

# **Murshidabad University**



### Dr Rajib Mukherjee https://orcid.org/0000-0002-1762-4771 Registrar (Acting), Murshidabad University

https://msduniv.ac.in/

(Since 1st March, 2024)

and

### Associate Professor, Department of Mathematics, Murshidabad University, Erstwhile Krishnath College

### **Academic Qualifications**

College/University	Degree
St Xavier's College, Kolkata	B.Sc.
University of Kalyani, Kalyani	M.Sc.
Joint csɪr-ugc (Dec. 2003 & Jun. 2004)	NET UGC JRF (2 times)
Department of Education, HRDG (2003)	GATE, 91.65 Percentile, AIR 109
University of Kalyani, Kalyani	Ph.D. under supervision of Prof. (Dr) Indrajit Lahiri

### **Positions held/holding**

1 Registrar (Acting), Murshidabad University (since 1st March, 2024)-Till now

2 Deputy Registrar (Acting), Murshidabad University (08.01.2024 to 27.02.2024)

3 Associate Professor, Department of Mathematics, Erstwhile Krishnath College

### **Research Interests**

• Number Theory • Complex Analysis • General Mathematics

### **Research Guidance**

Have already guided/guiding successfully two scholars to publish their research papers in UGC-CARE enlisted journals.

### **Projects**

Not yet applied for any central/state funded projects.

### Select List of Publications (only number)

Journals: 23 (UGC-CARE Enlisted, single authored 10) Books/Book Chapters: 00 Conference/Seminar Volumes: 00

#### **Membership of Learned Societies**

	Name of the Society	Membership Status
1	Indian Mathematical Society (імs)	Life member
2	Calcutta Mathematical Society (смs)	Life member

#### **Invited Lectures Delivered**

- 1 Delivered lecture at Kalyani Mahavidyalaya on Undergraduate Research in Mathematics to celebrate National Mathematic Day-2022 (Dec. 22, 2022)
- 2 Delivered lecture at Sundarban Mahavidyalaya on Higher Education in Basic Sciences and Practices (Feb. 21, 2014)

#### Award/Recognition

- 1 Recognition from a renowned Educational Research Centric YouTube Channel with more than 150K subscriber (<u>https://youtu.be/vc05pa7iZ0U?si=xRxv845cTseeU4vH</u>) have prepared an animation based on a visual proof from Dec. 2021 issue of **The Mathematical Intelligencer** (sci) (*SPRINGER NATURE*) (https://doi.org/10.1007/s00283-021-10087-5)
- 2 Runner Up in Kalyani University Chess Competition (Chhatra Utsav Mar. 16, 2002)
- 3 Stood First in Essay Competition on the occasion of Celebrating World Environment Day, 1997 organised by World Environment Celebration Day Committee, West Bengal in entire Birbhum district
- 4 **Stood Second** in Birbhum district in an essay competition organized by Birbhum District Cooperative Union (1994)

#### **Other Notable Activities**

#### 1. Academic activity

(a) Few students who have secured 1st/2nd/3rd rank in Kalyani University examination:

	Name(s)	University Rank	Year
1	Krishnagopal Maitra	2nd	2020
2	Bikram Das	10th	2019
3	Md Sohidul Alam	ıst	2018
4	Ananya Choudhury	2nd	2015
5	Soumen Ghosh	2nd	2014
6 7	Arindam Mandal Santu Ghosh	2nd 3rd	2013
8 9 10	Banani Dutta Ayub Ali Sk. Debaprasad Pal	1st 2nd 3rd	2012
11	Debalina Bhattacharya	2nd	2011

(b) Few Notable Students

Name(s)	Present designation
1 Dr Ali Hyder	Reader, TIFR Centre for Applicable Mathematics, Bangalore
2 Dr Kanailal Mahato	Assistant Professor, Benaras Hindu University
3 Dr Molla Basir Ahamed	Assistant Professor, Jadavpur University
4 Dr Sajjad Hossain	Assistant Professor, Aliah University
5 Dr Pradip Majhi	Assistant Professor, University of Calcutta
6 Dr Sangita Jha	Assistant Professor, NIT, Rourkela
7 Dr Sourav Das	Assistant Professor, NIT, Jamshedpur
8 Dr Arindam Mandal	Simons Instructorship at Stony Brook, New York

**2005-08:** Debabrata Pal (AT), Md Azizul Hoque (Asst. Prof.), Md Munkir Hossain (AT), Papai Das (AT).

2006-09: Md Nasir Hasan (AT), Pradip Majhi (Asst. Prof.) CU.

