

Arun K. Chaudhary

Associate Professor,
Deptt. of Industrial & Production Engineering
College of Technology,
G.B.P.U.A.T., Pantnagar (U.S.Nagar)
Uttarakhand 263 145



Designation & Name of the organization	From	To
Associate Professor (AGP 9000) College of Technology, GB Pant University of Agriculture & Technology, Pantnagar	September 2020	Till date
Assistant Professor (AGP 8000) College of Technology, GB Pant University of Agriculture & Technology, Pantnagar	September 2017	September 2020
Assistant Professor (AGP 7000) College of Technology, GB Pant University of Agriculture & Technology, Pantnagar	September 2012	September 2017
Assistant Professor (AGP 6000) College of Technology, GB Pant University of Agriculture & Technology, Pantnagar	September 2007	September 2012

✚ Courses taught

- **B.Tech.:** Workshop Technology and Practices, Welding Technology, Fixture and Tool design, Industrial Organization and Management, Non-conventional Machining
- **M. Tech./ Ph.D.:** Advanced Welding Technology, Advanced Manufacturing Engineering, Production Systems

✚ M. Tech. guided

08 as guide & 06 as a member of advisory committee

✚ Ph.D. guided

02 as guide & 02 as a member of advisory committee

1. Arjun Kumar, ID.No. 44254, Thesis title “Development, Testing of Aluminium based MMC and Optimization of MMR & Surface Finish using EDM” during 2016 to 2019.
2. Deepak Gupta, ID.No. 56957, (Presently working as Assistant Professor at Graphic Era Hill University, Dehradun) Thesis title “Characterization and Behaviour Analysis of NaOH Treated Bhimal Fiber (*Grewia optiva*) and Nano Filler CaCO₃/Flyash/TiO₂ Reinforced Epoxy Based Bio-Composite Material” during 2020 to 2023.

Reviewer

1. Applied Composite Materials
2. ECS journal of solid state science and technology
3. Environmental research
4. Journal of composite materials
5. Materials Today: Proceedings
6. Environmental Research
7. Pantnagar Journal of Research
8. Science and Engineering of Composite Materials

Project handled

Title of project: Optimizing Electrode design for resistance spot welding of coated steel sheet. (Rs. 9,83,000/- funded by TEQIP Collaborative Research Scheme).

Conferences Organized

Recent Advances in Mechanical & Production Engineering (RAMP) 2009, February 12-14, 2009 as Joint Organizing Secretary.

Professional Memberships

Member of Institution of Engineers (I)

Additional Charges/administrative experience

- Warden of Tagore Bhawan (1st year boy's) hostel (July, 2008 to July, 2011).
- Member of College Discipline Board (August, 2008 to June, 2011).

- University Security Officer (July, 2014 to January, 2016 and, February, 2016 to June, 2017).
- Assistant Director Administration and Monitoring (September, 2018 to September, 2019).
- Coordinator RTI (September, 2018 to September, 2019).
- Assistant Director, Labour Welfare (July, 2019 to December, 2020).
- Programme Officer NSS (August, 2014 to January, 2018 and, January, 2019 to June 2023).
- Member/Secretary, College level Student Grievance Redressal Committee (SGRC) for academic year 2019-2020 to 2020-21.

Research Publications

1. Arun K. Chaudhay, Singh V. K. and Tewari Maneesh.,(2011), “Utilization of waste Agriculture Byproduct to enhance the Economy of Farmers” Indian Research Journal of Extension Education Special Issue (Volume I), (January, 2012) 89-92. (NAAS 5.22) ISSN 0972-2181.
2. Paras, Singh V.K. and Arun Chaudhary., (2011), “Generation of Electricity by Utilization of power of Draught Animal” Indian Research Journal of Extension Education Special Issue (Volume I), (January, 2012) 150-153. (NAAS 5.22) ISSN 0972-2181.
3. Maneesh Tewari, V. K. Singh, P. C. Gope and Arun K. Chaudhary, “Evaluation of Mechanical Properties of Bagasse-Glass Fiber Reinforced Composite”, Journal Materials & Environment science (ISSN: 2028-2508) 3 (1) (2012) 171-184.
4. V. K. Singh, Paras and Arun K. Chaudhary, (2012) “Utilization of power of Draught Animal for The Generation of Electricity” Yamuna Journal of Technology & Business Research, (ISSN 2250-3072) Vol.2 No.1, (June 2012) 17-20.
5. Arun K. Chaudhary, P. C. Gope and V. K. Singh," Effect of Almond Shell Particles on Tensile Property of Particleboard”, Journal Materials & Environment science 4 (1) (2013) 109-112. ISSN : 2028-2508.
6. R. K. Bhagat, V. K. Singh, P. C. Gope, A.K. Chaudhary, “Evaluation of stress intensity factor of multiple inclined cracks under biaxial loading”, Frattura ed Integrità Strutturale, 22 (2012) 5-11; DOI: 10.3221/IGF-ESIS.22.01. ISSN 1971-8993.

