

RESUME/CV

Name: Prof. (Dr.) Manoranjan Singha

Date of Birth: 17.12.1979

Designation: Professor

Department of Mathematics
University of North Bengal



Present Address: Department of Mathematics
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Educational Qualifications:

Name of the degree	Institution	Year	Class	Some more information
B.Sc.	Dinhata College, NBU	2001	First	Secured first rank in the merit list as mentioned in the certificate of National Scholarship.
M.Sc.	Jadavpur University	2003	First	Secured maximal marks in that year.
NET	UGC	Qualified in 2004 (Held in December 2003)	N/A	Secured Rank in top 20%

Ph.D. Coursework	University of North Bengal	2012	Grade A+	Secured Highest Marks: 90.5%
Ph.D.	University of North Bengal	2014	N/A	<p>Title of the thesis: On Different Topology-Like Structures.</p> <p>Essence of the thesis: The idea to work on different topology-like structures, and more importantly, the desire to do so, is a direct consequence of searching possible identity in the differences among point set topology, sequential topology, generalized topology, minimal structure and weak structure. During this work many new mathematical notions were observed and studied, that yielded plenty of results on which this thesis is based.</p>

Awards:

- a. National Scholarship on the basis of rank in BSc.
- b. UGC- JRF
- c. Anita Bose Majumder Memorial Award.

Teaching Experiences:

UG: Lecturer (Re-designated as Assistant Professor), Sukanta Mahavidyalaya, Dhupguri, Jalpaiguri, West Bengal, India, 21.09.2006 to 17.03.2008.

PG: Department of Mathematics, University of North Bengal, India,
18.03.2008 till date.

Ph.D. Supervision:

- Number of students awarded Ph.D. degree: 02
- Number of students pursuing Ph.D. degree: 02

Project:

1. Departmental Project, Dept. of Mathematics, NBU, Amount: 75,000/-.
2. Design and Development of an Artificial Neural Network (ANN)
Based Expert System to diagnose Human Brain Tumor from CT Scan and
MRI Images, 01.04.2015 to 31.03.2017, Amount: 10,10,000/-.
3. Role of density and ideals of natural numbers in the theory of
convergence, Dept. of Mathematics, NBU, FY 2022-2023, Amount
1,50,000/-.

Domain of thought (research interests): Topology, Functional Analysis and
Algebra.

Few Publications:

Sl. No.	Publication
36	M. Singha and U. K. Hom, <i>Force recurrence near zero</i> , Topology and its Applications, 336 (2023) 108623 doi: https://doi.org/10.1016/j.topol.2023.108623
35	M. Singha and S. Roy, <i>\mathcal{J}^K-limit points, \mathcal{J}^K-cluster points and \mathcal{J}^K-Frechet compactness</i> , (Communicated) https://doi.org/10.48550/arXiv.2303.10194