**2007-10:** Ali Hyder (Asst. Prof.), Alimuddin Ansary (AT), Jagadish Barui (AT), Jinarul Haque Shaikh (Asst. Prof.), Kanailal Mahato (Asst. Prof.) BHU, Krishnendu Kundu (AT), Md Moid Shaikh (Asst. Prof.), Rabiul Islam (AT), Rajib Mia (Asst. Prof.), Rochita Mukherjee (AT), Shubhashish Das (Asst. Prof.), Soharab Hossain (AT), Sourav Das (Asst. Prof.) NIT-Jamshedpur, Touchhip Mondal (AT).

**2008-11:** Amit Das (PT), Bagbul Sk (AT), Debalina Bhattacharyya (AT), Jaheer Abbas Exe. Asst. (P&Rd), Juhi Sarkar (AT), Saikat Bhattacharyya (Lecturer), Subrata Kumar Pal (AT), Tahajuddin Sk (SACT).

2009-12: Banani Dutta (Asst. Prof.), Sumon Mondal (AT).

**2010-13:** Amiya Kr Biswas (AT), Anirban Das (Bank Employee), Babu Bhaskar Ass. Prof. (UEAM), Bapan Das (Asst. Prof.), Chhoton Hazra (WBP), Dr Arindam Mandal IIT-Ropar, Hasan Ikbal (AT), Keshab Sarkar (UDC), Muzaffar Sarkar Raju (Asst. Prof.), Nabanita Mondal (Bank), Pradip Bhakta (AT), Rinku Saha (Tutor), Sabbir Ahamed (AT), Sekendar Hossain (Lecturer), Sontu Ghosh (AT), Souvik Datta (Bank), Sukalyan Sarkar (Asst. Prof.), Susmita Singha (Educator), Tanbir Reza (AT), Utpal Mondal (AT).

2011-14: Mintu Mandal (AT), Soumen Mondal (AT), Subrata Ghosh (BOI).

**2013-16**: Abhijit Das, Badal Mandal (IPO), Dr Bikram Ghosh (SACT), Dibakar Das (WBP), Dipankar Sarkar, Gouranga Mandal (School), Indrojit Mandal, Iswar Mandal (AT), Jiadul Alam, Manisha Ganai, Md Shariful Islam, Md Arif (AT), Nishith Mandal (Ph.D.), Pradipta Saha (Bank), Priyanka Roy (Railway), Puja Saha (Ph.D.), Rahul Pradhan (PT), Rajib Mandal (PT), Rajkiran Pal, Shariful Islam, (WBCS Executive, 2020 Rank 14), Subhendu Mandal (JRF), Sudipta Das (Bank), Somnath Sarma, Suman Mandal, Sunil Kumar Haldar (AT), Susmita Mondal (BEd), Swadhin Mondal (Railway), Tonmoy Mondal (Railway).

**2014-17:** Arindam Mandal (Ph.D. Student-IISc), Arpan Banerjee, Bikayan Mitra, Dalim Sk, Kallal Pal (Ph.D. Student), Kalyan Shil, Konika Mandal, Luqueman Ansary, Mehedi Hasan, Mizanuzzaman, Papai Biswas (Income Tax), Partha Biswas (JRF-ISI), Prosenjit Mandal (Senior Research Scholar), Ramij Raja, (WBCS Executive 2021 Rank 18), Somesh Mondal (Railway), Sugata Mandal, Soumajyoti Haldar (Customs), Subham Das, Sumit Karmakar (Bank), Susmita Karmakar (Teacher), Suman Das, Supriya Roy, Sushreema Sarkar (Teacher).

