

CURRICULUM VITAE

Atanu Manna

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(An Autonomous Institute under O/o Development Commissioner (Handicrafts), Ministry of Textiles, Govt. of India)

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<https://vidwan.inflibnet.ac.in/profile/142235>

<https://scholar.google.com/citations?user=IoGi8ocAAAAJ&hl=en&oi=ao>

<https://www.researchgate.net/profile/Atanu-Manna-2>

Areas of Specialization

- (i) *Geometry of Banach spaces*: Study of geometry of Orlicz, Muiselak-Orlicz spaces, Sequence spaces
- (ii) *Theory of Inequalities*: Improvement of Hardy, Copson, Rellich, Knoop inequalities
- (iii) *Operator Theory*: Numerical Radius and Berezin number inequalities

Academic Credentials

Doctor of Philosophy (Ph.D.): Department of Mathematics, Indian Institute of Technology, Kharagpur, 2014.

Thesis: On modular sequence spaces defined by using de la Valle-Poussin Means, Generalized Means and Difference operator.

Master of Science (M.Sc.): Department of Mathematics, Jadavpur University, Kolkata, 2008, First Class Fifth, Specialization: Pure Mathematics

Bachelor of Science (B.Sc.): Vidyasagar University, Midnapore, 2006, First Class First

Experiences

1. Teaching:

Subjects experts: Calculus, Multivariate Calculus, Matrices, Linear Algebra, Vector Calculus, Sequence & Series, ODE with constant and variable coefficients, Series Solutions and Special

Functions, Laplace Transform, Fourier series, PDE and its applications, Complex Analysis, Numerical Techniques, Statistical Techniques, Fourier and Z-transforms.

Subjects interested: Functional Analysis and its applications (PG), Applied Statistics (PG), Real Analysis (PG), Complex Analysis (PG), Inequalities and Applications (PG), Sequence Spaces (PG), Theory of Operators (PG).

Details of Research Publications in Journals/ Conference Proceedings/ Patents

Analysis, Functional Analysis & Classical Inequalities:

