

Faculty Profile

1. **Name:** Dr. Sovan Samanta
2. **Designation:** Assistant Professor
3. **Date of Joining:** 23.03.2017
4. **Name of the Department:** Mathematics



5. **Address**

- Permanent Address:
Dept. of Mathematics, Tamralipta Mahavidyalaya, Tamluk, WB-721636
- Corresponding Address:
Dept. of Mathematics, Tamralipta Mahavidyalaya, Tamluk, WB-721636

Contact No.: 9333862534

E-mail ID: ssamantavu@gmail.com, ssamanta@tmv.ac.in

WEB Page: <https://vidwan.inflibnet.ac.in/profile/218021>

6. Educational Qualifications:

Examination	Name of the University/Institution/ Organisation	Year of Passing	Subject
B.Sc.	Tamralipta Mahavidyalaya	2007	Mathematics
M.Sc.	Vidyasagar University	2009	Applied Mathematics
GATE	Organised by IITs	2009, 2010	Mathematics
NET	CSIR	2009	Mathematics
Ph.D.	Vidyasagar University	2014	Discrete Mathematics

7. Research Degree(s):

Degree	Name of the Degree Awarding Institution	Date of Award	Title
Ph.D.	Vidyasagar University	2014	A Study on Fuzzy Graph Theory
Post Doc.	Hanyang University	2016	Fuzzy Graph Theory and its Applications in Social Networks

8. Teaching Experience (in Years): 11
9. Specialization/Expertise/Teaching Area: Graph Theory, Fuzzy Set and Systems, Social networking Analysis, Numerical Analysis, Linear Algebra, Linear Programming, Real Analysis
10. Courses Taught: Graph Theory, Fuzzy Set and Systems, Numerical Analysis, Linear Algebra, Linear Programming, Real Analysis
11. Present Research Activities, if any: Graph Theory, Fuzzy Set and Systems, Social networking Analysis
12. Major/Minor Research Project(s) Undertaken/Completed (during last 5 years): NIL

13. Awards and Recognitions:

i. **Lead Editor**

Discrete Dynamics in Nature and Society, Special Issue on Fuzzy Graph Theory and Influential Nodes and Links in Complex Networks, Hindawi

ii. **Lead Editor**

MDPI, Algorithms, Special Issue "Graph Theory and Its Applications in Social Networks with Uncertain Parameters"

iii. **Associate Editor**

Journal of Applied Mathematics and Computing, Springer

iv. **AD Scientific Index Scientist Rank:** 3649 in India (dated 05.09.2021)

14. Publications:

All the RECENT publications can be found in following links

- https://scholar.google.com/citations?user=IQ8l_mQAAAAJ&hl=en
- <https://www.researchgate.net/profile/Sovan-Samanta>

Sr. No	Authors	Title	Publication	Volume	Number	Pages	Year	Publisher
1	Mahapatra, Rupkumar; Samanta, Sovan; Pal, Madhumangal;	Generalized neutrosophic planar graphs and its application	Journal of Applied Mathematics and Computing (SCIE, Impact Factor-1.686, SCOPUS)	65	1	693-712	2021	Springer Berlin Heidelberg
2	Das, Kousik; Naseem, Usman; Samanta, Sovan; Khan, Shah Khalid; De, Kajal;	Fuzzy mixed graphs and its application to identification of COVID19 affected central regions in India	Journal of Intelligent & Fuzzy Systems (SCIE, Impact Factor-1.851, SCOPUS)		Preprint	Jan-14	2021	IOS Press
3	Mahapatra, Rupkumar; Samanta, Sovan; Pal, Madhumangal; Lee, J-G; Khan, Shah Khalid; Naseem, Usman; Bhadoria, Robin Singh;	Colouring of COVID-19 Affected Region Based on Fuzzy Directed Graphs	Computers, Materials & Continua (SCI, Impact Factor-4.69, SCOPUS)	68	1	1219-1233	2021	Tech Science Press
4	Samanta, Sovan; Dubey, Vivek Kumar; Sarkar, Biswajit;	Measure of influences in social networks	Applied Soft Computing (SCI, Impact Factor-6.725, SCOPUS)	99		106858	2021	Elsevier

