

BRIEF

My primary research field is differential geometry, more specifically geometric analysis. Currently, I am studying the application of PDE in Riemannian Geometry. I am also interested in Riemannian surface and application of the Riemann-Roch theorem.

CONTACT

DEPARTMENT: Department of Mathematics

SCHOOL OF STUDIES: School of Sciences

DATE OF JOINING: 20th Sep, 2018

ADDRESS: School of Sciences, Durgapur Regional Center, Durgapur-713214, Paschim Bardhaman, West Bengal, India,

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 <u>n</u>

DR. CHANDAN KUMAR MONDAL Assistant Professor

ACADEMIC QUALIFICATION

M.Sc., Ph.D.

TEACHING EXPERIENCE

Netaji Subhas Open University, Assistant Professor of Mathematics 20th Sep, 2018–Present

AWARDS AND FELLOWSHIPS

- CSIR-UGC-NET (JRF)- June, 2014
- CSIR-UGC-NET (JRF)- June, 2015
- GATE- 2015

RESEARCH INTERESTS & EXPERIENCE

- Riemannian Geometry
- Geometric Analysis
- Riemann Surface
- Partial Differential Equation

ADMINISTRATIVE EXPERIENCE

- Convener of the Workshop on Preparation of SLMs under CBCS of UG Mathematics at NSOU by the School of Sciences, NSOU, 22 April, 2019
- Member of the study center visit team of Kaliyaganj College and Gour Mahavidyalay 15-16 May, 2019.
- Member of the Organizing Committee of the NSOU Online Special Lecture Series in Mathematics, 2020-21.
- Editorial board member of the Pure and Applied Mathematics Journal (2020-2022)
- Organizing Secretary of the LMS sensitization programme in NSOU, School of Sciences, 23rd March, 2022.
- Working as a reviewer in MathSciNet and zbMath.
- Reviewed articles in
 - > Advances in Mathematical Physics
 - > Journal of Basic and Applied Research International
 - Boundary Value Problems

UG & PG TEACHING ASSIGNMENTS

- UG:
 - Real analysis
 - Abstract & Linear algebra

- o Differential equation
- o Complex analysis
- PG:
 - Abstract & Linear algebra
 - Differential geometry
 - o Topology
 - Measure theory
 - Complex analysis

MEMBERSHIP OF DIFFERENT COMMITTEES

- Member of Board of Studies of Under graduate of Netaji Subhas Open University since 2018.
- Member of Board of Studies of Post graduate of Netaji Subhas Open University since 2018.

MEMBERSHIP OF PROFESSIONAL BODIES

- Annual Member of the Indian Mathematical Society since 2021
- Life Member of the Calcutta Mathematical Society since 2022
- Affiliate Member of the American Mathematical Society since 2022
- Member of the Centre for Propagation of Scientific Knowledge (CPSK) since-2022

ELIGIBILITY TEST CLEARED NET/SET/GATE etc.):

| SI. No. | Details |
|---------|------------------------------|
| 1. | CSIR-UGC-NET (JRF) June-2014 |
| 2. | CSIR-UGC-NET (JRF) June-2015 |
| 3. | GATE- 2015 |

RESEARCH PROJECTS:

| SI. No. | Name of the Project | Funding Agency | Period | Grant Mobilized | Outcome |
|------------|---|----------------|----------|-----------------|--------------|
| 1. | An investigation of some geometrical and topological properties of Ricci soliton in a manifold | NSOU | One year | Rs 1,10000/- | 2022-Ongoing |

E-CONTENT

| SI. No. | Details | Quadrant I/II/III/IV | Link |
|------------|--|----------------------|---|
| 1 | Advance Differential Geometry Paper X (I) | I | http://lms.nsouict.ac.in/course/view.php?id=193§ion=1 |
| 2 | Paper IA Group A : Abstract Algebra | Ι | http://lms.nsouict.ac.in/mod/url/view.php?id=2253 |

DETAILS OF PUBLICATIONS (BOOKS/ EDITED VOLUME / RESEARCH PAPERS/REVIEW): [Last 10 Year]

| SI. No. | Title of the paper vol. No., Issue No., Page No, | Publisher | Year of publication | ISSN/ ISBN |
|---------|---|---------------------------|------------------------|------------|
| 1 | Integral Liouville theorem in a complete Riemannian manifold, Vol- 23, Issue No2, Page: 56-66. | Balkan J. Geom. Appl | 2018 | 1224-2780 |
| 2 | Some results on phi-convex functions and geodesic phi-convex functions, Vol-20 | Diff. Geom. Dyn, Syst. | 2018 | 1454-511X |