**2015-18:** Abu Taleb Mondal, Amit Dhali, Anindita Saha, Angshuman Mondal (Gr.D), Arijit Mandal, Chiranjit Sarkar, Diganta Mondal (GDS), Ishani Roy, Jhuma Sarkar (Pursuing Ph.D.), Krishnendu Chowdhury, Md Sohidul Alam (Research Scholar, IITG) SPL Fellow Holder, (CSIR-UGC NET), Mijanur Rahaman, Niladri Karmakar, Nilima Akhtar, Pradip Mandal, Riyak Mandal, Sarmina Yeasmin (LDC), Saruwar Hossain, Souvik Dutta.

**2016-19:** Asif Iquebal, Bidisha Mandal, Bikram Das (Research Scholar), Kunal Swarnakar, Kushal Ghosh, Liza Pal, Namita Mondal, Prerana Karmakar, Rubel Hossain (BEd), Samrat Hossain (Ph.D.), Siddhartha Chowdhury, Ph.D., (WBCS), Supriyo Mondal, Shyamalima Sarkar, Suman Biswas, Tamas Kanti (BEL).

**2017-20:** Krishnagopal Maitra (Phd, IITK), Rahul Marjit, Sayan Dutta (IPO), Soumi Mahato (Research Scholar, NIT Calicut), Soumyadev Das (Businesses) Surajit Pal (Ph.D., IITB), Swarnendu Das (GST), Tutul Sk (BEd)

2018-21: Gopal Das.

2021-24: Tanushree Mandal.

2023-26: Annesha Das (M.Sc., IIEST Shibpur), Joygopal Ghosh (M.Sc., IITK), Pitar Murari (M.Sc., IITBBS), Rentu Sk (M.Sc., IITBBS), Soumit Halder (SSC).

Other students: Akash Mandal (IPO), Anindita Saha (Job) Arijit Mandal (Business), Arup Biswas, Ishani Datta (Job) Kunal Sarnakar (LIC) Kushal Ghosh (IPO), Md Asif Sk (SBI), Mijanur Rahaman, Niladri Karmakar (Job), Nilima Akhtar (Ph.D.), Pradip Mandol (Job), Pranesh Das (ITax), Pratyush Ghosh (Job), Rajdip Sarkar (Job), Ritashree Biswas (Job), Sahidul Alam (Ph.D.), Sahin Mandal (Ph.D.), Saikat Biswas (Job), Samrat Hossain (Ph.D.), Shamolima Sarkar (IPO), Sonju Babu, Subhajit Rakshit, Sudipta Mandal, Suman Basak, Sumana Bhuiya (Job) Swarnendu Das (GST, Inspector, Income Tax Dept).

- (c) Review works
- Performed as a reviewer in Pearson India Education Services Private Limited for the book Vector Geometry & Elements of Calculus authored by Prof. Anindya Dey, Department of Mathematics, *St Xavier's College*, Kolkata (ISBN: 9789354498756) (Nov. 9, 2021).
- 2 Review activity for The Mathematical Intelligencer (SPRINGER NATURE) Review identifier(s) Source-Work-Id: fce65ceb-3ffa-45a6-85d5-8bc4f81fcb23.

#### 2. Administrative activity

- 1 Hostel Superintendent (New Kumar Hostel, K.N. College) for more than 10 years (w.e.f. 1 Aug., 2011)
- 2 Election Commissioner of K.N. College Students' Union Election for 2016-17 session
- 3 RUSA 2.0 Nodal officer, K.N. College
- 4 West Bengal Health Scheme related almost all online-based work from K.N. College End
- 5 Pension related various online-based work
- 6 Convenor, JSBSTS-NCSTC DST Govt of India Sponsored Science Teachers' Training Workshop, 18-20 Dec., 2017
- 7 Examination Procedure handling of JAGADIS BOSE NATIONAL SCIENCE TALENT SEARCH (2010-16)
- 8 Murshidabad District **Observer** for WBJEEB-2012, 2013, 2015
- 9 Incharge of Student Placement Committee (2010-17), K.N. College (Organized a recruitment drive with TCS Ltd at K.N. College on 5,6 Mar., 2009)
- 10 AISHE-DCF Preparation for K.N. College during 2014-20

