surface Quenching, International Journal of Scientific Research in Science and Technology, Vol. 3(8), pp 825-831, 2017.
44. **Chitranjan Agarwal**, Experimental Investigation to Study Surface Quenching Behavior, International Journal of Engineering and Techniques, Vol. 3(6), pp 647-654, 2017.
45. **Chitranjan Agarwal**, Flow Visualization of Air Jet Impingement on Convex Heated Surface - A Review, International Journal of Scientific Research in Science and Technology, Vol. 3(8), pp 735-741, 2017.
46. **Chitranjan Agarwal**, Theoretical Investigation for Hot Flat Surface Quenching by Impinging Jet- A Review, International Journal Of Innovative Research In Technology, Vol. 4(7), pp 566-572, 2017.

Conferences

1. **Chitranjan Agrawal**, S. Jindal, Naveen Jain, "A Comparative Study of Emission with Diesel oil and Bio diesel in DI-CI Engine", International Symposium On Organic Farming and Renewable Sources Of Energy For Sustainable Agriculture. Organized by PROM Society, MPUAT, Udaipur and Mohanlal Sukhadia University, Udaipur held at RCA, Udaipur, November 19-21. PP. 162, 2007.
2. S. Jindal, **Chitranjan Agrawal**, Naveen Jain, "A Comparative Study of Emission Level of Diesel engine with Vegetable Oil", International Symposium On Organic Farming and Renewable Sources Of Energy For Sustainable Agriculture. Organized by PROM Society, MPUAT, Udaipur and Mohanlal Sukhadia University, Udaipur held at RCA, Udaipur, November 19-21. PP. 163, 2007.
3. **Chitranjan Agrawal**, Naveen Jain, "Anatomy of Wind Turbine and Energy Market", International Symposium on Organic Farming and Renewable Sources Of Energy For Sustainable Agriculture. Organized by PROM Society, MPUAT, Udaipur and Mohanlal Sukhadia University, Udaipur held at RCA, Udaipur, November 19-21, pp. 161, 2007.
4. **Chitranjan Agrawal**, B. P. Nandwana, "Effect of Jet Exit to Test Surface Spacing on the Wetting Front Speed for Impinging Jet Cooling," International Conference on Mechanical, Civil and Material Engineering (ICMCME 2014) Phuket Thailand,July 11-13, pp 173 – 181, 2014 (ISBN 978-986-90263-6-9).
5. **Chitranjan**, Ravi Kumar, Akhilesh Gupta, Barun Chatterjee, Effect of Surface Orientation on The Rewetting Phenomena during Jet Impingement Cooling, 15th International Heat Transfer Conference (IHTC-15), August 10-15, 2014, Kyoto, Japan ISBN : 978-1-56700-421-2, DOI: 10.1615/IHTC15.hte.009839.
6. Alok Kumar, **Chitranjan Agrawal**, Deepender Yadav, Naveen Singh, Prashhantgiri Gauswami, Vinod Kumar Saini, Design and Development of Portable Disc Type Oil Skimmer for Industrial Applications, National conference on Automation and Control- Make in India, March 2-3, pp. 14-18, 2015, Araveli Institute of Technical Studies, Udaipur, India, (ISBN 978-81-7906-467-2).
7. Nimhal H., **Agarwal C**., Jindal S., Saloda M. A., Thermal Analysis of Vented Disc Brake Using Ansys Software, National conference on Achieving Make in India Through Manufacturing Excellence (AMITME-2016), 26-27 February, 2016, Rajdhani Institute of Technology And Management, Jaipur.

8. Nimhal H., **Agarwal C**., Jindal S., Saloda M. A., Thermal Analysis of Disc Brake using Ansys Software UGC National Conference on Advances in Computer Integrated Manufacturing (NCACIM-III, 2016), 18 March 2016, MBM Engineering College, Jodhpur.

Authored Books

1. **Chitranjan Agrawal**, Engineering Mechanics, Ashirwad Publication Jaipur, ISBN:81-907785-1-0, ed. 2009, 2010
2. **Chitranjan Agrawal**, A Textbook of Engineering Mechanics, Ashirwad Publication Jaipur, ISBN: 978-81-907785-1-0, ed. 2013, reprint 2018.

Edited Book

1. **Chitranjan**, R. S. Shekhawat, Introduction to Nanotechnology Applications, Himanshu Publications Udaipur, ISBN: 978-81-7906-429-0, 2014
2. **Chitranjan**, M A Saloda, Computational and Measurement Techniques in Research, Himanshu Publications, ISBN: 978-81-7906-629-4, 2017

Book Chapters

1. Dheeraj Soni, **Chitranjan**, B.P. Nandwana, Nanotechnology: A Cutting Edge Technology For Automotive Segment & its Potential Concerns, Introduction to Nanotechnology Applications, Himanshu Publications Udaipur, ISBN: 978-81-7906-429-0, 2014.
2. Swati Jain, R. S. Shekhawat **Chitranjan**, Nano technology in wastewater treatment, Introduction to Nanotechnology Applications, Himanshu Publications Udaipur, ISBN: 978-81-7906-429-0, 2014.
3. **Chitranjan Agrawal**, Navneet Agrawal Errors and uncertainty analysis, Computational and Measurement Techniques in Research, Himanshu Publications, ISBN: 978-81-7906-629-4, 2017.
4. Kavindra Soni, **Chitranjan Agrawal**, Genetic algorithm: Evolutionary numerical computational technique, Computational and Measurement Techniques in Research, Himanshu Publications, ISBN: 978-81-7906-629-4, 2017.
5. Kamal Sharma, **Chitranjan Agrawal**, Babita Tiwari, Techniques for evaluating residual stress in materials, Computational and Measurement Techniques in Research, Himanshu Publications, ISBN: 978-81-7906-629-4, 2017.

