

LIST OF PUBLICATIONS

<https://scholar.google.co.in/citations?hl=en&user=5CVg1l8AAAAJ>

1. International Journal Publications (**SCI Indexed Journals**)

Sl	Author(s)	Title	Name of Journal	Vol.	Page	Year	Citation
16	Somanath Mohanty Rashmi Ranjan Das	Design of adhesion/cohesion fracture resistant FRP composite repair system for V-notched Al-6061-T6 Aircraft skin https://doi.org/10.1016/j.ijadhadh.2024.103771	International Journal of Adhesion and Adhesives [Q2]: 3.2	134	1-26	2024	
15	Somanath Mohanty Rashmi Ranjan Das	Influence of polymeric resin-infilling on onset and fracture growth along wing trajectory in open-flawed sandstone specimen https://doi.org/10.1016/j.tafmec.2023.103836	Theoretical & Applied Fracture Mechanics [Q1]: 4.374	125	1-36	2023	
14	Nayanjyoti Baishya Rashmi Ranjan Das	Finite Element based interfacial failure analysis of PVC and laminated FRP composite pipe socket joints subjected to internal pressures https://doi.org/10.1016/j.ijadhadh.2022.103293	International Journal of Adhesion and Adhesives [Q2]: 3.848	120	1-14	2022	
13	Ranjan Kumar Behera Sambit Parida Rashmi Ranjan Das	Effect of using fibre reinforced epoxy adhesive on the strength of the adhesively bonded Single Lap Joints https://doi.org/10.1016/j.compositesb.2022.110358	Composites: Part B [Q1]: 11.322	248	1-12	2022	
12	Somanath Mohanty, Rashmi Ranjan Das	Laminated FRP composite patch design for arresting joint fractures (Adhesion/cohesion) in resin-infilled centrally inclined V-notched Al-6061-T6 plate https://doi.org/10.1016/j.tafmec.2022.103491	Theoretical & Applied Fracture Mechanics [Q1]: 4.374	121	1-34	2022	
11.	Umesh	Fracture Analyses of	Journal of the	44	1-29	2022	

	Kumar, RR Das	Bonded Tubular FRP Composite K-joints with Braces Subjected to Balanced Axial Load https://doi.org/10.1007/s40430-022-03555-2	Brazilian Society of Mechanical Sciences and Engineering [Q2]: 2.220	(6)			
10.	Ranjan K Behera, S.K. Parida & R.R. Das	Effect of pre-embedded adhesion failures and surface ply delamination on the structural integrity of adhesively bonded single lap joints made with curved laminated FRP composite panels https://doi.org/10.1016/j.ijadhadh.2021.102887	International Journal of Adhesion and Adhesives [Q2]: 2.671	108	1-17	2021	
9.	Umesh Kumar, RR Das	Adhesion failure analyses of laminated FRP composite made bonded tubular T-joints with axially compressed brace https://doi.org/10.1016/j.compstruct.2020.113386	Composite Structures [Q1]: 5.138	258	1-19	2020	--
8.	K. Bharti, L.A.K Swamidas, R.R. Das	A novel optimization approach for bonded tubular gap K-joints made of FRP composites https://doi.org/10.1016/j.istruc.2020.10.021	Structures [Q2]: 1.839	28	2135-2145	2020	--
7.	K. Bharti, L.A.K Swamidas, R.R. Das	Detailed investigation of adhesive fillet tubular T-joint of laminated FRP composite tube under axial compressive load https://doi.org/10.1007/s40194-020-00908-0	Welding in the World [Q2]: 1.589	64	1279-1292	2020	2
6.	RK Behera, SK Parida, RR Das	Effect of the aspect ratio of the pre-existing rectangular adhesion failure on the structural integrity of the adhesively bonded single lap joint https://doi.org/10.1080/01694243.2019.1629731	Journal of Adhesion Science and Technology [Q3]: 1.365	33(19)	2093-2111	2019	4
5.	RK Behera, SK Parida,	Three-dimensional adhesion failure analysis of the single	The Journal of Strain Analysis for	54(5-6)	293-309	2019	4