7. V. K. Singh, Jayant Singh and Arun K. Chaudhary, "Fabrication of Light Weight Farms Yoke with The Use of Composite Material", *Agric Eng Int: CIGR Journal*, 14(4) (2012) 80-85. DATE 2012-09-24 ISSN 1682-1130.
8. Arun Kumar Chaudhary, P.C. Gope, V.K. Singh "Water absorption and thickness swelling behaviour of almond (*Prunus amygdalus* L.) shell particles and coconut (*Cocos nucifera*) fiber hybrid epoxy based biocomposite" *Science and Engineering of Composite Materials*. Volume 22, Issue 4, Pages 375–382, ISSN (Online) 2191-0359, ISSN (Print) 0792-1233, DOI: 10.1515/secm-2013-0317, <https://doi.org/10.1515/secm-2013-0317> April 02, 2014. (I.F. 1.295)
9. V. K. Singh, Sakshi Chauhan, P. C. Gope & A. K. Chaudhary, "Enhancement of wettability of aluminum based silicon carbide reinforced particulate metal matrix composite" *High Temperature Materials and Processes*. 34 (2), 163-170, ISSN (Online) 2191-0324, ISSN (Print) 0334-6455, DOI: 10.1515/htmp-2014-0043, June 2014. (I.F. 0.826)
10. Arun Kumar Chaudhary, P. C. Gope, V. K. Singh, Alka Verma, Ajay, Rajiv Suman, "Thermal Analysis of Epoxy Based Coconut Fiber-Almond Shell Particle Reinforced" *Advances in Manufacture Science and Technology*, Vol. 38, No. 2, 2014, DOI: 10.2478/amst-2014-0009.
11. Pradeep Singh, Arun Kumar Chaudhary, Tirath Singh, Amit Kumar Rana, "Experimental Investigation of Wire EDM to Optimize Dimensional Deviation of EN8 Steel through Taguchi's Technique" *International Research Journal of Engineering and Technology*, Volume: 02 Issue: 03 June-2015, 1753-57 ISSN: 2395 -0056.
12. Neha Sah, Alka Goel, Arun Kumar Chaudhary, "Thermal Analysis of Epoxy Based Bio-Composites Reinforced with Jute performs" *International Journal of Engineering Sciences & Research Technology*, Volume 5(3): March, 2016, Pages 435-439. ISSN: 2277-9655.
13. Bikraj Upreti, Arun Kumar Chaudhary, "Experimental Study of Mechanical Properties of Bhimal Fiber Reinforced Epoxy Bio-Composite", *International Journal of Innovative Research in Science, Engineering and Technology*, Vol. 6, Issue 8, August 2017, Pages 16926- 16931. ISSN 2319-8753.
14. Anand Kumar Mandal, M.L. Meena, Arun Kumar Chaudhary, Arvind Patidar, B.L. Gupta, Comparative analysis of resistance spot welded and weld bonded joint of al 6082-T651, *Materials Today: Proceedings*, Volume 44, Part 6, 2021, Pages 4079-4085, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2020.10.446>.

