# Dr. Rajlaxmi Mukherjee Assistant Professor Department of Mathematics (UG & PG) Garhbeta College, Paschim Medinipur

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## • Academic Qualification

Ph.D. (Sc.), December 2015,
Institution: Jadavpur University

M.Sc. Mathematics, 2007-2009
Marks obtained: 86.8%

Institution: Jadavpur University

B.Sc. Mathematics, 2004-2007
Marks obtained: 83.25%
Institution: Jadavpur University

Higher Secondary Examination, 2004
Marks obtained: 89.0%

Board: WBCHSE

Secondary Examination, 2002
Marks obtained: 85.63%

**Board: WBBSE** 

#### Awards and Honors

- *University Gold Medal* for securing 1<sup>st</sup> rank in M.Sc. Mathematics in 2009.
- *Dr. Sudhangsu Kumar Banerjee Memorial Silver Medal* for securing the highest aggregate of marks in M.Sc. Mathematics in 2009.
- S. N. Bando Memorial Gold Medal for securing the highest aggregate of marks among all the courses in M.Sc. in 2009.
- **D.** N. Dutta Memorial Gold Centred Silver Medal for securing the highest aggregate of marks among all the courses in M.Sc. in 2009.
- Achieved 74th rank in CSIR-UGC NET (December 2009).

## • <u>Teaching Experience:</u>

• Teaching UG & PG courses in Mathematics as an Assistant Professor in the Department of Mathematics, **Garhbeta College** (Date of joining: 30.03.2015).

# • Research Project:

• Completed one Minor Research Project (funded by UGC),

Duration: 22<sup>nd</sup> February, 2017-21<sup>st</sup> February, 2019

Title of the Project: Morita Invariants of Semirings in terms of Fuzzy sets.

#### • Ph. D. Supervision:

• Presently acting as a Co-supervisor of Tuhin Manna who has been registered for Ph. D. (Science) degree in Jadavpur University (<u>Index No.- 35/18/Maths./25</u>).

#### • Research Articles:

- 1. Rajlaxmi Mukherjee (Pal), Pavel Pal; **Some Additional Morita Invariants of Semirings**, *Southeast Asian Bulletin of Mathematics (ISSN: 0129-2021)*, Publisher: Southeast Asian Mathematical Society, Volume: 45, Issue: 01, 81-94, Publication date: April, 2021, Link: <a href="http://www.seams-bull-math.ynu.edu.cn">http://www.seams-bull-math.ynu.edu.cn</a>
- 2. Pavel Pal, Sugato Gupta, Rajlaxmi Mukherjee, Sujit Kumar Sardar; **Isomorphisms of Some Lattices Obtained from Morita Context of Semigroups Using Fuzzy Notions**, *Southeast Asian Bulletin of Mathematics (ISSN: 0129-2021)*, Publisher: Southeast Asian Mathematical Society, Volume: 44, Issue: 05, 703-718, Publication date: November, 2020, Link: http://www.seams-bull-math.ynu.edu.cn
- 3. Pavel Pal, Kamalika Chakraborty, Rajlaxmi Mukherjee (Pal), Sujit Kumar Sardar; **On (bi) linked group congruences on (bi) linked semigroups**, *Afrika Matematika (E ISSN: 2190-7668, Print ISSN: 1012-9405)*, Publisher: Springer, Volume: 32, Issue: 01, 253–274, published online: August, 2020, DOI: 10.1007/s13370-020-00824-y
- 4. Rajlaxmi Mukherjee (Pal), Tuhin Manna, Pavel Pal; **On additively completely regular seminearrings: II**, *Communications in Algebra (Print ISSN: 0092-7872, Online ISSN: 1532-4125)*, Publisher: Taylor & Francis, Volume: 47, Issue: 05, 1954–1963, published online: January, 2019, DOI: 10.1080/00927872.2018.1524011
- Rajlaxmi Mukherjee (Pal), Pavel Pal, Tuhin Manna, Sujit Kumar Sardar; A note on additively completely regular seminearrings, Semigroup Forum (Electronic ISSN: 1432-2137, Print ISSN: 0037-1912), Publisher: Springer, Volume: 100, Issue: 01, 339–347, published online: November, 2018, DOI: 10.1007/s00233-018-9983-9
- 6. Rajlaxmi Mukherjee (Pal), Pavel Pal, Sujit Kumar Sardar; **On additively completely regular seminearrings**, *Communications in Algebra (Print ISSN: 0092-7872, Online ISSN: 1532-4125)*, Publisher: Taylor & Francis, Volume: 45, Issue: 03, 5111-5122, published online: February, 2017, DOI: 10.1080/00927872.2017.1293970
- 7. Sujit Kumar Sardar, Rajlaxmi Mukherjee; **Erratum to: On additively regular seminearrings**, *Semigroup Forum (Electronic ISSN: 1432-2137, Print ISSN: 0037-1912)*, Publisher: Springer, Volume: 93, Issue: 03, 629-631, published online: September, 2015, DOI: 10.1007/s00233-015-9749-6
- 8. Rajlaxmi Mukherjee (Pal), Sujit Kumar Sardar, Pavel Pal; **On additively commutative near-ring congruences on seminearrings**, *Semigroup Forum (Electronic ISSN: 1432-2137, Print ISSN: 0037-1912)*, Publisher: Springer, Volume: 91, Issue: 03, 573-583, published online: December, 2014, DOI: 10.1007/s00233-014-9664-2
- Sujit Kumar Sardar, Rajlaxmi Mukherjee; An introduction to operator seminearrings of a near-Γ-semiring, Southeast Asian Bulletin of Mathematics (ISSN: 0129-2021), Publisher: Southeast Asian Mathematical Society, Volume: 38, Issue: 06, 887-905, Publication date: December, 2014, Link: <a href="http://www.seams-bull-math.ynu.edu.cn">http://www.seams-bull-math.ynu.edu.cn</a>
- 10. Pavel Pal, Sujit Kumar Sardar, Rajlaxmi Mukherjee; Fuzzy Operands of Semigroups, Fuzzy Information and Engineering (Print ISSN: 1616-8658, Online ISSN: 1616-8666), Publisher: Taylor & Francis, Volume: 06, Issue: 02, 235-244, published online: June, 2014, DOI: 10.1016/j.fiae.2014.08.007
- 11. Rajlaxmi Mukherjee, Debabrata Mandal, Sujit Kumar Sardar; A realization of intuitionistic fuzzy ideals of semirings, Annals of Fuzzy Mathematics and Informatics (Print ISSN: 2093–9310; Electronic ISSN: 2287–6235), Publisher: Research Institute for Basic Science, Wonkwang University, South Korea, Volume: 07, Issue: 03, 529-542, published online: March, 2014, Link: <a href="http://www.afmi.or.kr/">http://www.afmi.or.kr/</a>
- 12. Sujit Kumar Sardar, Rajlaxmi Mukherjee; **On additively regular seminearrings**, *Semigroup Forum (Electronic ISSN: 1432-2137, Print ISSN: 0037-1912)*, Publisher: Springer, Volume: 88, Issue: 03, 541-554, published online: October, 2013, DOI: 10.1007/s00233-013-9538-z