#### 3. Social Activity

Blood Donated at	Date
1 Krishnath College Nss Unit	13 Jan., 2023
2 State Blood Transfusion Council, WB	1 Dec., 2015
3 Life Care	4 Nov., 2011
4 Association of Voluntary Blood Donors, WB	26 Jul., 2000
5 Association of Voluntary Blood Donors, wB	30 Nov., 1998

# List of Papers Presented in Conferences/Seminar

	Title of the Paper presented	Title of the Conference/Seminar	Organized by	Whether International/ Na- tional/State/Regional/ Col- lege or University Level
1	A Simple Computation of An Elementary Prime Sequence	ADSC 2022	Department of Computer Science, Kazi Nazural University, WB	National (Jun. 23-24, 2022)
2	A visual Tour to Kempner's Series	ICRTMA 2021	Department of Mathematics, School of Science GITAM	National (Dec. 2-3, 2021)
3	A Property of the Sequence of Hex Numbers and Its Generalization	the Sequence ICRTMA 2021 Department of ers and Its Mathematics, School		National (Dec. 2-3, 2021)
4	Meromorphic functions sharing three values and a result of G. Brosch	eromorphic functions EMERGING ADVANCES IN Sripat Singh College aring three values and a MATHEMATICS		National (Dec. 17, 2016)
5	Meromorphic functions sharing three values and a result of G. Brosch	RECENT DEVELOPMENT IN MATHEMATICS	Kalyani Mahavidyalaya	National (Dec. 15, 2016)
6	Meromorphic functions sharing three values and a result of G. Brosch	ICAMTPBCS 2016	Calcutta Mathematical Society	International (Dec. 9-11, 2016)
7	Meromorphic functions sharing three values and a result of G. Brosch	c functions 4TH INDIA BIODIVERSITY Indian Statistical e values and a MEET 2016 Institute & Govt		National (Oct. 24-27, 2016)
8	Value sharing by an entire functions with its derivatives	ICCDMMS 2014	Calcutta Mathematical Society	International (Dec. 19-21, 2014)
9	Entire functions sharing certain values with their derivatives	ertain values with their		National (Mar. 4-5, 2014)
10	Paper presentation	NSRTM 2013 UGC-SAP	University of Kalyani	National (Mar. 8, 2013)
11	Seminar-Participation	NSAMGT 2012	ugc sponsored & University of Kalyani	National (Mar. 21-22, 2012)
12	Seminar-Participation	CCAA 2011	идс sponsored & Sundarban Mahavidyalaya, wв	National (Nov. 24-25, 2011)

## Workshop

	Title	Particulars	Organized by	Date
1	Refresher Course	Refreshers Course on Application of матгав in Engineering	NITTTR, Kolkata	(3-14 Sep., 2018)
2	Teacher's Enrichment Programme	Ecological & Environment Modelling	Indian Statistical Institute (151), Kolkata & gcett, Berhampore	(Oct. 25, 2016)
3	Teacher's Enrichment Programme	National centre for Mathematics (www.ncmath.org)	In Collaboration with тіғк & ііт, Bombay	(Feb. 1-6, 2016)
4	Faculty Development Programme	Statistical Modelling & Data Analysis: Its Engineering Application	ссетт, Berhampore	(Jan. 11-15, 2016)
5	кмs-мсм Teacher's Enrichment Programme	National centre for Mathematics Advanced Training in Mathematics School (www.atmschools.com)	In Collaboration with TIFR & IIT, Bombay	(Dec. 27-31, 2013)

