

Faculty Details proforma for College Web-site



| Title | Dr. | First Name | Sarita | Last Name | Agarwal | Photograph |
|----------------------------|---------|---------------------------------------------------------------------------------------------------------------------|-------------|-----------|---------|-----------------------------------------|
| Designation | | Assistant Professor | | | | |
| Address | | Department of Mathematics Acharya Narendra Dev College (University of Delhi) Govind Puri, New Delhi-110019 | | | | |
| Phone No Office | | 011-26293224 011-26294542 | | | | |
| Email/ | | saritaagarwal@andc.du.ac.in | | | | |
| Web-Page | | www.wikieducator.org/user:Sarita_agarwal | | | | |
| Educational Qualifications | | | | | | |
| Degree | | Institution | | | | Year |
| B.A (Hons.) Mathematics | | Indraprastha College for Women (D.U) | | | | 1984 |
| M.A (Mathe | matics) | Indraprastha College for Women (D.U) | | | | 1986 |
| Ph.D (Mathe | matics) | Department of Mat | hematics (D | .U) | | 1997(Submitted) 2000(Degree Awarded) |
| (IVIACIIC | | | | | | 2000(200) |
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Career Profile

Teaching Span is as follows----

Acharya Narendra Dev College (17.10.2005 to till date)

Jesus and Mary College (13. 08.1996 to 30.04.1997 and 02.08.2005 to 30.09.2005)

PGDAV College (31.01.2004 to 30.04.2005)

Shaheed Bhagat Singh College (25.08.1993 to 24.03.1994)

Kamala Nehru College (18.01.1993 to 23.03.1993)

Administrative Assignments

Each year college has assigned some duties to me like Help Desk Duty during Admission, Proctor Member etc...

Areas of Interest / Specialization

Abstract Algebra

Subjects Taught

Group Theory-I and II, Ring Theory and Linear Algebra-I and II, Differential Equation, Probability and

| Statistics, Calculus, Numerical Analysis, Real Analysis, Mathematics for Life Sciences, Mathematical Methods in Life Sciences, Statics and Dynamics . | | | | | | |
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| Research Guidance | | | | | | |
| Not yet | | | | | | |
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Publications Profile

- 1. V.N.Dixit and Sarita Dewan, "A Note on Quasi- and Bi-ideal in Ternary Semigroup" Internat.J.Math and Math.Sci.Vol.18 No3 (1995) 501-508 (ISSN-0161-1712).
- 2. V.N.Dixit and Sarita Dewan, "Minimal Quasi-ideal in Ternary Semigroup" Indian.J.Pure.Appl.Math.28(5) 625-632, May (1997) (ISSN-0019-5588).
- 3. V.N.Dixit and Sarita Dewan, "Congruence and Green's Equivalence Relations on Ternary Semigroup" Communications de la Faculte' des Sciences de l'universite' d'Ankara, series Al Mathematics & Statistics Vol. 46 (1997) (ISSN- 0251-0871).
- 4. Sarita Dewan, "Quasi-Relation on Ternary Semigroup" Indian.J.Pure.Appl.Math.28(6) 753-766, June (1997) (ISSN-0019-5588).
- 5. Sarita Agarwal, "A Note on Direct-Product Ring" ACTA CIENCIA. INDICA., Vol. XXXIIM No.4 (2006) pp1387-1390 (ISSN- 0970-0455).
- 6. Sarita Agarwal and M.P. Chaudhury, "R-factors in Direct-Product Ring"-South East Journal of Mathematics and Mathematical Sciences, Vol 4No3 (2006) pp55-58 (ISSN-0972-7752).
- 7. Sarita Agarwal, "Ideals in Direct-Product Ring" ACTA CIENCIA. INDICA, Vol. XXXII M, No.4(2006) pp1525—1528(ISSN-0970-0455).
- 8. M.P. Chaudhury and Sarita Dewan, "Two theorems for multivalued condensing mapping in wedges" ACTA CIENCIA. INDICA, Vol. XXXIV M, No.3 (2008) pp1513-1517(ISSN- 0970-0455).
- 9. Sarita Agarwal, "Some applications on ideals in direct-product ring" Applied Science Periodical, Volume XI, No.3, August 2009 (ISSN-0972-5504).
- 10. Sarita Agarwal and M.P. Chaudhury, "Jordan Ideal in Non-commutative rings" Global Journal of Science Frontier Research, Volume10, Issue 4, Version1.0, September2010, pp9-11(ISSN-0975-5896).
- 11. Sarita Agarwal, "0-Minimal Quasi-ideals in Ternary Semigroup" IJMS, Vol.11, No.3-4(July-December 2012), pp301-308 (ISSN-0972-754X).