1. **A. Manna**, Multi-dimensional sharp Hardy-type inequalities with variants, **Proc. Natl. Acad. Sci., India, Sect. A Phys. Sci.**, **95**, 389-400 (2025) (<https://doi.org/10.1007/s40010-025-00938-7>).
2. **B. Das, A. Manna and T. Paul**, Improvement of the Discrete Weighted Variant Hardy's Inequality and Criticality of the improved weight, 18 pages, **The Journal of Geometric Analysis** **35** (376), 2025. (<https://doi.org/10.1007/s12220-025-02214-x>)
3. **B. Das, and A. Manna**, An improved Power-Type Weighted Discrete Hardy's Inequality, **Acta Sci. Math. (Szeged)**, 2025, 19 pages. (<https://doi.org/10.1007/s44146-025-00186-6>)
4. **A. Maji, A. Manna and R. Mohapatra**, A note on Joint Numerical radius, **Linear Algebra and Its Application**, 717, pages 17-31, 2025 (<https://doi.org/10.1016/j.laa.2025.03.008>)
5. **B. Das, S. K. Chakraborty, R. Sadhu and A. Manna**, Improvements of some discrete Hardy inequalities with variants, **Glasgow Math. J.**, 67(1), 114-130, 2025. (DOI: <https://doi.org/10.1017/S0017089524000296>)
6. **B. Das, and A. Manna**, On the improvements of Hardy and Copson inequalities, **Revista de la Real Academia de Ciencias, Exactas, Fisicas y Naturales, Serie A, Matematicas**, 117, Article No. 92, 18 pages, 2023. (<https://doi.org/10.1007/s13398-023-01426-6>)
7. **S. Majee, A. Maji, and A. Manna**, Numerical radius and Berezin number inequality, **J. Math. Anal. Appl.**, 517, 126566, 2023 (<https://doi.org/10.1016/j.jmaa.2022.126566>).
8. **B. Das, and A. Manna**, On the improvements of Hardy, Copson and Rellich inequalities, Preprint, 2024 (<https://arxiv.org/pdf/2309.04923.pdf>). (Submitted to Journal)
9. **A. Maji, A. Manna and Ram Mohapatra**, Orlicz extension of Numerical radius inequalities, Preprint, 2024 (<https://arxiv.org/abs/2207.01915>)
10. **B. Das, and A. Manna**, An improved Copson inequality, Preprint, 2024. (Submitted to Journal)
11. **A. Manna**, New Hardy-type integral inequalities, **Acta Sci. Math. (Szeged)**, 86 (3-4), 467-491, 2020. (<https://doi.org/10.14232/actasm-019-750-7>)
12. **A. Manna**, Norm inequalities involving upper bounds of certain matrix operators in Orlicz-type sequence spaces, **J. Anal.**, 27(3), 761-779, 2019. (<https://doi.org/10.1007/s41478-018-0126-1>)
13. **A. Manna and P. D. Srivastava**, Property (k-beta) of Musielak-Orlicz and Musielak-Orlicz-Cesàro spaces, **Revista de la Real Academia de Ciencias, Exactas, Fisicas y Naturales, Serie A, Matematicas**, 113(2), 471-486, 2019. (<https://doi.org/10.1007/s13398-017-0489-1>)
14. **A. Manna**, Factorized enhancement of Copson's inequality, **Tamkang J. Math.**, 49(3), 195-203, 2018. (<https://doi.org/10.5556/j.tkjm.49.2018.2358>)
15. **A. Manna and P. D. Srivastava**, Some geometric properties of Musielak-Orlicz sequence spaces generated by de la Vallée-Poussin means, **Math. Inequal. Appl.**, 18(2), 687-705, 2015. (<https://files.ele-math.com/articles/mia-18-51.pdf>)
16. **A. Maji, A. Manna and P. D. Srivastava**, Some mth order difference sequence spaces of generalized means and compact operators, **Annal. Funct. Anal.** 6(1) (2015), 170-192. (<https://doi.org/10.15352/afa/06-1-13>)
17. **A. Manna**, Certain geometric structures of Lambda-sequence spaces, **Adv. Oper. Theory**, 3(2) (2018), 433-450. (<https://doi.org/10.15352/AOT.1705-1164>)

18. *A.Manna and P. D. Srivastava*, Some geometric properties of generalized Cesaro-Musielak-Orlicz spaces equipped with the Amemiya norm, **Acta Math. Vietnam.** 41(1) (2016), 91-102. (<https://doi.org/10.1007/s40306-014-0099-3>)
19. *A.Manna, A. Maji and P. D. Srivastava*, Some paranormed difference sequence spaces derived by using generalized means, **Kyungpook Math. J.**, 55(4) (2015), 909-931. (<https://kmj.knu.ac.kr/journal/view.html?spage=909&volume=55&number=4#n>)
20. *A.Manna, A. Maji and P. D. Srivastava*, Difference sequence spaces derived by using generalized means, **J. Egypt. Math. Soc.**, 23(2015), 127-133. (<https://doi.org/10.1016/j.joems.2014.02.010>)
21. *A.Manna and P. D. Srivastava*, On (k-NUC) property in Musielak-Orlicz spaces defined by de la ValleePoussin means and some countably modularized spaces, **Dyn. Contin. Impuls. Syst. Ser. A Math. Anal.**, 21(2) (2014), 187-200. (https://online.watsci.org/abstract_pdf/2014v21/v21n2a-pdf/3.pdf)

Interdisciplinary Mathematics:

1. *S. K. Chakraborty and A. Manna*, Extending Hridaya Kolam to Even-Ordered Dot Patterns and Their Applications (<https://arxiv.org/abs/2507.02874>)
2. *A. Manna and S. K. Chakraborty*, Extending Hridaya Kolam to Multiple Loops: A Study of Non-Co-prime Dot—Arm Structures (<https://doi.org/10.48550/arXiv.2510.18907>)

