

Updated Publications of Dr. Kamal Pal

Scopus Author ID: 35248948000 (h-index: 14)

Scopus/ SCI Journals::32

Conference Proceedings: 38

Books /Book Chapters/ Lecture Notes: 09

• **International Journals: Published 32**

1. **Pal, K**, Bhattacharya, S, and Pal, S. K., “Prediction of metal deposition from arc sound and weld temperature signatures in pulsed MIG welding”. *International Journal of Advanced Manufacturing Technology, Springer Verlag, 2009, Vol.45(11-12), pp.1113-1130, SCI/SCOPUS. IF 3.226*
2. **Pal, K**, Bhattacharya, S, and Pal, S K., “Investigation on arc sound and metal transfer modes for on-line monitoring in pulsed gas metal arc welding”, *Journal of Materials Processing Technology, Elsevier Publications, 2010 [Vol. 210(10), pp.1397-1410, SCI/SCOPUS. IF 5.551*
3. **Pal K.**, Bhattacharya S., and Pal S. K., “Multisensor-based monitoring of weld deposition and plate distortion for various torch angles in pulsed MIG welding”, *International Journal of Advanced Manufacturing Technology, Springer Verlag, 2010, Vol.50 (5-8), pp.543-556, SCI/SCOPUS. IF 3.226*
4. **Pal, K**, and Pal, S. K., “Study of weld joint strength using sensor signals for various torch angles in pulsed MIG welding”, *CIRP Journal of Manufacturing Science and Technology, Elsevier Publications, 2010, Vol. 3(1), pp. 55-65, SCI/SCOPUS. IF 3.602*
5. **Pal, K**, and Pal, S K., “Soft Computing Methods Used for the Modeling and Optimization of Gas Metal Arc Welding: A Review”, *International Journal of Manufacturing Research, Inderscience Publications, 2011, Vol. 6(1), pp. 15 - 29, SCOPUS.*
6. **Pal, K**, Bhattacharya, S, and Pal, S K., “Optimization of weld deposition efficiency in pulsed MIG welding using hybrid neuro based techniques”, *International Journal of Computer Integrated Manufacturing, Taylor & Francis, 2011, Vol. 24(3), pp. 198-210, SCI/SCOPUS. IF 3.846*
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9. Bhattacharya, S, **Pal, K**, and Pal, S K., “Multi-Sensor based prediction of metal deposition in pulsed gas metal arc welding using various soft computing models”, *Applied Soft Computing, Elsevier Publications, 2012 , Vol. 12(1), pp. 498-505, SCI/SCOPUS. IF 6.725*
10. Chatterjee, S, Chatterjee, R, Pal, S, **Pal, K**, and Pal S K., “Adaptive chirplet transform for sensitive and accurate monitoring of pulsed gas metal arc welding process”, *International Journal of Advanced Manufacturing Technology, Springer Verlag, 2012, Vol. 60(1-4), pp. 111- 125, SCI/SCOPUS. IF 3.226*
11. **Pal, K**, and Pal, S K., “Sensor based prediction of weld microstructure in pulsed MIG welding” *International Journal of Microstructure and Materials Properties, Inderscience Publications, 2015 Vol 10(5-6), pp.402- 434, SCOPUS.*

