# Dr Sambit Kumar Parida

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## Expertise

### Mechanical Engineering

Composite structure, fracture mechanics, System design, Laser cladding,

## Work experience

1. National Institute of Advanced Manufacturing Technology (NIAMT) 2016 — Present

   Assistant Professor (Grade-II)
   Ranchi

2. KIIT Deemed to be University, Bhubaneswar 2014 — 2016

   Assistant Professor (Grade-I)
   Khurda

## Education

1. Ph. D. - 2015

   Indian Institute of Technology Bhubaneswar

M. Tech. - 2010

Indian Institute of Technology Kharagpur

## Honours and Awards

1. Institute Scholar Fellowship -

   Indian Institute of Technology Bhubaneswar

## Research Project

### Reengineering of Maize sheller

Role: Team Leader
Year 2012, Amount 1000000

### Development of Fixtures for Blade Adaptor Machining

Role: Co- Investigator
Year 2003, Amount 200000

## Membership In Professional Bodies

1. SAE, 2013
   Academic member

## Membership In Committees

1. Hostel Management Committee (JMC), 2024
   Waden

2. UHV, 2024
2. Chairman

# Publication

1. ## Design and development of IoT enabled modular melting, pouring, and, stirring system for casting of non-ferrous alloys and sustainable aluminum matrix composites (AMCs)

   International Journal on Interactive Design and Manufacturing (IJIDeM), Year 2024

2. ## Strength evaluation of alkali treated Sabai Grass (Eulaliopsis binata) fibers and its reinforced composites

   Shambhu Kumar, Ratnakar Das, Sambit Kumar Parida
   Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, Volume 238, Year 2024, Pages

3. ## 3D FE adhesion failure analyses of adhesive bonded single lap joint made with functionally modulus graded curved adherends

   S. K. Parida, A. M. Murmu, Vemireddy Hari, VS. Ayar, R. Das
   International Journal on Interactive Design and Manufacturing, Volume 18, Year 2024, Pages 481–488

4. ## A study on drilling performance of fabricated sabai fiber (Eulaliopsis binata) /epoxy composite laminates

   S.K. Kumar, S., Das, R., S.K. Parida
   International Journal on Interactive Design and Manufacturing, Volume 18, Year 2024, Pages

5. ## Potential of grass families as reinforcement material in composites: A review

   Kumar S.;Das R.;Parida S.K.
   AIP Conference Proceedings, Volume 2764, Year 2023

6. ## Experimental study on the quality of drilled holes in Sabai grass reinforced composites

   Materials Today: Proceedings, Year 2023

7. ## Effect of using fibre reinforced epoxy adhesive on the strength of the adhesively bonded Single Lap Joints

   Behera R.K.;Parida S.K.;Das R.R.
   Composites Part B: Engineering, Volume 248, Year 2023

8. ## Evaluation of laser cladding of Ti6Al4V-ZrO2-CeO2 composite coating on Ti6Al4V alloy substrate

   Murmu A.M.;Parida S.K.;Das A.K.;Kumar S.
   Surface and Coatings Technology, Volume 473, Year 2023, Pages

9. ## Evaluation of in-situ synthesised titania-zirconia-boron carbide composite cladding on Ti6Al4V substrate using continuous wave fibre laser

   Murmu A.M.;Parida S.K.;Das A.K.

Materials Chemistry and Physics, Volume 296, Year 2023, Pages

10. Effect of pre-embedded adhesion failures and surface ply delaminations on the structural integrity of adhesively bonded single lap joints made with curved laminated FRP composite panels

    Behera R.K.;Parida S.K.;Das R.R.
    International Journal of Adhesion and Adhesives, Volume 108, Year 2021, Pages 102887

11. Three-dimensional FE Model for Stress Analysis of Adhesively Bonded Single Lap Joints with Hard Steel Adherend

    Behera R.K.;Parida S.K.;Das R.R.
    Lecture Notes in Mechanical Engineering, Volume , Year 2021, Pages 523-532

12. Synthesis and Characterization of Ti6Al4V-Nano-$ZrO_2$ Composite Cladding on Ti6Al4V Substrate Using Fiber Laser

    Murmu A.M.;Parida S.K.;Das A.K.
    Journal of Materials Engineering and Performance, Volume 30, Year 2021, Pages 1748-1758