5	Mandal, Prasenjit; Samanta, Sovan; Pal, Madhumangal;	Multiplicative consistency analysis of linguistic preference relation with self-confidence level and self-doubting level and its application in a group decision making	International Journal of Intelligent Systems (SCI, Impact Factor-8.709, SCOPUS)				2021	Wiley Online Library
6	Mandal, Prasenjit; Samanta, Sovan; Pal, Madhumangal;	Large-scale group decision-making based on Pythagorean linguistic preference relations using experts clustering and consensus measure with non-cooperative behavior analysis of clusters	Complex & Intelligent Systems (SCIE, Impact Factor-4.927, SCOPUS)			Jan-15	2021	Springer
7	Das, Kousik; Samanta, Sovan; De, Kajal;	Fuzzy Chordal Graphs and Its Properties	International Journal of Applied and Computational Mathematics (SCOPUS)	7	2	01-Dec	2021	Springer
8	Samanta, Sovan; Pal, Madhumangal; Mahapatra, Rupkumar; Das, Kousik; Bhadoria, Robin Singh;	A Study on Semi-directed Graphs for Social Media Networks	International Journal of Computational Intelligence Systems (SCIE, Impact Factor-1.736, SCOPUS)	14	1	1034-1041	2021	Atlantis Press
9	Akram, Muhammad; Sattar, Aqsa; Karaaslan, Faruk; Samanta, Sovan;	Extension of competition graphs under complex fuzzy environment	Complex & Intelligent Systems (SCIE, Impact Factor-4.927, SCOPUS)	7	1	539-558	2021	Springer

10	Maity, Ananta; Das, Kousik; Samanta, Sovan; Mondal, Sukumar; Dubey, Vivek;	A study of cluster hypergraphs and its properties	Social Network Analysis and Mining (SCOPUS)	11	1	Jan-14	2021	Springer
11	Akram, Muhammad; Bashir, Ayesha; Samanta, Sovan;	Complex pythagorean fuzzy planar graphs	International Journal of Applied and Computational Mathematics (SCOPUS)	6	3	Jan-27	2020	Springer India
12	Mahapatra, Rupkumar; Samanta, Sovan; Pal, Madhumangal;	Applications of edge colouring of fuzzy graphs	Informatica (SCIE, Impact Factor-4.927, SCOPUS)	31	2	313-330	2020	Vilnius University
13	Samanta, Sovan; Lee, Jeong Gon; Naseem, Usman; Khan, Shah Khalid; Das, Kousik;	Concepts on Coloring of Cluster Hypergraphs with Application	Mathematical Problems in Engineering (SCIE, Impact Factor-1.21, SCOPUS)	2020			2020	Hindawi
14	Das, Kousik; Samanta, Sovan; Khan, Shah Khalid; Naseem, Usman; De, Kajal;	A study on discrete mathematics: sum distance in neutrosophic graphs with application	Neutrosophic Sets and Systems (SCOPUS)	35	1	13	2020	
15	Mahapatra, Rupkumar; Samanta, Sovan; Pal, Madhumangal; Xin, Qin;	Link prediction in social networks by neutrosophic graph	International Journal of Computational Intelligence Systems (SCIE, Impact Factor-1.736, SCOPUS)	13	1	1699-1713	2020	Atlantis Press
16	Pal, Madhumangal; Samanta, Sovan; Ghorai, Ganesh;	Fundamentals of Fuzzy Graphs	Modern Trends in Fuzzy Graph Theory (SCOPUS)	BOOK CHAPTER		Jan-98	2020	Springer, Singapore
17	Pal, Madhumangal; Samanta, Sovan; Ghorai, Ganesh;	Fuzzy Threshold Graph	Modern Trends in Fuzzy Graph Theory (SCOPUS)	BOOK CHAPTER		145-152	2020	Springer, Singapore