12. Priyadarshini, M and **Pal, K**, “Multi-objective optimisation of EDM process using hybrid Taguchi-based methodologies for Ti-6Al-4V alloy”, *International Journal of Manufacturing Research, Inderscience Publications*, **2016, Vol. 11 (2), pp.144-166 SCOPUS.**
13. Priyadarshini, M and **Pal, K**, “A comparative study for machining of Ti-6Al-4V alloy for multi-criteria response”, *Journal of Advanced Manufacturing Systems*, **Vol. 17(4), pp-515-531, 2018 SCOPUS.**
14. Sahu, S K, Mishra, D, Mahto, R P, Sharma, Vyas M, **Pal, K**, Banerjee, S, Dash, P and Pal, S K., “Friction Stir Welding of Polypropylene Sheet”, *Engineering Science and Technology, an International Journal*, **Vol 21 (2), pp. 245-254, 2018 SCOPUS/SCI. IF 4.36**
15. Sahu S K., **Pal K**, Mahto R. P., Dash P Monitoring of friction stir welding for dissimilar Al 6063 alloy to polypropylene using sensor signals. *Int J Adv Manuf Technol. Springer publication*, **vol. 104(1-4), pp. 159-177, 2019 SCI/SCOPUS. IF 3.226**
16. Rath, D., Panda, S. and **Pal, K**. “Dry turning of AISI D3 steel using a mixed ceramic insert: A study.” *Proc IMechE Part C: J Mechanical Engineering Science*. **Vol. 233(19–20), pp. 6698–6712 2019 SCI/SCOPUS. IF 1.762**
17. Rath, D., Panda, S., Mishra, A. and **Pal, K**. “Particle swarm optimization and machinability aspects during turning of hardened D3 steel.” *Journal of Advanced Manufacturing Systems*, **doi.org/10.1142/S021968672050033X, 2020 SCOPUS.**
18. Barik T., **Pal K.**, Parimita S, Sahoo P. and Patra K. Monitoring of hole surface integrity in drilling of bi-directional woven CFRP composites, *Proc IMechE Part C: J Mechanical Engineering Science, Sage publications*, DOI: 10.1177/0954406220906292, **2020 SCI/SCOPUS. IF 1.762**
19. Pattanaik A K., **Pal K**, and Mishra D, “Tribological investigation and optimization of friction stir spot welding of dissimilar metals by LSSM-ANN method” *Mechanics Based Design Of Structures And Machines*, **doi.org/10.1080/15397734.2020.1759429, 2020 SCI/SCOPUS. IF**
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21. Sahu S. K., Mishra D., and **Pal K.** “Investigation on Mechanical Behavior of Friction Stir Welded Nylon-6 using Temperature Signatures” *Journal of Materials Engineering and performance, Springer publications*, **Vol. 29, pp. 5238–5262, 2020 SCI/SCOPUS. IF 1.895**
22. Barik T. and **Pal K.** Prediction of drilled hole quality in bidirectional woven carbon fiber reinforced plastic using wavelet packets of force–torque signals, *Journal of Reinforced Plastics and Composites*, **doi.org/10.1177/07316844211011757, 2021 SCI/SCOPUS. IF 3.71**
23. Sahu S K., Mishra D., and **Pal K.** “Optimizing process parameters for joint strength efficiency improvement in friction stir welding of polycarbonate sheets”, *Material Science and Engineering Technology*. **Vol 52, pp. 739–761, 2021 SCI/SCOPUS. IF 0.854**
24. Goswami N., and **Pal K.** “Comparative assessment on weldability of Al 6061 to polycarbonate for dissimilar sheets placement in friction stir lap welding using sensor signals” *Proc IMechE Part C: J Mechanical Engineering Science, Sage publications*, **2021 Vol 236(7), pp.3474-3496, SCI/SCOPUS IF 1.758**

25. Sahu S K., Mishra D., and Pal K. “A comparative study between weldability of polycarbonate and nylon-6 using different pin geometries in friction stir welding”, Proc IMechE Part B: Journal of Engineering Manufacture, Sage publications. **2021, Vol 236(5), pp. SCI/SCOPUS. IF 2.759**
26. Rath, D., Panda, S. and **Pal, K.** “Performance Analysis of Hybrid Ceramic Insert in Dry Turning of Hardened Tool Steel”, Arabian Journal for Science and Engineering, Dec **2022 Vol 47, pp. 15455–15476, SCI/SCOPUS. IF 2.807**
27. Barik T. and **Pal K.** “Prediction of TiAlN and TiN coated carbide tool wear in drilling of bidirectional CFRP laminates using wavelet packets of thrust-torque signatures”, Journal of the Brazilian Society of Mechanical Sciences and Engineering, July **2022, Vol 44(364), pp. 1-30, SCI/SCOPUS. IF 2.361**
28. Barik T., **Pal K.**, Parimita S, Sahoo P. and Patra K., “Sensor-based strategies for accurate prediction of drilled hole surface integrity of CFRP/Al7075 hybrid stack”, Mechanics of Advanced Materials and Structures, *Taylor & Francis*, **Oct 2022, doi.org/10.1080/15376494.2022.2131945, pp.1-28, SCI/SCOPUS. IF 4.02**
29. Goswami N K., Nayak L P and **Pal K.**, “Investigation on tool positioning in friction stir lap welding of AA6061 to polycarbonate sheets using force-torque signals”, Journal of Adhesion Science and Technology, **2023, 37(9), pp. 1543–1572, SCI/SCOPUS. IF 2.077**
30. Barik T. and **Pal K.**, Optimization of process variables in drilling of carbon fiber reinforced plastics using various multi criteria decision making approaches”, Material Science and Engineering Technology. **2023, 54(1), pp. 45–68, SCI/SCOPUS. IF 0.854**
31. Pattanaik A K., Nayak, L.P., Bisoyi, R.K, **Pal K.**, and Mishra D Monitoring of friction stirred spot weld quality for dissimilar Al6061 to polycarbonate using tool assisted thrust-torque signatures, Proc IMechE Part C: J Mechanical Engineering Science, Sage publications,, **2023 https://doi.org/10.1177/09544062231173, SCI/SCOPUS IF 1.758**