# List of Publications in UGC-Care Enlisted Journal

No.	Title	Journal Name	issn/ isbn No.	Whether Peer Reviewed. Impact Factor, if any	Name of author(s)	Year of Publication
1.	Proof Without Words: Geometric Evaluation of Another Limit DOI: 10.1080/07468342.2024.2368422	International Journal of Mathematical Education in Science and Technology (TAYLOR & FRANCIS)	0020-739X	Yes Peer Reviewed. (scopus) (esci)	Rajib Mukherjee	<b>July 2024</b> UGC CARE enlisted
2.	A visual proof: convergence of a hyper power sequence—a generalisation DOI: 10.1080/0020739X.2023.2220324	International Journal of Mathematical Education in Science and Technology (TAYLOR & FRANCIS)	0020-739X	Yes Peer Reviewed. (scopus) (esci)	Rajib Mukherjee	<b>July 2023</b> UGC CARE enlisted
3.	Extending Galileo's Ratio to Hex Numbers and Beyond DOI: 10.1080/0025570X.2023.2199704	Mathematics Magazine (Taylor & Francis )	0025-570X	Yes Peer Reviewed. (scopus) (esci)	Rajib Mukherjee and Manishita Chakraborty	<b>2023-04</b> UGC CARE enlisted
4.	Sums of Reciprocals of Powers of Two in $k$ -Dimension ( $k \ge 2$ ) DOI: 10.1007/S12045-023-1569-5	Resonance (Springer Nature)	0973-712X	Yes Peer Reviewed. (scopus) (esci)	Rajib Mukherjee and Manishita Chakraborty	2023-03 UGC CARE enlisted
5.	A geometric telescope revisited DOI: 10.1017/mag.2023.18	The Mathematical Gazette (CAMBRIDGE UNIVERSITY PRESS)	0025-5572	Yes Peer Reviewed. (scopus) (esci)	Rajib Mukherjee	2023-02 UGC CARE enlisted
6.	A New and Elementary Inequality Related to Riemann Zeta Function DOI: 10.1007/S12045-022-1492-1	Resonance (Springer Nature)	0973-712X	Yes Peer Reviewed. (scopus) (esci)	Rajib Mukherjee and Anuprava Biswas	2022-11 UGC CARE enlisted
7.	A Visual Tour to Kempner's Series DOI: 10.1007/S12045-022-1473-4	Resonance (Springer Nature)	0973-712X	Yes Peer Reviewed. (scopus) (esci)	Anuprava Biswas, Niladri Sarkar and Rajib Mukherjee	<b>2022-10</b> UGC CARE enlisted
8.	A Note on Convergence of A Special Class of InfiniteContinued Fractions DOI: 10.1007/S12045-021-1264-3	Resonance (Springer Nature)	0973-712X	Yes Peer Reviewed. (scopus) (esci)	Rajib Mukherjee and Manishita Chakraborty	<b>2021-11</b> UGC CARE enlisted
9.	Visual Estimation of Sum of First n Triangular, Tetrahedraland Pentatope Numbers DOI: 10.1007/S12045-021-1197-X	Resonance (Springer Nature)	0973-712X	Yes Peer Reviewed. (scopus) (esci)	Rajib Mukherjee and Manishita Chakraborty	<b>2021-07</b> UGC CARE enlisted
10.	Proof Without Words: Sums of Powers of Eight DOI: 10.1007/s00283-021-10087-5	The Mathematical Intelligencer (Springer Nature)	0343-6993	Yes Peer Reviewed. (scopus) (sci)	Rajib Mukherjee	<b>2021-06</b> UGC CARE enlisted
11.	Visual Evaluation of a Geometric Series: Sum of Reciprocals of Odd Powers of Two DOI: 10.1007/S00283-021-10090-W	The Mathematical Intelligencer (Springer Nature)	0343-6993	Yes Peer Reviewed. (scopus) (sci)	Rajib Mukherjee	<b>2021-06</b> UGC CARE enlisted
12.	A short note on a curious convergent series DOI: 10.1142/S1793557121501588	Asian-European Journal of Mathematics ( <b>World Scientific</b> )	1793-7183	Yes Peer Reviewed. (scopus) (esci)	Rajib Mukherjee and Niladri Sarkar	2021-02 UGC CARE enlisted
13.	Beyond $\pi^e < e^{\pi}$ : Proof Without Words of $b^a < a^b \ (b > a \ge e)$ DOI: 10.1007/S12045-020-1078-8	Resonance (Springer Nature)	0973-712X	Yes Peer Reviewed. (scopus) (esci)	Rajib Mukherjee and Manishita Chakraborty	<b>2020-11</b> UGC CARE enlisted
14.	Meromorphic Functions Sharing Three Values and A Result of G. Brosch DOI: 10.37256/cm.00037.63-76	Contemporary Mathematics	2705-1064	Yes Peer Reviewed.	Indrajit Lahiri and Rajib Mukherjee	2020-03
15.	Entire Functions Sharing Polynomials with Derivatives VOL: 110, (6)	Bulletin of the Calcutta Mathematical Society	0008-0659	Yes Peer Reviewed.	Rajib Mukherjee	2018-12 UGC CARE enlisted