15. Neha Sah, Alka Goel, Arun Kumar Chaudhary, Alka Verma, Thermal analysis of chicken fiber augmented epoxy composites, *Materials Today: Proceedings*, Volume 44, Part 6, 2021, Pages 4409-4413, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2020.10.580>.
16. Arun Kumar Chaudhary, PC Gope, Anand Kumar Mandal, Vandana Jain, Arvind Patidar, Effect of Feed Rate and Cutting Speed on Cutting Forces Developed During Machining of Epoxy Based Almond Shell (*Prunus amygdalus L.*) - Coconut Fiber (*Cocos nucifera*) Particle Reinforced Biocomposites, *Materials Today: Proceedings*, Volume 44, Part 1, 2021, Pages 1903-1905, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2020.12.081>
17. Vandana Jain, Anand K. Mandal, Arun K. Chaudhary, Arvind Patidar, Fabrication of Three-Dimensional Geometry on Two Dimensional Abrasive Water Jet Machine, *Materials Today: Proceedings*, Volume 44, Part 1, 2021, Pages 1975-1978, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2020.12.108>.
18. Anand Kumar Mandal, Arun Kumar Chaudhary, Vandana Jain, M.L.Meena, Jambeshwar Sahu , The Effect of Elastic Modulus of Adhesive on Stress-Distribution in Weld bonded Joint of Al 6082-T6 sheets, *Materials Today: Proceedings*, Volume 44, Part 1, 2021, Pages 1999-2004, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2020.12.119>.
19. Arvind Patidar, Anand Kumar Mandal, Arun Kumar Chaudhary, Vandana Jain, Surface roughness of Sintered Yttria Stabilised Zirconia (YSZ) Using High Speed Moderate Depth Super-Abrasive Grinding, *Materials Today: Proceedings*, Volume 44, Part 1, 2021, Pages 2705-2709, ISSN 2214-7853, doi.org/10.1016/j.matpr.2020.12.686.
20. Vikas sharma, Makkhan Lal Meena, Arun Kumar Chaudhary and Mukesh Kumar, Cenosphere Powder Filled Basalt Fiber Reinforced Epoxy Composite: Physical, Mechanical, and Thermal Conductivity Analysis, *Materials Today: Proceedings*, Volume 44, Part 6, 2021, Pages 4984-4989, ISSN 2214-7853, doi.org/10.1016/j.matpr.2020.12.938.
21. Arvind Patidar, Anand Kumar Mandal, Arun Kumar Chaudhary, High Speed Super Abrasive Grinding of Sintered Yttria Stabilised Zirconia (YSZ) Using Single Layer Electroplated Diamond Grinding Wheels, *Materials Today: Proceedings*, Volume 45, Part 6, 2021, Pages 4660-4665, ISSN 2214-7853, doi.org/10.1016/j.matpr.2021.01.111.
22. Vikas Sharma, M L Meena, A K Chaudhary, and Sundeep Kumar, Optimization of Abrasive Wear Behaviour of Cenosphere Filled Basalt-Epoxy Composites Using Taguchi Approach, *IOP Conf. Ser.: Mater. Sci. Eng.* Volume 1017, 2021, Pages 1-10, [doi:10.1088/1757-899X/1017/1/012014](https://doi.org/10.1088/1757-899X/1017/1/012014).