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32. **Pal, K.**, and Pal, S. K., “Multi-objective optimization of pulsed gas metal arc welding process using neuro NSGA-II” Journal of The Institution of Engineers (India): Series C, **Vol 100, pp. 501–510 2019 SCOPUS.**

- *International Conferences: Published 24*

1. **Pal, K.**, and Pal, S. K., “A Review on Modeling and control of a gas metal arc welding process using soft computing tools and sensor signals:”, *International Conference Emerging Research and Advances in Mechanical Engineering (ERA 2009)*, Chennai, **pp. 651-656.**
2. **Pal, K.**, and Pal, S. K., “Characterization of weld quality and process stability in pulsed MIG welding using sensor signals”, *International Conference on Advances in Mechanical Engineering (ICMAE 2009)*, S.V. NIT, Surat, Gujarat, India, **pp.1019-1023.**
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5. Priyadarshini, M. and **Pal, K.**, “Grey-taguchi Based Optimization of EDM Process for Titanium Alloy”, *4th International Conference on Materials Processing and Characterization. ICMPC 2015* published in *Elsevier- Materials Today: Proceedings*, Volume 2, (4–5) **2015**, pp. 2472-2481.
6. Sahu, S. K, **Pal, K.** and Routara, B. C, “Effects of Pin Geometry on Friction Stir Cu to Al alloy Lap Joint”, *4th International Conference on Materials Processing and Characterization. ICMPC 2015* published in *Elsevier- Materials Today: Proceedings*, Vol. 2(4–5), **2015**, pp. 3356-3362.
7. Mishra, S. S., Pattanaik, A. K., Mishra, D. and **Pal, K.**, “Parametric Optimization of Resistance Spot Welding of SS302 and low carbon Steel using Taguchi Method”, *1st International Conference on Emerging Trends in Mechanical Engineering (ICETiME 2016)*, The ICFAI Foundation for Higher Education, Hyderabad, Andhra Pradesh. India.
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9. Rath, D., Panda, S and **Pal, K.**, “Parametric Study on Surface Integrity and Chip Morphology in Hard turning of AISI D3 Steel”, *6th International & 27th AIMTDR Conference 2016*, Department of Production Engineering & Industrial Management, College of Engineering Pune, India.
10. Sahu, S. K., Mishra, D., Mahto, R. P, Pal, S. K. and **Pal, K.**, “Friction Stir Welding of HDPE Sheets: A Study on the Effect of Rotational Speed”, *6th International & 27th AIMTDR Conference – 2016*, Department of Production Engineering & Industrial Management, College of Engineering Pune, India ISBN:978-93-86256-27-0
11. Barik, T., Biswal, S. and **Pal, K.**, “Parametric optimization in drilling of fiber reinforced composites for reduced delamination”, *6th International & 27th AIMTDR Conference – 2016*, Department of Production Engineering & Industrial Management, College of Engineering Pune, India ISBN:978-93-86256-27-0
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13. Sahu, S K., Panda, M, Mahto, R. P., Pal, S. K., **Pal, K.**, Dash, P., “Experimental Investigation to Join Al 6063 Alloy To Polypropylene Using Friction Stir Welding”, *International Conference on Precision, Meso, Micro and Nano Engineering, (COPEN 2017)*, IIT Madras, Chennai, India. ISBN:978-93-80689-28-9.
14. Barik, T., Parimita, S. and **Pal, K.**, “Parametric Study And Process Monitoring On Drilling Of CFRP Composites”, *International Conference on Precision, Meso, Micro and Nano Engineering, (COPEN 2017)*, Indian Institute of Technology Madras, Chennai, India. ISBN:978-93-80689-28-9.

