DR. ABHIJIT BANERJEE

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Dept. of Mathematics, Garhbeta College
Garhbeta, Paschim Medinipur, West Bengal, 721127

Date of Birth: 05.05.1981

Gender   Male

Present Professional Affiliation: Associate Professor in Mathematics, Garhbeta College, Paschim Medinipur-721127

EDUCATION

PhD	Dept. of Applied Mathematics, University of Calcutta	May 2013
MSc	Dept. of Mathematics, Jadavpur University	2003
BSc	Vidyasagar University	2001

HONORS/AWARDS/FELLOWSHIP ETC.

CSIR-UGC NET	JRF, 2002
GATE	AIR-105,2003
UGC FELLOWSHIP UNDER FDP	2010

PROFESSIONAL AFFILIATIONS (PREVIOUS)

ASSISTANT PROFESSOR	Krishnath College, Berhampore, Murshidabad, West Bengal-742101 (2005-2019)

RESEARCH AFFILIATIONS

JUNIOR RESEARCH FELLOW	Dept. of Applied Mathematics, University of Calcutta November 2003 – February 28, 2005
VISITING FELLOW	Chapman University, Orange, California, USA 2017

RESEARCH PROJECT

PI, Minor Research Project (UGC)	February 2015 – February 2017 Amount- Rs. 2,20,000/-
PI, ECR Award (SERB, DST) (Formerly YSS Scheme)	Since March 2018 (Sanctioned for 3 years) Amount- Rs. 18,25,560/-

PUBLICATIONS

1. BICOMPLEX MODULES WITH INDEFINITE INNER PRODUCT, Advances in Applied Clifford Algebras 29, 2019.
2. Exact bound state solutions for the bicomplex Morse oscillator, AIP conference Proceedings 1975, 2018.
3. Relativistic scattering of fermions in quaternionic quantum mechanics, The European Physical Journal C 77, 2017.
4. Bicomplex harmonic and isotonic oscillators: the excited states, Advances in Applied Clifford Algebras 27, 2017.
5. On the quantum mechanics of bicomplex Hamiltonian system, Annals of Physics 377, 2017.
6. Periodic Hamiltonian hierarchies and nonuniqueness of superpotentials, Pramana Journal of Physics 88, 2017.
7. Inverse Fourier Transform for Bicomplex variables, Malaya Journal of Matematik 4, 2016.
8. Bicomplex Hamiltonian systems in Quantum Mechanics, Journal of Physics A: Mathematical and Theoretical 48, 2015.
9. A generalized Swanson Hamiltonian in a second-derivative pseudo-supersymmetric framework, International Journal of Modern Physics A 30, 2015.
10. Fourier transform for functions of bicomplex variables, Asian Journal of Mathematics and Applications 2015, 2015.
11. Inverse Laplace Transform for Bicomplex Variables, Mathematical Inverse Problems 1, 2014.
12. CPT-conserved effective mass Hamiltonians through first and higher order charge operator C in a supersymmetric framework, Journal of Mathematical Physics 54, 2013.
13. PT-symmetric quartic anharmonic oscillator and position-dependent mass in a perturbative approach, Czechoslovak Journal of Physics 56, 2006.
14. Hamiltonians with Position-Dependent Mass, Deformation and Supersymmetry, Bulgarian Journal of Physics 33, 2006.
15. A Perturbative Treatment of a Generalized PT-Symmetric Quartic Anharmonic Oscillator, Modern Physics Letters A 20, 2005.
16. CPT-Conserving Hamiltonians and their Nonlinear Supersymmetrization Using Differential Charge- Operators C, International Journal of Modern Physics A 20, 2005.
17. Deformed shape invariance and exactly solvable Hamiltonians with position-dependent effective mass, Journal of Physics A: Mathematical and General 38, 2005.

OTHER

Member of UG Board of Studies, University of Kalyani since 2011 up to June, 2017

Performing various administrative responsibilities in college, among them a significant few:
Member of IQAC for the period 2014-2016; Head of the Department in 2007-10, 2012-13,2015-16; member of admission committee etc. in Krishnath College.