

CURRICULUM VITAE

Name:	Dr. Debasree Das Associate Professor Department of Aeronautical Engineering 				
Address:	Office Address: Department of Aeronautical Engineering S.J.C. Institute of Technology, P.B. 20, B B Road, Chickballapur-562101, Karnataka Contact No: 8209227883 E-mail: debasreedas.ae@sjcit.ac.in				
Educational Details:	Degree	Institution / University	Branch	Class Obtained	Year
	Madhyamik	Sri Krishna Mission Institute, Agartala	All subjects	I	2004
	10 (+2) Stage	Shishu Bihar H S School, Agartala	PCMB	I	2006
	B Tech	NIT Agartala	Civil Engineering	I	2010
	M Tech	NIT Agartala	Structural Engineering	I	2012
	PhD	IISc Bengaluru	Structural Engineering	---	2024
Post-Doctoral Research Associate:	IISc-Space Technology Cell (funded by ISRO [LPSC Thiruvananthapuram]) IISc Bengaluru, Department of Civil Engineering under Dr. Narayan K Sundaram, Associate Professor Project Title: Modeling and simulation of microstructural effects and residual stress in formed metal parts.				
Academic Projects:	PhD Thesis: “Micromechanics of wedge and cone indentation of metallic specimens with subsurface voids.” Advisor: Dr. Narayan K Sundaram, Associate Professor, IISc Bengaluru Doctoral Examiner: 1. Dr. Arghya Deb, Professor, IIT Kharagpur 2. Dr. Srinivasan Chandrasekar, Professor, Purdue University Date of Registration/Completion: 01-08-2017/31-07-2023 Brief summary: Near-surface voids and pores occur in metal parts. The thesis used finite element analysis (FEA) to simulate the micromechanics problem of indentation of a void-containing metal specimen for partial-complete closure under both <i>plane strain</i> & <i>axisymmetric conditions</i> .				

	Developed a critical enabling tool using remeshing and mesh-to-mesh transfer scheme , which helps to accommodate complete void closure and complex pattern of void-wall self-contact during indentation. It reveals local subsurface kinematic fields & stress fields with very high-accuracy. The high-fidelity simulations also allow a quantitative study of the global indentation response, particularly the effect of void presence on the instantaneous indentation hardness as a function of depth; this is the first of its kind in the community.		
	M Tech Thesis: “ A study on the effect of size and shape of the specimens on the behavior of concrete and mortar. ”		
	B Tech Project: “ A study on the behavior of flyash mixed with concrete ”.		
Teaching Experience:	Name of employer	Designation	Duration
	J K Lakshmipat University, Jaipur	Assistant Professor	Aug. 2016 – July.2017
	UTM Shillong (Mentor Institute: UPES Dehradun)	Assistant Professor	Dec.,2013 – July 2016
	MRIU, Faridabad	Assistant Professor	July 2012 – Dec., 2012
	NEHU, Shillong	Guest Lecturer	April 2015 – May 2015
Conferences	Title of paper	Conference name	Duration
	Simulation of deep indentation of metallic specimens with near surface voids-	ASME: IMECE® 2021 International Mechanical Engineering Congress & Exposition, USA	4 th Nov., 2021
	Simulation of void closure mechanisms in deep wedge indentation using remeshing	IMPLAST 2022, IIT Madras	23 rd Aug., 2022
	Simulation of extreme deformation in metal indentation using remeshing – FE and ALE- FE	Seventh International Indentation Workshop (IIW 7) University of Hyderabad	23 rd Dec, 2023
	Simulation of large plastic deformation in void containing and architected metallic solids using remeshing based FE	ICCMS 2025, IIT Bhubhaneswar	Dec., 2025
	A microstructure-aware remeshing based computational framework to model and simulate large-strain metal triboplasticity	International Nanotribology Forum: 2026	Jan., 2026

SCI/Scopus Journals/Book Chapter	Title of paper	Journal name	Doi/ISBN
	Effect of a subsurface void on the micromechanics of ductile metal indentation using remeshing	International Journal of Solids and Structures (IJSS)	HTTPS://DOI.ORG/10.1016/J.IJSOLSTR.2024.112842
	Stereolithography-based polymer additive manufacturing process for microfluidic devices: A Review	Advances in additive manufacturing	ISBN: 978-1-394-23828-6
FDP/ Workshops	Workshop attended	Host Institute	Duration
	Introduction to structural engineering	NIT Meghalaya	30 th Nov 2015-9 th Jan 2016
	Precast and Prefabricated Buildings	MNIT Jaipur	26 th Dec-30 th Dec 2016
Workshop Organized	- As coordinator, Foundation Engineering by Civil Simplified at UTM Shillong, 17th-18th Sep., 2015 - As coordinator, Tall building Design by Civil Simplified at J K Lakshmipat University Jaipur, 8th -9th March, 2016		
Professional Membership	Indian Desalination Association		
Areas of research interest	- Large deformation - Indentation - Large strain plasticity - Manufacturing processes - Solid Mechanics - BVP - Contact Mechanics		
Skills	- ABAQUS - Solidworks - AutoCAD - STAADPro - MATLAB - Python		
Achievements	- MHRD Scholarship during PhD (2017-2022) - GARP Fund to attend international conferences - Gate Qualified 2012		

Referen ces:	Dr. Narayan K Sundaram	Dr. Chandra Kishen J M	Dr. Ananth Ramaswamy
	Associate Professor, CE	Professor, CE	Professor & Chairperson, CE
	IISc Bengaluru	IISc Bengaluru	IISc Bengaluru

Date:27/10/2025

Debasree Das
Signature of the Candidate