23. Sandeep Kumar, Akshay Dvivedi, Ajay Suryavanshi, Arun Kumar Chaudhary, Maneesh Tewari, Investigations and Optimization of Rotary Tool Micro-USM Process for Fabrication of Microchannels, *Materials Today: Proceedings*, Volume 45, Part 6, 2021, Pages 4993-4997, ISSN 2214-7853, doi.org/10.1016/j.matpr.2021.01.423.
24. Deepak Verma, Yu Dong, Mohit Sharma & Arun Kumar Chaudhary (2021) Advanced processing of 3D printed biocomposite materials using artificial intelligence, *Materials and Manufacturing Processes*, Vol.37, Issue 5, Pages 518-538, Published online: 18 Aug 2021 DOI: 10.1080/10426914.2021.1945090 (IF= 4.616)
25. N Sah, D Kamalraj, A Goel, AK Chaudhary, Effect of blend proportion on properties of thermal bonded chicken-jute fiber nonwovens. *Man-Made Textiles in India* Vol. 49, Issue 12, Pages 410-414, 2021, ISSN: 3777537
26. Ravi Butola, Kapil Dev Pandey, Qasim Murtaza, Ravinderjit Singh Walia, Mohit Tyagi, Krovvidi Srinivas, Arun Kumar Chaudhary. Experimental analysis and optimization of process parameters using response surface methodology of surface nanocomposites fabricated by friction stir processing. *Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanomaterials, Nanoengineering and Nanosystems*. 2023;0(0). doi:10.1177/23977914231151485 (I.F. 6)
27. Kumar, Sundeep & Gupta, Deepak & Sharma, Vikas & Chaudhary, Arun & Meena, M.L. & Ajay,. (2023). Recent development in natural fiber composites, testing and fabrication methods: A review. *Materials Today: Proceedings*. 10.1016/j.matpr.2023.02.073.
28. Agrawal, Pawan; Sharma, Pragya; Verma, Akarsh; Singh, V.; Chaudhary, Arun; Chauhan, Sakshi, Impact of Graphite Particle Surface Modification on the Strengthening of Cross-Linked Polyvinyl Alcohol Composites: A Comprehensive Investigation. *Proc IMechE Part L: J Materials: Design and Applications*.https://doi.org/10.1177/14644207231188601 (I.F. 2.4)
29. Deepak Gupta, Arun Kumar Chaudhary, Vinay Kumar Singh, Maneesh Tewari, Ajay. SEM investigation for mercerization of Bhimal (*Grewia optiva*) Fiber. *Int J Mech Therm Eng* 2023;4(1):39-43. DOI: 10.22271/27078043.2023.v4.i1a.37
30. Deepak Gupta, Arun Kumar Chaudhary, Vinay Kumar Singh, Deepak Verma, Kheng Lim Goh, Mohit Sharma, Thermo-mechanical analysis of bhimal fiber (*Grewia optiva*)-CaCO₃/flyash/TiO₂ reinforced epoxy bio-composites, *Industrial Crops and Products*, Volume 204, Part B, 2023, 117341, ISSN 0926-6690, https://doi.org/10.1016/j.indcrop.2023.117341. (I.F. 5.9).

31. Gupta, D., Chaudhary, A. K., Verma, D., Singh, W., Nangan, S., Thanigaivel, S., Rajendran, Lackner, M. (2025). AHP-TOPSIS-based analysis for the wettability of agro-industrial waste particulates Bhimal fiber-reinforced epoxy bio-composites in different oil water environments. *Green Chemistry Letters and Reviews*, 18(1). <https://doi.org/10.1080/17518253.2025.2461243> (I.F. 6.6).

Book chapters

1. Chaudhary A.K., Gope P.C., Singh V.K. (2011) Studies on Fracture Performance of Bio-fiber-Silica-glass Fiber Reinforced Epoxy Hybrid Composites. In: Proulx T. (eds) *Experimental and Applied Mechanics*, Volume 6. Conference Proceedings of the Society for Experimental Mechanics Series. Springer, New York, NY, Springer, New York, NY, https://doi.org/10.1007/978-1-4614-0222-0_44. ISBN: 978-1-4614-0221-3(Print), 978-1-4614-0222-0.
2. Tewari M., Singh V.K., Chaudhary A.K. (2011) Study of Propagation of a Pre-Existing Crack under Different Boundary Conditions for Fatigue Loading. In: Proulx T. (eds) *Experimental and Applied Mechanics*, Volume 6. Conference Proceedings of the Society for Experimental Mechanics Series. Springer, New York, NY. https://doi.org/10.1007/978-1-4614-0222-0_71 ISBN: 978-1-4614-0221-3(Print), 978-1-4614-0222-0.
3. Deepak Verma, Vaishally Dogra, Arun Kumar Chaudhary, Ravikant Mordia, *Advanced biopolymer-based composites: construction and structural applications*, Editor(s): Deepak Verma, Mohit Sharma, Kheng Lim Goh, Siddharth Jain, Himani Sharma, In *Woodhead Publishing Series in Composites Science and Engineering, Sustainable Biopolymer Composites*, Woodhead Publishing, 2022, Pages 113-128, ISBN 9780128222911, <https://doi.org/10.1016/B978-0-12-822291-1.00010-5>.
4. Mohit Sharma, Deepak Verma, Himani Sharma, Arun Kumar Chaudhary, *Roadmap for materials selection, processing, and utilization of biocompatible composites in biomedical sectors*, Editor(s): Deepak Verma, Mohit Sharma, Kheng Lim Goh, Siddharth Jain, Himani Sharma, In *Woodhead Publishing Series in Composites Science and Engineering, Sustainable Biopolymer Composites*, Woodhead Publishing, 2022, Pages 129-152, ISBN 9780128222911, <https://doi.org/10.1016/B978-0-12-822291-1.00006-3>.
5. Deepak Gupta, Vaishally Dogra, Deepak Verma, Arun Kumar Chaudhary, Maneesh Tewari, Chapter 04, *PCL-based composites and their utilizations in the medical sector*,

