



# Miranda House

## UNIVERSITY OF DELHI

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**Name (in Block Letters):** ABHA DEV HABIB

**Department:** Physics

**Current Designation:** Associate Professor

**Email id:** abhadev.habib@mirandahouse.ac.in

**Academic Qualifications (reverse chronological order):**

- Ph.D., Department of Physics and Astrophysics, University of Delhi, 2004
- NET-JRF (CSIR-UGC) in Physical Sciences, June 1996
- M.Sc. Physics, Department of Physics and Astrophysics, University of Delhi, 1996
- B.Sc. (Hons) Physics, Miranda House, University of Delhi, 1994

**Research Degree(s) (reverse chronological order):**

Ph.D., Department of Physics and Astrophysics, University of Delhi, 2004  
(Thesis Title: Cosmic Equation of State and Gravitational Lensing Statistics)

**Field of Specialization under the Subject/Discipline:**

Cosmology; Constraints on cosmological parameters in dark energy models using observational data.

**Total Teaching Experience:** 21 years

**Teaching at Miranda House since:**

Permanent Faculty since March 10, 2005.  
Lecturer (ad-hoc) from July 2001- March 2005.

**Total Publications (in referred journals):** 21

**Scopus h-index:** 21

**Citations (Scopus):** 808

**List of Publications (reverse chronological order):**  
(Articles in referred/peer-reviewed/UGC Care journals/ Books/Book Chapters)

- Constraints on dark energy from the lookback time versus redshift test, L. Samushia, A. Dev, D. Jain, B. Ratra, Physics Letters B, ISSN: 0370-2693, 2010, 693, 509



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- Constraining dark matter-dark energy interaction with gas mass fraction in galaxy clusters, R. S. Goncalves, J.S. Alcaniz, A. Dev and D. Jain, *Memorie della Societa Astronomica Italiana*, ISSN (printed): 0037-8720. ISSN (electronic): 1824-016X, 2009, 80, 921
- Delicate  $f(R)$  gravity models with disappearing cosmological constant and observational constraints on the model parameters, A. Dev, D. Jain, S. Jhingan, S. Nojiri, M.Sami and I. Thongkool, *Physical Review D: Particles and fields* (ISSN:0556-2821), 2008, 78, 083515
- Cosmological bounds on oscillating dark energy models, D. Jain, A. Dev and J. S. Alcaniz, *Phys.Lett. B*, ISSN: 0370-2693, 2007, 656, 15
- Age constraints on the cosmic equation of state, M. A. Dantas, J. S. Alcaniz, D. Jain and A. Dev, *Astronomy & Astrophysics*, ISSN:0004-6361, 2007, 467,421
- Variable Chaplygin Gas: Constraints from CMBR and SNe Ia, G. Sethi, S. K. Singh, P. Kumar, D. Jain and A. Dev, *Int. Jr. Mod. Phys D*, ISSN: 0218-2718, 2006, 15, 1089
- Age of High Redshift Objects: A litmus test for dark energy models, D. Jain and A. Dev, *Phys. Lett. B*, ISSN: 0370-2693, 2006, 633, 436
- Observational Constraints on the time-dependence of dark energy, D. Jain, J. S. Alcaniz and A. Dev, *Nuclear Phys. B*, ISSN: 0550-3213, 2006, 732, 379
- Cosmological Constraints on a Power Law Universe, G. Sethi, A. Dev and D. Jain, *Phys. Lett. B*, ISSN: 0370-2693, 2005, 624, 135
- Constraints on the Cardassian expansion from the Cosmic Lens All-Sky Survey Gravitational Lens Statistics, J. S. Alcaniz, A. Dev and D. Jain, *Astrophysical Jr.*, ISSN: 0004-637X, 2005, 627, 26
- Constraints on Chaplygin quartessence from the CLASS gravitational lens statistics and supernova data, A. Dev, D. Jain and J. S. Alcaniz, *Astronomy & Astrophysics*, ISSN: 0004-6361, 2004, 417, 847
- Dark Energy and the Statistical Study of the Observed Image Separations of the Multiply Imaged Systems in the CLASS Statistical Sample, A. Dev, D. Jain and S. Mahajan, *Int. Jr. Mod. Phys. D*, ISSN: 0218-2718, 2004, 13, 1005
- The angular size -redshift relationship in Power law cosmologies, D. Jain, A. Dev and J.S. Alcaniz, *Classical and Quantum Gravity*, ISSN: 0264-9381, 2003, 20, 4485
- High-redshift objects and the generalized Chaplygin gas, J.S. Alcaniz, D. Jain and A. Dev, *Physical Review D: Particles and fields*, ISSN:0556-2821, 2003, 67, 043514
- Cosmological Consequences of a Chaplygin gas dark energy, A. Dev, J.S. Alcaniz and D. Jain, *Physical Review D: Particles and fields*, ISSN: 0556-2821, 2003, 67, 023515