| 3 | A note on convex sets in a complete Riemannian manifold, Vol- 11, Issue No60, Page-119-124. | Bulletin Univ. Transilvania Brasov. | 2018 | 2810-2029 |
|----|--|--|----------|-----------|
| 4 | Non-existence of certain type of convex functions on a Riemannian manifold with a pole, Vol-140, page:104-110 | J. Geom. Phy. | 2019 | 0393-0440 |
| 5 | On locally phi-semisymmetric Sasakian manifolds, Vol-48, issue No 8, Page: 1156-1169. | Hacettepe J. Math. Stat. | 2019 | 2651-477X |
| 6 | Some results in η-Ricci Soliton and gradient ρ-Einstein soliton in a complete Riemannian manifold, Vol-34, Issue No4, Page: 1279-1287. | Comm. Koean Math. Soc. | 2019 | 1225-1763 |
| 7 | Geodesic Sandwich Theorem with an Application, Vol-23, issue No1, Page: 161-167. | Math. Inequal. Appl. | 2020 | 1331-4343 |
| 8 | An interior fixed point property of a convex domain in a Riemannian manifold with a pole, Vol-22, Page: 250-253. | Diff. Geom. Dyn, Syst. | 2020 | 1454-511X |
| 9 | On Ricci solitons whose potential is convex, Vol-130, Page-1-7 | Proc. Indian Acad. Sci. (Math. Sci.) | 2020 | 0973-7685 |
| 10 | Some properties of geodesic (a,E)-preinvex functions on a Riemannian manifold, Vol-7, Issue No2, Page: 201-210. | Khayyam J. Math. | 2021 | 2423-4788 |
| 11 | Compact gradient p-Einstein soliton is isometric to the Euclidean sphere, Vol-52, issue No2, Page: 335-339. | Indian J. Pure Appl. Math. | 2021 | 0019-5588 |
| 12 | Isometry theorem of gradient Shrinking Ricci solitons, Vol-163, Page: 104110. | J. Geom. Phy. | 2021 | 0393-0440 |
| 13 | Diameter estimation of gradient ρ-Einstein solitons, Vol-177, Page: 104518. | J. Geom. Phy. | 2022 | 0393-0440 |
| 14 | A note on the isoperimetric inequality in the plane | Palestine J. Math. | Accepted | 2219-5688 |
| 15 | Characterization of the potential function of a Ricci soliton | Proc. Indian Acad. Sci. (Math. Sci.) | Accepted | 0973-7685 |
| 16 | Existence of finite global norm of potential vector field in a Ricci soliton | Proc. Natl. Acad. Sci., India, Sect. A Phys. Sci. | Accepted | 0369-8203 |

PAPERS PRESENTED AT SEMINARS, CONFERENCES, WORKSHOPS, ETC.: [Last 10 Year]

| SI. No. | Title of Paper/ Lecture | Organizing Institute | Conference, Seminar, workshop etc. | International (Within Country)/ International (Abroad)/Nat ional | Role |
|------------|--|---|--|---|--------------------|
| 1 | A note on the isoperimetric inequality in the plane | University of Gour Banga | ICEAMS-2017 | International | Paper presenter |
| 2 | Integral Liouville theorem in a complete Riemannian manifold | CMS | National conference on Mathematical analysis and Mathematical Modelling, 2018 | International | Paper presenter |
| 3 | Some results in η-Ricci Soliton and gradient ρ-Einstein soliton in a complete Riemannian manifold | The University of Burdwan | National Seminar on Recent trends in Mathematical sciences, 2019 | National | Paper presenter |
| 4 | Non-existence of certain type of convex functions on a Riemannian manifold with a pole. | University Polithehnica of Bucharest and the Balkan Society of Geometers | International Conference of Differential Geometry and Dynamical Systems (DGDS 2020) | International, Romania | Paper presenter |
| 5 | Non-existence of certain type of convex functions on a Riemannian manifold with a pole. | The University of Burdwan | International Webinar on Mathematics and Applications (IWMA-2020) | International | Paper presenter |

| 6 | On Ricci solitons whose | CMS | International Webinar on | International | Paper |
|---|-------------------------|-----|-------------------------------|---------------|-----------|
| | potential is convex | | Recent Trends of Mathematical | | presenter |
| | | | Science (IWRTMS 2022) | | |

PROGRAMMES COORDINATED/ ORGANISED AS CONVENER / ORGANISING SECRETARY AT NETAJI SUBHAS OPEN UNIVERSITY: [Last 5 Year]

| SI. No. | Progamme Name | Sponsored by | Period |
|---------|---|--------------------------------------|-----------------|
| 1 | Organizing secretary of Workshop on Preparation of Programme Project Report (PPR) | School of Sciences and CIQA, NSOU | 28th Feb, 2023 |
| 2 | Organizing secretary of LMS sensitization programme in NSOU | School of Sciences, NSOU | 23 March, 2022 |
| 3 | Organizing secretary of NSOU Online Special Lecture Series in Mathematics, 2020-21 | School of Sciences, NSOU | 2020-21 |
| 4 | Convener of Workshop on Preparation of SLMs under CBCS of UG Mathematics at NSOU | School of Sciences, NSOU | 22 April, 2019 |
| 5 | Study center visit team of Kaliyaganj College and Gour Mahavidyalay | School of Sciences, NSOU | 15-16 May, 2019 |

Declaration: *I* assert that the details furnished above are all true to the best of my knowledge.

Chandan Ka Mondal

Signature

Date: 22/11/2022