No.	Title	Journal Name	issn/ isbn No.	Whether Peer Reviewed. Impact Factor, if any	Name of author(s)	Year of Publication
16.	Entire Functions Sharing Certain Values with their Derivatives VOL: 110, (4)	Bulletin of the Calcutta Mathematical Society	0008-0659	Yes Peer Reviewed.	Rajib Mukherjee	<b>2018-08</b> UGC CARE enlisted
17.	Entire Functions Sharing Certain Values with their Derivatives VOL: 109, (5)	Bulletin of the Calcutta Mathematical Society	0008-0659	Yes Peer Reviewed.	Rajib Mukherjee	2017-08 UGC CARE enlisted
18.	Value Sharing by an Entire Function with Its Derivatives DOI: 10.1007/S40306-014-0107-7	Acta Mathematica Vietnamica (Springer Nature)	0251-4184	Yes Peer Reviewed. (scopus) (esci)	Indrajit Lahiri and Rajib Mukherjee	2016 UGC CARE enlisted
19.	Value distribution of the product of a meromorphic derivative and a power of the function DOI: 10.5666/KMJ.2015.55.2.335	Kyungpook Mathematical Journal	0454-8124	Yes Peer Reviewed. (scopus) (esci)	Indrajit Lahiri and Rajib Mukherjee	<b>2015</b> UGC CARE enlisted
20.	Entire functions sharing certain values with their derivatives DOI: 10.1515/anly-2012-1224	Analysis (de gruyter)	2196-6753	Yes Peer Reviewed. (scopus) (esci)	Indrajit Lahiri and Rajib Mukherjee	<b>2014-01</b> UGC CARE enlisted
21.	Uniqueness of entire functions sharing a value with linear differential polynomials DOI: 10.1017/S0004972711002966	Bulletin of the Australian Mathematical Society (CAMBRIDGE UNIVERSITY PRESS)	0004-9727	Yes Peer Reviewed. (scopus) (sci)	Indrajit Lahiri and Rajib Mukherjee	2012 UGC CARE enlisted

# List of Accepted Papers

No.	Title	Journal Name	issn/ isbn No.	Whether Peer Reviewed. Impact Factor, if any	Name of author(s)	Year of Publication
22.	Generalization of an algebraic inequality. Accepted: To be published in the July 2025 issue.	The Mathematical Gazette (CAMBRIDGE UNIVERSITY PRESS)	0025-5572	Yes Peer Reviewed. (scopus) (esci)	Rajib Mukherjee	<b>2023-09</b> UGC CARE enlisted
23.	Generalizing a limit involving iterated nth roots. Accepted: To be published.	Mathematics Magazine (Taylor & Francis )	0025-570X	Yes Peer Reviewed. (scopus) (esci)	Rajib Mukherjee	<b>2024-04</b> UGC CARE enlisted