- Editors: Deepak Verma, Manunya Okhawilai, Kheng-Lim Goh, Seeram Ramakrishna, Pooria Pasbakhsh, Mohit Sharma in *Bioresorbable Polymers and their Composites: Characterization and Fundamental Processing for Pharmaceutical and Medical Device Development*. 2023. ISBN: 9780443189166, <https://doi.org/10.1016/B978-0-443-18915-9.00012-4>, Woodhead Publishing (Elsevier)
6. Deepak Gupta, Vaishally Dogra, Deepak Verma, Arun Kumar Chaudhary, Maneesh Tewari, Chapter 05, *Processing of PLA/PLLA-based composites for medical device applications*, Editors: Deepak Verma, Manunya Okhawilai, Kheng-Lim Goh, Seeram Ramakrishna, Pooria Pasbakhsh, Mohit Sharma in *Bioresorbable Polymers and their Composites: Characterization and Fundamental Processing for Pharmaceutical and Medical Device Development*. 2023. ISBN: 9780443189166. <https://doi.org/10.1016/B978-0-443-18915-9.00013-6>, Woodhead Publishing (Elsevier)
 7. Deepak Gupta, Arun Kumar Chaudhary, Deepak Verma, Mohit Sharma, Chapter 17, *Bioresorbable polymers/HNT blend composite wound dressings*, Editors: Deepak Verma, Manunya Okhawilai, Kheng-Lim Goh, Seeram Ramakrishna, Pooria Pasbakhsh, Mohit Sharma in *Bioresorbable Polymers and their Composites: Characterization and Fundamental Processing for Pharmaceutical and Medical Device Development*. 2023. ISBN: 9780443189166. <https://doi.org/10.1016/B978-0-443-18915-9.00008-2>, Woodhead Publishing (Elsevier).
 8. Gupta, D., Chaudhary, A. K., Singh, W., Suryavanshi, A., Attwal, K. P., Misra, V., & Kumar, D. (2025). Behavioral Insights and IoB in Advancing Biocomposite Technologies: A Management Perspective. In G. Chhabra, T. Singh, & M. Kumar (Eds.), *Mapping Human Data and Behavior With the Internet of Behavior (IoB)* (pp. 123-162). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-7545-7.ch006>
 9. Gupta, D., Arora, D., Chaudhary, A. K., Singh, W., Suryavanshi, A., Attwal, K. P., Kumar, D., & Misra, V. (2025). Integrating IoB in Sustainable Supply Chain Management of Composites for Enhancing Efficiency and Reducing Waste. In G. Chhabra, T. Singh, & M. Kumar (Eds.), *Mapping Human Data and Behavior With the Internet of Behavior (IoB)* (pp. 301-336). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-7545-7.ch012>
 10. Gupta, D., Agarwal, D., Chaudhary, A. K., Singh, W., Suryavanshi, A., Attwal, K. P., Kumar, D., & Shukla, A. (2025). Managing Ethical and Regulatory Challenges in Insights From IoB Applications. In G. Chhabra, T. Singh, & M. Kumar (Eds.), *Mapping*

Human Data and Behavior With the Internet of Behavior (IoB) (pp. 497-524). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-7545-7.ch016>.

