'Aradhana' Arora's, 28/12, Lane No-3, Turner Road, Clementtown, Dehradun-248002 (Uttarakhand) Mobile No. 9760099090, 8958295024 email: ritu.arora29@gmail.com

Professional Summary:

Over fifteen year of teaching experience for undergraduate and post-graduation, actively involved in the research area of Metric Spaces, Fixed point theory, Fuzzy metric spaces, Wavelet Theory, Inventory Theory, Reliability theory.

Membership of Professional Bodies:

- Life Membership of "Indian Society Technical Education".
- Life Membership of "The Indian Science Congress Association", Haridwar Chapter.
- Life Membership of "Him Science Congress Association (HSCA)" Himachal Pradesh.
- Life Membership of "The Indian Science Congress Association".

Professional Experience (Assistant Professor-Mathematics)

• Gurukul Kangri University, Haridwar, India

March 2011-Till now

• Graphic Era University

Jan 2005 - Mar 20 11

Administrative Responsibility

- Member of Board of Studies.
- Member of Departmental Research Committee.
- Member of Time Table Committee.
- Member of Garbhasta Chatrra Parampara

Research Guidance (Ph. D.)

- Awarded Ph.D. Degree. 02
 28 September 2017 (Mohit Kumar)
 13 August 2018 (Narottam Singh Chauhan).
- Guiding Ph.D.Students. 04

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Award

• Awarded for best oral presentation of research paper at GTER-2012 (international conference), Feb, 2012

Publications in peer reviewed journals:

- 1. Ritu Arora, Pankaj Kumar Mishra and Sumit Bisht, "Fixed Point Theorem For Some Generalized Contraction in b-Metric Spaces (Scopus), 2020,vol 9(7), pp. 4353-4361, ISSN No. 1857-8365.
- 2. Ritu Arora, Vaishali Tyagi and Mangey Ram, "Multi-state sysyem analysis with imperfect fault coverage, human error and standby strategies (Scopus), **Febuary 2020**, vol.41(2), pp. 214-231, ISSN No. 0257-4306.
- 3. Vaishali Tyagi, Ritu Arora, Mangey Ram and O. P. Yadav, "2-out-of 3: F system analysis under catastrophic failure", Nonlinear studies (Scopus), **27 August 2019**, vol. 26(3), pp. 557-574, ISSN No. 1359-8678.
- 4. Mohit Kumar, Ritu Arora and Ajay Kumar, "Hardy-Rogers Type Mappings for Fuzzy Metric Spaces", Pure and Applied Mathematics Journal **Dec 24, 2019**, vol. 8(6), pp. 93-99. ISSN No. 2326-9760 (Print); ISSN No. 2326-9812 (online).
- 5. RituArora, "Fixed Point Theorem For Hybrid Contractions", JETIR **April 2019**, Volume 6, issue 4. ISSN No. 2349-5162
- 6. RituArora and N. S. Chauhan, "Bernoulli Wavelet Operational Matrix of Integration and its Application in Solving Differential Equations", JETIR **July 2018**, Volume 5, Issue 7. ISSN No. 2349-5162
- 7. Mohit Kumar and RituArora, "Fixed Point Theorems for α-ψ-Contractive type Mappings in Fuzzy Metric Spaces", Palestine Journal of Mathematics, Vol. 7 (1) (2018). ISSN No. 2219-5688.
- 8. Mohit Kumar and RituArora, "Fixed Point of $\alpha \psi$ Contractive Multifunction's in Fuzzy Metric Spaces" Journal of Applied Mathematics and Informatics, Volume 35 (3-4), pp. 323-330 **May 2017** (ISSN 1598-5857).
- 9. Ritu Arora and N. S. Chauhan, "An Application of Legendre Wavelet in Fractional Electrical Circuits" Global Journal of Pure & Applied Mathematics, 13(2), pp. 183-202 (Feb 2017) (ISSN 0973-1768) Scopus 2.38 (year 2013).
- 10. Ritu Arora and N. S. Chauhan "An Efficient Decomposition Method for Solving Telegraph Equation through Quadratic Legendre Multiwavelets" International Journal

