



Name: Dr. Rajib Haloi

Date of birth: 01 January, 1981.

Designation:

- Assistant Professor Stage-III in the Department of Mathematical Sciences, Tezpur University.

Positions held:

- Assistant Professor Stage-II in the Department of Mathematical Sciences, Tezpur University since June 16, 2012 to June 15, 2017.
- Assistant Professor Stage-I in the Department of Mathematical Sciences, Tezpur University since July 31, 2006 to June 15, 2012.
- Scientist B in Defence Research and Development Organizations, Ministry of Defence from June 06, 2005 to July 27, 2006.
- Junior Research Fellow(CSIR–UGC) at IIT Kanpur from December 26, 2003 to June 03, 2005.

Courses Taught:

B. Tech.

- Mathematics I.
- Mathematics II.

Integrated M. Sc.

- Integral Equations and Integral Transforms.
- Theory of ODE.
- Partial Differential Equations.

M. Sc.

- Partial Differential Equations (M. Sc.).
- Mathematical Methods (M. Sc.).
- Algebra (M. Sc.).
- Measure theory (M. Sc.).
- Fourier Analysis (M. Sc.).
- Ordinary Differential Equations (M. Sc.).
- Elementary Mathematics and Statistics (C.B.C.T.).

Ph. D. Guidance:

- Mr. Subha Pal (Continuing, Spring 2016–)
- Mr. Duranta Chutia (Continuing, Autumn 2017–)

M. Sc. Guidance:

- Miss Rasmita Borah, A study of semigroup of bounded linear operators: An Introduction, 2015–2016
- Mr. Duranta Chutia, A brief study of approximate controllability, July 2016– May 2017

Academic Qualifications:

- HSLC from Bharati High School securing 71.5% in 1996.
- HSSLC from Patacharkuchi Vidyapith securing 70.8% in 1998.
- B. Sc. with Mathematics as Major from Bajali College securing 77.6% (Best Science Graduate, Gauhati University) in 2001.
- MSc. in Mathematics from Gauhati University with 86.2% marks (University Gold Medalist) in 2004.
- Qualified CSIR-UGC NET in June 2003.
- Qualified GATE in 2003.
- Ph.D from Indian Institute of Technology Kanpur in 2012.
 - Thesis Title: **A study of some abstract parabolic initial value problems with deviating arguments .**
 - Thesis Supervisor: **Prof. Dhirendra Bahuguna.**

Research Interest:

- Differential Equations, Fourier Analysis, Navier-Stokes equations.

Published articles in Journals:**2018**

- **R. Haloi**, *Solutions to abstract Volterra integro-differential equations with iterated deviating arguments*, The Journal of Analysis, June 2018, pp. 1–26.
- **R. Haloi**, *On solutions to fractional neutral differential equations with infinite delay*, Journal of fractional Calculus and Applications, Vol. 9(2) Jan 2018, pp. 77–92.

2017

- **R. Haloi**, *Approximate controllability of nonautonomous nonlocal delay differential equations with deviating arguments*, Electronic Journal of Differential Equations, Vol. 2017 (2017), No. 111, pp. 1-12.

2016

- P. Kumar, **R. Haloi**, D. N. Pandey and D. Bahuguna, *Existence of Solutions to a new class of abstract non-instantaneous impulsive fractional integro-differential equations*, Nonlinear Dynamics and Systems Theory, 16(1) 2016, 73-85.

2014

- **R. Haloi**, *Solutions to quasi-linear differential equations with iterated deviating arguments*, Electronic Journal of Differential Equations, Vol. 2014 (2014), No. 249, pp. 1-13.
- **R. Haloi**, Pradeep Kumar and D. N. Pandey, *Sufficient conditions for the existence and uniqueness of solutions to impulsive fractional integro-differential equations with deviating arguments*, Journal of fractional Calculus and Applications, Vol. 5(1) Jan 2014, No. 7, pp. 73–84. **Citation** : 01
- **R. Haloi**, *Existence of Weighted Pseudo-almost Automorphic Mild Solutions to Non-autonomous Abstract Neutral Differential Equations with Deviating Arguments*,

Differential Equation and Dynamical systems, 22(2), 2014, 165–179. **Citation** : 00

2013

- **R. Haloi**, *On solutions to a non-autonomous neutral differential equation with deviating arguments*, Nonlinear Dynamics and Systems Theory, Vol 13(3), 242–257. **Citation** : 02

2012

- **R. Haloi**, D. N. Pandey and D. Bahuguna, *Existence and Uniqueness of a Solution for a Non-Autonomous Semilinear Integro-Differential Equation with Deviated Argument*, Differential Equation and Dynamical systems, 20(1), 2012, 1–16. **Citation** : 04
- **R. Haloi**, D. N. Pandey and D. Bahuguna, *Existence and uniqueness of solutions for quasi-linear differential equations with deviating arguments*, Electronic Journal of Differential Equations, Vol. 2012 (2012), No. 13, pp. 1–10. **Citation** : 12
- **R. Haloi**, D. N. Pandey and D. Bahuguna, *Existence, uniqueness and asymptotic stability of solutions to non-autonomous semi linear differential equations with deviated arguments*, Nonlinear Dynamics and Systems Theory, 12 (2) (2012), 179–191. **Citation** : 07

