

CURRICULUM VITAE

NAME: PRADIP DEBNATH
QUALIFICATION: M.Sc., M.Phil., Ph.D.
DESIGNATION: Assistant Professor (in Mathematics)
AFFILIATION: Department of Applied Science and Humanities,
Assam University, Silchar
Cachar, Assam, INDIA
Pin. 788011



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OTHER QUALIFICATIONS:

- (I) Qualified **GATE-2009** in Mathematics
- (II) Qualified **SLET-2014** in Mathematics

TITLE OF M.Phil. THESIS: *Prime Number and Its Applications*

Title of Ph.D. THESIS: *A Study on Intuitionistic Fuzzy n -Normed Linear Spaces*

TEACHING EXPERIENCE:

- (I) Working as an Assistant Professor (Permanent) in the Dept. of Applied Science and Humanities, Assam University Silchar, INDIA, since 30-10-2017 (Scale of pay Rs. 15600 - 39100/- + AGP Rs. 6000/-)
- (II) Worked as an Assistant Professor (Permanent) in the Dept. of Mathematics, NERIST, Arunachal Pradesh, INDIA, from 07-01-2015 to 27-10-2017 (Scale of pay Rs. 15600 - 39100/- + AGP Rs. 6000/-)

LIST OF PUBLICATIONS

1. M. Sen and P. Debnath, *Lacunary statistical convergence in intuitionistic fuzzy n -normed linear spaces*, **Mathematical and Computer Modelling** (Impact Factor: 1.34), **54** (11) (2011), 2978-2985.
2. P. Debnath, *Lacunary ideal convergence in intuitionistic fuzzy normed linear spaces*, **Computers and Mathematics with Applications** (Impact Factor: 1.69), **63** (3) (2012), 708-715.
3. P. Debnath and M. Sen, *Some completeness results in terms of infinite series and quotient spaces in intuitionistic fuzzy n -normed linear spaces*, **Journal of Intelligent and Fuzzy Systems** (Impact Factor: 1.81), **26** (2) (2014), 975-982.
4. P. Debnath and M. Sen, *Some results of calculus for functions having values in an intuitionistic fuzzy n -normed linear space*, **Journal of Intelligent and Fuzzy Systems** (Impact Factor: 1.81), **26** (6) (2014), 2983-2991.
5. P. Debnath, *Results on lacunary difference ideal convergence in intuitionistic fuzzy normed linear spaces*, **Journal of Intelligent and Fuzzy Systems** (Impact Factor: 1.81) **28** (3) (2015) 1299-1306.
6. N. Konwar and P. Debnath, *Continuity and Banach contraction principle in intuitionistic fuzzy n -normed linear spaces*, **Journal of Intelligent and Fuzzy Systems** (Impact Factor: 1.81) **33** (4) (2017) 2363-2373.
7. M. Neog and P. Debnath, *Fixed points of set valued mappings in terms of start point on a metric space endowed with a directed graph*, **Mathematics** (Impact Factor: 1.47), **2017**, **5** (2), 24, DOI:10.3390/math5020024.
8. N. Konwar and P. Debnath, *Some new contractive conditions and related fixed point theorems in intuitionistic fuzzy n -Banach spaces*, **Journal of Intelligent and Fuzzy Systems** (Impact Factor: 1.81) **34** (1) (2018) 361-372.
9. N. Konwar, B. Davvaz and P. Debnath, *Approximation of new bounded operators in intuitionistic fuzzy n -Banach spaces*, **Journal of Intelligent and Fuzzy Systems** (Impact Factor: 1.81) **35** (6) (2018) 6301-6312.
10. M. Neog, P. Debnath and S. Radenovic, *New extension of some common fixed point theorems in complete metric spaces*, **Fixed Point Theory** (Impact Factor: 1.287), **20** (2) (2019), 567-580. DOI: 10.24193/fpt-ro.2019.2.37
11. N. Konwar, B. Davvaz and P. Debnath, *Results on generalized intuitionistic fuzzy hypergroupoids*, **Journal of Intelligent and Fuzzy Systems** (Impact Factor: 1.81) **36** (3) (2019) 2571-2580, DOI: 10.3233/JIFS-181522.

