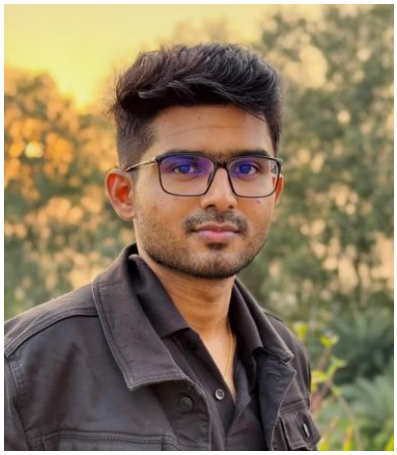
Dr. Aniket Chanda



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Personal Details

- **Father's Name:** Late Shri Chandra Sekhar Chanda
- **Mother's Name:** Smt. Gopa Chanda
- **Spouse:** Mrs. Ananya Chowdhury
- **Nationality:** Indian
- **Date of Birth:** 22/06/1992
- **Place of Birth:** Navadwip (Nadia, West Bengal)
- **Language known:** Bengali, Hindi, English

Professional Experiences

- **Assistant Professor: Department of Civil Engineering, Maulana Azad National Institute of Technology Bhopal, Madhya Pradesh**

(October, 2025- present)

- **Postdoctoral Researcher: School of Engineering, University of Limerick, Ireland**

(August, 2022 – September, 2025)
Supervisor: Professor Paul M. Weaver

- **Research Associate: School of Infrastructure, Indian Institute of Technology (IIT), Bhubaneswar, India**

(April, 2022 – July, 2022)
Supervisor: Dr. Devesh Punera

Education

- **Ph.D.** in Civil Engineering (Structural Engineering specialisation), **Indian Institute of Technology (BHU) Varanasi, India**

(2018 - 2021)

Thesis: *Static and Dynamic Responses of Smart Composite Plate Structures*
Ph.D. defense- 27th October, 2021
Supervisor: Dr. Rosalin Sahoo

- **M.Tech (Master of Technology)** in Civil Engineering (Structural Engineering specialisation), **National Institute of Technology Uttarakhand, India**

(2016 – 2018)

Thesis: *Stress Analysis of Functionally-Graded Sandwich Beams*
Supervisor: Dr. Devesh Punera

- **B.Tech (Bachelor of Technology)** in Civil Engineering, **Maulana Abul Kalam Azad University of Technology, India**

(2011 – 2015)

Mentoring Experience

Student Name	Degree	Project title	Role	University
Tomas Burns	Bachelor of Engineering in Mechanical Engineering	*Free Vibration Analysis of Curved Composite beams with Extended Thickness Criteria using Higher-Order Theories*	Thesis Mentor	University of Limerick Ireland (2025-2026)
Liam Moloney	Bachelor of Engineering in Mechanical Engineering	*Electromechanical Timoshenko beam model for variable stiffness piezoelectric composite laminates*	Thesis Mentor	University of Limerick Ireland (2023-2024)
Utkarsh Chandel	Master of Technology in Civil Engineering	*Modelling of smart composite plates with non-polynomial shear deformation theory*	Research Mentor	Indian Institute of Technology (BHU) Varanasi India (2019-2020)

Academic Citizenship

- **Peer Review Work**
  - Reviewer for *Engineering Analysis with Boundary Elements (Elsevier), Journal of the Brazilian Society of Mechanical Sciences and Engineering (Springer), Scientific Reports (Springer), Mechanics of Advanced Materials and Structures (Taylor & Francis), Journal of Composite Materials (Sage), Archive of Applied Mechanics (Springer), Acta Mechanica (Springer)*

Academic achievements and Awards

- Awarded **Gold medal** for the highest marks in Civil Engineering in the first year of Post-Graduation at **NIT Uttarakhand** (2017).

- Awarded **Gold medal** for branch topper during post-graduation in the Department of Civil Engineering at **NIT Uttarakhand** (2018).

- Co-author of a forthcoming book ***Inverse Differential Quadrature Method and its Application in Engineering***, to be published by Wiley in late 2025 (ISBN: 9781394254125).