15. Pattanaik, A.K. , Panda, S.N. , **Pal, K.** and Mishra, D., ‘A Comparative Investigation to Process Parameter Optimization for Spot Welding Using Taguchi Based Grey Relational Analysis and Metaheuristics’, *Material Today Proceedings 2018*, Volume 5(5), 2018, pp. 11408-11414, **2018 International Conference on Materials Manufacturing and Modelling, ICMMM 2017**; Vellore; India ISSN: 2214-7853
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18. Sahu S. K., **K. Pal** and Das S. (2019), “Parametric study on joint quality in friction stir welding of polycarbonate”, 2nd *International Conference on Recent Trends in metallurgy, Materials Science and Manufacturing, IMME19*, NIT, Tiruchirappalli. **2019**, published in *Materials Today: Proceedings 39, Vol 39(4), pp. 1275-1280, 2021.*
19. Barik T., Jena S. K., Gahir S., **Pal K.** and Pattnaik S. K., Process Parametric Optimization in Drilling of CFRP Composites using GRA Method, 2nd *International Conference on Recent Trends in metallurgy, Materials Science and Manufacturing, IMME19*, NIT, Tiruchirappalli **2019**, published in *Materials Today: Proceedings, Vol 39(4), pp. 1281-1286, 2021.*
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21. Pattanaik A. K., Khandai S., Barik B. K., **Pal K.**, Mishra D., A study on friction stir spot welding of dissimilar al 6061-t6 to s304 stainless steel, *International Conference on Precision, Meso, Micro and Nano Engineering, COPEN 11*, Indian Institute of Technology Indore, India, **2019**.
22. Barik T., Parimita, S., Gahir S., **Pal K.** and Pattnaik S. K., Process parametric optimization and analysis of surface integrity in drilling unidirectional fibre-reinforced plastics, International Conference on future trends in engineering, management, science and technology, **ICFTEMST-2019**. GIET University, Gunupur, Odisha. pp-89-90, ISBN-978-93-83060-13-9.
23. Sahu S. K., **Pal K.**, Das S. and Tripathy A., “Study on Mechanical Behaviour of Friction Stir Welded Nylon-6 sheets”, 3rd *International Conference On Innovations In Mechanical Engineering, ICIME 2020*, Guru Nanak Institutions. Telangana, **2020**.
24. Barik T., Jena S., Tripathy A., **Pal K.** and Parida S., A novel approach for reducing delamination during drilling of CFRP by Response Surface Methodology (RSM) integrated with the Taguchi method, 3rd *International Conference on Innovations in Mechanical Engineering, ICIME 2020*, Guru Nanak Institutions. Telangana, **2020**.
25. Goswami N., and **Pal K.**, ‘A Study on Friction Stir Lap Welding of Dissimilar Al 6061 to Polycarbonate’, 8th *International & 29th National AIMTDR-2021*, Dec 9-11, PSG College of Coimbatore, Tamil Nadu, India, **2021**.

