Dr. Nirabhra Basu

Assistant Professor
Department of Mathematics

Contact Information

Contact Address (Office)
5 Lala Lajpat Rai Sarani,
Kolkata: 700 020

Contact Number (Office)
(033) 4413-1525

E-Mail ID (Official)
nirabhra.basu@thebges.edu.in

Specialization

- **Mathematics**

**THE BHAWANIPUR
EDUCATION SOCIETY COLLEGE**

Biographical Sketch

Dr. Nirabhra Basu is currently associated as an Assistant Professor, in the Department of Mathematics, The Bhawanipur Education Society College, affiliated to University of Calcutta for last eleven years. Prior to joining this institution, he worked as a research fellow and obtained his Ph.D degree from the Department of Mathematics, Jadavpur University. He completed his M.Sc in Mathematics from the central university of Hyderabad. He has published more than fifteen research paper in reputed International Journals and presented his research papers in numerous conferences (both national and international). He has also participated in several national and international seminars / webinars / workshops / conferences. He has authored one book till date, which is very helpful for young researcher who is doing research in the field of Ricci Flow.

Academic Qualifications

Abbreviation of the Degree	Name of the College / University	Class Obtained	Area of Specialization	Year of Passing
Ph.D	Jadavpur University	N.A	On Ricci flow and its Applications	2016
M.Sc	Hyderabad University	1st Class	Mathematics	2009
B.Sc (Hons in Mathematics)	Burdwan University	1st Class	Mathematics	2006

Position Holding (Full Time)

- Assistant Professor in Mathematics, The Bhawanipur Education Society College, University of Calcutta, May, 2012 - Present.

Position Held (Full Time)

- Junior Research Fellow in the Department of Mathematics, Jadavpur University, 2010-2012.

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Research Experience

- Research fellow at PAMU, ISI, KOLKTA from June, 2010 to December 2010.

- Research fellow at The Department of Mathematics, Jadavpur University, Kolkata from December, 2010 to June, 2016.

Administrative Assignment

- He was a member of Anti Ragging squad and Admission committee of The Bhawanipur Education Society College from 2015 to 2016. Presently, He was a member of NAAC steering committee of the college from 2017 to 2020.

Subjects Taught

Abstract Algebra | Real Analysis | Partial Differential Equation | Differential Geometry | Linear Algebra Metric spaces | Complex Analysis.

Research Interests

Ricci Flow | Conformal Ricci Flow | Ricci Soliton | Conformal Ricci Soliton | Almost Conformal Ricci Soliton | Partial Differential Equation.

Books Published

- Nirabhra Basu, On Ricci Flow and Conformal Formal Ricci flow(2019), LAP Lambert Academic Publishing; ISBN -13: 978-620-0-47647-0.

Journal Publications

- A. Bhattacharyya, N. Basu, Some curvature identities on gradient shrinking conformal Ricci soliton; Scientific Annals of "Al.I. Cuza" University of Iasi , Vol-61,Issue-1(2015), pp.245-252, ISSN:1221-8421.

- N. Basu and A. Bhattacharyya, Deformation of Curvature Tensors Under Conformal Ricci Flow; Lobachevskii journal of mathematics , Volume-35, Issue –I, 2014, (ISSN: 1818-9962).

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- N. Basu and A. Bhattacharyya , Evolution of F-functional and W-entropy functional for the conformal Ricci Flow ; Acta Univ. Sapientiae Mathematica, Vol- 6, Issue - 2 (2014),pp. 209-216, ISSN: 1844-6094.

- N. Basu and A. Bhattacharyya ,Gradient Ricci Soliton in Kenmotsu Manifold; IOSR Journal of Mathematics (IOSR-JM,   e-ISSN: 2278-5728, p-ISSN: 2319-765X. Volume 10, Issue 5 Ver. I (Sep-Oct. 2014), PP 32-36.

- N. Basu and A. Bhattacharyya , Conformal Ricci soliton in Kenmotsu manifold ; Global Journal of Advanced Research on Classical and Modern Geometries, ISSN: 2284-5569, Vol.4, (2015), Issue 1, pp.15-21.

- N. Basu and A. Bhattacharyya, Gradient Ricci Almost Solitons in Sasakian Manifold, Acta Mathematica Academiae Paedagogicae Nyíregyháziensis, Vol. 32, No. 1 (2016),ISSN: 1786-0091

- T. Dutta, N. Basu and A. Bhattacharyya, Some curvature identities on an almost conformal gradient shrinking Ricci soliton, Journal of Dynamical Systems and Geometric Theories,   ISSN : 1726-037X (Print) 2169-0057 (Online),Vol. 13(2) November 2015, pp. 163-178

- T. Dutta, N. Basu and A. Bhattacharyya, Almost conformal Ricci solitons on 3-dimensional trans-Sasakian manifold, Hacettepe Journal of Mathematics and Statistics, Vol. 45(5)(2016), ISSN 1379-1392.

