


Dr. RACHNA NAVALAKHE

1. Personal Information			
(i)	Name	Dr. Rachna Navalakhe	Photo 
(ii)	Qualification	M.Sc., M.Phil, Ph.D.	
(iii)	Designation	Assistant Professor	
(iv)	Email-id	sgsits.rachna@gmail.com , rnavalakhe@sgsits.ac.in	
(v)	Employee No.	1409142	
(vi)	Department	Applied Mathematics and Computational Science	
(vii)	Experience	18 Years	

2. Educational Qualification				
S. No.	Degree	Specialization	Year	University/Board
1.	Ph.D.	Some Aspects of Fuzzy Topological Spaces	Dec. 2014	D.A.V.V., Indore.
2.	M.Phil	Mathematics	1999	D.A.V.V, Indore.
3.	M.Sc.	Mathematics	1998	Barkatullah University, Bhopal.
4.	B.Sc.	with Comp.Sc.	1996	Barkatullah University, Bhopal.

3. Research Interests
Fuzzy Topology, Fuzzy Logic and its Application, Cryprography, Coding Theory etc.

4. Research Paper Publications

(I) International/National Journal Publications

1. On Fuzzy Closure Spaces, **Journal of Indian Acad. Maths.**, 32(1)(2010), 163-167.
2. On Fuzzy Biclosure Spaces, **Int. Journal of Math. Analysis**, 5(13-16)(2011),789-795.
3. A Note On Complemented Fuzzy Topological Spaces, **Journal of Indian Acad. Maths.** 32(2)(2010), 579-586 .
4. Regular Fuzzy Biclosure Spaces, **International Journal of Mathematics, Game Theory and Algebra**, 20(2)(2011), 1-7.
5. Hausdorff Fuzzy Biclosure Spaces, **International Journal Of Mathematics Research**, 3(6)(2011),607-612.
6. Generalized Normal Fuzzy Biclosure Spaces, **International J. of Math. Sci. & Engg. Appls. (IJMSEA)** , 5() (September, 2011), 1-7. ISSN 0973-9424
7. Normal Fuzzy Biclosure Spaces, **International Journal Of Applied Mathematics (IJAM)** , 1(2)(2011),168-175.
8. Generalized Regular Fuzzy Biclosure Spaces, **Kathmandu University Journal of Science, Engineering and Technology**, 8(2)(2012), 43-47.
9. On Fuzzy Closed Maps in Fuzzy Biclosure Spaces, **Scientific Studies and Resea Series Mathematics and Informatics**, 2(1)(2012),147-154,(Romania).
10. Delta-Fuzzy Closed Sets in Fuzzy Closure Spaces, **Current Research in Engineering, Science and Technology (CREST)**, 1(1)(2013), 7-23.
11. Pairwise Fuzzy Closed Sets in Fuzzy Biclosure Spaces, **International Journal of Mathematics and Computer Research**, 2(10)(2014), 685-690.

12. Pairwise Fuzzy Bicontinuous Map in Fuzzy Biclosure Space, **Annals of Pure and Applied Mathematics**, 9(2)(2015),151-156 {ISSN: 2279-087X (P), 2279-0888(online)}.
13. Fuzzy Continuous Maps in Fuzzy Closure Spaces, **International Journal of Computer & Mathematical Sciences**, 4(2015),77-82.{SSN: 2347 – 8527}.
14. Regular Fuzzy Closure Spaces” International Journal of Science Technology and Management, 05(2016), 305-309.{SSN: 2394 – 1537}.
15. Fuzzy Bicontinuous Maps in Fuzzy Biclosure Spaces, **International Journal of Pure Mathematical Sciences**, 17(2016), 1-7. {ISSN: 2297-6205}.
16. Hausdorff Fuzzy Closure Spaces, **Research in Mathematical Archives**, 5(1)(2018), 20-23.{ISSN : 2310-5822}
17. Delta Fuzzy Closed Sets in Fuzzy Biclosure Spaces, **International Journal of Computer and Mathematical Sciences (IJCMS)**, 7(3)(2018), 132-136. ISSN **2347-8527**.
18. Fuzzy Biclosed Maps And Pairwise Fuzzy Biclosed Maps In Fuzzy Biclosure Spaces, **International Journal of Scientific Research and Reviews**, 8(2)(2019), 638-646.

ISSN 2279-0543.
19. On Nano Fuzzy Topological Spaces, **International review of Fuzzy Mathematics**, 14(2)(December 2019), 128-136. ISSN : 0973-4392.

