CURRICULUM VITAE

Atanu Manna

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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

Selected Journals:

1. ***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.
2. ***S. Majee, A. Maji, and A. Manna,*** Numerical radius and Berezin number inequality, J. Math. Anal. Appl.,517, 126566, 2023 (https://arxiv.org/abs/2207.01007).
3. ***B. Das, and A. Manna,*** On the improvements of Hardy, Copson and Rellich inequalities, Preprint, 2023 (https://arxiv.org/pdf/2309.04923.pdf). (Submitted to Journal)
4. ***A. Maji, A. Manna and Ram Mohapatra,*** Orlicz extension of Numerical radius inequalities, Preprint, 2024 (https://arxiv.org/abs/2207.01915). (Submitted to Journal)
5. ***B. Das, and A. Manna,*** An improved Copson inequality, Preprint, 2024. (Submitted to Journal)
6. ***A. Manna***, New Hardy-type integral inequalities, Acta Sci. Math. (Szeged), 86 (3-4), 467-491, 2020
7. ***A. Manna***, Multi-dimensional effect on Hardy-type inequalities, Preprint, 2024.
8. ***A. Manna***, Norm inequalities involving upper bounds of certain matrix operators in Orlicz-type sequence spaces, J. Anal., 27(3), 761-779, 2019
9. ***A. Manna and P. D. Srivastava***, Property (k-*beta*) of Musielak-OrliczandMusielak-Orlicz-Cesàro spaces, Revista de la Real Academia de Ciencias, Exactas,Fisicas y Naturales, Serie A, Matematicas, 113(2), 471-486, 2019
10. ***A. Manna***, Factorized enhancement of Copson's inequality, Tamkang J. math., 49(3),195-203, 2018.
11. ***A. Manna and P. D. Srivastava***, Some geometric properties of Musielak-Orliczsequence spaces generated by de la Vallée-Poussin means, Math. Inequal. Appl.,18(2), 687-705, 2015.
12. ***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.
13. ***A. Manna***, Certain geometric structures of Lambda-sequence spaces, Adv. Oper. Theory, 3(2) (2018), 433-450.
14. ***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.
15. ***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.
16. ***A.Manna, A. Maji and P. D. Srivastava***, Difference sequence spaces derived by using generalized means, J. Egypt. Math. Soc., 23(2015), 127-133.
17. ***A.Manna and P. D. Srivastava***, On (k-NUC) property in Musielak-Orlicz spaces defined by de la ValleePoussin means and some countably modulared spaces, Dyn. Contin. Impuls. Syst. Ser. A Math. Anal., 21(2) (2014), 187-200.

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.

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.

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

Seminar/Conference/Symposium Attended:

1. ***International Conference of Young Mathematicians, Institute of Mathematics, NAS Ukraine, June 1-3, 2023.***
   Title of the talk: On improved discrete Hardy's inequality.

2. ***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 Lp-inequality for Hausdorff operators in one dimension.
3. ***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
4. ***Faculty Development Programme, UGC-HRDC, BHU, February 26 – March 25, 2021***
   Title of the talk: Mathematics of Vedic Era - History and Applications
5. ***Symposium on Geometry of Banach Spaces, IIT Hyderabad, December 1-2, 2019***
   Title of the talk: Geometric properties of certain modular spaces

6. ***85th Annual Conference of Indian Mathematical Society, IIT Kharagpur, November 22-25, 2019***
   Title of the talk: New fractional integral inequalities

7. ***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
8. ***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
9. ***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
10. ***Research Scholar Day, IIT Kharagpur, February 18-19, 2013***
    Title of the talk: Some difference sequence spaces generated by de la Vallee-Poussin means
11. ***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
12. ***Research Scholar Day, IIT Kharagpur, December 22-23, 2011***
    Title of the talk: On modular spaces of certain type (V, \lambda) strongly summable sequence spaces
13. ***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.
14. ***Research Scholar Day, IIT Kharagpur, November 20, 2010***
    Title of the talk: On some vector valued modular sequence spaces

Workshops/FDP Attended:

1. ***Two-Weeks Refresher Course on Statistics,*** Ramanujan College, University of Delhi, November 30 – December, 14, 2023.
2. ***AICTE-NITTT, 8 Modules Compulsory Courses Conducted by NITTR,*** National Testing Agency (NTA), June 2021 - June 2022.
3. ***Interdisciplinary Refresher Course on Academic Writing and Research,*** Tezpur University, May 16-30, 2022**.**
4. ***Advanced Functional Analysis and Applications***, IIT Hyderabad and NISER Bhubaneswar, December 16-24, 2020
5. ***Matrix Analysis and its Applications***, NIT Jalandhar, September 23-27, 2020
6. ***NBA Accreditation & Outcome Based Education***, UPID, AKTU Noida campus, January 29-30, 2020
7. ***FDP on Human Values and Professional Ethics***, ITM Gorakhpur, AICTE & AKTU, Lucknow, June 13-20, 2019
8. ***FDP on Human Values and Professional Ethics***, IIT Kanpur, AICTE & AKTU, Lucknow, July 7-15, 2016
9. ***FDP on Entrepreneurship Development***, BHU, January 1-12, 2014
10. ***Advanced Instructional School on Functional Analysis***, ISI Kolkata, July 4-23, 2011
11. ***Advanced Instructional School on Functional Analysis***, ISI Delhi, December 6-22, 2010.

Seminar/FDP/Workshops Organized:

1. ***National Mathematics Day***, IICT Bhadohi, December 22, 2018
2. ***Science for Global Wellbeing through Engineering, National Science Day,*** IICT Bhadohi, February 28, 2023
3. ***Three days FDP on Universal Human Values-Introductory,*** IICT Bhadohi, February 9-11, 2024
4. ***Induction Program***(6 nos.) for newly entrants of the year 2017-18, 2018-19, 2019-20, 2020-21, 2021-22, 2022-23.

Ph.D./PG/UG Thesis supervision

UG thesis: **Seven(nos.)**UG projects thesis guided in 2017-18(1); 2018-19(1); 2019-20(1); 2020-21(2); 2021-22 (1); 2022-23.

Ph.D. thesis:

One ongoing.Mr. Bikram Das (Mob. No. 8609523826), Research Scholar, Joined 2021 under AKTU, Lucknow, Topic: Classical inequalities, Sequence spaces, Broad areas: Functional Analysis & Operator Theory.

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 VDGOOD 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. Joint Registrar I/C;
2. Nodal officer NIRF, NSP and AISHE;
3. Coordinator of first year and induction program;
4. Coordinator of UHV Cell,
5. Chairperson of Mechanical, Electrical and Physics labs;
6. Ex Warden.

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

Selected journals:

1. Journal of Function Spaces, Hindwai;
2. RACSAM, Springer;
3. Bull. Malaysian. Math. Soc., Springer
4. Proc. National Acad. Sci. (India), Springer.
5. Nonlinear Analysis, Elsevier
6. Songklanakarin Journal of Science & Technology, Prince of Songkla University, Thailand.

Professional bodies:

1. Mathematical Reviews, AMS (Articles reviewed: 38; Books reviewed: 01);
2. zbMATH, EMS (Articles reviewed: 13; Books reviewed: 02).

PGthesis evaluation:

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

Outreach Activities

1. **Delivered talk** on ‘Complex Analysis’, in‘Students Enrichment Programme in Mathematics and Statistics’, Department of Mathematics, Balurghat College, during December 21-27, 2020.
2. **Summer project guided**: Title: ‘A study on Hilbert space and Banach space’ by ArindamMitra, RKM Vidyamandira, Belur (University of Calcutta), 2023.