18	Pal, Madhumangal; Samanta, Sovan; Ghorai, Ganesh;	Fuzzy Tolerance Graphs	Modern Trends in Fuzzy Graph Theory (SCOPUS)	BOOK CHAPTER		153-173	2020	Springer, Singapore
19	Pal, Madhumangal; Samanta, Sovan; Ghorai, Ganesh;	Fuzzy Cut Vertices and Fuzzy Trees	Modern Trends in Fuzzy Graph Theory (SCOPUS)	BOOK CHAPTER		115-124	2020	Springer, Singapore
20	Pal, Madhumangal; Samanta, Sovan; Ghorai, Ganesh;	m-Polar Fuzzy Graphs	Modern Trends in Fuzzy Graph Theory (SCOPUS)	BOOK CHAPTER		195-224	2020	Springer, Singapore
21	Pal, Madhumangal; Samanta, Sovan; Ghorai, Ganesh;	Intuitionistic Fuzzy Graphs	Modern Trends in Fuzzy Graph Theory (SCOPUS)	BOOK CHAPTER		225-274	2020	Springer, Singapore
22	Pal, Madhumangal; Samanta, Sovan; Ghorai, Ganesh;	Fuzzy Planar Graphs	Modern Trends in Fuzzy Graph Theory (SCOPUS)	BOOK CHAPTER		99-114	2020	Springer, Singapore
23	Pal, Madhumangal; Samanta, Sovan; Ghorai, Ganesh;	Few Applications of Fuzzy Graphs	Modern Trends in Fuzzy Graph Theory (SCOPUS)	BOOK CHAPTER		275-305	2020	Springer, Singapore
24	Pal, Madhumangal; Samanta, Sovan; Ghorai, Ganesh;	Coloring of Fuzzy Graph	Modern Trends in Fuzzy Graph Theory (SCOPUS)	BOOK CHAPTER		175-193	2020	Springer, Singapore
25	Das, Kousik; Mahapatra, Rupkumar; Samanta, Sovan; Pal, Anita;	Influential Nodes in Social Networks: Centrality Measures	Handbook of Research on Advanced Applications of Graph Theory in Modern Society (SCOPUS)	BOOK		371-385	2020	IGI Global

26	Mahapatra, Rupkumar; Samanta, Sovan; Bhadoria, Robin Singh; Pal, Madhumangal; Allahviranloo, Tofigh; Pandey, Bishwajeet;	A Graph Networks Based Quality Control Model For Packaged Food Smart Traceability & Communication	European Journal of Molecular & Clinical Medicine (SCOPUS)	7	6	2830-2848	2020	
27	Pramanik, Tarasankar; Samanta, Sovan; Pal, Madhumangal;	Interval-valued fuzzy graphs	International Journal of Fuzzy Logic and Intelligent Systems (SCOPUS)	20	4	316-323	2020	Korean Institute of Intelligent Systems
28	Akram, M; Sattar, A; Karaaslan, F; Samanta, S;	Extension of competition graphs under complex fuzzy environment. Complex Intell Syst	Complex & Intelligent Systems (SCIE, Impact Factor-4.927, SCOPUS)				2020	
29	Pal, Madhumangal; Samanta, Sovan; Ghorai, Ganesh;	Modern trends in fuzzy graph theory	BOOK				2020	Springer
30	Pal, Madhumangal; Samanta, Sovan; Ghorai, Ganesh;	Fuzzy Competition Graphs	Modern Trends in Fuzzy Graph Theory	BOOK CHAPTER		125-144	2020	Springer
31	Samanta, Sovan; Muhiuddin, G; Alanazi, Abdulaziz M; Das, Kousik;	A mathematical approach on representation of competitions: competition cluster hypergraphs	Mathematical Problems in Engineering Complex & Intelligent Systems (SCIE, Impact Factor-1.21, SCOPUS)	2020			2020	Hindawi
32	Samanta, Sovan; Sarkar, Biswajit;	Isomorphism on generalized fuzzy graphs and image visualizations	Soft Computing (SCIE, Impact Factor-3.63, SCOPUS)	24	19	14401-14409	2020	Springer
33	Das, Kousik; Samanta, Sovan; De, Kajal;	Generalized neutrosophic competition graphs	Neutrosophic Sets and Systems (SCOPUS)	31		156-171	2020	

34	Das, Kousik; Samanta, Sovan; De, Kajal; Encarnacion, Xavier; Das, Chandan Bikash;	Ranking of educational institutions using fuzzy logic: a mathematical approach	Afrika Matematika (SCOPUS)	31		1295- 1310	2020	Springer
35	Das, Kousik; Samanta, Sovan; De, Kajal; Pal, Madhumangal;	Complete neighbourhood centrality and its application	2020 4th International Conference on Computational Intelligence and Networks (CINE)	Conference		01-Jun	2020	IEEE
36	Mandal, Prasenjit; Samanta, Sovan; Pal, Madhumangal; Ranadive, AS;	Pythagorean linguistic preference relations and their applications to group decision making using group recommendati ons based on consistency matrices and feedback mechanism	International Journal of Intelligent Systems (SCI, Impact Factor- 8.709, SCOPUS)	35	5	826- 849	2020	Wiley Online Library
37	Mahapatra, Rupkumar; Samanta, Sovan; Allahviranloo, Tofigh; Pal, Madhumangal;	Radio fuzzy graphs and assignment of frequency in radio stations	Computational and Applied Mathematics (SCI, Impact Factor-2.239, SCOPUS)	38	3	Jan-20	2019	Springer Internation al Publishing
38	Mahapatra, Rupkumar; Samanta, Sovan; Pal, Madhumangal; Xin, Qin;	RSM index: a new way of link prediction in social networks	Journal of Intelligent & Fuzzy Systems (SCIE, Impact Factor-1.851, SCOPUS)	37	2	2137- 2151	2019	IOS Press
39	Lakdashti, Abolfazl; Rashmanlou, Hossein; Borzooei, Rajab Ali; Samanta, Sovan; Pal, Madhumangal;	New Concepts of Bipolar Fuzzy Graphs.	Journal of Multiple-Valued Logic & Soft Computing	33			2019	