	RR Das	lap joint having pre-embedded circular defects https://doi.org/10.1177/0309324719867002	Engineering Design [Q2]: 1.630				
4.	N.J. Baishya, R.R.Das, S.K. Panigrahi	Failure analysis of adhesively bonded tubular joints of laminated FRP composites subjected to combined internal pressure and torsional loading https://doi.org/10.1080/01694243.2017.1307498	Journal of Adhesion Science and Technology [Q3]: 1.365	31(19-20)	2139-2163	2017	7
3.	R.R. Das, B. Pradhan	Delamination damage analysis of laminated bonded tubular single lap joint made of FRP composite https://doi.org/10.1177/1056789513513199	International Journal of Damage Mechanics [Q1]: 3.125	23 (6)	772-790	2014	17
2.	R.R. Das, B. Pradhan	Finite element based design and adhesion failure analyses of bonded tubular socket joints made with laminated FRP composites https://doi.org/10.1163/016942410X508073	Journal of Adhesion Science and Technology [Q3]: 1.365	25	41-67	2011	22
1.	R.R. Das, B. Pradhan	Adhesion failure analyses of bonded tubular single lap joints in laminated FRP composites https://doi.org/10.1016/j.ijadhadh.2010.02.008	International Journal of Adhesion and Adhesives [Q2]: 2.671	30 (6)	425-438	2010	44

2. International Journal Publications (SCOPUS Indexed Journals)

Sl	Author(s)	Title	Name of Journal	Vol.	Page	Year	Citn
7.	RK Behera, SK Parida, RR Das	3-D interfacial stress analysis of adhesively bonded curved laminated FRP composite single lap joint https://doi.org/10.1016/j.matpr.2020.02.426	Materials Today Proceedings [SCOPUS]	26 (2)	1948-1952	2020	--
6.	S.K. Panigrahi R. R. Das	Study and Analysis of Damages in Functionally Graded Adhesively Bonded	Reviews of Adhesion and Adhesives	4 (14)	152-165	2016	2

		Joints of Laminated FRP Composites: A critical Review https://doi.org/10.1002/9781119526445.ch5	[SCOPUS]				
5.	R.R. Das N. J. Baishya V. Ranjan	Analysis of bonded tubular single lap joints subjected to varying pressure at a constant torsion	Journal of Mines, Metals and Fuels [SCOPUS]	64 (5,6)	208-213	2016	--
4.	R.R. Das A. Singla A. Srivastava	Thermo-mechanical interlaminar stress and dynamic stability analysis of composite spherical shells https://doi.org/10.1016/j.proeng.2016.05.058	Procedia Engineering [SCOPUS]	144	1060-1066	2016	4
3.	R.R. Das A. Singla	Dynamic Stability and Interlaminar Stress Analysis of Cylindrical Shells Subjected to Elevated Thermal Field https://doi.org/10.1016/j.proeng.2016.05.157	Procedia Engineering [SCOPUS]	144	468-473	2016	--
2.	R.R. Das N.J. Baishya	Failure analysis of bonded composite pipe joints subjected to internal pressure and axial loading https://doi.org/10.1016/j.proeng.2016.05.055	Procedia Engineering [SCOPUS]	144	1047-1054	2016	12
1.	R.R. Das, N.J. Baishya	Fluid-Structure Interaction based Adhesion Failure analysis of Bonded Tubular Socket joints https://doi.org/10.1016/j.proeng.2016.05.113	Procedia Engineering [SCOPUS]	144	1260-1269	2016	--

3. Books chapters:

SL	Author	Chapter Title/Book Name/DOI	Volume, Page, publisher	Year
3	R.R. Das	Failure Analysis of Structural Adhesive Joints with Functionally Graded Tubular Adherends Structural Adhesive Joints: Design, Analysis and Testing https://doi.org/10.1002/9781119737322.ch7	205-219 Wiley online library	2020
2	RK Behera,	Three-dimensional FE Model for Stress	523-532	2020