(II) International/National Conference Publications

1. Commutative Henselian Rings And Its Basic Properties, **12th Annual Conference and National Symposium On Applications Of Special**

Functions, Organized by Vijnana Parishad of India at Jai Narain Vyas University Jodhpur(Rajasthan).(Oct. 25-27, 2007).

2. An Algorithm to Find Maximum Possible Flow in a Network Based on Object Oriented Approach, **50th Congress of the Indian Society of Theoretical and Applied Mechanics (ISTAM) an International Meet** organized at IIT, Kharagpur (Dec 14-17, 2005).
3. Emergence of Mathematical Senerio, **International Conference on History & Heritage of Mathematical Sciences** organized by Holkar Science College Indore and Indian Society for History of Mathematics, Indore(Dec 16 –19, 2004).
4. Implementation of Artificial Neural Network in Cryptography, **National Multi Conference on Recent Developments in Pure and Applied Mathematics** organized by Deptt. Of Engineering Mathematics Lakshmi Narain College of Technology Indore (Nov.29, 2014) .
5. Encoding & Decoding Techniques of Reed Solomon Codes, **National Multi Conference on Recent Developments in Pure and Applied Mathematics** organized by Deptt. Of Engineering Mathematics Lakshmi Narain College of Technology Indore (Nov.29, 2014) .
6. Fuzzy Continuous Maps in Fuzzy Closure Spaces, **International Conference on Innovative Research in Engineering, Science and Management (ESM-15)** organized by Academic Science and Conference Info on 20/09/2015 at Jawaharlal Nehru University, New Delhi.
7. Regular Fuzzy Closure Spaces, **3rd International Conference on Recent Innovations in Science, Engineering and Management** organized by Srivenkateswara College of Engineering and Technology, Srikakulam (A.P.) on 27/02/2016.

8. Delta Fuzzy Closed Sets in Fuzzy Biclosure Spaces, **International Conference on Emerging Trends in Science Engineering and Technology(ICETSET-2018)** at Dr.D.Y Patil School of Engineering, Pune on 21st & 22nd March 2018.
9. On Nano Fuzzy Continuity, **International Conference on New Frontiers in Mathematics and Symposia on I-function and its Applications & Mathematics in Data Science** held on the occasion of Silver Jubilee of Gwalior Academy of Mathematical Sciences by UGC,DST and NBHM at School of Mathematics and Allied Sciences, Jiwaji University, Gwalior during 11-13 December 2018.
10. Encryption and Decryption Algorithm Using Finite State Machine and Recurrence Matrix, **International Conference On Electrical, Electronics Mechanical and Computing (ICEEMC 2019)** organized by Govt. Holkar (Autonomous) Science College, Indore (M.P.) during 29-30 March 2019.
11. Improved Document Retrieval Techniques using Optimization of user Query, **International Conference On Recent Trends in Analysis and Optimization(ICARTO 2020)** during 9-11 November 2020.

5. List of Conferences/Workshops/Seminars Organized

- Member of organizing committee of one day ***Seminar on Ramanujan's day*** organized by Department of Applied Mathematics and Computational Science, SGSITS, Indore on 31 December 2012.
- Coordinator of TEQIP-Phase II sponsored two day National workshop on ***Recent Advances in Mathematics and its Applications*** conducted at SGSITS, Indore (M.P.) from 20-21 January 2017.
- Coordinator of TEQIP-Phase III sponsored two day workshop on ***Role and Importance of Mathematics in Industries*** conducted at SGSITS, Indore (M.P.) from 27-28 April, 2018.

- Coordinator of one day Webinar on ***Artificial Intelligence And Influence of Mathematics*** on 7th June 2020.
- Coordinator of one day Workshop on the occasion of National Mathematics day on 26th December , 2020

6. Invited Lectures/Expert Talks/Chairmanships at Conferences

- Delivered Two Expert Lectures on the topics Cryptography and its Applications in Industries and Fuzzy Expert System and its Applications in 6 days Summer School on Industrial Mathematics organized by Sage University, on 12th and 14th May, 2020 Indore.
- Delivered One Expert Lecture in the Webinar on the Topic Fuzzy logic and its Application organized by Sagar Group of Institute, Bhopal on 16-06-2020.
- Invited as Keynote Speaker in the National Conference Interdisciplinary Research and Innovation Technologies (NCIRIT – 2020) and delivered Lecture on the topic Fuzzy graph and its Applications on .
- Session chair in International Conference on Computational and Mathematical Applications from 12th-14th November 2019, held at IIT Indore.
- Delivered Expert Lecture on the occasion of National Mathematics day on the topic Applications of Mathematics organized by Acropolis Institute of Management Studies and Research (AIMSR), Indore on 22nd December, 2020.

