





### **FACULTY PROFILE**

## **BASIC PROFILE**

Name : Dr. Akul Rana

**Designation**: Assistant Professor

Department : MATHEMATICS

Unique ID : 269967207161

: arnrc79@gmail.com E-mail

Contact No : 9932951220

Academic

Qualification : M. Sc, Ph. D.

Gender : Male

Blood Group: B<sup>+</sup>

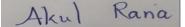
Permanent

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P.S-GOPIBALLAVPUR, DIST-JHARGRAM,

PIN-721506, WEST BENGAL





## **SERVICE HISTORY**

2006
Assistant Teacher at Malancha High School from 2002 to 2006
17 Years
MATHEMATICS
Operations Research

Participation in Administrative activities: Head of the Dept., Program officer of NSS Unit-II, Co-ordinator of UBA.

## **RESEARCH PROFILE**

Area of Research Interest : Algorithmic Graph Theory and Data Structure	Area of Research Interest:
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Research Experience (if any) 10 Years

Conference/Seminar/ Workshop Organised / Attended : Title	Year	Role	Organizer
1. Recent Research Direction on Graph Theory	2008	Participant	Dept. of Mathematics, IIT Kharagpur



# NARAJOLE RAJ COLLEGE

(NAAC Accredited B grade)





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	1	, , , , , , , , , , , , , , , , , , ,	
2. International Conference on Mathematics and Computer Science, (ICMCS-09)	2009	Presenter	Dept. of Math., Loyola College, Chennai
3. International Conference on Recent Advances on Mathematics and Applications	2010	Presenter	Dept. of Math., Univ. of Burdwan
4. Orientation Programme	2010	Participant	Jadavpur University
5. National Conference on Mathematical Analysis and its Applications	2011	Presenter	Department of Mathematics, Tripura University, Tripura
6. Seminar on Modern Trends in Operations Research	2011	Presenter	Department of Mathematics, National Institute of Technology, Durgapur
7. International Conference on Business and Information Management	2012	Presenter	Departments of Computer Application & Management Studies, NIT Durgapur
8. UGC Sponsored State Level Three day Workshop on C Language and its Application	2012	Participant	Department of Mathematics, Kharagpur College,
9. UGC Sponsored Two day National Seminar on Design and Analysis of Graph Algorithms	2012	Presenter	Department of Mathematics, Raja N. L. Khan Women's College, Midnapore
10. UGC sponsored Refresher Course in Mathematics	2012	Participant	ASC, North Bengal University
11. Sir Asutosh Mookherjee Memorial Seminar on Educationist Asutosh and his Humanistic Approaches	2013	Presenter	Chandrakona Vidyasagar Mahavidyalaya , Chandrakona
12. National Seminar on Mathematics to Commemorate Sesquicentenary of Sir Asutosh Mukherjee	2014	Presenter	Department of Mathematics, Sidho- Kanho-Birsha University, Purulia
13. UGC sponsored Refresher Course in Applied Mathematics	2014	Participant	ASC, Calcutta University
14. 5-day National Workshop on Optimization and Fuzzy Mathematics	2014	Participant	Dept. of Mathematics, Vidyasagar University
15. National Conference on <i>Optimization and Computational Mathematics</i>	2016	Presenter	Dept. of Mathematics, Vidyasagar University
16. Workshop on Signed Graphs and Semi Graphs	2016	Participant	Departments of Computer Application & Management Studies, NIT Durgapur
17. UGC Sponsored National Conference on Futuristic Trends in Applied & Computational Mathematics	2017	Presenter	Dept. of Mathematics, Vidyasagar University
18. STEM Teacher Training Workshop on Research Based Pedagogical Tools	2017	Presenter	IISER Pune
19. International Conference on mathematics and its Applications	2018	Presenter	Dept. of Math., Univ. of Burdwan
20. Two days state level seminar on "Emerging Issues in Physics, Mathematics and Computer Science"	2019	Presenter	Dept. of Physics, Mathematics & Computer Science, Egra SSB College
21. 7 days FDP on "Rural Immersion and Community engagement: Nai Talim"	2019	Participant	MGNCRE, Hyderabad
22. Science Academies Refresher Course on "Analysis"	2019	Participant	Dept. of Mathematics, Tezpur University







23. International Conference on Applie Mathematics in Science and Engineering	2019 Presenter	Dept of Mathematics, ITER, Bhubneswar
24. International Conference on Graph Theory an its applications		Dept. of Mathematics, SSN College of Engineering, Chennai