- 12. Sarita Agarwal, "Homomorphism in Direct-Product Ring"
 Applied Science Periodical, Vol. XIV, No.1, February 2012 (ISSN-0972-5504).
- Sarita Agarwal, "Ramanujan Inner Product Space-I"
 International Journal of Trends in Mathematics and Statistics, Volume 3, issue 4, 2014 (ISSN-2279-0318)
- 14. Sarita Agarwal and Sanyam Gupta, "Solvability of Groups" Applied Science Periodical, Vol XIX, No.2 May 2017 (ISSN-0972-5504).
- 15. Sarita Agarwal, "Action of Monoid and Ternary Monoid on a Set" Applied Science Periodical, Vol XIX, No.3, August 2017(ISSN-0972-5504)

E- Content (Online-Publication)

- 1. Sarita Agarwal, "Number conversion" presentation was published at www.wikieducator.org/user:Sarita_agarwal.(2009)
- Sarita Agarwal, "Numeral System" published at www.wikieducator.org/user:Sarita_agarwal. (2019).
- 3. Introduction of Relations-https://www.youtube.com/watch?v=JmzoJLBV_1w on wiki-https://wikieducator.org/Relations
- Examples on Relations-<u>https://www.youtube.com/watch?v=AR1bu3NnNrw</u>
 on wiki -<u>https://wikieducator.org/Relations</u>
- Introduction of Sets-https://www.youtube.com/watch?v=q42iUci0eTo
 on wiki-https://wikieducator.org/Set
- Union and Intersection-https://wikieducator.org/Set
- 7. De Morgan Law-https://www.youtube.com/watch?v=C2LisZABA-Y
 on wiki- https://wikieducator.org/Set
- 8. order of a Set-https://www.youtube.com/watch?v=L4nGOxIbGTA
 on wiki- https://wikieducator.org/Set
- The algebraic properties of Real Numbershttps://www.youtube.com/watch?v=Df50NMr1Ugo
 on wiki- https://wikieducator.org/Real_Numbers

