Bio-Data

Dr Badam Singh Kushvah
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DATE OF BIRTH: 01.01.1974

ACADEMIC QUALIFICATIONS

Degree	Year	University	Class /Grade
M. Sc.	2000	Barkatullah University Bhopal (M.P.)	I Class
NET	2002	CSIR-UGC	
PGDCA	2004	B.R.A. Bihar University Muzaffarpur (Bihar)	**'A' Grade**
Ph.D.	2007	B.R.A. Bihar University Muzaffarpur (Bihar)	Thesis Title: Stability of Equilibrium Points in the Generalised Photogravitational Restricted Three Body Problem with Poynting-Robertson Drag

HONOURS AND AWARDS

- Awarded for Best Poster Presentation in 93rd Indian Science Congress Year 2005-2006, held at Acharya N.G. Ranga Agricultural University, Hyderabad, January 3 to7, 2006.

VISIT ABROAD: Bremen, Germany July 2010

- Oral presentation in the 38th COSPAR Scientific Assembly from 18 - 25 July 2010, held at the Congress Center Bremen, Buergerweide 1, 28215 Bremen, Germany.

LIFE MEMBERSHIP:

- Calcutta Mathematical Society (CMS), Kolkata.
- Indian Society of Theoretical & Applied Mechanics (ISTAM), IIT Kharagpur:(Memb.No.L/542)
- Astronomical Society of India(ASI), Hyderabad 500 007, India:(Memb.No.L2035)
- Indian Society of Industrial and Applied Mathematics(ISIAM), India: (Memb.No.:K-64)
- The Indian Science Congress Association(ISCA), Kolkata, India (Memb.No.L16026)
- Society of Applied Mathematics, ISM Dhanbad

REVIEWER:

- Astrophysics and Space Science, Springer
- Mathematical Sciences for Advancement of Science & Technology(MSAST), Kolkata Dec.19-20, 2010
- Journal of Nature Science and Sustainable Technology (JNSST) https://www.novapublishers.com
- International Journal of Theoretical Physics(IJTP) http://www.springer.com/physics/journal/10773

MEMBER OF EDITORIAL BOARD FOR:

- Journal of Mathematics and Computer Applications Research (JMCAR) http://www.tjprc.org

RESEARCH PROJECTS:

1. DST Project: SERC Fast Track Scheme for Young Scientist in Physical Sciences D.O. No. SR/FTP/PS-121/2009 2010(Ongoing)

Title of the Project: Analysis of Effective Stability around the Equilibrium Points in the Generalised Photogravitational Chermnykh -Like Problem

DOS:04th Oct. 2010, Duration:3 years

2. **ISM Minor Research Project:** No. 2010/MRM/AM/4/Acad, June 2010(ongoing).

Title of the Project: Computation of Effective Stability in the Generalised Phtogravitational Chermnykh-Like Problem

DOS:30th June 2010 Duration:2 years

3. **A research proposal entitles** "Stability and Chaos in Photogravitational N-body Problem with Solar Wind Drag" submitted to the ISRO in July 2011**(Revised on 31st Oct. 2011).**

PH.D. GUIDE:

1. Mr. Ram Kishor(Reg. 18.01.11). 2. Mr. Avijit Kar(Reg. 25.03.11). 3. Miss. Reena Kumari(Reg. 01.07.11)

TEACHING EXPERIENCE(UG&PG):

1. Reader of Mathematics, in Gwalior Engineering College (GEC) Airport Road, Maharajpura, Gwalior (M.P.) form 14-06-2007 to 21-07-2008.

2.Lecturer in the Department of Mathematics, National Institute of Technology (NIT), G.E. Road Raipur(C.G.) from 23-07-2008 to 16-05-2009.

Present Position-Working as an Assistant Professor in the Department of Applied Mathematics, Indian School of Mines University, Dhanbad -826004, since 18-05-2009.

VISITING ASSOCIATE(2011-14) of Inter-University Centre for Astronomy and Astrophysics (IUCAA) , Post Bag 4, Ganeshkhind, Pune 411 007, Maharashtra, INDIA.