26. Goswami N K., Nayak L P and **Pal K**, 'Joining of Dissimilar Thermoplastic Polymers using Friction Stir Processing: A Review', *Innovations in Mechanical and Materials Engineering (IMME 2022)*, Motilal Nehru National Institute of Technology Allahabad, India, **2022**.
 27. Barik T., Parida S. and **Pal K**, 'Application of ARAS method for finding out the best possible combination of input parameters for least hole defects while drilling CFRP laminates', *Innovations in Mechanical and Materials Engineering (IMME 2022)*, Motilal Nehru National Institute of Technology Allahabad, India, **2022**.
 28. Barik T., Parida S. and **Pal K**, 'Optimizing the input parameters setting for least hole defects while drilling CFRP laminates by multi-objective optimization on the basis of ratio analysis (MOORA) method', *International Conference on Material Science, Mechanics, & Technology (ICMMT 2022)*, Susshila Debi Bansal College, Indore, India, **2022**.
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 32. Barik, T, Biswal, S and **Pal, K.**, "Parametric Study on Drilling Delamination of GFRP Composites", *Recent Advances in Material Sciences (RAIMS-15)*", Veer Surendra Sai University of Technology, Burla, Odisha, India.
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 34. Priyadarshini, Manisha and **Pal, K.**, "Non-Traditional Material Removal Approaches of EDM for advanced materials: A Review", *Recent Advances in Material Sciences (RAIMS-15)*", Veer Surendra Sai University of Technology, Burla, Odisha, India.
 35. Sahu, S. K., Mishra, D. **Pal, K.**, and Dash, P., "Friction Stir Welding of Thermoplastic: A Review", *National Conference on Technological Advancement in Manufacturing & Processing of New Materials, (TAMPNM 2016)*, Veer Surendra Sai University of Technology, Burla, Odisha, India. pp 158-163
 36. Barik, T and **Pal, K.**, , "Drilling of Fiber Reinforced Composites using Coated Tool: A Review", *National Conference on Technological Advancement in Manufacturing & Processing of New Materials, (TAMPNM 2016)*, Veer Surendra Sai University of Technology, Burla, Odisha, India. pp 68-73

37. Rath D, Priyadarshini, M, Panda, S and **Pal, K.**, “Optimization of machining parameters during hard turning of AISI D3 steel using Fuzzy-TOPSIS approach”, *National Conference on Advanced Materials, Manufacturing and Metrology (NCAMMM –2018)*, CSIR-CMERI, Durgapur, India.
38. Barik T., Sarangi S. and **Pal K.** “An approach to reduce drilling induced delamination for fiber reinforced composites”, All India Seminar on "*Unconventional Machining and Modern Production Techniques 2018*", organized by The Institution of India, Odisha State Centre, CET, Bhubaneswar, India.
- **Books / Book Chapters/ Lecture Notes: Published: 9**
1. Rath, D., Panda, S. and **Pal, K.** Machinability and wear mechanism study in turning of hardened steel (Book), **Lambert Academic Publishing, ISBN 978-620-4-74279-3, 2022.**
 2. Mishra D., Sahu S. K., Mahto R. P., Pal S. K., and **Pal K.**, “Friction Stir Welding for Joining of Polymers” chapter for the book titled as "*Strengthening and Joining by Plastic Deformation*", *Springer Publications, Chapter 6, pp.123-162, doi: 10.1007/978-981-13-0378-4_6, 2019.*
 3. Barik T., Sarangi S. and **Pal K.**, Assessment on Hole Quality During Drilling of Al/CFRP Stack, *Lecture Notes on Multidisciplinary Industrial Engineering, M. S. Shunmugam and M. Kanthababu (Eds):Advances in Unconventional Machining and Composites, Springer Publications, 978-981-32-9470-7, 486064_1_En (64), pp 757-770, doi: 10.1007/978-981-32-9471-4_64, 2019.*
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 5. Barik T., Jena S., Tripathy A., **Pal K.** and Parida S., A novel approach for reducing delamination during drilling of CFRP by Response Surface Methodology (RSM) integrated with the Taguchi method, *Recent Trends in Mechanical Engineering, Part of the Lecture Notes in Mechanical Engineering book series (LNME), Springer Publications, pp. 185-197 2020.*
 6. Goswami, N.K., **Pal, K.**, A Study on Friction Stir Lap Welding of Dissimilar Al 6061 to Polycarbonate, **Advances in Additive Manufacturing and Metal Joining, Springer Nature Singapore, May 2023, pp 299-307.**
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 8. Goswami N K., Nayak L P and **Pal K.**, ‘Joining of Dissimilar Thermoplastic Polymers using Friction Stir Processing: A Review’, **Nano World Journal. March 2023, doi.org/10.17756/nwj.2023-s1-015, pp. S72-S77.**
 9. Barik, T., Parida, S., **Pal, K.**, Application of ARAS Method for Finding Out the Best Possible Combination of Input Parameters for Least Hole Defects While Drilling CFRP Laminates, **Nano World Journal. March 2023, doi.org/10.17756/nwj.2023-s1-039, pp. S192-S197.**