- My paper "***Assessment of non-polynomial shear deformation theories for the free vibration and transient analysis of plates with functionally-graded materials supported on an elastic foundation***" has been recognised as a top viewed article for the period 1st Jan, 2023 to 31st Dec, 2023 in ***ZAMM-Journal of Applied Mathematics and Mechanics (Wiley)*.**

Publications

Journal Publications

Sl. No	Year	Publications in International Journals (SCI/SCIE-Indexed)
1.	2021	**Chanda A** and Sahoo R. Accurate stress analysis of laminated composite and sandwich plates. ***The Journal of Strain Analysis for Engineering Design (SAGE)*** https://doi.org/10.1177/0309324720921297
2.	2020	**Chanda A** and Sahoo R. Analytical modeling of laminated composite plates integrated with piezoelectric layer using Trigonometric Zigzag theory. ***Journal of Composite Materials (SAGE)*** https://doi.org/10.1177/0021998320930807
3.	2020	**Chanda A** and Sahoo R. Flexural behaviour of Functionally Graded plates with piezoelectric materials. ***Arabian Journal for Science and Engineering (Springer)*** https://doi.org/10.1007/s13369-020-04699-w
4.	2021	Sahoo R and **Chanda A**. Transient analysis of smart composite laminate. ***The Journal of Strain Analysis for Engineering Design (SAGE)*** https://doi.org/10.1177/0309324720957815
5.	2021	**Chanda A**, Chandel U, Sahoo R and Grover N. Stress analysis of smart composite plate structures. ***Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science (SAGE)*** https://doi.org/10.1177/0954406220975449
6.	2021	**Chanda A** and Sahoo R. Trigonometric zigzag theory for free vibration and transient responses of cross-ply laminated composite plates. ***Mechanics of Materials (Elsevier)*** https://doi.org/10.1016/j.mechmat.2020.103732
7.	2021	**Chanda A** and Sahoo R. Static and dynamic responses of simply supported sandwich plates using non-polynomial zigzag theory. ***Structures (Elsevier)*** https://doi.org/10.1016/j.istruc.2020.11.062
8.	2021	**Chanda A** and Sahoo R. Forced Vibration responses of smart composite plates using Trigonometric Zigzag theory. ***International Journal of Structural Stability and Dynamics (World Scientific)*** https://doi.org/10.1142/S021945542150067X
9.	2021	**Chanda AG** and Sahoo R. Finite Element Analysis of smart composite plate

structures coupled with piezoelectric materials: Investigation of Static and Vibration responses. ***Mechanics of Advanced Materials and Structures (Taylor & Francis)*** https://doi.org/10.1080/15376494.2021.1972372

10. 2021 **Chanda AG** and Sahoo R. A study on the Stress and Vibration characteristics of laminated composite plates resting on Elastic Foundations using Analytical and Finite Element Solutions. ***The European Physical Journal Plus (Springer)*** https://doi.org/10.1140/epjp/s13360-021-02090-8

11. 2022 Punera D and **Chanda AG.** Discussion on "Influence of porosity distribution on free vibration and buckling analysis of multi-directional functionally graded sandwich plates" ***Composite Structures (Elsevier)***, https://doi.org/10.1016/j.compstruct.2022.115575

12. 2022 **Chanda AG** and Punera D. Porosity-dependent free vibration and transient responses of functionally graded composite plates employing higher-order thickness stretching model. ***Mechanics of Advanced Materials and Structures (Taylor & Francis)*** https://doi.org/10.1080/15376494.2022.2138652

13. 2023 **Chanda AG**, Kontoni DPN and Sahoo R. Development of analytical and FEM solutions for static and dynamic analysis of smart piezoelectric laminated composite plates on elastic foundation. ***Journal of Engineering Mathematics (Springer)*** https://doi.org/10.1007/s10665-022-10251-6

14. 2023 **Chanda AG**, Kontoni DPN, Haldar AK and Zhongwei G. Assessment of non-polynomial shear deformation theories for the free vibration and transient analysis of plates with functionally-graded materials supported on an elastic foundation. ***ZAMM-Journal of Applied Mathematics and Mechanics (Wiley)*** https://doi.org/10.1002/zamm.202200487

15. 2023 **Chanda AG** and Punera D. Electro-Elasto-Statics of Porosity-Gradient Smart Functionally-Graded plates with piezoelectric materials. ***European Journal of Mechanics-A/Solids(Elsevier)*** https://doi.org/10.1016/j.euromechsol.2023.104997

16. 2024 **Chanda AG,** Ojo SO and Weaver PM. Inverse Differential Quadrature Based Model for Static Behaviour of Variable-Stiffness Curved Beams. ***Applied Mathematical Modelling*** https://doi.org/10.1016/j.apm.2024.04.024