13. 3D and 4D Printing in Industry 4.0: Trends, Challenges, and Opportunities

    Springer Proceedings in Materials, Year 2021

14. Finite Element Analysis of Buckling, Free Vibration and Flexure of Clamped Laminated Composite Plates in Variable Thermal Environment

    Behera R.K.;Sharma N.;Parida S.K.
    Lecture Notes in Mechanical Engineering, Volume , Year 2020, Pages 1151-1161

15. Small delamination detection in carbon fibre reinforced polymer composite beam by NDT and vibration analysis

    Nayak, Smaranika ; Pattnaik, Swetansu ; Panigrahi, Isham ; Nayak, Rameshkumar ; Parida, Sambit Kumar
    Indian Journal of Engineering and Materials Sciences, Volume , Year 2020, Pages

16. Water absorption and mechanical properties of Sabai yarn in FRP composite

    Kumar S.;Das R.;Parida S.K.
    Materials Today: Proceedings, Volume 26, Year 2019, Pages 1610-1615

17. 3-D interfacial stress analysis of adhesively bonded curved laminated FRP composite single lap joint

    Materials Today: Proceedings, Year 2019

18. About the design, development of an automated SMAW setup and the weldment analysis in air and wet working environment

    IOP Conference Series: Materials Science and Engineering, Year 2019

19. Effect of cenosphere filler on the hardness and impact strength of wild cane fibre mat reinforced laminated composites

    IOP Conference Series: Materials Science and Engineering, Year 2019

20. 3-D interfacial stress analysis of adhesively bonded curved laminated FRP composite single lap joint

    Ranjan K. Behera , S.K. Parida , R.R. Das
    Materials Today: Proceedings, Volume , Year 2019, Pages

21. About the design, development of an automated SMAW setup and the weldment analysis in air and wet working environment

    : S B Reyaz and S K Parida
    IOP Conference Series: Materials Science and Engineering, Volume 653, Year 2019, Pages 012039

22. Effect of agglomerated zirconia-toughened mullite on the mechanical properties of giant cane fiber mat epoxy laminated composites

    Pruthwiraj Sahu, Sambit Kumar Parida and Sisir Mantry
    Structural Engineering and Mechanics, Volume 70, Year 2019, Pages 233-243

23. Effect of the aspect ratio of the pre-existing rectangular adhesion failure on the structural integrity of the adhesively bonded single lap joint

    R. K. Behera, S.K. Parida, R.R. Das
    Journal of Adhesion Science and Technology, Volume 33, Year 2019, Pages 2093-2111

24. Three-dimensional adhesion failure analysis of the single lap joint having pre-embedded circular defects

    R. K. Behera, S.K. Parida, R.R. Das
    The Journal of Strain Analysis for Engineering Design, Volume 54, Year 2019, Pages 2093-2111

25. Evaluation of hardness and wear behavior of laser cladding zirconia-alumina-titania ceramic top coating on pure Ti6Al4V

    Murmu A.M.;Kumar S.;Parida S.K.;Das A.K.
    Materials Today: Proceedings, Volume 26, Year 2019, Pages 1103-1107

26. Effect of Material Anisotropy on Delamination Damage in Adhesive Bonded Lap Shear Joints Made with Curved Laminated FRP Composite Panels

    Parida S.;Pradhan A.
    Iranian Journal of Science and Technology - Transactions of Mechanical Engineering, Volume 40, Year 2016, Pages 275-287

27. 3D finite element analysis of stress distributions and strain energy release rates for adhesive bonded flat composite lap shear joints having pre-existing delaminations

    Parida S. K.;Pradhan A.
    Journal of Mechanical Science and Technology, Volume 28, Year 2014, Pages 481-488

28. Influence of curvature geometry of laminated FRP composite panels on delamination damage in adhesively bonded lap shear joints

    S. K. Parida, Arun Kumar Pradhan,
    International Journal of Adhesion and Adhesives, Volume 54, Year 2014, Pages 57-66

29. 3D FE delamination induced damage analyses of adhesive bonded lap

shear joints made with curved laminated FRP composite panels

Arun Kumar Pradhan, S. K. Parida
Journal of Adhesion Science and Technology, Volume 27, Year 2013, Pages 1104-1121

30. On line monitoring and control of mobile robots using Java

Annals of DAAAM and Proceedings of the International DAAAM Symposium, Year 2006

31. Tensile and flexural strength evaluation of cenosphere and sabai grass(Eulaliopsis binata) Reinforced composite

Journal of Technology, Year 0