12. M. Neog, M. M. M. Jaradat and **P. Debnath**, *Common fixed point results of set valued maps for A_ϕ – contraction and generalized ϕ -type weak contraction*, **Symmetry** (Impact Factor: 2.143), (2019), 11, 894, DOI: 10.3390/sym11070894.
13. **P. Debnath** and M. de La Sen, *Set-valued interpolative Hardy-Rogers and set-valued Reich-Rus-Ciric type contractions in b-metric spaces*, **Mathematics** (Impact Factor: 1.105), (2019), 7 (9), 849, DOI: 10.3390/math7090849.
14. **P. Debnath** and M. de La Sen, *Fixed-points of interpolative Ciric-Reich-Rus-type contractions in b-metric spaces*, **Symmetry** (Impact Factor: 2.13), (2019), 12 (1), DOI: 10.3390/sym12010012.
15. **P. Debnath** and M. de La Sen, *Fixed-points of eventually Δ – restrictive and $\Delta(\epsilon)$ – restrictive set-valued maps in metric spaces*, **Symmetry** (Impact Factor: 2.13), (2020), 12 (1), DOI: 10.3390/sym12010127.
16. **P. Debnath** and M. de La Sen, *Contractive inequalities for some asymptotically regular set-valued mappings and their fixed points*, **Symmetry** (Impact Factor: 2.13), (2020), 12 (3), DOI: 10.3390/sym12030411.
17. **P. Debnath** and H. M. Srivastava, *New extensions of Kannan’s and Reich’s fixed point theorems for multivalued maps using Wardowski’s technique with application to integral equations*, **Symmetry** (Impact Factor: 2.13), (2020), 12 (7), DOI: 10.3390/sym12071090.
18. **P. Debnath** and H. M. Srivastava, *Global optimization and common best proximity points for some multivalued contractive pairs of mappings*, **Axioms** (Impact Factor: 0.5), (2020), 9 (3), DOI: 10.3390/axioms9030102.
19. **P. Debnath**, Z. Mitrovic and H. M. Srivastava, *Fixed points of some asymptotically regular multivalued mappings satisfying a Kannan-type condition*, **Axioms** (Impact Factor: 0.5), **Article in Press** (2021).
20. **P. Debnath**, *Optimization through best proximity points for multivalued F-contractions*, **Miskolc Mathematical Notes** (Impact Factor: 0.677), **Article in Press** (2021).
21. M. Sen and **P. Debnath**, *Statistical convergence in intuitionistic fuzzy n-normed linear spaces*, **Fuzzy Information and Engineering**, 3 (2011), 259-273.
22. D. Eshi, P.K. Das and **P. Debnath**, *Coupled coincidence and coupled common fixed point theorems on a metric space with a graph*, **Fixed Point Theory and Applications**, 2016 (2016 (37)), DOI:10.1186/s13663-016-0530-7.
23. B.S. Choudhury, N. Metiya and **P. Debnath**, *End point results in metric spaces endowed with a graph*, **Journal of Mathematics**, 2016, Article ID: 91301017, (2016), DOI: 10.1155/2016/9130107.