40	Pal, Madhumangal; Samanta, Sovan; Pal, Anita;	Handbook of Research on Advanced Applications of Graph Theory in Modern Society					2019	IGI Global
41	Das, Kousik; Samanta, Sovan; Naseem, Usman; Khalid Khan, Shah; De, Kajal;	Application of Fuzzy Logic in the Ranking of Academic Institutions	Fuzzy Information and Engineering (SCOPUS)	11	3	295-306	2019	Taylor & Francis
42	Samanta, Sovan; Pal, Madhumangal;	Link prediction in social networks	Graph Theoretic Approaches for Analyzing Large-Scale Social Networks	BOOK CHAPTER		164-172	2018	IGI Global
43	Das, Kousik; Samanta, Sovan; Pal, Madhumangal;	Study on centrality measures in social networks: a survey	Social network analysis and mining (SCOPUS)	8	1	01-Nov	2018	Springer Vienna
44	Pramanik, Tarasankar; Pal, Madhumangal; Mondal, Sukumar; Samanta, Sovan;	A study on bipolar fuzzy planar graph and its application in image shrinking	Journal of Intelligent & Fuzzy Systems (SCIE, Impact Factor-1.851, SCOPUS)	34	3	1863-1874	2018	IOS Press
45	Samanta, Sovan; Sarkar, Biswajit;	Generalized fuzzy Euler graphs and generalized fuzzy Hamiltonian graphs	Journal of Intelligent & Fuzzy Systems (SCIE, Impact Factor-1.851, SCOPUS)	35	3	3413-3419	2018	IOS Press
46	Samanta, Sovan; Sarkar, Biswajit;	A study on generalized fuzzy graphs	Journal of Intelligent & Fuzzy Systems (SCIE, Impact Factor-1.851, SCOPUS)	35	3	3405-3412	2018	IOS Press
47	Samanta, Sovan; Sarkar, Biswajit;	Representation of competitions by generalized fuzzy graphs	International Journal of Computational Intelligence Systems (SCIE, Impact Factor-1.736, SCOPUS)	11	1	1005-1015	2018	Atlantis Press

48	Samanta, S; Sarkar, B;	Representation of generalized fuzzy competition graphs	Int. J. Comput. Intell. Syst (SCIE, Impact Factor-1.736, SCOPUS)	11	1	1005-1015	2018	
49	Bhadoria, Robin Singh; Chaudhari, Narendra S; Samanta, Sovan;	Uncertainty in sensor data acquisition for SOA system	Neural Computing and Applications (SCIE, Impact Factor-5.56, SCOPUS)	30	10	3177-3187	2018	Springer
50	Akram, Muhammad; Samanta, Sovan; Pal, Madhumangal;	Application of bipolar fuzzy sets in planar graphs	International Journal of Applied and Computational Mathematics (SCOPUS)	3	2	773-785	2017	Springer India
51	Pramanik, Tarasankar; Samanta, Sovan; Sarkar, Biswajit; Pal, Madhumangal;	Fuzzy ϕ -tolerance competition graphs	Soft Computing (SCIE, Impact Factor-3.63, SCOPUS)	21	13	3723-3734	2017	Springer Berlin Heidelberg
52	Sarkar, Biswajit; Samanta, Sovan;	Generalized fuzzy trees	International Journal of Computational Intelligence Systems (SCIE, Impact Factor-1.736, SCOPUS)	10		711-720	2017	Atlantis press
53	Sheikh, Moh Irfan; Samanta, Sovan;	Fuzzification on rain and temperature data in indian terrain	2017 7th International Conference on Communication Systems and Network Technologies (CSNT)			305-308	2017	IEEE
54	Akram, Muhammad; Samanta, Sovan; Pal, Madhumangal;	Cayley vague graphs	J. Fuzzy Math	25		449-462	2017	
55	Pramanik, Tarasankar; Samanta, Sovan; Pal, Madhumangal;	Interval-valued fuzzy planar graphs	International journal of machine learning and cybernetics (SCIE, Impact Factor-4.032 SCOPUS)	7	4	653-664	2016	Springer Berlin Heidelberg