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- of Applied and Computational Mathematics, Volume 2(2), (**June 2016**), (ISSN2349-5103) doi: 10.1007/s40819-016-0178-3.
- 11. Ritu Arora and Mohit Kumar "Unique Fixed Point theorems for $\alpha \psi$ Contractive Type Mappings in Fuzzy Metric Space" Cogent Mathematics, Volume 3 (1), (**April 2016**), pp. 1-8.
- 12. Ritu Arora and Mohit Kumar, "Extension of Matkowaski Contraction Principle in Fuzzy metric Space" Mathematical Sciences Letters An International Journal, Volume 5(2) May 2016 175-178.
- **13.** Ritu Arora and Mohit Kumar, "Relative asymptotic regularity and Fixed Points in Fuzzy 2-metric spaces" International Journal of Computer Applications, Volume 135(3) **Feb 2016.**
- Ritu Arora, "A Common Fixed Point Theorem for Weakly Compatible Mappings in 2-Metric Spaces" American Journal of Mathematics and Sciences, Vol. 5, No.1 pp.15-18 2016 (ISSN No.2250-3102).
- 15. Ritu Arora and Mohit Kumar, Generalization of Matkowski Contraction principle in Fuzzy Metric Spaces, Global Journal of Pure and Applied Mathematics, volume 11, number 3(2015), pp.1569-1576 (ISSN No. 0973–1768).
- 16. Ritu Arora and Mohit Kumar, Fixed Point Theorems of System of Maps on Product of Fuzzy Metric Spaces, International Journal Of Mathematical Archive 5(6), **2014**, 50-56 (ISSN No. 2229 5046).
- 17. Ritu Arora, Coincidence Theorem of System of Maps on Product Spaces, International Journal of Mathematical Archive 3(7), **2012**, 2489-2494 (ISSN No.2229-5046).
- 18. Ritu Arora, A Fixed Point Theorem of Systems of Maps on Product Spaces, Journal of Natural & Physical Sciences, Vol24, No.1, pp.29-34 (2011) (ISSN No. 097-3799).
- 19. S. L. Singh and Ritu Arora, Coincidences and Fixed Point Theorem for Hybrid Contractions, Journal of Natural & Physical Sciences (2004).

Paper presentation in conferences/ seminar:

- 1. National Seminar on "Recent Trends in Mathematical Techniques and Their Applications" presented a paper "A coincidence theorem for hybrid contractions" April 11th, 2011.
- 2. International Satellite seminar on "Role of Mathematics in Science and Engineering" presented a paper "Coincidences of systems of maps on product spaces", May 13-14, 2011.

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- 3. 13th international conference on "Emerging Interfaces of Physical Sciences and Technology" presented a paper "fixed point theorem of system of maps on product spaces", June 14 16, 2011.
- 4. National Seminar on "Innovations and Applications in Engineering & Applied sciences" presented a paper, "A fixed point theorem on product spaces', November 9-10, 2011.
- 5. International Conference on "Green Technologies for Environmental Rehabilitation (GTER-2012)" presented a paper "A study of some weaker forms of commuting maps in fuzzy metric spaces', February 11-13, 2012.
- 6. National Conference on "Progress in Electronics & Allied Sciences (PEAS-2012)", presented a paper Coincidence and fixed point theorem of system of maps on product spaces", November 3 4, 2012.
- 7. 7thUttarakhand State Science & Technology Congress-2012, presented a paper "A coincidence theorem of system of maps", November 21-23 2012.
- 8. ISCA Hardwar Chapter National Conference on "Innovations in Science and technology for Inclusive Development" presented a paper "A coincidence theorem', March 22-23, 2014.
- 9. National Symposium on "Innovations in Science & Technology for Inclusive Development" presented a paper "A theorem on product spaces", February 16-2014.
- 10. IInd Annual Conference on Science: "Emerging Scenario & Future Challenges II" 17-18 May, 2014.
- 11. National conference on "Environmental Conservation and Clean India Programme" presented a paper ", 7 December, 2014.
- 12. 3rd International Conference on "Mathematical Sciences and Applications", presented a paper "Fixed Point Theorem on Hybrid Contraction", 20th 21st December 2014.
- 13. 1st International Conference on "Engineering and Technology" (ICET 2015), presented a paper, "A common Fixed Point Theorem for Weakly Compatible Mapping in 2-metric Space", 29th 30th December 2015.
- 14. 4th International Conference on "Science, Technology and Management", presented a paper on "Fuzzy set Theory and its Applications in Real World Problems", 15th May 2016.
- 15. International Conference on "Science: Emerging Scenario and Future Challenges" (SESFC 2016), Presented a paper "A Fixed Point Theorem for Weakly Compatible Mappings in 2-Metric Spaces", 11th -12th June 2016.
- 16. 19th Annual Conference of Vijnana Parishad of India on "Recent Advances in Mathematics And Mathematical Sciences and Their Applications" (RAMMSA 2016),

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presented a paper "Fixed Point Theorems on Fuzzy Metric Spaces", 10 - 12th November 2016.