Conference Proceedings:

1. *A. Manna*, Norm inequalities involving upper bounds for operators in Orlicz-Taylor sequence spaces, Springer Proceedings of ICMC 2018 (IIT BHU), Volume 253, Chapter 26, pp. 329-339, 2018.(https://doi.org/10.1007/978-981-13-2095-8_26)
2. *A. Manna and P. D. Srivastava*, Some geometric properties of generalized Cesaro-Musielak-Orlicz spaces, Springer Proceedings of ICMC 2013 (HIT, Haldia), Volume 91, Chapter 19, pp. 283-296, 2014. (https://doi.org/10.1007/978-81-322-1952-1_19)

Details of Conference/Seminar/Workshops/Symposium/FDP Attended & Organized

Seminar/Conference/Symposium Attended:

1. *Frontiers in Mathematical Sciences: Theory, Applications & Innovations, University of North Bengal in Association with Calcutta Mathematical Society, December 22-24, 2025.*
Title of the talk: A Generalized Improved Discrete Rellich inequality.
2. *International Conference of Young Mathematicians, Institute of Mathematics, NAS Ukraine, June 1-3, 2023.*
Title of the talk: On improved discrete Hardy's inequality.
3. *International Conference of 'Current Trends in Abstract and Applied Analysis' Ukraine, May 12-15, 2022*
Title of the talk:A short direct proof of sharp L_p -inequality for Hausdorff operators in one dimension.
4. *International Conference of Young Mathematicians, Institute of Mathematics, NAS Ukraine, June 3-5, 2021*
Title of the talk: Walker's approach to some Hardy-type integral inequalities

5. ***Faculty Development Programme, UGC-HRDC, BHU, February 26 – March 25, 2021***
Title of the talk: Mathematics of Vedic Era - History and Applications
6. ***Symposium on Geometry of Banach Spaces, IIT Hyderabad, December 1-2, 2019***
Title of the talk: Geometric properties of certain modular spaces
7. ***85th Annual Conference of Indian Mathematical Society, IIT Kharagpur, November 22-25, 2019***
Title of the talk: New fractional integral inequalities
8. ***4th International Conference on Mathematics and Computing, IIT (BHU), January 9-11, 2018***
Title of the talk: Norm inequalities involving upper bounds of matrix operators in Orlicz-Taylor sequence spaces
9. ***International Conference on Nonlinear Dynamics, Analysis and Optimization, Jadavpur University, Kolkata, December 9-11, 2015***
Title of the talk: A Study on the James constant of Orlicz sequence spaces defined by de la Vallee-Poussin means
10. ***1st International Conference on Mathematics and Computing, HIT (Haldia), December 26-29, 2013***
Title of the talk: Some geometric properties of generalized Cesaro-Musielak-Orlicz sequence spaces
11. ***Research Scholar Day, IIT Kharagpur, February 18-19, 2013***
Title of the talk: Some difference sequence spaces generated by de la Vallee-Poussin means
12. ***National Conference on Recent Trends in Mathematical Sciences and its Applications, MITS, Jaipur, 2012***
Title of the talk: On vector valued sequence spaces generated by second order sequential modulus
13. ***Research Scholar Day, IIT Kharagpur, December 22-23, 2011***
Title of the talk: On modular spaces of certain type (V, λ) strongly summable sequence spaces
14. ***National Meet of Research Scholars in Mathematical Sciences, IIT Kharagpur, October 12-15, 2011***
Title of the talk: Size of the modular difference sequence spaces in terms of porosity.
15. ***Research Scholar Day, IIT Kharagpur, November 20, 2010***
Title of the talk: On some vector valued modular sequence spaces

Workshops/FDP Attended:

1. ***Short Term Course on ‘Statistical Methods and DoE in Textiles’***, NIT Jalandhar, June 30-July 04, 2025.
2. ***FDP on NEP Orientation and Sensitization Programme***, MMTTC, Central University of Kerala, March 17-25, 2025.
3. ***Workshop on Advanced Functional Analysis and its Applications***, IIT Hyderabad, December 9-13, 2024.
4. ***Two-Weeks Refresher Course on Statistics***, Ramanujan College, University of Delhi, November 30 – December, 14, 2023.
5. ***AICTE-NITTT, 8 Modules Compulsory Courses Conducted by NITTR***, National Testing Agency (NTA), June 2021 - June 2022.
6. ***Interdisciplinary Refresher Course on Academic Writing and Research***, Tezpur University, May 16-30, 2022.
7. ***Advanced Functional Analysis and Applications***, IIT Hyderabad and NISER Bhubaneswar, December 16-24, 2020

8. *Matrix Analysis and its Applications*, NIT Jalandhar, September 23-27, 2020
9. *NBA Accreditation & Outcome Based Education*, UPID, AKTU Noida campus, January 29-30, 2020
10. *FDP on Human Values and Professional Ethics*, ITM Gorakhpur, AICTE & AKTU, Lucknow, June 13-20, 2019
11. *FDP on Human Values and Professional Ethics*, IIT Kanpur, AICTE & AKTU, Lucknow, July 7-15, 2016
12. *FDP on Entrepreneurship Development*, BHU, January 1-12, 2014
13. *Advanced Instructional School on Functional Analysis*, ISI Kolkata, July 4-23, 2011
14. *Advanced Instructional School on Functional Analysis*, ISI Delhi, December 6-22, 2010.

Seminar/FDP/Workshops Organized:

1. *Sci-Tech Fest 2025*, IICT Bhadohi, November 11, 2025 as a Coordinator.
2. *National Mathematics Day*, IICT Bhadohi, December 22, 2018 as a Coordinator.
3. *Science for Global Wellbeing through Engineering, National Science Day*, IICT Bhadohi, February 28, 2023 as a Coordinator.
4. *Three days FDP on Universal Human Values-Introductory*, IICT Bhadohi, February 9-11, 2024 as a Coordinator.
5. *Induction Program* (8 nos.) for newly entrants of the year 2017-18, 2018-19, 2019-20, 2020-21, 2021-22, 2022-23, 2024-25, 2025-26 as a Coordinator.

Ph.D./PG/UG Thesis supervision

Ph.D. thesis: One Submitted. Title: “**Improvements of Some Discrete Hardy Inequalities and Its Variants**” by **Bikram Das** (Mob. No. 8609523826), Research Scholar, Joined 2021 under AKTU, Lucknow, Topic: Classical inequalities, Sequence spaces, Broad areas: Functional Analysis & Operator Theory.

❖ Vacant PhD positions (02):

LOOKING FOR Ph.D. STUDENTS (REGULAR/ IN-SERVICE TEACHERS; FELLOWSHIP/NON-FELLOWSHIP CATEGORY) (Please contact on the above mentioned email address/phone)

UG thesis: Nine (nos.) UG projects thesis guided in 2017-18(1); 2018-19(1); 2019-20(1); 2020-21(2); 2021-22 (1); 2022-23 (1); 2023-24 (1), 2024-25 (1), 2025-26 (1 ongoing).

Memberships of Professional Bodies

1. **American Mathematical Society (2017-):** Annual (No. MNATXA);
2. **Indian Mathematical Society (2019-):** Life (No. L/2019/131)

Awards/Scholarships

1. Gold-centered silver medal (2007) for *first rank* at Vidyasagar University (VU);

2. Gold medal with a certificate of merit (2007) for *first rank* at VU;
3. National Merit Scholarship (2007),
4. Second Best Paper Presentation (2013) from RS Day 2013, IIT Kharagpur;
5. Visiting Scientist from ISI Kolkata (North-East Centre Tezpur) (2016);
6. Young Scientist Award (2020) from VDGGOOD Professional Association.
7. Council of Scientific Industrial Research (CSIR), JRF, (2008).
8. Graduate Aptitude Test in Engineering (GATE), AIR-247, (2009), Percentile Score: 90.47.