Conference/ Presentations/Workshops

Papers presented at Conference

- 1. 1st international conference on Mathematics and Mathematical Sciences on 7th July 2012 in New Delhi, organized by Serials Publications, New Delhi and presented the paper, "0-Minimal quasi-ideals in ternary semigroup".
- International Conference on Algebra, Geometry, Analysis and their Applications (ICAGAA-14) (Under UGC programme), November 27-29, 2014, organized by Department of Mathematics, Jamia Millia Islamia, New Delhi, presented the paper. "Solvability of Groups"
- 3. "Numeral System", paper presented in "Mini Symposium in Mathematics" organized by the department of Mathematics, Deen Dayal Upadhaya College under the Aegis of DBT Star College Program, Department of Biotechnology, Government of India from 22.02.2019 to 23.02.2019.
- 4. Participated and given a talk on "Quasi-ideal in Ternary semi group" in the international conference SandGAL2019 held in Cremona, Italy from 10th June 2019 to 13th June 2019.
- Participated and the presented the paper "Action of Monoid and Ternary Monoid on a Set" in the International Conference on Semigroups and Applications (ICSAA-2019) during 09-12 December 2019, organized by Department of Mathematics, Cochin University of Science and Technology, Kochi-682022.
- 6. Presented a paper titled, "Homomorphism in Ternary Monoid" in 5th International Conference on current scenario in Pure and Applied Mathematics held at Kongunado Arts and Science College(Autonomous) Coimbatore on 27.01.22-28.01.22, sponsored by Indian Science Congress Association, Coimbatore Chapter.
- 7. Oral presentation by my student Pushkar Pandey on the paper titled, "Compartmental model for traffic congestion" during International e-conference on 'Mitigating environmental issues by sustainable approaches (ICMCESA-2022)' organized by Acharya Narendra Dev College, University of Delhi from February 22-28, 2022 under the aegis of IQAC and DBT Star College Scheme.
- 8. Presented paper on ," Analytical Comparison on Road Space Rationing" in UGC sponsored National Seminar on Application of Mathematics in Social Science, organized by Shyama Prasad Mukherji College for Women(University of Delhi).

Research Projects (Major Grants/Research Collaboration)

Not yet

Awards and Distinctions

- 1. Senior Research Fellowship was awarded by CSIR in 1997.
- 2. In Poster Presentation our poster on, "Compartmental Model for Traffic Congestion" won third prize at UGC Sponsored National Conference on 'National Resources Management for Sustainable Development (NRMSD-2020) on January 21,2020 in Jesus and Mary College.

Association With Professional Bodies

- (1) Member of the Society of Mathematical Sciences, University of Delhi, India.
- (2) Member of Ramanujan Mathematical Society, Tiruchirapalli, India.

Other Activities

ELITE Projects:

The following projects are published at www.wikieducator.org/user:Sarita_agarwal-

- Aakanksha saini, Nidhi Yadav, Chhama Agarwal, Pinki Sharma and Sarita Agarwal (2012), "Hydrogen Sulphide(H₂S) and Ammonia Gas (NH₃) emanated by Yamuna are poisoning the air".
- 2. Neha Chandra and Sarita Agarwal (2013), "A Study of the Fluctuations in the Stock Market".
- Shreyak Chakraborty, Salil Batabyal and Sarita Agarwal (2014), "Modelling and Simulation of Crowds" (https://www.researchgate.net/publication/269223529_14110112v1).
- 4. Naina Kohli, Nisha Gupta and Sarita Agarwal (2016), "Analytical Comparison of Road Space Rationing (Odd-Even Rule)".
- $5. \quad Abhas\, Mishra,\, Paramhans\, Kushwaha,\, Sameeksha\, Pradhan\, and\, Sarita\, Agarwal (2017),$
 - "Extension in Quaternion Group".
- 6. Pushkar Pandey and Kunal Pant and Sarita Agarwal (2019), "Compartmental Model in Traffic Congestion."
- 7. Ajay Gupta, Mahak Gupta, Vipul Mishra and Sarita Agarwal(2019), "Mathematical Sketch of Symmetric Group of Degree 5 (S_5)".

Resource Person:

Acted as Resource Person in the Workshop on Foundation course - "Building Mathematical Ability", organized by UGC-ASC, University of Delhi, held on 15th to 17th July, 2013.

Participation in International Conferences, National Conferences and Workshops:

