CURRICULUM VITAE

Name	:	**Dr. Tapas Kumar Mondal**
Designation	:	Assistant Professor of Mathematics
Date of Birth	:	11th January, 1979
E-mail Id	:	tapas@dbndsm.ac.in
		tapumondal@gmail.com

Address for Correspondence:

Office:	**Residence:**
Dr. Bhupendra Nath Dutta Smriti Mahavidyalaya, Hatgobindapur-713407, Purba Bardhaman, West Bengal Phone-0342 2584616	615, Nari Belbagan Purba Bardhaman - 713101 West Bengal, India Mobile – 09734870308

Academic Qualification :

- M. Sc. in Pure Mathematics (2004) (The University of Burdwan)

- Ph. D. (July 15, 2014)
  (Pure Mathematics, Semiring Theory)
  Supervisor: Dr. Anjan Kumar Bhuniya,
  Visva-Bharati, Santiniketan, Birbhum, West Bengal, India.

Title of Thesis: "**On distributive lattice decompositions of the semirings whose additive reduct is a semilattice.**"

Other Qualification/Achievement:

UGC (JRF)+NET, December 2005

Teaching Experience

1. Since 3rd September, 2008 (Honours /General courses in this College).

2. Post graduate teaching experience as Guest Faculty in the Department of Mathematics,
   DDE, the University of Burdwan, West Bengal. India.

3. Post graduate teaching experience as Guest Faculty in **Raj College** Center,
Netaji Open University, West Bengal. India.

Specialization: Abstract Algebra, Linear Algebra, Number Theory, Real Analysis, Calculus, Differential Equations, Dynamics of particles, Logic and Sets, Graph Theory, Numerical Methods Labs

Students' Project Work Guidance: Semigroup theory, Semiring Theory, Congruences and its applications, Boolean Algebra and its Applications.

Research Experience:

➢ Since 2006 to till date

Research Areas: Abstract algebra (Algebraic theory of semirings and Ordered semirings)

Ph. D Guide (Continuing): (as a Co-supervisor)

Scholar: **Jhantu Chowdhury**,
Assistant Professor of Mathematics,
Kulti College, Pashchim Bardhaman,
West Bengal, India
(Registered in Visva-Bharati University, Santiniketan
Registration details: Student Id: 03333101513
Registration No.: VB-2281 of 2016-17,
DoA: 03-03-2016)

Paper Published /Accepted (Published-14):

1. **T. K. Mondal**, J. Chowdhury, A. K. Bhuniya: On distributive lattices of simple ordered semirings, *Asian-European Journal of Mathematics*, **16(7)**, **DOI: 10.1142/S1793557123501188 (February 24, 2023)** (**Singapore**)

2. **T. K. Mondal:**
Semirings which are union of principal left k-radicals, *Quasigroups and Related Systems*, **30(2022), No. 1, 141-148(April, 2022)**, (**Moldova**)

3. **T. K. Mondal:**
Distributive Lattices of λ-Simple Semirings, *Iranian Journal of Mathematical Sciences and Informatics*, **17, No. 1, 47-55, DOI: 10.52547/ijmsi.17.1.47 (April, 2022)** (**Iran**)

4. **Tapas Kumar Mondal, Anjan Kumar Bhuniya**:
On the distributive lattices of left k-Archimedean semirings, *Mathematica*, **62**(85), No. 2 (2020), 179-188. (**Romania**)

5. **T. K. Mondal**:
Semirings which are distributive lattices of weakly left k-Archimedean semirings, *Quasigroups and Related Systems*, **27** (2019), 309-316. (**Moldova**)

6. **T.K. Mondal**:
Introduction to quotient ordered semirings, *Quasigroups and Related Systems*, **26** (2018), 271-280. (**Moldova**)

7. Kalyan Hansda, **Tapas Kumar Mondal**:
On characterization of minimal k-bi-ideals in k-regular and completely k-regular semirings, *Novi Sad Journal of Mathematics*, **49**(1) (2019), 13-22. (**Serbia**)

8. A. K. Bhuniya, **T. K. Mondal** :
On decompositions of semirings via *k*-radicals of some relations, *Acta Mathematica Hungarica,* **154**(2) (2018), 470–479. (**Hungary**)

9. A.K. Bhuniya, **T.K. Mondal:**
On the least distributive lattice congruence on a semiring with a semilattice additive reduct, *Acta Mathematica Hungarica*, **147**(1)(2015), 189–204. (**Hungary**)

10. **T. K. Mondal**, A. K. Bhuniya:
Semirings which are distributive lattices of t-k-simple semirings, *Tbilisi Mathematical Journal,* **8**(2) 2015, 149-157. (**Georgia**)

11. **T.K. Mondal,** A.K. Bhuniya:
On k-radicals of Green's relations of semirings with a semilattice additive reduct, *Discussiones Mathematicae - General Algebra and Applications*, **33** (2013), 85–93 (**Poland**)