- T. Dutta, N. Basu and A. Bhattacharyya, Conformal Ricci soliton in Lorentzian alpha –Sasakian manifolds, Acta Univ. Palacki. Olomuc., Fac. rer. nat., Mathematica 55, 2 (2016) 57–70, ISSN:0231-9721

- N. Basu, Conformal Ricci soliton and Conformal gradient Ricci soliton in LP-Sasakian Manifold, Journal of the Calcutta Mathematical Society,ISSN 12,(1),pp.1-8(2016).

- N.Basu, A. Bhattacharyya and T.Dutta, ALMOST CONFORMAL RICCI SOLITON AND η-RICCI SOLITON ON 3-DIMENSIONAL (#, δ) TRANS-SASAKIAN MANIFOLD, Bulletin of the Transilvania University of Braşov · Vol 10(59), No. 2 – 2017, Series III: Mathematics, Informatics, Physics, 13-30, ISSN 2065-2151.

- D. Debnath and N.Basu, On Some Properties Of Mixed Super Quasi Einstein Manifolds, International Journal of Mathematical Combinatorics, ISSN 1937 – 1055, Vol.1(2020), 70-76.

- D. Debnath and N.Basu, SOME RESULTS ON ⊠–RICCI FLOW, FACTA UNIVERSITATIS (NIˇS) Ser. Math. Inform. Vol. 35, No 5 (2020), 1305–1313

- Nirabhra Basu and Dipankar Debnath, Characteristic of Ricci soliton and Conformal gradient Ricci soliton in LP-Sasakian Manifold, Palestine journal of mathematics (Accepted)

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- Dipen Ganguly, Nirabhra Basu and A.Bhattacharyya, Characteristics of Conformal Ricci Soliton on Warped Product Spaces, Thai Journal of Mathematics (Accepted)

- Dipen Ganguly, Nirabhra Basu and A.Bhattacharyya , CHARACTERISTICS OF ALMOST CONFORMAL RICCI SOLITONS ON SASAKIAN MANIFOLD(Communicated)

Paper Presentations At Conferences

- "Some curvature identities on gradient shrinking conformal Ricci soliton" in the International Conference on Dynamical Systems: Theory and Applications (ICDS 2012) ,held during 11-14 January 2012, in Jadavpur University, Kolkata -700032.

- "Deformation of curvature tensors under conformal Ricci flow" in the International Conference on Differential Geometry and Relativity , held during 20-22 November 2012, in Aligarh Muslim University.

- "Evolution of F- Functional and W- Entropy functional for the conformal Ricci Flow" in the 79th Annual Conference of Indian Mathematical Society, held during 28th – 31st December, 2013, Kerala, India.

- "Conformal Ricci soliton in Kenmotsu Manifold" in the International Conference on Geometry and its Applications , held during 16th – 18th October ,2014, Jadavpur University, Kolkata.

- "Gradient Ricci Almost Solitons in Sasakian Manifold" in National Conference on Emerging Tends in Mathematics and Mathematical Sciences", held during 17th-19th December, 2015, Calcutta Mathematical Society, Kolkata.

- "Conformal Ricci Soliton and conformal gradient Ricci soliton in LP-Sasakian Manifold" in National Seminar on Recent Advances in Mathematics and its Application(RAMA-2017); held during 1st -2nd March, 2017 , Department of Pure Mathematics, University of Calcutta, Kolkata.

- "On some properties of Mixed Super Quasi Einstein Manifolds" in National conference on Differential Geometry and General relativity, 28-29 November, 2017, Sardar Patel University, Gujrat.