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- Gravitational Lensing Constraints on the Cosmic Equation of State, D. Jain, A. Dev, N. Panchapakesan, S. Mahajan and V.B. Bhatia, Int. J. Mod. Phys. D, ISSN: 0218-2718, 2003, 12, 953
- Constraint on the cosmic equation of State using Gravitational Lensing Statistics with evolving galaxies, A. Dev, D. Jain, N. Panchapakesan, S. Mahajan and V. B. Bhatia, Int. J. Mod. Phys. D, ISSN: 0218-2718, 2003, 12, 101
- Age Constraints on Brane Models of Dark Energy, J. S. Alcaniz, D. Jain and A. Dev, Physical Review D: Particles and fields, ISSN:0556-2821, 2002, 66, 067301
- Brane World Cosmologies and Statistical Properties of Gravitational Lenses, D. Jain, A. Dev and J.S. Alcaniz, Physical Review D: Particles and fields, ISSN: 0556-2821, 2002, 66, 083511
- Cosmological Tests for a Linear Coasting Cosmology, A. Dev, M. Safonova, D. Jain and D. Lohiya), Phys. Lett. B, ISSN: 0370-2693, 2002, 548, 12
- Linear Coasting in Cosmology and SNeIa, A. Dev, M. Sethi and D. Lohiya, Phys. Lett. B, ISSN: 0370-2693, 2001, 504, 207

### Research Projects (reverse chronological order):

Sponsoring Agency	Title of Research Projects	Position	Tenure	Total Grants sanctioned (in Rs.)
DST	Models of Dark Energy: Theory and Observations	Co-PI	2009-2012	17,75,600

### Membership Of Professional/Statutory Bodies (reverse chronological order):

- a. Nominated by the University of Delhi to represented teachers in the 7<sup>th</sup> Regional Workshop for Pay Review Committee; 25.10.2016
- b. Student Feedback Committee of the University of Delhi, 2015-16
- c. Elected teacher representative, Executive Council, University of Delhi as per Statute 5(1)(xi), 5 February 2015- February 2017
- d. Elected teacher representative to the Executive Council, University of Delhi as per Statute 5(1)(xi), 4 February 2013 – February 2015
- e. Elected teacher representative, Academic Council, University of Delhi, 24 December 2008 – December 2010



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- f. Elected teacher representative, Academic Council, University of Delhi, 24 December 2006 – December 2008
- g. Member, Central Admission Grievance Committee (Main Campus), Academic Session 2010-2011
- h. Member, Standing Committee, Students, Jan 2007- Dec 2008, Jan 2009- Dec 2010
- i. Member, Medical Sciences Courses Admission Committee, Academic years 2007, 2008, 2009, 2010
- j. Member, Homeopathic Medicines Courses Admission Committee, Academic years 2007, 2008, 2009, 2010

### Administrative Responsibilities in the College (reverse chronological order):

S. No.	Office/ Position Held/ Responsibility	Details of Activity	Duration	
			From	To
1.	<b>Nodal Officer, EWS</b>	To share responsibility of the Teaching Roster	10.6.2019	continuing
2.	<b>Member, Roster Committee</b>	Roster Committee is a Staff Council Committee in Miranda House. The Roster Committee maintains roster for the teaching faculty.	2019	continuing
3.	<b>Website and Connectivity Committee</b>	To draw concept for the College website and its development.	August 2021 - continuing	
4.	<b>Prospectus Committee</b>	To design admission bulletin for the College.	For Admissions 2020-21 For Admissions 2019-20	
5.	<b>Deputy Superintendent</b>	SOL Annual Examinations	May- June 2019	
6.	<b>Deputy Superintendent</b>	Semester-end University Examinations for Regular Courses	May- June 2019	
7.	<b>Deputy Coordinator, Centralised Evaluation Center, Miranda House</b>	Semester Examinations	November – December 2016	
8.	<b>Presiding Officer Election of Students' Representatives to ICC and GSC</b>	As per the Staff Council decision, the Convenor of the WDC is Presiding Officer for the elections of students' representatives to the Gender Sensitising Committee and Internal Complaints Committee (ICC). Entire student population participates in the election.	4.9.2019 20.2.2019	4.10.2019 14.3.2019