34	M. Singha and S. Roy, <i>Compactness with ideals</i> , Mathematica Slovaca, vol. 73, no. 1, 2023, pp. 195-204. https://doi.org/10.1515/ms-2023-0018
33	M. Singha and U. K. Hom, <i>Variant of thin sets and their influence in convergence</i> , Filomat, 37(17) (2023). https://doi.org/10.2298/FIL2317847S
32	M. Singha and U. K. Hom, <i>Statistical Compactness</i> , Topology and its Applications, 325 (2023) 108391 doi: https://doi.org/10.1016/j.topol.2022.108391
31	M. Singha and S. Roy, <i>Influence of ideals in compactifications</i> , (Communicated) https://arxiv.org/abs/2112.02028v1
30	M. Singha and K. Das, <i>A variant of Birkhoff-Kakutani theorem on topological polygroups</i> , Palestine J. Math., 11(3) (2022), 598-603. https://drive.google.com/file/d/1rycqj21df8eQlHgMMCc-wcmM5Z6YCTmr/view?usp=sharing
29	M. Singha and K. Das, <i>Topological Krasner hyperrings with special emphasis on isomorphism theorems</i> , Appl. Gen. Topol., 23(1) (2022), 201-212. doi: https://doi.org/10.4995/agt.2022.14778
28	M. Singha and K. Das, <i>On Topologized Polygroups</i> , J. Tri. Math. Soc., 22 (Dec-2020), 33-42. https://drive.google.com/file/d/1r7TuX8_2RNquGPVRv_Nq7rK5si7tTHCu/view?usp=sharing
27	K. Sarkar and M. Singha , <i>Fixed point theorems in partial S_b-metric spaces</i> , Malaya J. Mat., 8(1) (2020), 144-150. doi: https://doi.org/10.26637/MJM0801/0024
26	M. Singha , K. Das and B. Davvaz , <i>Uniformities on OCP-polygroups</i> , J. hyperstructures, 7(2) (2018), 104-123. https://drive.google.com/file/d/1WZ7cKjKOFYKc9aSx7YTAX-8dG91xULTX/view?usp=sharing
25	M. Singha and K. Sarkar, <i>Some fixed point theorems in partial S_b-metric Spaces</i> , J. Adv. Stud. Topol., 9(1) (2018), 1-9. https://drive.google.com/file/d/1lEseMCkSq42a2ovYdgM6flfvfE5zv3L1/view?usp=sharing
24	M. Singha , <i>A Fixed Point Theorem in K-Metric Spaces</i> , Global Journal of Engineering Science and Researches, 5(6) (2018), 143-147.

	doi: https://doi.org/10.5281/zenodo.1290663
23	M. Singha , <i>A Look of Urysohn's Lemma in the Light of Generalized Topological Spaces</i> , International Journal of Research in Engineering, IT and Social Sciences, 8(6) (2018), 100-101. https://drive.google.com/file/d/18dQqkf6_jJ5bjFds36s3hu3UAeCQeoQ/view?usp=sharing
22	M. Singha , <i>A Variant of Kannan Fixed Point Theorem In Complete Cone Metric Spaces</i> , Global Journal of Engineering Science and Researches, 5(6) (2018), 52-55. doi: https://doi.org/10.5281/zenodo.1283140
21	M. Singha , <i>A Common Fixed Point Theorem of Four Self Mappings in Totally Ordered Complete Cone Metric Spaces</i> , International Journal of Research in Engineering, IT and Social Sciences, 8(5) (2018), 223-227. https://drive.google.com/file/d/1Xe3m0DkQmprH3JfpNVar9gjzuOaXrcBJ/view?usp=sharing
20	M. Singha and K. Sarkar, <i>Towards Cantor Intersection Theorem and Baire Category Theorem in Partial Metric Spaces</i> , Matematicki Vesnik, 69(2) (2017), 126-132. https://drive.google.com/file/d/1zxRvrMeYxB7PRbwJ5K8os_UfXv4R3yaS/view?usp=sharing
19	M. Singha , K. Das and B. Davvaz, <i>On Topological Complete Hypergroups</i> , Filomat, 31(16) (2017), 5045-5056. doi: https://doi.org/10.2298/FIL1716045S
18	M. Singha , <i>Bring a Nonempty Set, Get a Ring</i> , International Journal of Mathematics Trends and Technology (IJMTT), 52(9) (2017), 627-629. doi: https://doi.org/10.14445/22315373/IJMTT-V52P590
17	N. Tamang, M. Singha and S. De Sarkar, <i>On the notions of continuity and compactness in fuzzy sequential topological spaces</i> , International Journal of Engineering and Advanced Research Technology (IJEART), 2(10) (2016), 9-15. https://drive.google.com/file/d/1nuRblSbACqk_bb9tWt_je6xD6Gzucuyu/view?usp=sharing