- 17. National Conference on "Science and Technology for National Development", presented a paper "A New Approach for Solving Fractional Circuit Models through Quadratic Legendre Multi-wavelets", 20 22nd November 2016.
- 18. International Conference on "Science: Emerging Scenario and Future Challenges" (SESFC 2017), Presented a paper "Oral presentation (0506)", 01- 02 July 2017.
- 19. 3rd International Conference on "Mathematical Techniques in Engineering Applications" (ICMTEA 2018) Presented a paper "Numerical Solutions of Singular Integral Equations of Abel Type by Using Normalized Euler Polynomials", December 7-8, 2018.
- 20. International Conference on "Mathematical Analysis and its Applications" (ICMAA-2019) Presented a paper "Existence of fixed point theorem for Matkowaski type map on fuzzy metric spaces", December 14-16, 2019.
- 21. 10th International Conference on "Quality, Reliability, Infocom Technology & Business Operations" presented a paper "Multi-State system Analysis with Imperfect Fault Coverage, Human Error and Stand by Strategies", June 18-21, 2019.
- 22. National Conference on "Science & Technology: Ruler Development" presented a paper "Numerical Solution of Integro-differential equations by using Euler Polynomial", February 15-16 2020.

Conferences Attended

- National Seminar on "software defined Radio/Cognitive Radio (SDR/CR)" July 17th 2010.
- 2. National Seminar on "Renewable energy Emerging Technologies and its challenges, GEU, Aug 9th-10th, 2010.
- 3. National Seminar on "Emerging Trends in industrial Automation and soft sensors", GEU, Sep 4th -5th, 2010.
- 4. National Seminar on "Global warming and its effect on water resources", GEU, Dec 3rd-4th 2010.
- 5. राष्ट्रीय संगोष्ठी एवं कार्यशाला 'मानवाधिकार संरक्षण' (महिला सशक्तिकरण एवं ग्राम विकास के विशेष संदर्भ में), गुरुकुल कांगड़ी विश्वविद्यालय, हरिद्वार-15- 17 फेब्रुअरी, 2013.

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6. National Conference on "Recent Advances in Statistical and Mathematical Sciences and their Applications, Almora, October 4-6, 2014.

Workshop/Winter school/Orientation and Refresher course Attended:

- 1. University Grant Commission Sponsored Refresher Course: Participated and Obtained grade "A" in the 21 days UGC Sponsored Refresher Course held from 01st December 2016 to 21th December 2016 organized by Academic Staff College, Punjabi University, Patiala.
- 2. University Grant Commission Sponsored Refresher Course: Participated and Obtained grade "A" in the 21 days UGC Sponsored Refresher Course held from 24th June 2013 to 17th July 2013 organized by Academic Staff College, Himachal Pradesh University Shimla.
- 3. University Grant Commission Sponsored Orientation Course: Participated and Obtained grade "A" in the 28 days UGC Sponsored orientation course held from 09th Jan 2012 to 04th Feb 2012 organized by Academic Staff College, Jaipur.
- 4. Workshop on scientific Computing: Theory and Practice (SCTP-2012), Department Of Mathematics, Faculty of Engineering & Technology, Gurukul Kangri University, Haridwar.
- 5. Workshop on "The Physics and Mathematics of the Universe", Gurukul Kangri Vishwavidyalaya, Haridwar.
- 6. Workshop on "Software Technology", 12-18 May 2015.
- 7. Workshop (TEW) on "Group Theory Analysis and Topology", 09-14 October 2017.
- 8. Faculty Development Program on "Teaching and Soft Skills", 03-04 October, 2018.
- 9. Three Day Workshop on "Introduction to R and Statistical Analysis using R-Studio", 23-25 November, 2018.
- 10. National Workshop on "Research Methodology" 14-24 December, 2018.
- 11. International workshop on "Fixed Point Theory and its Applications", March 15-17, 2019.

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- 12. National workshop on "Academic Writings: Article, Proposal & Patent Development", January 8-9 2020.
- 13. One day workshop on "Publishing Quality Research Papers and Books", February 20, 2020.

Short Term Course

- 1. Short term Course on "Research Methodology", 27.05.2017 to 02.06.2017.
- 2. Short term Course on "MOOCs and OER", 08 June, 2018 to 14 June, 2018.

Faculty Development Program

1. Faculty Development Program on "Teaching and Soft Skills" October 03-04, 2018.

<u>Session Chair</u> at 3rd International Conference on "Mathematical Techniques in Engineering Applications" (ICMTEA 2018) held on December 7-8, 2018 at Graphic Era Deemed to be university, Dehradun, Uttarakhand, India.

Dr. RituArora

Assistant Professor
Department of Mathematics & Statistics
Kanya Gurukul Campus
Haridwar