



Dr. Rumpa Chakraborty

Assistant Professor,
Department of Mathematics,
Diamond Harbour Women's University

Specialisation: Fluid Mechanics

Email: chak.rumpa@gmail.com

Address for Communication: Department of Mathematics,
Diamond Harbour Women's University,
Diamond Harbour Road, Sarisha,
South 24 Parganas, Pin- 743368

Academic qualifications:

- Ph.D in Mathematics, Calcutta University, 2015
- M.Sc in Mathematics, Jadavpur University, 2008
- B.Sc in Mathematics, Burdwan University, 2006
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Academic Experiences:

- 2016, December-till date, Assistant Professor, Diamond Harbour Women's University
- 2015-2016 Dr. D. S. Kothari Postdoctoral Fellow, Jadavpur University
- 2009-2015 Research Scholar Indian Statistical Institute, Kolkata
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Field of Research Interest:

- Fluid Mechanics
- Water waves,
- Integral Equations
- Numerical Techniques
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Professional recognition, awards, fellowships received:

- 2015 UGC Dr.D.S. Kothari Postdoctoral Fellowship
- 2015 NBHM DAE Postdoctoral Fellowship
- 2010 CSIR UGC -NET Fellowship in the subject Mathematical Sciences
- 2009 GATE Fellowship

Membership of learned Societies:

- Member of The Indian Mathematical Society, Pune, India.

List of Publications

Papers published in journals:

- Propagation of water waves over an asymmetrical rectangular trench
R Roy, **R Chakraborty**, BN Mandal, The Quarterly Journal of Mechanics and Applied Mathematics 70 (1), 49-64. 2017.
- Interaction of surface water waves with a vertical elastic plate: a hypersingular integral equation approach
R Chakraborty, A Mondal, R Gayen, Zeitschrift für angewandte Mathematik und Physik 67 (5), 115, 2016.
- Water wave scattering by a nearly circular cylinder submerged beneath an ice-cover
R Chakraborty, BN Mandal, J. Mar Sci. Appl. 14 (1), 69-75. 2015.
- Oblique wave scattering by a rectangular submarine trench
R Chakraborty, BN Mandal, The ANZIAM Journal 56 (3), 286-298. 2015.
- Water wave scattering by rectangular submarine trench.
R Chakraborty and B. N. Mandal, Journal of Engineering Mathematics 89 (1), 101-112. 2014.
- Scattering of water waves by a submerged thin vertical elastic plate.
R Chakraborty, BN Mandal, Archive of Applied Mechanics 84 (2), 207-217. 2014.
- Water wave scattering by an elastic thin vertical plate submerged in finite depth water
R Chakraborty, BN Mandal, J. Mar. Sci. Appl 12, 393-399. 2013.
- Water waves generated by instantaneous disturbances at the bed of a sloping beach
R Chakraborty, BN Mandal, Geophysical & Astrophysical Fluid Dynamics 107 (5), 481-496, 2013.
- The Cauchy Poisson problem for a sloping beach,
R Chakraborty and B. N. Mandal, International Journal of Applied Mathematics and Engineering Sciences. 2, (6), 145-163, 2012.
- Water wave scattering by an undulating bottom, B. N. Mandal and **R Chakraborty**
Bull. Cal. Math. Soc. 104, (6) 533-546, 2012.

Papers published in International Conference Proceedings:

- International Conference on Recent Advances in Mathematics & Applications.
Department of Mathematics, University of Burdwan, Burdwan-713104, West Bengal, India. January 13-15, 2010.
- INDO-US Bilateral Workshop-2010 on Sedimentation, Erosion, Flooding and Ecological Health of Rivers Organized by Indian Statistical Institute, Kolkata, India. November 1-3, 2010.
- International Conference on Non linear Dynamics, Analysis and optimization (ICNDAO 2015) organized by Department of Mathematics, Jadavpur University. December 9-11, 2015.

Paper presented in academic Seminar/Conference/Workshop with title of Papers:

- National Conferences on Recent Trends in Mathematical Modelling and Simulations (RTMMS-2010), Department of Applied Mathematics, Institute of Technology, BHU, Varanasi-221005, India. March 18-20, 2010.
- National seminar on mathematical modelling of natural Phenomena organized by Indian Society of Nonlinear Analysis (ISNA)., Bose Institute (main campus), Kolkata, India. October 29, 2010.
- National seminar on Differential Equations: Modelling, Analysis and Computation, Department of Applied Mathematics, University of Calcutta, Kolkata, India. March, 2-3, 2011.
- 56th Congress of the Indian Society of the Theoretical and Applied Mechanics (ISTAM). Sardar Vallabhbhai National Institute of Technology, Surat, Gujarat. December 19-21, 2011
- Application of Mathematics in Industries and Technology Organized by Department of Mathematics, Sikkim Manipal Institute of technology, Majitar, East Sikkim-737136, India. December 06-11, 2012.
- National Seminar "Mathematics and Mathematical Sciences" Jointly Organized by Department of Applied Mathematics & Department of Pure Mathematics, University of Calcutta, Kolkata, India. December 27-28, 2012.
- 100th Indian Science Congress, Kolkata, India. September 23-28, 2013 National Programme on differential Equations: Theory, Computation & Applications (NPDE-TCA) Jointly Organized by Department of Applied Mathematics, University of Calcutta, Kolkata, India. January 3-7, 2013.
- 58th Congress of the Indian Society of the Theoretical and Applied Mechanics (ISTAM). Jointly Organized by Bengal Engineering and Science University, Shibpur, Howrah, West Bengal, India. December 18-21, 2013.
- National Conference on Mathematical and Theoretical Biology (NCMTB 2015) organized by Department of Mathematics, Jadavpur University. November 19-20, 2015.
- National Conference on Emerging Trends in Physics of Fluids & Solids (NCETPFS 2015) organized by Department of Mathematics, Jadavpur University. February 24-25, 2015
- National Conference on Emerging Trends in Physics of Fluids & Solids (NCETPFS 2016) organized by Department of Mathematics, Jadavpur University. March 3-4, 2016.