16	M. Singha , <i>A Common Fixed Point Theorem for Four Mappings in k-Metric Spaces</i> , International Journal of Engineering and Technical Research (IJETR), 3(12) (2015), 58-60. https://drive.google.com/file/d/1HjifskT2edOOjawm0VZy5CYSHjNh aVsU/view?usp=sharing
15	N. Tamang, M. Singha and S. De Sarkar, <i>Composition of fuzzy sequential operators with special emphasis on FS-connectors</i> , Palestine J. Math., 4(1) (2015), 37-43. https://drive.google.com/file/d/1h82sAa44SFth5DDP8KHjav-Qrlsskys6/view?usp=sharing
14	M. Singha and K. Sarkar, <i>Asymptotic generalization of a fixed point theorem in partial metric spaces</i> , International Journal of Mathematical Archive, 6(6) (2015), 141-146. https://drive.google.com/file/d/12vX2ZGMbyhrK8ziL2NKqmct104IIFD98/view?usp=sharing
13	M. Singha and K. Das, <i>A Common Fixed Point Theorem in Cone Metric Spaces</i> , International Journal of Engineering and Advanced Research Technology (IJEART), 1(6) (2015), 64-72. https://drive.google.com/file/d/1MABJ1YoLfH-fz-zyhLP9zuPp8IpInPOT/view?usp=sharing
12	M. Singha , <i>Fixed Point Theorems for T_k-Contractions in k-Metric Spaces</i> , International Journal of Mathematical Archive, 6(12) (2015), 1-4. https://drive.google.com/file/d/1IYHCxD-qbjIBkGRE0A5cDpUnfKu9k4mJ/view?usp=sharing
11	M. Singha , N. Tamang and S. De Sarkar, <i>Fuzzy Sequential Topological Spaces (FSTS)</i> , International Journal of Computer and Mathematical Sciences, 3(4) (2014). doi: https://doi.org/10.48550/arXiv.1209.5835
10	M. Singha , <i>Sequential Interior Operators</i> , J. Pure Math., 29 & 30 (2013), 126-138. https://drive.google.com/file/d/173uuFvR8D2acREcdwLPE4UkNolxnWbZq/view?usp=sharing

9	N. Tamang, M. Singha and S. De Sarkar, <i>FS-closure operators and FS-interior operators</i> , Ann. Fuzzy Math. Inform., 6(3) (2013), 589-603. https://drive.google.com/file/d/17-munJcIVTjeOKwd7ftm3unu6EHogL0s/view?usp=sharing
8	N. Tamang, M. Singha and S. De Sarkar, <i>Separation Axioms in Fuzzy Sequential Topological Spaces</i> , J. Adv. Stud. Topol., 4(1) (2013), 83-97. https://drive.google.com/file/d/1q_6ONv2rjtnn71d5AJ_EPOdkntLzayV/view?usp=sharing
7	M. Singha and S. De Sarkar, <i>Towards Urysohn's Lemma in Minimal Structures</i> , Int. J. Pure Appl. Math., 85(2) (2013), 255-263. doi: http://dx.doi.org/10.12732/ijpam.v85i2.6
6	M. Singha and S. De Sarkar, <i>On Monotonic Sequential Operators</i> , Southeast Asian Bull. Math., 37(6) (2013), 903-918. https://drive.google.com/file/d/16sweJMMNEq_8ZFoThYSOak2kEvShmfTV/view?usp=sharing
5	M. Singha and S. De Sarkar, <i>On $K\Omega$ and Relative Closure Operators in $(P(X))^N$</i> , J. Adv. Stud. Topol., 3(1) (2012), 72-80. https://drive.google.com/file/d/1d1h0_zo_-PGadjgbWluzDOqqr96phUZX/view?usp=sharing
4	M. Singha , <i>Urysohn's Lemma in Weak Structures</i> , Bull. Cal. Math. Soc., 104(6) (2012), 547-552. https://drive.google.com/file/d/1FvRVKLIHI3W0Zr_QYVZLHu-f14x6cw_H/view?usp=sharing
3	M. Singha , <i>Two Fixed Point Theorems in the Language of Cone Metric Spaces</i> , Journal of Mathematics (Departmental Journal, Dept. of Mathematics, NBU), IV(1) (2012), 67-76. https://drive.google.com/file/d/1uBO5RIBwJL9puBfFFpY1jJnBnc0PpIym/view?usp=sharing
2	N. Tamang, M. Singha and S. De Sarkar, <i>Separation Axioms in Sequential Topological Spaces in the Light of Reduced and Augmented Bases</i> , Int. J. Contemp. Math. Sci., 6 (23) (2011), 1137-1150.