EXTERNALLY FUNDED RESEARCH PROJECTS

- MODROB project for "Modernization of RAC Lab" funded by AICTE, New Delhi, Government of India, November 2017.
- Project completed on "Optimization of Jet Flow Rate for Maximum Cooling Rate of a Hot Flat Surface", funded by Department of Science & Technology, Government of Rajasthan, India, July 2014.

FELLOWSHIPS AND AWARDS

- QIP Fellowship from All India Council for Technical Education, Govt. of India, 2009.
- DAAD fellowship under IIT-DAAD student exchange program of Govt. of India and Govt. of Germany, 2003.
- GATE Fellowship from Ministry of Human Resource Development, Govt. of India, 2002.

INSTITUTIONAL MEMBERSHIP

- Life member of The Institute of Engineers (India).
- Life member of Alumni Association of Indian Institute of Technology Roorkee.
- Life member of Alumni Association of Indian Institute of Technology Delhi.

TRAINING / WORKSHOP/ SEMINAR ORGANIZED

- Faculty Development Program on Application of Advanced Computational and Measurement Techniques in Research, CTAE, Udaipur, 17th- 22nd October 2016 as organizing secretary.
- Conference on Achieving Make in India Through Manufacturing Excellence, Rajdhani Engineering College, Jaipur, 26th- 27th February 2016 as member advisory committee.
- Workshop on Enhancing Material Properties by Nanotechnology, CTAE, Udaipur, 7th - 8th February 2014 as coordinator.
- Workshop on Technical Writing and its optimization (Two-2014), CTAE, Udaipur, 30th-31st January 2014 as member advisory committee.
- Workshop on Distributed Generation and Restructuring of Power Systems, CTAE, Udaipur, 30th-31st August 2013 as member organized committee.

MEMBER EDITORIAL AND REVIEWER BOARD

- Member of review board for Journal Steel Research International, Wiley.
- Member of review board for Journal Transactions of Tianjin University, Springer.
- Member of review board for Journal Engineering Applications of Computational Fluid Mechanics, Taylor & Francis.
- Member of review board for Journal Heat and Mass Transfer, Springer.
- Member of review board for Journal of Thermal Analysis and Calorimetry, Springer.
- Member of review board for International Agricultural Engineering Journal (IAEJ), Published by Asian Association for Agricultural Engineering (AAAE).
- Honorary Peer Reviewer for Global Journals Inc. (US).
- Member of review board for International Association of Scientific Innovation and Research (IASIR).
- Member of Editorial Board of International Journal of Advanced Research in Science & Engineering (IJARSE).
- Member of Editorial Board of International Journal of I.C. Engines and Gas Turbines.
- Member of Editorial Board of International Journal of Thermal Energy and Applications.

STUDENTS GUIDED

Ph. D. under progress

- Design and development of an Earth Air Heat Exchanger for cooling application.
- Development of a farm level Quinoa polisher.
- Design and development of a modified Gobar gas slurry separator.

Post Graduate

- Thermo elastic analysis of disc brake using Ansys software.
- Failure effect mode analysis of CNC machines used in GG valve industry.
- Experimental investigation of drilling parameters on thrust force and power consumption.
- Optimization of drilling parameters in mild steel with high speed steel drill bit for minimizing power consumption.
- Performance evaluation of solid lubricants on surface roughness and cutting force in turning operation.
- Experimental investigation for the effect of cutting parameters on tool wear.
- Analysis of motorcycle windshield for ergonomic and aerodynamic characteristics.
- Optimization of drilling parameters in aluminium casting for minimizing power consumption.
- Development and evaluation of portable knapsack power weeder.
- Performance evaluation of vegetable oil based cutting fluid on tool temperature, cutting force and surface roughness in turning operation.

Under Graduate

- Experimental investigation for maximum cooling performance of hot plate of different surface thickness.

- Optimizing jet flow rate for maximizing cooling performance of hot surface at different initial temperature.
- Thermal modelling of counter flow cooling tower.
- Geothermal heating and cooling system.
- Modification and performance analysis of counter flow cooling tower.
- Performance evaluation of counter flow cooling tower.
- Utilization of compressed air developed through automotive suspension system.
- Design and development of miniature arc furnace
- Design and fabrication of box shifting conveyor.
- Design and fabrication of wall climbing robot using tracked wheel mechanism.
- Modification in wheel chair for upward movement on a ramp.
- Design and development of disc type oil skimmer.
- Design and fabrication electric power toggle screw jack.
- Design and fabrication of dual power vehicle.