56	Samanta, Sovan; Pramanik, Tarasankar; Pal, Madhumangal;	Fuzzy colouring of fuzzy graphs	Afrika Matematika (SCOPUS)	27	1	37-50	2016	Springer Berlin Heidelberg
57	Rashmanlou, Hossein; Samanta, Sovan; Pal, Madhumangal; Borzooei, Rajab Ali;	Product of bipolar fuzzy graphs and their degree	International Journal of General Systems (SCIE, Impact Factor-3.69 SCOPUS)	45	1	Jan-14	2016	Taylor & Francis
58	Borzooei, Rajab Ali; Rashmanlou, Hossein; Samanta, Sovan; Pal, Madhumangal;	New concepts of vague competition graphs	Journal of Intelligent & Fuzzy Systems (SCIE, Impact Factor-1.851, SCOPUS)	31	1	69-75	2016	IOS Press
59	Borzooei, Rajab Ali; Rashmanlou, Hossein; Samanta, Sovan; Pal, Madhumangal;	Regularity of vague graphs	Journal of Intelligent & Fuzzy Systems (SCIE, Impact Factor-1.851, SCOPUS)	30	6	3681- 3689	2016	IOS Press
60	Samanta, Sovan; Pal, Madhumangal; Rashmanlou, Hossein; Borzooei, Rajab Ali;	Vague graphs and strengths	Journal of Intelligent & Fuzzy Systems (SCIE, Impact Factor- 1.851, SCOPUS)	30	6	3675- 3680	2016	IOS Press
61	Rashmanlou, Hossein; Borzooei, RA; Samanta, Sovan; Pal, Madhumangal;	Properties of interval valued intuitionistic (s, t)–fuzzy graphs	Pacific Science Review A: Natural Science and Engineering (SCOPUS)	18	1	30-37	2016	Elsevier
62	Pramanik, Tarasankar; Samanta, Sovan; Pal, Madhumangal; Mondal, Sukumar; Sarkar, Biswajit;	Interval- valued fuzzy ϕ - tolerance competition graphs	SpringerPlus (SCIE, Impact Factor-0.98, SCOPUS)	5	1	Jan-19	2016	SpringerOp en

63	Samanta, Sovan; Sarkar, Biswajit; Shin, Dongmin; Pal, Madhumangal;	Completeness and regularity of generalized fuzzy graphs	SpringerPlus (SCIE, Impact Factor-0.98, SCOPUS)	5	1	Jan-14	2016	SpringerOpen
64	Borzooei, Rajab Ali; Rashmanlou, Hossein; Samanta, Sovan; Pal, Madhumangal;	A study on fuzzy labeling graphs	Journal of Intelligent & Fuzzy Systems (SCIE, Impact Factor-1.851, SCOPUS)	30	6	3349-3355	2016	IOS Press
65	Rashmanlou, Hossein; Samanta, Sovan; Pal, Madhumangal; Borzooei, RA;	A study on vague graphs	SpringerPlus (SCIE, Impact Factor-0.98, SCOPUS)	5	1	01-Dec	2016	SpringerOpen
66	Samanta, Sovan; Akram, Muhammad; Pal, Madhumangal;	Step fuzzy competition graphs	Journal of Applied Mathematics and Computing (SCIE, Impact Factor-1.612, SCOPUS)	47	1	461-472	2015	Springer Berlin Heidelberg
67	Rashmanlou, Hossein; Samanta, Sovan; Pal, Madhumangal; Borzooei, Rajab Ali;	A study on bipolar fuzzy graphs	Journal of Intelligent & Fuzzy Systems (SCIE, Impact Factor-1.851, SCOPUS)	28	2	571-580	2015	IOS Press
68	Samanta, Sovan; Pal, Madhumangal;	Fuzzy planar graphs	IEEE Transactions on Fuzzy Systems (SCI, Impact Factor-8.72, SCOPUS)	23	6	1936-1942	2015	IEEE
69	Pal, Madhumangal; Samanta, Sovan; Rashmanlou, Hossein;	Some results on interval-valued fuzzy graphs	International Journal of Computer Science and Electronics Engineering	3	3	205-211	2015	
70	Rashmanlou, Hossein; Samanta, Sovan; Pal, Madhumangal; Borzooei, Rajab Ali;	Bipolar fuzzy graphs with categorical properties	International Journal of Computational Intelligence Systems (SCIE, Impact Factor-1.736, SCOPUS)	8	5	808-818	2015	Taylor & Francis