	https://drive.google.com/file/d/1mEzb760sAy7FOXfK1wxFDBfsrEcD Bay6/view?usp=sharing
1	S. Das, M. Singha and S. De Sarkar, <i>Semi Open and Weakly Semi Open Sequential Sets in Sequential Topological Spaces</i> , Vesnik, BSPU 9, 2 (19) (2009), 40-52. https://drive.google.com/file/d/1UlGrX3I-wIqG3usN6TwuqUF_mdP19qTw/view?usp=sharing

Papers Presented in National and International Seminars / Conferences:

1. **M. Singha**, On K-omega, omega and relative closure operators, UGC Seminar on Recent Advances in Mathematical Sciences and Applications, University of North Bengal, February 10-11, 2011.
2. **M. Singha**, On monotonic sequential operators, National Seminar on Analysis, Modeling and Geometric Topology, University of Kalyani, March 21-22, 2012.
3. **M. Singha**, Urysohn's lemma in weak structures, National Seminar on Mathematical Analysis and Applications: Present Perspective, Calcutta Mathematical Society, September 06-07, 2012. (**This paper was adjudged as the best paper presentation for Anita Bose Majumder Memorial Award**)
4. **M. Singha**, Generalized Topology with Special Emphasis on Normality, National Seminar on Advances in Mathematics and Applications, The University of Burdwan, March 06-07, 2013.
5. **M. Singha**, Ring Structure on Any Nonempty Set, National Seminar on Recent Trends in Mathematics, University of Kalyani, March 08, 2013.

- 6. M. Singha**, k-metric spaces with special emphasis on identities in differences, National Conference on Non-Linear Dynamics, Analysis and Optimization, Jadavpur University, January 09-10, 2014.
- 7. M. Singha**, Sequential Operators and Connectors, 3rd International Conference on Frontiers of Mathematics and Applications, The University of Burdwan, January 29-31, 2014. (**INTERNATIONAL**)
- 8. M. Singha**, Some Aspects in Generalized Topological Species, National Seminar on Mathematics and its Applications, University of Kalyani, March 04-05, 2014.
- 9. M. Singha**, Towards Partition of Unity in Generalized Topological Spaces, National Seminar on Recent Development in Mathematics and its Applications, University of Calcutta, March 12, 2014.
- 10. M. Singha**, Topological warm-up of k-metric spaces and some fixed point theorems, International Conference on Current Developments in Mathematics and Mathematical Sciences, Calcutta Mathematical Society, December 19-21, 2014. (**INTERNATIONAL**)
- 11. M. Singha**, k-metric topological spaces with special emphasis on some fixed point theorems, 1st Pan Pacific International Conference on Topology and Applications, Minnan Normal University, Zhangzhou, China, 25-30 November 2015. (**INTERNATIONAL**)
- 12. M. Singha**, On Partial Metric Spaces, International Conference on Nonlinear Dynamics, Analysis and Optimization (ICNDAO), Dept. of Mathematics, Jadavpur University, Kolkata, 9-11 December, 2015. (**INTERNATIONAL**)
- 13. M. Singha**, On a metric appeared in representation theory, National Conference on Exploring Advances in Mathematics (NCEAM), Department of Mathematics, University of Gour Banga, December 16-17, 2015.

- 14. M. Singha**, Some results in Topological Hypergroups, National Conference on Emerging Trends in Mathematics and Mathematical Sciences, Calcutta Mathematical Society, December 17-19, 2015.
- 15. M. Singha**, On Partial Metric Topology, National Seminar on Advances in Mathematical Sciences, Assam Academy of Mathematics and Department of Mathematics, Gauhati University, 22nd December, 2015.