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S. No.	Office/ Position Held/ Responsibility	Details of Activity	Duration	
			From	To
		Elections are held annually.		
9.	<b>Teacher-in-Charge, Physics Department</b>	<p>Academic and administrative coordinator for the Department. To coordinate with the Principal's Office for day-to-day running of the Department and Department of Physics and Astrophysics for various issues concerning teaching. To call Departmental meetings on issues concerning teaching-learning processes and infrastructural needs of the Department. To organise and facilitate Departmental activities like teaching, admissions, recruitment of faculty members, prepare workload, time-tables, students' activities, lab-setting, purchase of equipment and books and annual stock checking. To get major and minor repairs done through the Office.</p> <p><b>As TIC, also prepared schedule for the semester-end practical examinations,</b> suggested Internal and External Examiners to the Principal's Office and prepared chart for invigilation duties for practical examinations.</p> <p><b>Superintendent of Practical Examinations,</b> Physics Department for Odd 2013-14, Even 2013-14, Odd 2014-15, Even 2014-15.</p> <p>Was appointed on the <b>Selection Committee</b> for appointment of teachers on adhoc basis as per the EC Resolution of 2007.</p>	31.10.2013	31.10.2015
10	<b>Academic Committee Ex-Officio Member, TiC</b>	An important Staff Council Committee for discussing academic matters and overseeing organisation of teaching-learning	31.10.2013	31.10.2015



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S. No.	Office/ Position Held/ Responsibility	Details of Activity	Duration	
			From	To
11	<b>Library Committee Ex-Officio Member as TiC</b>	To decide utilization of grants towards Library.	31.10.2013	31.10.2015
12	<b>Secretary, Staff Council</b>	Staff Council is the Statutory Body at College level with its duties defined by Ordinance XX (1)6. A .  As Secretary, Staff Council, the task is to notify and organise Staff Council meetings and to maintain minutes of the meetings.	14.12.2012	12.12.2014
13	<b>Monitoring Committee for Internal Assessment Ex-Officio Member, (as Secretary, Staff Council)</b>	To monitor Internal Assessment of students enrolled in various courses in the College.	14.12.2012	12.12.2014
14	<b>Planning Committee Ex-Officio Member, (as Secretary, Staff Council)</b>	To study infrastructure requirements and scrutinize and suggest building plans for the College	14.12.2012	12.12.2014
15	<b>Teachers Welfare Committee</b>  (i) <b>Ex-Officio Member (as Secretary, Staff Council)</b>  (ii) <b>Secretary Staff Association</b>	To decide on the House Allotment for the teaching staff in case of a vacancy	14.12.2012  2008	12.12.2014  2012
16	<b>Financial Assistance Committee Ex-Officio Member, (as Secretary, Staff Council)</b>	To decide and accordingly shortlist candidates for various scholarships available through the College	14.12.2012	12.12.2014
17	<b>Founder's Day Committee</b>  i. <b>Ex-Officio Member as Secretary, Staff Council</b>  ii. <b>Ex-Officio Member as Secretary, Staff Association</b>	To help in the organization of Founder's Day	14.12.2012  2008	12.12.2014  2012



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S. No.	Office/ Position Held/ Responsibility	Details of Activity	Duration	
			From	To
7.	<b>Election Officer Karamchari Union Election</b>	To oversee and conduct elections of the Karamchari Union	1.10.2018	26.10.2018
8.	<b>Election Officer Karamchari Union Election</b>	To oversee and conduct elections of the Karamchari Union	1.10.2015	16.10.2015
9.	<b>Election Officer Karamchari Union Election</b>	To oversee and conduct elections of the Karamchari Union	19.09.2012	2.10.2012
10	<b>Extended Admission Committee, Member</b>	Admissions and counseling of students in the Department of Physics (for UG and PG courses)	Oct 2020 June 2019 June 2018 June 2017 June 2015 June 2011 June 2008 June 2007	July 2019 July 2018 July 2017 July 2015 July 2011 July 2008 July 2007
11	<b>Anti-Ragging Committee</b>	To create literature/posters/booklets for awareness on the matter and maintain discipline along with the Proctorial Committee in the beginning of the academic session.	April 2009	April 10
12	<b>Editorial Ventures</b>	To work on College Magazine	April 2007	April 2006
13	<b>Garden Committee, Member</b>	To plan and maintain Green Campus and assist Flower Show held at the University	April 2007	April 2009
14	<b>Website Committee, Member</b>	To draw concept for the College website and its development. To do survey of sites of various educational institutions and to invite and shortlist service providers	April 2004	April 2006