**Projects ongoing/completed:** 

Title	Funding Agency	Year	Amount (Rs.)
1. Domination on some	U.G.C	2011-2013	1.8 Lacs
intersection graphs.			
2. On irregular labelling of some			
special graphs.	U.G.C	2015-2017	3 Lacs

## Involvement in Academic/ Professional Organizations:

Involvement in rice	denily 1101essional Organizations.
	demic/ Professional Organizations: NA
Editorial Board Me	
Books:	Conditional Covering Problem: Algorithms on Some intersection Graphs, <b>LAP</b>
	LAMBERT Academic Publishing ( 2012).
Paper Published:	1. A. K. Sinha, A. Rana. and A. Pal, The 2-Tuple Domination Problem on Trapezoid Graphs, Annals of
	Pure and Applied Mathematics, 7(1) (2014), 71-76.
	2 A. K., Sinha, A. Rana and A. Pal, Signed Star Domination number on Proper Interval Graphs,
	International journal of Pure and Applied Mathematics, 106 (2016), 123-129.
	3. A. K, Sinha, A. Rana and A. Pal, Roman Domination on acyclic Permutation
	Graphs, Journal of Informatics and Mathematical Sciences, 9(3)(2017), 635-648
	4. A. K. Sinha., A. Rana and A. Pal, Signed Edge Domination Number on Interval
	Graphs, Electronic Notes in Discrete Mathematics, 63(2017),279-286.
	5. A. Rana, A. K. Sinha and A. Pal, Roman Domination in Circular-arc Graphs,
	Accepted for Publication in INDERSCIENCE journal International Journal of
	Advanced Intelligence and Paradigm(2018), DOI: 10.1504/IJAIP.2018.10020075.
	6. A. Rana, A. K. Sinha. and A. Pal., The 2-Tuple Domination Problem on
	Circular-arc Graphs, <i>Journal of Mathematics and Informatics</i> , 8 (2017), 45-54.
	7. Rana, A., Pal, A. and Pal, M., The conditional covering problem on
	unweighted interval graphs, Journal of applied mathematics and informatics,
	<b>28</b> (2010), pp. 1 - 11.

- 8. **Rana**, A., Pal, A. and Pal, M., The Conditional Covering Problem on Interval Graphs with Unequal Costs, Tamsui Oxford Journal of Information and Mathematical Sciences, 27(2) (2011), pp. 183-195.
- 9. Rana, A., Pal, A. and Pal, M., An Efficient Algorithm to Solve the Conditional Covering Problem on Trapezoid Graphs, ISRN Discrete Mathematics, Article ID 213084, 10 pages, 2011. doi:10.5402/2011/213084
- 10. Rana, A., Pal, A. and Pal, M., The Conditional Covering Problem on Unweighted Interval Graphs with Nonuniform Coverage Radius, *Mathematics* in Computer Science(SPRINGER), 6(1) (2012), pp. 33-41.



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- 11. **Rana, A.**, Pal, A. and Pal, M., The 2-Neighbourhood Covering problem on Permutation Graphs, *Advanced Modeling and Optimization*, 13(3), 2011, pp. 463-476
- 12. **Rana**, A., Pal, A. and Pal, M., Efficient Algorithms to Solve *k*-Domination Problem on Permutation Graphs, Y. Wu (Ed.): ICHCC 2011, CCIS 163, pp. 327–334, 2011, *Springer-Verlag Berlin Heidelberg* 2011.
- 13. Rana, A., The total R(x)-domintion problem on Interval Graphs, *International Journal of Information Science and Intelligent System*, 3(1), 2014, pp. 91-100.
- 14. Rana, A., Pal, A. and Pal, M., An efficient algorithm to solve the distance k-domination problem on permutation graphs, *Journal of Discrete Mathematical Science and Cryptography*, 19(2), 2016, 241-255.
- 15. A. K. Sinha, **A. Rana.** and A. Pal, Edge Roman Star Domination Number on Graphs, *Annals of Pure and Applied Mathematics*, 14(1) 2017, 143-152.

### Disclaimer:

The information on this website has been prepared with utmost care aiming at keeping all information up-to-date. The College cannot guarantee the correctness, completeness, topicality or quality of the information presented. In the event of any doubt concerning the content of the website, please contact the concerned faculty.

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