Book

Introduction to Engineering Workshops, (2018), ISBN: 978-81-934820-0-1, R.C.S. Mehta, Dheeraj Narang & Arun K. Chaudhary, Spire Publications, Haldwani, Uttarakhand.

Trainings attended

1. Effective Teaching Pedagogy at College of Technology, Pantnagar 2-3 January' 2008.
2. Workstudy for higher productivity at NITIE, Mumbai, 11.02.2008 to 15.02.2008.
3. Usage of ISIL system & environment for language and communication skill development at COT Pantnagar, 21.02.2008 to 23.02.2008.
4. Faculty awareness Campus on Entrepreneurship (FACE) at COT Pantnagar, 07.06.2008 to 09.06.2008.
5. Knowledge Management: Concepts, Issues & applications at MNNIT Allahabad, 23.06.2008 to 04.07.2008.
6. Understanding self for managerial Excellence at IIM Lucknow, November 22-24, 2008.
7. Relevance of ICT in Education at Department of Computer Engineering at College of Technology, Pantnagar, December 02-08, 2008.
8. Cyber Security Management at Department of Computer Engineering at College of Technology, Pantnagar, December 18-24, 2008.
9. Infrastructural Development & its Impact on Environment at Department of Civil Engineering, College of Technology, Pantnagar, February 02-07, 2009.
10. Computer Application in Science and Technology, Department of Mechanical Engineering, College of Technology, Pantnagar 9-23 Oct 2012.
11. Computer Aided Design (Cero Elements/ Pro), CIAE, Bhopal. 22-26 July 2013.
12. Information and Cyber Security Management, College of Technology, Pantnagar, 22 December 2013- 05 January 2014.
13. Challenges in Rural Electrification, Department of Electrical Engineering, College of Technology, Pantnagar. 21- 22 January 2014.
14. Harnessing Intellectual Property & Its management for Growth and Prosperity, NRDC & GBPUAT Pantnagar. 25th January 2014.

15. Quality initiatives in Technical and Higher Educational Institutions (In compliance with NBA Accreditation), College of Technology, Pantnagar, 02-04 February 2014.
16. Climate Change, College of Technology, Pantnagar 26-27, December 2014.
17. Research Methodology and Design of Experiments, College of Technology, Pantnagar, 12-18 January 2015.
18. NSS training and orientation programme, 12-18 June 2016, GBPUAT, Pantnagar.
19. Advances in Engineering and Technology for Sustainable Development, November 25-26, 2017, GBPUAT Pantnagar
20. Active learning, autonomy, academic governance and R&D at IIT Roorkee 18-22 June 2018.
21. Digital Transformation in Teaching Learning Process, April 6th to April 22nd, 2020 offered by IIT Bombay.
22. Additive Manufacturing with interdisciplinary Applications, 29 June - 03 July 2020 offered by Dr. B.R. Ambedkar National Institute of Technology, Jalandhar.
23. ICAR - NAARM Massive Open Online Course on Designing E-Learning Content July 1-31, 2020.
24. Newer machining methods, 25-26 September 2020 organised by Mechanical engineering department, Engineering College Banswara, Rajasthan.
25. Research Avenues in Production & Industrial Engineering during 15- 16 January, 2021 organised by Department of Industrial & Production Engineering, College of Technology, G.B. Pant University of Agriculture & Technology, Pantnagar, Uttarakhand.
26. ICAR - NAARM Massive Open Online Course (MOOC) on Theoretical Foundations of Educational Technology, June 1-30, 2021.
27. IPR: Key to India's Future Journey by Turnip Innovations Pvt. Ltd. on 14 August 2021.
28. Innovative Teaching - Learning Practices Pertaining to Sustainable Academic Growth in Higher Educational Institutes, 1st and 2nd September, 2021 by Institute of Engineering & Management, Kolkata, West Bengal.
29. ATAL FDP on "Effective Course Delivery through Moodle", from 13 - 17, September 2021 organized by MES COLLEGE MARAMPALLY, Ernakulam, Kerala.
30. Clean Energy Manufacturing: Transformation for Sustainable Development, 4/10/2021 to 08/10/2021 organised by Delhi Technological University.