24. **P. Debnath**, B.S. Choudhury and M. Neog, *Fixed set of set valued mappings with set valued domain in terms of start set on a metric space with a graph*, **Fixed Point Theory and Applications**, 2017 (2017(5)), DOI: 10.1186/s13663-017-0598-8.
25. N. Konwar and **P. Debnath**, *Generalized $I_{\lambda}^{s_r}$ -statistical convergence in intuitionistic fuzzy normed linear space*, **Songklanakarin Journal of Science and Technology**, 40 (3) (2018), 540-549.
26. N. Konwar and **P. Debnath**, *Intuitionistic fuzzy n -normed algebra and continuous product*, **Proyecciones Journal of Mathematics**, 37 (1) (2018) 63-83.
27. N. Konwar, A. Esi and **P. Debnath**, *New fixed point theorems via contraction mappings in complete intuitionistic fuzzy normed linear space*, **New Mathematics and Natural Computation** 15 (1) (2019) 65-83.
28. N. Konwar and **P. Debnath**, *Some results on coincidence points for contractions in intuitionistic fuzzy n -normed linear space*, **Thai Journal of Mathematics** 17 (1) (2019), 43-62.
29. **P. Debnath**, Z. Mitrovic and S. Radenovic *Interpolative Hardy-Rogers and Reich-Rus-Ciric type contractions in b -metric spaces and rectangular b -metric spaces*, **Mathematicki Vesnik** 72 (4) (2020), 368-374.
30. M. Neog, **P. Debnath** and S. Radenovic, *Common fixed point of set valued graph A_{φ} – contraction pair and generalized φ -weak G -contraction on metric space endowed with a graph*, **Annals of the University of Craiova, Mathematics and Computer Science Series** 47 (1) (2020), 158-169.
31. **P. Debnath**, M. Neog and S. Radenovic, *Set valued Reich type G -contractions in a complete metric space with graph*, **Rendiconti del Circolo Matematico di Palermo Series 2**, 69 (2020), 917-924.
32. **P. Debnath**, *Set valued Meir-Keeler, Geraghty and Edelstein type fixed point results in b -metric spaces*, **Rendiconti del Circolo Matematico di Palermo Series 2** (2020) DOI: 10.1007/s12215-020-00561-y, (Article in Press).
33. **P. Debnath**, Z. Mitrovic and S. Y. Cho, *Common fixed points of Kannan, Chatterjea and Reich type pairs of self-maps in a complete metric space*, **Sao Paulo Journal of Mathematical Sciences** (2020) (Article in Press).
34. N. Konwar, **P. Debnath**, S. Radenovic and H. Aydi, *A new extension of Banach-Caristi theorem and its application to nonlinear functional equations*, **Kragujevac Journal of Mathematics** 47 (3) (2023), 409-416.
35. M. Sen and **P. Debnath**, *Ideal convergence in intuitionistic fuzzy n -normed linear spaces*, **Advances in Fuzzy Sets and Systems**, 7 (2010), 61-81.

36. **P. Debnath** and M. Sen, *A remark on separability and approximation property in intuitionistic fuzzy n -normed linear spaces*, **International Mathematical Forum**, 6 (2011), 1933-1940.
37. M. Sen and **P. Debnath**, *Best approximation in intuitionistic fuzzy n -normed linear spaces*, **Journal of Nonlinear Analysis and Optimization: Theory and Applications**, 3 (2012), 45-53.
38. **P. Debnath**, *Domination in interval-valued fuzzy graphs*, **Annals of Fuzzy Mathematics and Informatics**, 6 (2) (2013), 363-370.
39. **P. Debnath**, *Fixed points of contractive set valued mappings with set valued domains on a metric space with graph*, **TWMS Journal of Applied and Engineering Mathematics**, 4 (2) (2014), 169-174.
40. **P. Debnath**, *A generalised statistical convergence in intuitionistic fuzzy n -normed linear spaces*, **Annals of Fuzzy Mathematics and Informatics**, 12 (4) (2016) 559-572.
41. **P. Debnath** and N. Konwar, *Results on approximation properties in intuitionistic fuzzy normed linear spaces*, **Theory and Applications of Mathematics and Computer Science**, 6 (2) (2016) 134-149.
42. **P. Debnath**, M. Neog and S. Radenovic, *New extension of some fixed point results in complete metric spaces*, **Tbilisi Mathematical Journal**, 10 (2) (2017) 201-210.
43. N. Konwar and **P. Debnath**, *I_λ -convergence in intuitionistic fuzzy n -normed linear space*, **Annals of Fuzzy Mathematics and Informatics**, 13 (1) (2017) 91-107.
44. **P. Debnath**, *A new type of convergence in intuitionistic fuzzy normed linear spaces*, **Journal of New Theory**, 15 (2017) 19-25.
45. M. Neog and **P. Debnath**, *Some new results for set valued mappings defined on sets on metric space with graph*, **Journal of Advanced Mathematical Studies** 11 (1) (2018) 47-55.
46. E. Yolacan, **P. Debnath** and M. A. Akturk, *Common coupled fixed point theorems for generalized nonlinear contractions on metric spaces involving a graph*, **Sigma Journal of Engineering and Natural Sciences** 36 (2) (2018) 419-432.
47. **P. Debnath** and M. de La Sen, *On some new contractive conditions for asymptotically regular set-valued mappings*, **International Journal of Analysis and Applications** 18 (4) (2020) 586-93.