12. A.K. Bhuniya, **T.K. Mondal**:
Semirings which are distributive lattices of k-simple semirings, *Southeast Asian Bulletin of Mathematics,* **36**(2012), 309 – 318 (**China**)

13**. T.K. Mondal**:
Distributive lattices of t-k-Archimedean semirings, *Discussiones Mathematicae - General Algebra and Applications*, **31** (2011), 147 – 158 (**Poland**)

14. A.K. Bhuniya, **T.K. Mondal**:
Distributive lattice decompositions of semirings with a semilattice additive reduct, *Semigroup Forum,* **80**(2010), 293-301(**USA**)

Invited Talk/Lecture in Webinar/Seminar/Conference

Sl.	Name of the Seminar / Conference/Webinar	Title of the talk	Organized by
1	**National Level Webinar**, **January 27, 2022**	Distributive lattice decomposition of semirings	PG and Research Department of Mathematics, Rajah Serfoji Govt. College (Autonomous),

		Tamilnadu

Participation and Paper Presentation in Seminars / Conferences/Webinar

Sl.	Name of the Seminar / Conference	Title of the Paper	Organized by
1	**International conference on Semigroups, Algebras and Operator Theory**, **ICSAOT, 2022, March 28-31, 2022**	Ordered semirings which are distributive lattices of left simple ordered subsemirings	Department of Mathematics, Cochin University of Science and Technology, **Kerala**
2	**National Webinar on Matrix in Real life July 23, 2021**	Attended	Department of Mathematics, Seth Kesarimal Porwal College of Arts, Science and Commerce, Kamptee, Nagpur, **Maharashtra**
3	**International Webinar on Outcome Based Education: How to write Measurable Learning Objectives February 15, 2021**	Attended	Department of Mathematics in association with IQAC, T.K.Madhava Memorial College, Nangiarkulangara, **Kerala**
4	**International Conference On** *Mathematics and its Applications* **(ICMA – 2018) February 15 – 17, 2018**	On decompositions of semirings via k-radicals of relations	Department of Mathematics, The University of Burdwan, Burdwan – 713104, **West Bengal**, India
5	International Conference on Algebra and Discrete Mathematics **(ICADM-2018), January, 08-10, 2018**	Introduction to pseudoorder on ordered semirings	Department of Mathematics, DDE, Madurai Kamaraj University, Madurai, **Tamilnadu**, India
6	Recent Trends in Mathematical Sciences and Applications **(ICRTMSA-2016), Feb. 09-11, 2016**	On quotient ordered semirings	Department of Mathematics, The University of Burdwan, **West Bengal** (International), India
7	**International conference on revisiting ancient Mathematics & Mathematical sciences (ICRAMMS-2015), Feb. 18-20, 2015**	On ordering in semirings	Department of Mathematics, The University of Burdwan Under UGC special assistance programme (DSA-I), **West Bengal**, India

8	National Seminar on Advances in Mathematics & Applications (AMA - 2013) March 06 - 07, 2013	On the least distributive lattice congruence on semirings with a semilattice additive reduct	Department of Mathematics, The University of Burdwan, West Bengal, India
9	National Seminar on NON-LINEAR ASPECTS OF ANALYSIS AND ALGEBRA March 24 – 25, 2012	On k-radicals of Green's relations in semirings with a semilattice additive reduct	Department of Mathematics, Siksha Bhavana, Visva-Bharati, Santiniketan, West Bengal, India
10	National Seminar on ALGEBRA, ANALYSIS AND DISCRETE MATHEMATICS (NSAADM-2012) February, 8-12, 2012	Semirings which are distributive lattices of t-k-simple semirings	Department of Mathematics, University of Kerala, Kerala, India
11	National Conference on Mathematics and its Applications (NCMA-2011) January 13-14, 2011	Semirings which are distributive lattices of left k-Archimedean semirings	Department of Mathematics Jadavpur University, West Bengal, India
12	International Conference on Groupoids, Semigroups and Automata (ICGSA-2010) August 10-12. 2010	Semirings which are distributive lattices of k-simple semirings	Department of Mathematics, University of Kerala, Kerala, India
13	International Conference on Recent Advances in Mathematics & Applications (ICRAMA - 2010) January 13-15, 2010	Distributive lattices of t-k-Archimedean Semirings	Department of Mathematics, The University of Burdwan, West Bengal, India
14	National Seminar on Emerging Areas in Mathematics and Applications (NSEAMA - 2009) February 18-20, 2009	Distributive lattice of k-Archimedean Semirings	Department of Mathematics, The University of Burdwan, West Bengal, India
15	Current trends in Fuzzy mathematics and its applications,(CTFMA-2016), December 7, 2016 (National)	Attended	Department of Mathematics, MUC Women's College, Burdwan, West Bengal, India
16	State Level seminar on Mathematics & its Applications, December 2, 2014 (State Level)	Attended	Mathematics, Burdwan Raj College, Burdwan, West Bengal, India