Invited talks:

- 1. M. Singha**, Mathematics in Everyday Life, National Seminar on "Mathematics in Everyday Life" (UGC sponsored), Pramathesh Barua College, Gauripur, Dhubri, Assam, September 20-21, 2014.
- 2. M. Singha**, Different ways of thinking about convergence of sequences and nets in topological spaces, Two-Day National Conference on Trends in Science & Technology, Salesian College, Siliguri, 27th & 28th Feb, 2017.
- 3. M. Singha**, Symposium Talk: Topological Hypergroups, ICGMMCP-2017, Calcutta Mathematical Society, December 05-07, 2017.
- 4. M. Singha**, Kuratowski's 14-set theorem; a diagrammatic presentation, Department of Mathematics, St. Joseph' College, Darjeeling, 27th September, 2019.
- 5. M. Singha**, Invited Talk: A journey from metric space to topological space, Sukanta Mahavidyalaya, Dhupguri, Jalpaiguri, West Bengal, India, 19th April, 2022.
- 6. M. Singha**, Visiting Professor, Rajiv Gandhi National Institute of Youth Development, Tamil Nadu, India, July 24-30, 2023.

Participation in other academic programs:

- 1.** Workshop on general topology with special emphasis on proximities, compactifications and rings of continuous functions, Department of Mathematics, NBU, 21st Feb to 2nd March, 2013.
- 2.** 22nd West Bengal State Science & Technology Congress, 28th Feb to 1st March, 2015, University of North Bengal.
- 3.** UGC Sponsored Orientation Programme, UGC-ASC, 16.11.2009 to 14.12.2009, Jadavpur University.
- 4.** UGC Sponsored Refresher Course, UGC-ASC, 16.12.2010 to 05.01.2011 The University of Burdwan.
- 5.** UGC Sponsored Refresher Course, UGC-ASC, 09.01.2013 to 29.01.2013, University of North Bengal.

Administrative Experiences:

- a)** Acted as HoD for two years (full term 04.05.2016 to 03.5.2018)
- b)** Chairperson, DDE, Mathematics since 08.12.2014 to 14. 06. 2018.
- c)** Court member (Two times)
- d)** EC member(one full term)
- e)** Director of Co-operative Credit Society Ltd. (for continuous FIVE years since 27.01.2016)
- f)** Member of the DC
- g)** Member of the PG Board of Studies
- h)** Member of the UG Board of Studies
- i)** University Engineer (Offng.) 01. 02. 2018 to 31. 08. 2018

- j) Member of Statutory Academic Board/ Working Committee, Centre for Women's Studies, NBU for a period of two years with effect from 06.05.2018.
- k) Convener of 'International Seminar on Topology Analysis and Algebra (ISTAA-2017)' held on 11th & 12th Feb, 2017, Department of Mathematics, University of North Bengal.
- l) Coordinator of the Workshop on 'Selection Principle & Topological Game Theory' conducted by Prof. Ljubisa Kocinac, University of Nis, Serbia during February 13-20, 2017.
- m) Deputy Director, UGC-HRDC, NBU, 16. 02. 2019 to 01. 09. 2020.
- n) Member of IQAC, NBU: Continuing
- o) Chairman, Sports Board, NBU: Continuing
- p) Course Coordinator, Department of Mathematics, Darjeeling Hills University, West Bengal: From 01.12.2021.
- q) Course Coordinator, Department of Mathematics, Dakshin Dinajpur University, West Bengal: From 19.09.2021.
- r) Head, Department of Mathematics, University of North Bengal: From 01.10.2022.
- s) Convener of 'Hypatian Voices: A Gynocentric National Seminar on Mathematical' held on March 16-17, 2023, Department of Mathematics, University of North Bengal.
- t) Organizing Secretary of 'An International Workshop on Mathematical Sciences: Some Intellectually Stimulated Topics' IWMS-2023 held on October 12-14, 2023, Department of Mathematics, University of North Bengal.