Additional Charges

1. Officer I/C (Registrar Office) (Previously Joint Registrar I/C);
2. Nodal officer NIRF, NSP, AISHE, and PM Vidyalakshmi;
3. Coordinator of first year and induction program;
4. Coordinator of Universal Human Values Cell,
5. Chairperson of Mechanical, Electrical and Physics labs;
6. Ex Warden.
7. Member Secretary, R & D Cell, IICT Bhadohi.
8. Member, IQAC, IICT Bhadohi

Reviewing Activities (Thesis/Journals/Professional Societies etc.)

Journals referred for:

1. [Journal of Applied Analysis, De Gruyter.](#)
2. [Proceedings \(Mathematical Sciences\), Springer.](#)
3. [Linear and Multilinear Algebra, Taylor & Francis](#)
4. [The Journal of Analysis, Springer](#)
5. [Journal of Function Spaces, Hindwai;](#)
6. [Revista de la Real Academia de Ciencias, Exactas, Fisicas y Naturales, Serie A, Matematicas, Springer;](#)
7. [Bull. Malaysian. Math. Soc., Springer](#)
8. [Proc. National Acad. Sci. \(India\), Springer.](#)
9. [Nonlinear Analysis, Elsevier](#)
10. [Songklanakarin Journal of Science & Technology, Prince of Songkla University Press.](#)
11. [Quaestiones Matheaticae, Taylor & Francis](#)

Professional bodies:

1. [Mathematical Reviews, AMS](#) (Articles reviewed: 43; Books reviewed: 01);
2. [zbMATH, EMS](#) (Articles reviewed: 17; Books reviewed: 02).

PG thesis evaluation:

1. M.Sc. Mathematics dissertations (1 no.), Ramkrishna Mission Vidyamandira, Belur, 2021.

Outreach Activities/Invited Talk

1. **Delivered Invited talk** on 'Geometric properties of certain modular spaces' at Symposium on Geometry of Banach Spaces, IIT Hyderabad, December 1-2, 2019.
2. **Delivered Invited talk** on 'Complex Analysis', in 'Students Enrichment Programme in Mathematics and Statistics', Department of Mathematics, Balurghat College, during December 21-27, 2020.
3. **Delivered Invited talk** on 'Sequence Spaces', at Department of Mathematics, Ramakrishna Mission Vidyamandira, Belur Math, Howrah, February 11, 2025.
4. **Delivered Invited talk** on 'Recent developments on improvements of the discrete Hardy inequalities and Its variants', at 'National Conference on 'Interdisciplinary Approaches in Mathematical Sciences'', January 24-25, 2026.

Summer Internships Supervisions

1. **Summer project:** Title: 'A study on Hilbert space and Banach space' by Arindam Mitra, Ramakrishna Mission Vidyamandira, Belur Math, Howrah (University of Calcutta), 2023.
2. **Summer internship:** Title: 'Structural and Topological Properties of Some Sequence Spaces' by Pramod Kumar, School of Mathematics & Statistics, University of Hyderabad, June - July, 2025.
3. **Summer internship:** Title: 'An Introduction to Functional Analysis and Its Application to Textile Design' by Manoranjan Shyamal, School of Mathematics & Statistics, University of Hyderabad, June - July, 2025.

Projects

1. **Name of the Project:** New Craft Based Resource Center (CBRC) at Pipris campus of IICT Bhadohi.
Funded by: O/o Development Commissioner (Handicrafts), Ministry of Textiles, Govt. of India.
Role: Coordinator
Amount: 141 Lacs
Status: In Progress

Last updated on 30.03.2026