LIST OF PUBLICATIONS(Link http://arxiv.org**)**

A)National Journals:

1. Triangular equilibrium points in the Generalized Photogravitational Restricted Three Body Problem with Poynting-Robertson Drag, *Review Bulletin of the Calcutta Mathematical Society, 12(1 & 2), 109-114(2004).*
2. Stability of Triangular Equilibrium Points in Robe's Generalised Restricted Three Body Problem, *Proceedings of Mathematical Society B.H.U., Varansi, Vol.20 95-100(2005).*
3. First order Normalization in the Generalized Photogravitational Restricted Three Body Problem with Poynting-Robertson Drag, *Review Bulletin of the Calcutta Mathematical Society, 14(2), 85-92(2006).*
4. Higher Order Normalization in the Generalized Photogravitational Restricted Three Body Problem with Poynting-Robertson Drag, *Bull. Astr. Soc. India, 35, 319-338(2007)*
5. Second order Normalization in the Generalized Photogravitational Restricted Three Body Problem with Poynting-Robertson Drag, *Review Bulletin of the Calcutta Mathematical Society, 16(2), 161-176(2008).*

B)International Journals:

1. Linear Stability of Triangular Equilibrium Points in the Generalised Photogravitational Restricted Three Body Problem with Poynting-Robertson Drag, *Journal of Dynamical Systems and Geometric Theories, 4(1) 79-86(2006).*
2. Normalization of Hamiltonian in the Generalized Photogravitational Restricted Three Body Problem with Poynting-Robertson Drag, *Earth, Moon and Planets, Springer Netherlands, 101(1), 55-64(11.09.2007). (DOI:10.1007/ s11038-007-9149-3)*
3. Nonlinear Stability of Triangular Equilibrium Points in the Generalised Photogravitational Restricted Three Body Problem with Poynting-Robertson Drag, *Astrophysics and Space Science, 312, 279-293(2007). (DOI:10.1007/s10509-007-9688-0)*
4. The effect of Radiation Pressure on the Equilibrium points in the Generalised Photogravitational Restricted Three Body Problem, *Astrophysics and Space Science, 315, 231-241(2008) (DOI:10.1007/s10509-008-9823-6)*
5. Linear Stability of Equilibrium points in the Generalized Photogravitational Chermnykh's Problem, *Astrophysics and Space Science, 318, 41-50(2008),(DOI:10.1007/s10509-008-9898-0)*
6. Linearization of the Hamiltonian in the Generalized Photogravitational Chermnykh's problem. *Astrophysics and Space Science, 323(1), 57-63, (DOI:10.1007/s10509-009-0047-1)*
7. Poynting-Robertson effect on the Linear Stability of Equilibrium Points in the Generalised Photogravitational Chermnykh's Problem, *(RAA) IOP USA, 9, 1049-1060 (DOI:10.1088/1674-4527/9/9/009)*
8. *Trajectory and stability of Lagrangian point L2 in the Sun-Earth* system, Astrophysics and Space Science Volume 332, Number 1, Pages 99-106(2011) (DOI:10.1007/s10509-010-0493-9)
9. Trajectories of L4 and Lyapunov Characteristic Exponents in the Generalized Photogravitational Chermnykh-Like problem,Astrophysics and Space Science,2011, Volume 333(1), Pages 49-59 (DOI:10.1007/s10509-011-0632-y)
10. Trajectories and Stability Regions of the Lagrangian Points in the Generalized Chermnykh-Like Problem, Mathematics in Science and Technology;Mathematical Methods,Models and Algorithms in Science and Technology,April 2011,World Scientific Publisher Singapore (ISBN:978-981-4338-81-3,981-4338-81-8).
11. Existence of Equilibrium Points and their Linear Stability in the Generalized Photogravitational Chermnykh-Like Problem with Power-law Profile, Astrophysics and Space Science, Springer(Online First™, 16 September 2011)(DOI: 10.1007/s10509-011-0857-9).

C)Book/Monograph: The Celestial Mechanics: Study of Stability:... Good Idea for Space Colonization!, *Publisher: VDM Verlag Dr. Muller Aktiengesellschaft & Co. KG (28 Oct 2009),ISBN-10: 3639197437*