Google Scholar Link: <https://scholar.google.co.in/citations?user=CSFAbz4AAAAJ&hl=en>

Researchgate Link: https://www.researchgate.net/profile/Pradip_Debnath2

Orcid ID: <https://orcid.org/0000-0003-0097-0819>

Scopus Author ID: 57196831918

Web of Science Researcher ID: [ABF-7030-2020](#)

BOOK CHAPTER PUBLISHED (WITH ISBN):

Sl. No.	Author(s)	Title of the Chapter	Title of the Book	Title of the Book Series	ISBN	Year	Publisher	Name of the Editors
1	N. Konwar and P. Debnath	A New Approach of Intuitionistic Fuzzy Membership Matrix in Medical Diagnosis with Application	Advancement of Machine Intelligence in Interactive Medical Image Analysis	Algorithms for Intelligent Systems	978-981-15-1099-1	2020	Springer	O. P. Verma, S. Roy, S. C. Pandey and M. Mittal

DELIVERING INVITED TALK / CONDUCTING TUTORIAL SESSIONS:

Sl. No.	Name of the Event	Organized by	Duration	Venue	Type of Duty performed
1	Annual Foundation School (AFS-II)	National Centre for Mathematics (A joint centre of TIFR and IIT Bombay)	June 04-30, 2018	Assam University, Silchar	Conducted Tutorial Sessions

PAPER(S) PUBLISHED IN INTERNATIONAL SEMINAR/CONFERENCE PROCEEDINGS:

1. *Some new results on domination in fuzzy graphs.* **Debnath, P.**, Proceedings of Fourth International Conference on Soft Computing for Problem Solving Advances in Intelligent Systems and Computing (SCOPUS, Springer), 2015, 336, pp 555-563. (27-29 December, 2014)

PAPERS PRESENTATED IN NATIONAL SEMINAR/WORKSHOP:

1. *On p-best approximation in intuitionistic fuzzy n-normed linear spaces*, ‘Tripura Science Congress’, September 8-9, 2011, Tripura University, Agartala, Tripura.
2. *Some results on best approximation in intuitionistic fuzzy n-normed linear spaces*, ‘Workshop on Analog/Mixed Signal Design’, January 16-20, NIT Silchar.
3. *Domination in Direct Product of Two Fuzzy Graphs*, National Seminar on “Trends in Mathematical Science Research 2014”, September 5-6, 2014, Assam University Silchar.

PAPERS PRESENTATED IN INTERNATIONAL SEMINAR/CONFERENCE:

1. *Ω -interpolative Ciric-Reich-Rus contractions and related fixed point results in b-metric spaces*, ‘International Conference on Recent Advances in Mathematics and its Applications (ICRAMA-2019)’, July 16-18, 2019, Organized by Department of Mathematics, Tripura University, Agartala, Tripura.
2. *On some new contractive conditions for mappings in b-metric spaces*, ‘International Conference on Recent Trends and Technology of Mathematics and Science (QIVCRTTMS-2020)’, October 7-8, 2020, Organized by Queens College of Arts and Science for Women, Tiruchirappalli, India.

PhD Thesis evaluated: 01 No.

Evaluated a PhD thesis (from Assam University, Silchar, INDIA) as examiner.