2011

- **R. Haloi**, D. N. Pandey and D. Bahuguna, *Existence of solutions to a non-autonomous abstract neutral differential equation with de1. Haloi, R., Solutions to abstract Volterra integro-differential equation with iterated deviating arguments, accepted for publication in The Journal of Analysis. 2. Haloi, R On Solutions to fractional neutral differential equations with infinite delay, Journal of fractional Calculus and Applications, Vol. 9(2), 2018, pp.1-16. viated argument, Journal of Nonlinear Evolution Equations and Applications, 2011 (5) (2011) p. 75–90. **Citation** : 09*

Articles under review:

- **R. Haloi**, *Existence of mild solutions to fractional impulsive neutral differential equations with almost sectorial operators*, Electronic Journal of Differential Equations.
- **R. Haloi, S. Pal** *Existence and uniqueness of solutions of the Navier-Stokes equations with slip boundary condition for 3D incompressible fluids*, Mathematical Methods in Applied Sciences.
- **R. Haloi, S. Pal** *On solutions to the damped Navier-Stokes equation with Navier slip boundary conditions for three dimensional incompressible fluid*, International Journal of Mathematics.

Conference article:

- **R. Haloi** Approximate controllability of a nonlocal quasilinear differential equations with repeated deviating arguments, 12th American Institute of Mathematical Sciences (AIMS) Conference on Dynamical Systems, Differential Equations and Applications, July 5-9, 2018, Taipei, Taiwan.
- **R. Haloi**, A note on necessary condition for L^p multipliers with power weights, is accepted for presentation and publication in the Proceedings of the 4th International Conference on Mathematics and Computing (ICMC 2018) January 09-11, 2018 at IIT (BHU), Varanasi, India.
- **R. Haloi**, Solutions to abstract Volterra Integrodifferential equation with repeated deviating arguments, International Conference on Mathematical Analysis and its applications, IIT Roorkee, Nov 28- Dec 02, 2016.
- **R. Haloi**, On Approximate controllability of non-autonomous non local delay differential equations with deviating arguments, International Conference on current

trends in PDEs: theory and Computations, Dec. 28-30, 2015, South Asian University, NewDelhi.

Conference, Workshop attended:

2018

- 12th American Institute of Mathematical Sciences (AIMS) Conference on Dynamical Systems, Differential Equations and Applications, July 5-9, 2018, Taipei, Taiwan.
- 4th International Conference on Mathematics and Computing (ICMC 2018) January 09-11, 2018 at IIT (BHU), Varanasi, India.

2017

- Recent developments in Nonlinear Partial Differential Equations and Applications, 1st - 4th November 2017, TIFR CAM, Bangalore, India

2016

- International Conference on Mathematical Analysis and its applications, IIT Roorkee, Nov 28- Dec 02,2016.
- National workshop on Mathematical Analysis and Its Applications to Engineering, IIT Guwahati, Jan 02-04,2016.

2015

- International conference on current trends in PDEs: Theory and Computations, South Asian University, Dec 28-30, 2015.
- Workshop on Integral Equations-solvability,analysis and applications, NPDE, Jaypee University of Information Technology and IIT Gandhinagar, October 19-25, 2015.

2014

- Compact Course on Navier-Stokes Equations for Incompressible Fluids, TIFR CAM Bangalore, June 03 - 13, 2014.
- Advanced Instructional School on Theoretical and Numerical Aspects of Inverse Problems, TIFR CAM Bangalore, June 16 - 28, 2014.

2012

- Instructional School for Lecturers Differential Equations and Computation (2012), NBHM and Jaypee University of Information Technology, June 04–16, 2012.
- Workshop on Analysis, ISI and Tezpur University, January 03–09, 2012.

2010

- Satellite Conference on Harmonic Analysis (ICM 2010), NBHM and NISER, Bhubneswar, Aug 29 to Sept 02, 2010.
- Eleventh discussing meeting in Harmonic Analysis, NBHM and NISER, Bhubneswar, January 06–09, 2010.
- Workshop in Harmonic analysis, NBHM and NISER, Bhubneswar Dec 28, 2009 to Jan, 5, 2010.

2008

- Workshop in Harmonic Analysis and PDE, IMI and Dept. of Mathematics, Indian Institute of Science, Bangalore, December 05–13, 2008.
- 23rd Annual Conference of Ramanujan Mathematical Society, NBHM and Indian Institute of Technology Kanpur ,May 19– 21, 2008.
- National Instructional Workshop on Harmonic Analysis, NBHM and Indian Institute of Technology Kanpur, May 14–18, 2008.

2007

- Advanced Instructional School Representation Theory and its Application, NBHM and Bhaskaracharya Pratisthana and Department of Mathematics, University of Pune, July 2–28, 2007.

2006

- Short Term course on 'Matrix Computations and Applications' Department of Mathematics, IIT, Guwahati, December 18–22, 2006.

2004

- Instructional Workshop on Harmonic Analysis on symmetric spaces, IIT Kanpur and Indian Statistical Institute, June 21–July 09, 2004.

2002

- MTTTS Program held at IIT Guwahati (sponsored by NBHM) during June 03–29, 2002.

Reviewer Experiences:

- Mathematical Methods in the Applied sciences.
- Dynamics of Continuous, Discrete and Impulsive Systems A, Mathematical Analysis

Academic/Administrative responsibilities:

- Member, Tezpur University Entrance examination 2007.

Membership in the Scientific Societies:

- Life Member, Assam Academy of Mathematics.

Address for correspondence:

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References:

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