17. 2024 Singh SD**, Chanda AG** and Ansari QM. Bending Analysis of CNT-reinforced Sandwich Plates Using non-Polynomial Zigzag theory Based on Secant Function. ***Archive of Applied Mechanics (Springer)*** https://doi.org/10.1007/s00419-024-02703-5

18. 2025 **Chanda AG**, Ojo SO, Oliveri Vincenzo and Weaver PM. Dynamic analysis of variable stiffness curved composite beams based on the inverse differential quadrature method. ***Composite Structures (Elsevier)*** https://doi.org/10.1016/j.compstruct.2025.119087)

Conference Publications

Sl. No	Year	Publication in Conference Proceedings
1.	2024	Khalid HM, **Chanda AG**, Ojo SO and Weaver PM. Transient Analysis of

	Composite Plates Introducing the Inverse Differential Quadrature Method. ***American Institute of Aeronautics and Astronautics (AIAA) Scitech*** https://doi.org/10.2514/6.2024-1886

Book Publications

Sl. No	Year	Book Publication
1.	2025	Ojo, SO, Khalid HM, **Chanda AG**, and Weaver PM. Inverse Differential Quadrature Method and its Application in Engineering. **Publisher: Wiley ISBN: 9781394254125**

Top Five Publications and Contributions

i. **Chanda AG**, Ojo SO, Oliveri Vincenzo and Weaver PM. Dynamic analysis of variable stiffness curved composite beams based on the inverse differential quadrature method. ***Composite Structures (Elsevier)***, Volume: **363**, Year: **2025**, Pages: **1-30**, Quartile: **Q1**, Publication Date: **20/03/2025**, Impact factor: **6.3** https://doi.org/10.1016/j.compstruct.2025.119087)

Contributions: Developing governing equations, formulation of problem, numerical-code development, obtaining results, writing paper, coordinated with co-authors, handled journal correspondence.

ii. **Chanda AG,** Ojo SO and Weaver PM. Inverse Differential Quadrature Based Model for Static Behaviour of Variable-Stiffness Curved Beams. ***Applied Mathematical Modelling (Elsevier)***, Volume: **131**, Year: **2024**, Pages: **438-68**, Quartile: **Q1**, Publication Date: **09/04/2024**, Impact Factor: **4.4** https://doi.org/10.1016/j.apm.2024.04.024

Contributions: Developing governing equations, formulation of problem, numerical-code development, obtaining results, writing paper, coordinated with co-authors, handled journal correspondence.

iii. **Chanda AG** and Punera D. Electro-Elasto-Statics of Porosity-Gradient Smart Functionally-Graded plates with piezoelectric materials. ***European Journal of Mechanics-A/Solids (Elsevier),*** Volume: **100**, Year: **2023**, Pages: **104997,** Quartile: **Q1,** Publication Date: **10/04/2023**, Impact Factor: **4.4** https://doi.org/10.1016/j.euromechsol.2023.104997

Contributions: Developing governing equations, formulations of problem, analytical-code development, obtaining results, writing paper

iv. **Chanda AG** and Punera D. Porosity-dependent free vibration and transient responses of functionally graded composite plates employing higher-order thickness stretching model. ***Mechanics of Advanced Materials and Structures (Taylor & Francis),*** Volume: **31**, Year **2022**, pages: **1491-1516**, Quartile: **Q1**, Publication date: **17/11/2022**, Impact Factor: **3.6** https://doi.org/10.1080/15376494.2022.2138652

Contributions: Developing governing equations of equilbrium, formulations of problem, analytical-code development, obtaining results, writing paper.

v. **Chanda A** and Sahoo R. Trigonometric zigzag theory for free vibration and transient responses of cross-ply laminated composite plates. ***Mechanics of Materials (Elsevier)***, Volume: **155**, Year: **2021**, Pages: **103732,** Quartile: **Q1,** Publication Date: **25/01/2021**, Impact Factor: **3.4** https://doi.org/10.1016/j.mechmat.2020.103732

Contributions: Developing governing equations of motion, formulations of problem, analytical-code development, obtaining results, writing paper.

Research Interests

- Computational Solid Mechanics
- Structural Mechanics
- Higher-Order Beam, Plate and Shell theories
- Unified Formulations
- Numerical methods (Finite Elements, Differential Quadrature, Inverse DQM)
- Advanced Composites (Functionally-Graded Materials, Variable-Angle Tow Composites, Carbon-Nanotube Composites)

Professional References

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