	SK Parida, RR Das	Analysis of Adhesively Bonded Single Lap Joints with Hard Steel Adherend Advances in Mechanical Processing and Design https://doi.org/10.1007/978-981-15-7779-6_47	Springer	
1	S.K. Panigrahi. R.R. Das	Functionally Graded Adhesively Bonded Joints of Laminated FRP Composites, Progresses in Adhesions and Adhesives Progress in Adhesion and Adhesives, II 10.1002/9781119407485.ch6	2; 147-159,;; Willey online library	2017

4. International/National Conference Publications (2015-2018)

International/ National Conference	Title of the Seminars/Conferences	Venue (City, Country)	Title of Paper published/presented
International Conference	Eighth ISSS International Conference on Smart Materials, Structures & Systems. Authors: Dr R R Das and Umesh Kumar (Research Scholar)	IISc, Bangalore, India 2017	"FEM based delamination damage analysis of bonded FRP composite pipe joints"
International Conference	International Conference on Composite Materials and Structures- ICCMS 2017. Authors: Dr R R Das and Umesh Kumar (Research Scholar)	IIT, Hyderabad, India 2017	"Design of laminated FRP composite made damage tolerant pipelines for underground mining applications"
International Conference	International Conference on Composite Materials and Structures- ICCMS 2017 Authors: Dr R R Das and Kundan Bharti (Research Scholar)	IIT, Hyderabad, India 2017	"FEM based Design Optimization of a Mining Dragline Cluster"
International Conference	International Conference on Composite Materials and Structures- ICCMS 2017 Authors: Dr R R Das and Kumar Gourav (M. Tech)	IIT, Hyderabad, India 2017	"Analysis of Tubular FRP Composite Bonded Socket Joints With Functionally Graded Adhesive"
National Conference	Mining Equipments: New Technologies Challenges & Applications (MENTCA)-2018 Authors: Dr R R Das and Ghulam Moin (B. Tech)	IIT(ISM), Dhanbad, India 2018	"Stress and failure Analysis of an Excavator bucket-A Review"
National Conference	Mining Equipments: New Technologies Challenges & Applications (MENTCA)-2018	IIT(ISM), Dhanbad, India 2018	" Finite Element Analysis and optimization of Excavator boom-A Review ss and failure Analysis of an Excavator bucket-A Review"

	Authors: Dr R R Das and D.K. Barsaiyan (B.Tech)		
National Conference	Mining Equipments: New Technologies Challenges & Applications (MENTCA)-2018 Authors: Dr R R Das and Aditya Kumar (B.Tech)	IIT(ISM), Dhanbad, India 2018	" Finite Element Analysis based design and optimization of Excavator Arm-Review "
National Conference	Mining Equipments: New Technologies Challenges & Applications (MENTCA)-2018 Authors: Dr R R Das and Arijit Pradhan (B.Tech)	IIT(ISM), Dhanbad, India 2018	" Effect of lacing angle on stress concentration effects corresponding to cluster weld fillet of a BE 1370 Dragline"

5. International Conference Publications (2006-2014)

1. R.R. and Pradhan, B., "Study of crack growth emanating from notches and holes," *51st Congress of ISTAM, Andhra University College of Engineering, Visakhapatnam*, December 18-21, 2006.
2. Shah, N.H., Das, R.R. and Pradhan, B., "Onset and growth of delamination damage characteristics in adhesively bonded tubular joints in laminated FRP composites," *52nd Congress of ISTAM, BNMIT Bangalore*, December 14 -17, 2007. pp. 96-97.
3. Das, R.R. and Pradhan, B., "Mixed mode crack growth emanating from notches and holes," *52nd Congress of ISTAM, BNMIT Bangalore*, December 14 -17, 2007. pp. 95.
4. Das, R.R. and Pradhan, B., "Onset and growth of adhesion failure in laminated FRP composite tubular lap and socket joints," *53rd Congress of ISTAM, Osmania University, Hyderabad*, December 27 – 30, 2008.
5. Arunasri B., Das, R.R. and Pradhan, B., "Adhesion failure of bonded single lap joints in FGM plates," *54th Congress of ISTAM, Netaji Subhash Institute of Technology, New Delhi*, December 18-21, 2008. pp. 85.
6. Das, R.R. and Pradhan, B., "Initiation and propagation of delamination damages in adhesive bonded tubular socket joints in laminated FRP composites," *54th Congress of ISTAM, Netaji Subhash Institute of Technology, New Delhi*, December 18-21, 2008. pp. 85-86
7. Das, R.R. and Pradhan, B., "Initiation and propagation of delamination damages in adhesive bonded tubular lap joints in laminated FRP composites," *54th Congress of ISTAM, Netaji Subhash Institute of Technology, New Delhi*, December 18-21, 2008. pp. 91-92.