- "On Hyper-Mixed Generalized Quasi-Einstein Manifolds and Some Global Properties'' in National Conference on Non- Linear Dynamics and Applications(NLDA-2020), 13th March, 2020, Jadavpur University

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Participation In Seminars / Webinars / Workshops / Conferences

- The 3rd Annual Conference of The Tensor Society on Differential Geometry and Applications (27th May- 28th May, 2011; Kuvempu University, Karnataka – 577451, India)

- The 4th Annual Conference of The Tensor Society on Application of Tensors and Differential Geometry in Engineering and Physical Sciences (8th Oct- 9th Oct, 2011, Lucknow, India)

- International conference on Dynamical systems: Theory and Applications (11th -14th January, 2012, Jadavpur, India)

- Recent Aspects of Gravitation and Cosmology (20th March, 2012, Relativity and Cosmology Research centre, Deptt. Of Physics, Jadavpur University, India)

- National Seminar on Indian Mathematics and Astronomy and Their Relevance in the 21st Century (21st – 22nd July, 2012 , M.C.Chaki centre for Mathematics and Mathematical Sciences, Kolkata-700025, India)

- International Conference on Differential Geometry and Relativity(20th -22nd November, 2012, Aligarh Muslim University, India)

- The 12th International Conference of Tensor Society (Japan) on Differential Geometry and Its Applications and Informatics Besides(17th -21st December, 2012, Kolkata, India)

- 79th Annual Conference of Indian Mathematical Society (28th – 31st December, 2013,Kerala,India.

- National Seminar on Mathematics To Commemorate Sesquicentenary of Sir Asutosh Mookerjee (25th April,2014).

- The Instructional School for Lecturers on " Geometric Topology", DST-CIMS, Banaras Hindu University, Varanasi – 221005, July 07-19,2014.

- International Conference on Geometry and its Applications, 16th -18th October,2014, Jadavpur University, Kolkata -700032, India.

- UGC sponsored 56th Orientation Programme , 2nd -28th February, 2015, UGC-   ACADEMIC STAFF COLLEGE , JADAVPUR UNIVERSITY.

- National level seminar on "Recent Trends in Applicable Mathematics", 24th April, 2015, Bhawanipur Edu. Soc. College, Kolkata- 700020.

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- UGC sponsored Refresher course on " Emerging Trends in Mathematics and its applications", 16th June – 6th July, 2015 organized by Deptt. Of Mathematics and ASC, Jadavpur University, Kolkata.

- National Conference on Emerging Tends in Mathematics and Mathematical Sciences", held during 17th-19th December, 2015, Calcutta Mathematical Society, Kolkata.

- 2- week Faculty Development Programme conducted by Enterprise Development Institute, Kolkata and Sponsored by Dept of Science and Technology, Govt. of India under DST-NIMAT Project from 28th March to 8th April, 2016.

- Teachers' Enrichment Workshop in Mathematics Organised by The Calcutta mathematical Society and Sponsored by Higher Education Department, Govt. of West Bengal, held during 21st June to 29th June, 2016.

- CIMPA-INDIA Research School on " Geometric Flows" Organised Jointly By CIMPA(Centre International de Mathematics Pure and Application), France and Jadavpur University , Kolkata held during 1st – 12th December, 2016 at Jadavpur University.

- A 2-Week Faculty Development Programme on "RESEARCH METHODOLOGY" from October 01- October 15, 2020, Teaching Learning Centre, Ramanujan College University of Delhi.

- UGC-SPONSORED Refresher Course in Mathematical Science from 15th March to 27th March 2021, Human Resource Development Centre (HRDC), University Of Calcutta.

Online Certifications

- A 2-Week Faculty Development Programme on "RESEARCH METHODOLOGY" from October 01- October 15, 2020, Teaching Learning Centre, Ramanujan College University of Delhi.

- UGC-SPONSORED Refresher Course in Mathematical Science from 15th March to 27th March 2021, Human Resource Development Centre (HRDC), University Of Calcutta.

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Awards / Recognitions

- Received CSIR-UGC-Fellowship in 2010.

Other Notable Activities

- Joint Convener, National Seminar on Contemporary Research in Theoretical and Applicable Mathematics (CRTAM 2018), Department of Mathematics, The Bhawanipur Education Society College, Kolkata, India (Sep14–15, 2018).

- Joint Convener, National Seminar on Contemporary Research in Theoretical and Applicable Mathematics (CRTAM 2017), Department of Mathematics, The Bhawanipur Education Society College and Calcutta Mathematical Society, Kolkata, India (Sep 08–09, 2017).

- Joint Convener, Two-Day Workshop on Mathematics, Computer Science and Cryptography, Department of Mathematics & Computer Science, The Bhawanipur Education Society College and R. C. Bose Centre for Cryptology and Security, Indian Statistical Institute, Kolkata, India (Jan 30–31, 2017).

Vision Statement

- Encourage students to creativity thinking and self-confidence in all their endeavors.
- Inspiring them to pursue higher studies and research.

Nirabhra Basu

**Signature of the
Faculty Member**

Date: 01st September, 2022

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