RESEARCH PROJECT(S) UNDERTAKEN

<u>Sl. No.</u>	<u>Title of the Project</u>	<u>Funding Agency</u>	<u>Sanctioned Amount</u>	<u>Project Sanction Order No.</u>	<u>Project start date</u>	<u>Duration</u>	<u>Status</u>
<u>1</u>	New Fixed Point Results with Applications in Generalized Metric Spaces	<u>UGC</u> (UGC BSR Start-Up-Grant)	Rs. 10,00,000/- (Rupees ten lakh only)	No. F.30-452/2018(B SR) dated 12 Feb 2019	<u>12 February 2019</u>	<u>2 years</u>	<u>Ongoing (6 papers published in SCIE/ SCOPUS indexed journals)</u>

PhD SUPERVISION (as sole supervisor): 02 Nos.

Sl. No.	Name of the student	Title of the thesis	Supervisor (s)	Institution	Date of thesis submission	Current Status
1	Nabanita Konwar	STUDIES ON CONVERGENCE AND OTHER ANALYTIC PROPERTIES IN INTUITIONISTIC FUZZY NORMED LINEAR SPACES	Dr. Pradip Debnath	North Eastern Regional Institute of Science and Technology	23.05.2018	Degree Awarded (Viva-Voce held on 15.02.2019)
2	Murchana Neog	FIXED POINT THEOREMS FOR SINGLE-VALUED AND SET-VALUED MAPS ON METRIC SPACES	Dr. Pradip Debnath	North Eastern Regional Institute of Science and Technology	29.09.2018	Degree Awarded (Viva-Voce held on 25.05.2019)

FACULTY DEVELOPMENT PROGRAMMES ATTENDED:

Sl. No.	Name of the Programme	Venue	Organizer	Duration
1	UGC-SPONSORED ORIENTATION COURSE	Mizoram University	HRDC, Mizoram University	20 November - 17 December, 2018 (28 days)
2	In-House Training Programme on Improving Teaching Skill	Assam University	NITTTR, Kolkata	05 August - 09 August 2019 (5 days/one week)

EXTRACURRICULAR DUTIES PERFORMED:

Sl. No.	Name of the Post	Type of Duty / Responsibility Performed	Duration	Place
1	NSS Programme Officer of TSSOT Unit	Conducting/Participating NSS Event in the University	January 16, 2018 to till date	Assam University, Silchar

OTHER INFORMATION:

- (I) Recipient of **Gold Medal** for securing **1st class 1st position in M.Sc.** (Mathematics, 2007) from Assam University, Silchar.
- (II) Peer reviewer of the following International Journals: (i) Iranian Journal of Fuzzy Systems (ii) Thai Journal of Mathematics (iii) Journal of Nonlinear Analysis and Optimization (iv) Annals of Fuzzy Mathematics and Informatics (v) Filomat (vi) Journal of the Association of Arab Universities for Basic and Applied Sciences (vii) Songklanakarin Journal of Science and Technology (viii) Sohag Journal of Mathematics (ix) Journal of Operators (x) International Journal of General Systems (xi) Journal of Intelligent and Fuzzy Systems (xii) Journal of Computational and Applied Mathematics (xiii) Journal of Function Spaces (xiv) Advances in Difference Equations (xv) Sao Paulo Journal of Mathematical Sciences (xvi) Arab Journal of Basic and Applied Sciences (xvii) Journal of Mathematics (xviii) Advances and Applications in Mathematical Sciences (xix) Cogent Mathematics (xx) Facta Universitatis, Series: Mathematics and Informatics (xxi) Numerical Methods for Partial Differential Equations.
- (III) Languages known (Read, Write, Speak): English, Hindi, Bengali, Assamese.
- (IV) Received MHRD scholarship (through GATE) for pursuing Ph.D. at NIT Silchar, INDIA.

MEMBERSHIP OF ACADEMIC ORGANISATION:

- (I) Life Member of “Tripura Mathematical Society”

PROGRAMMING SKILLS: FORTRAN, C, C++, MATLAB, LATEX, SCILAB

RESEARCH INTERESTS: Nonlinear Functional Analysis, Fixed Point Theory, Fuzzy Normed Linear Spaces, Fuzzy Graphs, Decision Making