71	Rashmanlou, Hossein; Samanta, Sovan; Pal, Madhumangal; Borzooei, Rajab Ali;	Intuitionistic fuzzy graphs with categorical properties	Fuzzy Information and Engineering (SCOPUS)	7	3	317-334	2015	Taylor & Francis
72	Samanta, S; Pal, M;	Fuzzy planar graphs, IEEE Trans. Fuzzy Syst. 23 (6)					2015	
73	Samanta, Sovan; Pal, Madhumangal; Pal, Anita;	Some more results on fuzzy k-competition graphs	International Journal of Advanced Research in Artificial Intelligence	3	1	60-67	2014	SAI
74	Samanta, Sovan; Pal, Anita; Pal, Madhumangal;	New concepts of fuzzy planar graphs	International Journal of Advanced Research in Artificial Intelligence	3	1	52-59	2014	SAI
75	Pal, Madhumangal; Rashmanlou, Hossein;	Irregular interval valued fuzzy graphs	arXiv preprint arXiv:1407.6190				2014	
76	Samanta, Sovan; Pal, Madhumangal;	A new approach to social networks based on fuzzy graphs	Journal of Mass Communication and Journalism	5		078-099	2014	
77	Pal, A; Samanta, S; Pal, M;	New concept of fuzzy planar graphs	Int. J. Adv. Res. Artif. Intell	3		52-59	2014	
78	Samanta, S; Pal, A; Pal, M;	New concepts of fuzzy planar graphs, Int					2014	
79	Pramanik, T; Samanta, S; Pal, M;	Interval-valued fuzzy planar graphs, Int					2014	
80	Samanta, Sovan; Samanta, Chinmoyee; Pramanik, Mrinmay;	Point Distribution in Football Tournaments: A New Approach					2014	

81	Samanta, Sovan; Pal, Madhumangal;	Fuzzy k-competition graphs and p-competition fuzzy graphs	Fuzzy Information and Engineering (SCOPUS)	5	2	191-204	2013	Springer-Verlag
82	Pal, Anita; Samanta, Sovan; Pal, Madhumangal;	Concept of fuzzy planar graphs	2013 Science and Information Conference			557-563	2013	IEEE
83	Samanta, Sovan; Pal, Madhumangal;	Telecommunication System Based on Fuzzy Graphs	Telecommunications System & Management	3	1	01-Jun	2013	Omics Publishing Group
84	Samanta, Sovan;	A Study on algebraic fuzzy graphs					2013	Vidyasagar University, Midnapore, West Bengal, India
85	Samanta, S; Pal, M;	Fuzzy k-competition graphs and p-competitions fuzzy graphs, Fuzzy Inf. Eng. 5 (2)					2013	
86	Samanta, S; Pal, A; Pal, M;	Concept of fuzzy planar graphs	Proceedings of Science and Information Conference			05-Jul	2013	
87	Samanta, Sovan; Pal, Madhumangal;	Irregular bipolar fuzzy graphs	arXiv preprint arXiv:1209.1682				2012	
88	Samanta, Sovan; Pal, Madhumangal;	Bipolar fuzzy hypergraphs	International Journal of Fuzzy Logic Systems	2	1	17-28	2012	
89	Samanta, Sovan; Samanta, Chinmoyee;	Medals Tally of Olympics Based on Weighted Points	International Journal of Emerging Trends & Technology in Computer Science				2012	
90	Samanta, Sovan; Pal, Madhumangal;	Fuzzy Tolerance Graphs	International Journal of Latest Trends in Mathematics				2011	
91	Samanta, Sovan; Pal, Madhumangal;	Fuzzy Threshold Graphs	CiiT International Journal of Fuzzy Systems	3	9		2011	
92	Samanta, S; Pal, M;	Fuzzy tolerance graphs, Int					2011	

15. Membership of Reputed Bodies/Organizations including Professional Associations:

- i. **Indian Science Congress Association**
- ii. **American Mathematical Society**