8. Das, R.R. and Pradhan, B., "Onset and growth of adhesion failures in adhesively bonded tubular socket joints in laminated FRP composites," *14th National Conf. on Machines and Mechanisms, NIT Durgapur*, December 17-18, 2009. pp. 76-83. **(BEST STUDENT PAPER AWARD)**.
9. Das, R.R. Tandon, H., and Bajpai, A., "FEM based analysis of bonded FRP composite made single lap joints subjected to tension," *National Conf. on Advances in Simulation and Optimization Techniques in Mechanical Engineering, KIIT-University, Bhubaneswar*, February 18-19, 2012. pp. 1-8.
10. Das, R.R. Bajpai, A., and Tandon, H., "stress analyses of bonded flat joints made with laminated FRP composites under transverse loading," *National Conf. on Advances in Simulation and Optimization Techniques in Mechanical Engineering, KIIT-University, Bhubaneswar*, February 18-19, 2012. pp. 1-8.
11. Das, R.R. Roy, A., and Bh. V. S. Sasank, "FEM based numerical analysis of adhesively bonded lap joints subjected to impact," *International Conf. on Mathematical Modelling and Applied Soft Computing, CIT-Coimbatore*, July 11-13, 2012.
12. Das, R.R. Raveen, A.R., Vishal, V., and Kujur, P.S., "FEM based numerical analysis of fractured isotropic and composite specimens," *International Conf. on Mathematical Modelling and Applied Soft Computing, CIT-Coimbatore*, July 11-13, 2012.
13. Das, R.R. and Pradhan, B., "Finite Element based Delamination damage analyses of laminated FRP composite made bonded tubular socket joint," *International Conference on Manufacturing Excellence, Amity University, New Delhi*, March 29-30, 2012.
14. Das, R.R. and Pradhan, B., "Stress analyses of bonded tubular single lap joints made with functionally graded materials using finite element method," *Third Asian Conference on Mechanics of Functional Materials and Structures, IIT Delhi, New Delhi*, December 5-8, 2012. pp. 453-456.
15. Das, R.R. and Pradhan, B., "Finite element method based stress analyses of bonded tubular socket joints made with functionally graded materials," *Fourth International Congress on Computational Mechanics and Simulation, IIT Hyderabad*, December 9-12, 2012.
16. Kumar, C., Thatoi, D.N., and Das, R.R., "Stress analyses of bonded joints subjected to elevated thermal field," *Indian Conference on Applied Mechanics (INCAM), IIT Madras, Chennai*, July 4-6, 2013. pp. 154-155.
17. Das, R.R., Chakraborty, A, Guchhait, A, and Shingla, A., "Onset and growth of cracks effecting dynamic stability of laminated cylindrical shells," *Fifth International Congress on Computational Mechanics and Simulation, CSIR Hyderabad*, December 10-13, 2014. pp. 1047-1056. ISBN:978-981-09-1139-3

18. Das, R.R., and Nayak, G.B., “Fracture analysis of laminated spherical shells made with FRP composites,” *Fifth International Congress on Computational Mechanics and Simulation, CSIR Hyderabad*, December 10-13, 2014. pp. 1962-1971. DOI:[10.3850/978-981-09-1139-3_300](https://doi.org/10.3850/978-981-09-1139-3_300)

GRAPHICAL ABSTARCT OF FEW RECENT RESEARCH WORKS



[FRP composite repaired V-notched Al-6061-T6 specimen]

[FEA based conclusion]

Case	Total Strain Energy (kJ/m³)
Angle-Ply	47.0
Quasi-isotropic	44.8
Cross-Ply	44.8
Angle-Ply	46.88
Tui-directional	47.2

[Experimental validation]