- National webinar on "Our Environment and Covid -19" organised by Acharya Narendra Dev College on 5.06.2020
- 2. FDP on Managing Online Classes and CO-Creating MOOCS 2.0, organised by Ramanujan College from 18 May to 3 June 2020
- 3. Workshop on MOOCs, Online Courses & Open Educational Resources, conducted by CPDHE, UGC-HRDC,DU from 23 May to 29 May 2020.
- 4. International Webinar on Covid 19, organised by IQAC, Acharya Narendra Dev College on 9.06.2020.
- 5. FDP Developing Multimedia Enriched Powerful Presentation, organised by SGTB Khalsa College from 12-16 August 2020.
- 6. Dandi Run, organised by NSS unit of Acharya Narendra Dev College and Piku Sports Entertainment on 02.10.2020.
- 7. Successfully completed 2nd 2-Week Refresher Course in Computational & Mathematical Sciences conducted by UGC-Human Resource Development Centre, Jamia Millia Islamia from 07.02.2020 to 20.02.2020.
- 8. Participated in the Workshop on Empowering Teachers: Current Technology Based Educational Contents Creation and Delivery (Using Open Source, Free Software) organized by Acharya Narendra Dev College (D.U) from December 2-6,2019.
- 9. Attended International Conference on Advances in Smart Materials & Emerging Technologies (ASMET-2020) organized by Department of Applied Sciences and Humanities, IGDTUW during 23-24, January 2020.
- 10. Attended Orientation Programme (OR-95) conducted by CPDHE(UGC-HRDC), University of Delhi from 27.11.2018 to 24.12.2018.
- 11. Attended Faculty Development Programme in ARSD on "Sustainable Development from 15 October 2018 to 22 October 2018.
- 12. Participated in RMS-UGTE workshop on Finite Group and Applications, organized by Deshbandhu College held on 7th to 9th Feb, 2014.
- 13. Participated in "MATLAB and Simulink Academic Tour of Math Works "at Cluster Innovation Centre, University of Delhi on September 23,2013.
- 14. Participated in Workshop on Foundation course "Building Mathematical Ability", organized by UGC-ASC, University of Delhi, held on 12th to 14th June, 2013.
- 15. Participated in International Conference on "The Legacy of Srinivasa Ramanujan" organized by University of Delhi, held on 17th to 22nd December 2012
- 16. Participated in International conference on "Open Paradigms in Education", organized by Acharya Narendra Dev College, University of Delhi, held on 31st Jan to 2nd Feb, 2011.
- 17. Participated in National Workshop on "Computational Science", organized by Swami Sharddhanand College, University of Delhi, held on 1st to 7th July 2010.
- 18. Participated and successfully completed two day workshop on "Application of Free/Open Source Software in Science Teaching and Research", organised by Acharya Narendra Dev College, University of Delhi and NRCFOSS, Anna University Chennai, held on 14th -15th April,

2010.

- 19. Participated and successfully completed the learning modules in "EasyNow-1: A Workshop on Multimedia Content Development", organised by Acharya Narendra Dev College, University of Delhi and Commonwealth Educational Media Centre for Asia, held on 20th to 25th April, 2009.
- 20. Participated and successfully completed the learning modules in the "Learning for Content (L4C) -42- Workshop on Open Education Resources", organized by Acharya Narendra Dev College and Commonwealth Learning, Vancouver, Canada held on 13th to 17th April, 2009.
- 21. Participated in International conference on "Recent trends in Mathematics and its Applications", organized by Jamia Millia Islamia, New Delhi, held on 30th to 31st March 2009.
- 22. Participated and successfully completed all the Easy Now Techniques in three -week base Camp for "Application of Easy Now Techniques for E-Content Development", organized by Acharya Narendra Dev College (D.U) and Commonwealth Educational Media Centre for Asia, held on 12th Sep.to 9th Oct., 2009.
- 23. Participated in Pre-ICM International Convention on "Mathematical Sciences" organized by Department of Mathematics, University of Delhi, New Delhi. held on December 18-20,2008.
- 24. Participated and successfully completed the learning modules in the "Wikied08 workshop on Open Educational Resources", organized by Acharya Narendra Dev College and Commonwealth Learning, Vancouver, Canada held on 3rd, 4th & 6th October 2008.

Dr.Sarita Agarwal Assistant Professor Department of Mathematics Acharya Narendra Dev College (University of Delhi)

Signature of Faculty Member