13. Sujit Kumar Sardar, Pavel Pal, Rajlaxmi Mukherjee; Semilattice congruence and fuzzy semilattice congruence on po-Γ-semigroup via its operator semigroups, East-West Journal of Mathematics (Print ISSN: 0125–2526; Electronic ISSN: 1513-489X), Publisher: Department of Mathematics, Faculty of Science, Mahidol University, Bangkok, Thailand, Volume: 13, Issue: 02, 151-162, publication date: July, 2011, Link: http://eastwestmath.org/index.php/ewm/issue/view/19

### • Chapter in edited volume:

 Pavel Pal, Sujit Kumar Sardar, Rajlaxmi Mukherjee (Pal); Prime fuzzy ideals, completely prime fuzzy ideals of po-Γ-semigroups based on fuzzy points, Romeo P., Meakin J., Rajan A. (eds) Semigroups, Algebras and Operator Theory: Springer Proceedings in Mathematics & Statistics (Print ISBN: 978-81-322-2487-7; Online ISBN: 978-81-322-2488-4), Publisher: Springer, Volume: 142, 105-121, published online: July, 2015, DOI: 10.1007/978-81-322-2488-4

### Contributory talks:

- 1. Presented a paper entitled "On decompositions of additively completely regular seminearrings" in the International Conference on Analysis, Algebra, Combinatorics and their Applications (ICAADCA 2020), organized by the Department of Mathematics, Jadavpur University during January 20-22, 2020.
- 2. Presented a paper entitled "On additively completely regular seminearrings" in the International Conference on Semigroups and Applications (ICSAA 2019), organized by the Department of Mathematics, Cochin University of Science and Technology during December 09-12, 2019.
- 3. Presented a paper entitled "On some aspects of additive regularity in seminearrings" in the National Seminar on Visva-Bharati Meet on Algebra and its Applications -2018, organized by the Department of Mathematics, Visva-Bharati during March 24-25, 2018.
- 4. Presented a paper entitled "Characterization of seminearrings which are subdirect products of a distributive lattice and a zero-symmetric near-ring" in the International Seminar on Topology, Analysis and Algebra (ISTAA) -2017, organized by the Department of Mathematics, University of North Bengal during February 11-12, 2017.
- 5. Presented a paper entitled "A study of congruences on additively Clifford seminearrings" in the International Conference on Algebra and Discrete Mathematics (ICADM-2014), organized by the Department of Mathematics, Government College, Kattappana during March 04-06, 2014.
- 6. Presented a paper entitled "A note on near-ring congruences on additively inverse seminearrings" in the International Conference on Semigroups, Algebras and Operator Theory (ICSAOT), organized by the Department of Mathematics, Cochin University of Science and Technology, during February 26-28, 2014.
- 7. Presented a paper entitled "On fuzzy ideals of po-Γ-semigroups" in the National Conference on Mathematical Sciences and Applications (NCMSA-2013), organized by the Department of Mathematics, School of Science and Humanities, Karunya University, Coimbatore, during March 14-15, 2013.
- 8. Presented a paper entitled "Intuitionistic fuzzy h-ideal of matrix hemiring  $S_2 = \begin{pmatrix} R & \Gamma \\ S & L \end{pmatrix}$ " in the National Seminar on Algebra, Analysis and Discrete Mathematics (NSAADM 2012), organized by the Department of Mathematics, University of Kerala, Thiruvananthapuram, during February 8-10, 2012.