CURRICULUM VITAE

RASMITA KAR

Date of Birth	:	April 17, 1982
Nationality	:	Indian
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Departmental Address	:	NIT Rourkela,
		Dept. of Mathematics,
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EDUCATION

August, 2011 - Nov. 2013	:	Post-Doctoral Fellow
		TIFR CAM, Bangalore
2005 - 2011	:	Ph. D. in Mathematics
		Indian Institute of Technology, Kanpur.
		Thesis Title : A Study of Some Nonlinear Elliptic BVPs
		in a Class of Unbounded Domain
		Supervisor : Prof. V Raghavendra
		C.G.P.A. of Ph. D. Courses- 8.33 on a 10 point scale

2002 - 2004	:	Master's degree in Mathematics (80.05%)
		Utkal University, Bhubaneswar, Orissa
1999 - 2002	:	Bachelor's degree (Mathematics (Hons.)) (70.25%)
		Fakir Mohan University, Orissa
1997 - 1999	:	Higher Secondary(+2) (60.33%)
		C.H.S.E, Orissa
1996 - 1997	:	H.S.C.E (75.33%)
		Board of Secondary Education, Orissa.

Research Papers/Book

Published/Accepted

1. Venkataramanarao Raghavendra, Rasmita Kar; Existence of weak solutions for degenerate semilinear elliptic equations in unbounded domains, *Electronic J. Diff. Eqns.*, Vol. 2009(2009), no. 160, p. 1-13.

2. V. Raghavendra and R. Kar , A Short Note on Semilinear Elliptic Equations in Unbounded Domain, *Nonlinear Dynamics and Systems Theory,* 10 (1) (2010) , p. 93-95.

3. Rasmita Kar, An application of pseudomonotone operators for a class of semilinear elliptic BVP in unbounded domains. *Electronic J. Diff. Eqns.,* Vol. 2012 (2012), No. 43, p. 1-11.

4. Rasmita Kar, A resonance problem for degenerate semilinear elliptic equations. Communications on Nonlinear Applied Analysis", Vol. 19(2012), No. 3, p.15-23.

5. V. Raghavendra and Rasmita Kar , Weak solutions for a class of semilinear elliptic equations in unbounded domains of R^3. *Applicable Analysis*, Vol. 92, 6, (2013).

6. Rasmita Kar, The Neumann Problem for a Class of Degenerate Elliptic Equations "Comm. Nonlinear Applied Analysis", vol.4, 20, (2013)

7. Rasmita Kar, A class of degenerate quasilinear elliptic equations in weighted Sobolev space. 'ISRN Mathematical Analysis', vol 2014 (2014),1-6.

8. Rasmita Kar , Applications of monotone operators to a class of semilinear elliptic BVPs in unbounded domain. Bulletin of Belgian Mathematical Society - Simon Stevin, 21 (2014), no. 2, 291-301.

9. V. Raghavendra and Rasmita Kar, A class of semilinear elliptic BVP involving gradient term in unbounded domains. (Accepted in 'Electronic journal of differential equations')

10. V. Raghavendra and Rasmita Kar, Applications of monotone operators to a class of fractional Laplacian Equation, International Journal of Mathematics, Vol. 26, No. 07, (2015), p.1-10.

11. V. Raghavendra and Rasmita Kar, Existence of a weak solution for a class of fractional Laplacian Equation. (Accepted in "Journal of Australian mathematical Society")

- **Book**

  1. V. Raghavendra and Rasmita Kar , (Book)- Textbook of Ordinary Differential Equations (likely to be published in 'Tata McGraw -Hill')

Courses credited during :

- Ph.D. : Sobolev spaces and applications, Algebraic topology, Analysis, Mathematical modeling, Algebra, Mathematical methods
- M. A. : Advanced analysis, Differential geometry, Number theory and cryptography, Functional analysis, Abstract and Linear algebra, Differential equations, and others.

ACADEMIC ACHIEVEMENTS

- Qualified GATE (All India Rank-53), 2005.
- Qualified CSIR-NET, 2005 for lectureship.
- NBHM post-doctoral fellowship, 2011
- International Travel Award recipient of DST/CCSTDS/CSIR/IIT Kanpur.
- First rank in the Utkal University Entrance exam - 2002 conducted by Utkal University, Bhubaneswar for joining Master's degree programme in mathematics.
- Award by Rotary Club for obtaining highest percentage of marks in Bachelor's degree(Mathematics Hons) at Fakir Mohan University, Orissa.

TEACHING EXPERIENCES

- Assistant Prof. at NIT Rourkela from 3rd Aug.,2015-till date. (Courses- MA-101, MA-102, MA-202, Linear algebra, Mathematical methods,Partial differential equations)
- Assistant Prof. at LNMIIT, Jaipur from 2nd Dec.,2013-31st July, 2015. (Courses-Math-I, Math-III, Linear algebra)
- Tutor in mathematics courses (MTH 102, MTH-203) for undergraduate students, IIT Kanpur.
- Tutor in mathematics course (MTH-203) for undergraduate students, IIT Rajasthan.
- T.A. in mathematics courses (MTH-101, MTH 102, MTH-203) for undergraduate students, IIT Kanpur.

INVITED TALKS

- A talk on quasilinear elliptic equations in the conference on "Evolution Equations: Theory, Methods and Applications (NCEETMA 2012)at IIT Kanpur, 2012.
- A talk on 'Solutions of a class of semilinear elliptic PDEs' in a 'In-house symposium' TIFR CAM, Bangalore, 2012.
- Lecture series on 'Nonlinear Elliptic PDEs' (3 lectures) at IIT Gandhinagar, India, 2011.
- Coordinator for one of the problem and discussion session in the workshop "Variational Analysis and Optimization",IIT Gandhinagar, 2011.
- A seminar in the 'Analysis colloquium' at IIT Kanpur, 2010.
- A talk in international conference on "Recent advances in mathematical sciences and applications, RAMSA", Visakhapatnam, India, 2009.
- A talk in open house, IIT Kanpur, 2008.

CONFERENCES/WORKSHOPS PARTICIPATED

- A scientific meeting 'Indian women and mathematics' at IISER Pune, 2013.
- A conference 'Advances in nonlinear partial differential equations' at TIFR CAM, Bangalore, 2012.
- School and workshop on 'Cocompact imbeddings, profile decompositions, and their applications to PDE' at TIFR-CAM, 2012.

- A conference "Nonlinear differential equations" (Riemann international school of mathematics), Verbania, Italy, 2010.
- International congress of mathematicians" , Hyderabad, India, 2010.
- International conference of women mathematicians" , Hyderabad, India, 2010.
- Indo-German conference on "PDE, Scientific computing and Optimization in applications", IIT Kanpur, India, 2009 .
- International conference on "Recent advances in mathematical sciences and applications, RAMSA-2009" Visakhapatnam, India.
- National meet of research scholars in mathematical sciences", IIT Kanpur, India, 2007.
- Instructional school on computational PDEs, IIT Bombay, India, 2005.

REFERENCES

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