Research Project:

Minor Research Project (Completed): No. F. PSW – 120/11 – 12 (ERO) dated 25–01–2012

Title: **Distributive lattice decompositions of semirings with a semilattice additive reduct**.
Duration: **2012 – 2014,** Funded by – **UGC (ERO)**

Orientation Programme / Refresher Courses Attended:

1. **Refresher Course in Mathematics, TLC, Ramanujan College, New Delhi (Under Ministry of Education, Government of India) (31-08-2021 to 14-09-2021)**

2. **Refresher Course in Mathematics, UGC-Human Resource Development Centre, University of Hyderabad (4th July to 24th July 2018)**.

3. **265th Refresher Course in Mathematics and Statistics, ASC, HPU, Shimla. Himachal Pradesh, (24.06.2013 – 13.07.2013).**

4. **81st Orientation Programme, ASC, The University of Burdwan (2011).**

Workshop/ Training Programme:

1. **Short Term Course entitled "Violence against Women: Family, Community, State", Jadavpur. University, from 15-02-2022 to 21-02-2022**
2. **UGC Spon. Workshop on MOOCs, e-content development and Open Educational Resources, Panjabi University, Patiala, from 10-3-2022 to 17-3-2022**
3. **Workshop**: On 'C programming', The **University of Burdwan**, India from 22-02-2017 to 28-02-2017.
4. Pedagogical Training for Mathematics Teachers (**PTMT- 2013**),
   SSN College of Engineering, Kalavakkam, Chennai, Tamilnadu (Sponsored by **National Board for Higher Mathematics, Govt. of India**) during Nov 20 – Dec 04, 2013.
   Topic: **Real Analysis.**
5. Pedagogical Training for Mathematics Teachers (**PTMT- 2012**),
   St. Berchman's College, Changanassery, Kerala (Sponsored by **National Board for Higher Mathematics, Govt. of India**) during Nov 19 – 30, 2012.
   Topic: **Abstract Algebra.**

Member: Indian Mathematical Society
Editorial Board Member: International Journal of Discrete Mathematics, New York, USA
Reviewer: Mathematical Reviews (American Mathematical Society), USA

10 total reviews

2019 (1 review)

Mar 26 **MR3669154** Mai, Le Hoang; Tuyen, Nguyen Xuan Some remarks on the Jacobson radical types of semirings and related problems. *Vietnam J. Math.* **45** (2017), no. 3, 493--506. 16Y60 (16D99 16N99 18G99)

2018 (1 review)

May 31 **MR3726624** Yiarayong, Pairote On prime and semiprime ideals in ordered AG-groupoids. *Iran. J. Math. Sci. Inform.* **12** (2017), no. 1, 1--11, 164. 20M12 (20M10)

2017 (1 review)

Jun 13 **MR3551630** Dolžan, David; Oblak, Polona Maximal simultaneously nilpotent sets of matrices over antinegative semirings. *Linear Algebra Appl.* 510 (2016), 222--229. 15A30 (05C25 15B33 16Y60)

2016 (2 reviews)

Oct 28 **MR3404228** Linton, Karen A.; Linton, Ronald C. Unions of dominant chains of pairwise disjoint, completely isolated subsemigroups. *Palest. J. Math.* **4** (2015), Special issue, 490--495. 20M10

Jan 15 **MR3322544** Bhuniya, A. K.; Jana, K. Strong quasi-ideals and complete semilattice decompositions of an ordered semigroup. *Asian-Eur. J. Math.* **8** (2015), no. 1, 1550001, 12 pp. 06F05 (20M99)

2015 (4 reviews)

Dec 28 **MR3311204** Khan, Madad; Jun, Young Bae; Gulistan, Muhammad; Yaqoob, Naveed, The generalized version of Jun's cubic sets in semigroups. *J. Intell. Fuzzy Systems* **28** (2015), no. 2, 947--960. 20M10

Jun 19 **MR3296005** Yang, Qingjie Decomposability of symplectic matrices over principal ideal domain. *J. Number Theory* 149 (2015), 139--152. 15B33 (53D30)

Jun 15 **MR3110601** Wang, Zheng-Pan; Zhou, Yuan-Lan Regular semilattice of semigroups and its applications. *Semigroup Forum* **87** (2013), no. 2, 393--406. 20M10

Apr 16 **MR3217351** Sanborisoot, Jatuporn; Changphas, Thawhat On pure ideals in ordered ternary semigroups. *Thai J. Math.* **12** (2014), no. 2, 455--464. 06F05 (20M12 54Hxx)

2014 (1 review)

Nov 14 **MR3194420** Bataineh, Malik; Malas, Ruba Generalizations of primal ideals over commutative semirings. *Mat. Vesnik* **66** (2014), no. 2, 133--139. 16Y60 (13A15)

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