Dr. Nashiba Parbin, Ph.D.

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000-0002-3570-0117 Dr. Nashiba Parbin Bangalore, India



Employment History

July 2024 – Oct. 2024	**Assistant Professor**, AMC Engineering College, Bengaluru - 560083, Karnataka, India.
Aug. 2019 – Feb. 2020	**Lecturer**, Dibru College, Dibrugarh - 786003, Assam, India.
May 2017 – June 2017	**Lecturer**, Reverend William Ward Junior Academy, North Lakhimpur - 787001, Assam, India.

Education

2018 – 2024 **Ph.D. (Physics), Dibrugarh University, Assam.**
Thesis Title: *A study on Dark Matter in the framework of Modified Theories of Gravity.*
Supervisor: **Prof. Umananda Dev Goswami**, Department of Physics, Dibrugarh University, Dibrugarh - 786004, Assam, India.

2015 – 2017 **M.Sc. (Physics), NERIST, Arunachal Pradesh.**
Specialization: Condensed Matter Physics.
Elective: Particle Physics.
CGPA: 8.19 (76.9%)
Project Title: *A study of some Bose-Einstein integral functions.*
Project Supervisor: **Dr. Akbari Jahan**

2011-2014 **B.Sc. (Physics), Cotton College, Gauhati University, Assam.**
Physics (Major), Geology (General) and Mathematics (General).
Percentage: 73.12%

2008-2010 **12th Board (AHSEC), Brahmaputra Valley Academy, North Lakhimpur, Assam.**
Physics, Chemistry, Mathematics, Biology, Alternative English, and English.
Percentage: 81.80%

2008 **10th Board (SEBA), St. Marys' High School, North Lakhimpur, Assam.**
Assamese (MIL), English, General Mathematics, Advanced Mathematics, General Science and Social Science.
Percentage: 80.83%

Research Interest

- Dark Matter, Scalarons.
- Modified Theories of Gravity ($f(R)$ gravity, $f(T, B)$ gravity, $f(R, T)$ gravity, Chern-Simons gravity, etc.), General Relativity.
- Gravitational Lensing, Black Holes, Deflection Angle, Einstein Radius.
- Galactic Dynamics, Rotation Curve.
- Particle Physics, Neutron Stars.

Skills

Coding	Mathematica, LaTeX, C++, FORTRAN, Root by CERN, Origin, GNU Plot, Octave, MATLAB.
Operating Systems	Linux, Windows.
Misc.	Tutoring, Lesson planning, Curriculum development, Classroom management, Academic Research.
Languages	English, Hindi, Assamese (Native), Kannada (Beginner).

Research Publications

1. H. Lekbich, A. E. Boukili, **N. Parbin**, and M. B. Sedra, *Charged noncommutative geometry inspired stringy black hole*, International Journal of Modern Physics D **35**, 2550080 (2026).
2. G. Mohan, **N. Parbin**, and U. D. Goswami, *Investigating the effects of gravitational lensing by Hu-Sawicki $f(R)$ gravity black holes*, European Physical Journal C **85**, 413 (2025).
3. H. Lekbich, **N. Parbin**, A. E. Boukili, and M. B. Sedra, *The optical features of noncommutative charged 4d-Ads-Einstein-Gauss-Bonnet black hole : shadow & deflection angle*, European Physical Journal C **84**, 350 (2024).
4. **N. Parbin**, D. J. Gogoi, J. Bora, and U. D. Goswami, *Deflection angle, quasinormal modes and optical properties of a de Sitter black hole in $f(T, B)$ gravity*, Physics of the Dark Universe **42**, 101315 (2023).
5. **N. Parbin**, D. J. Gogoi, and U. D. Goswami, *Weak gravitational lensing and shadow cast by rotating black holes in axionic Chern-Simons theory*, Physics of the Dark Universe **41**, 101265 (2023).
6. **N. Parbin** and U. D. Goswami, *Galactic rotation dynamics in a new $f(R)$ gravity model*, European Physical Journal C **83**, 411 (2023).
7. **N. Parbin** and U. D. Goswami, *Scalarons mimicking dark matter in the Hu-Sawicki model of $f(R)$ gravity*, Modern Physics Letters A **36**, 2150265 (2021).

Book Chapters

1. **N. Parbin**, *Dynamics of the Rotational Velocity Curves of galaxies from the perspective of Modified Gravity*, Eunoia, ISBN: 978-93-5860-685-0 (Purbayon Publication, 2023).
2. **N. Parbin**, J. Bora, and D. J. Gogoi, *Applications of the Pseudo-Spectral method and Matrix Numerov Method in anharmonic potential problem*, p.73, Research Trends in Science and Technology (https://doi.org/10.22271/ed.book.1907), ISBN: 978-93-5570-344-6 (AkiNik Publications, 2022).

Conferences

1. Delivered a talk entitled *Gravitational Lensing features around a Black Hole covered in Axionic hair* at the Physics Frontiers - 2024: Bridging Theories and Experiments, organized by the Department of Physics, Bhawanipur Anchalik College, Assam, on 2-4th July, 2024.
2. Presented a poster entitled *Galactic Rotation Curves from the perspective of Modified Gravity* at the 42nd meeting of the Astronomical Society of India (ASI), held at IISc, Bangalore on 31st Jan.-4th Feb., 2024.
3. Presented a contributory talk entitled *Bending Angle of light by slowly rotating Black Hole in Chern-Simons Modified Gravity* at An Inaugural Conference on Current Status of Cosmology,

organized by The Thanu Padmanabhan Centre for Cosmology and Science Popularization (CCSP), SGT University, Gurugram, Delhi-NCR on 17–19th Oct., 2022.

4. Presented a poster entitled *Scalarons mimicking Dark Matter (DM) in Hu-Sawicki model of $f(R)$ gravity* at the 9th International Conference on Gravitation and Cosmology (ICGC), held at IISER, Mohali on 10-13th Dec., 2019.
5. Presented a talk entitled *Scalarons as Dark Matter (DM) in $f(R)$ gravity* at the North-East Meet of Astronomers - V (NEMA-V), held at Tezpur University, Assam on 11-13th Sept., 2019.

Webinars

1. Webinar on *Physics of Black Holes* organized by Department Of Physics, Basugaon College, Assam, on 19th June, 2024.
2. Webinar on *Journey Through the Abyss: Exploring Black Holes and Wormholes* organized by Department Of Physics, Majuli College, Assam, on 28th February, 2024.
3. International webinar on *Recent Aspects In Physics* organized by Department of Physics, Lakhimpur Girls' College, North Lakhimpur, Assam on 27-29th July, 2020.
4. *Online Lecture Series in Physics* organized by Department of Physics, Digboi College, Digboi, Assam on 20-27th July, 2020.
5. Webinar on *Quantum Evolution* organized by Department of Physics, Duliajan College, Duliajan, Assam on 20th July, 2020.
6. *International E-Conference on New Frontiers in Science and Technology* organized by Research Institute of Science and Technology, Manipur University Campus, Manipur on 9-11th July, 2020.

Achievements

1. Reviewer for Advanced Photonics Research (Wiley).
2. Qualified **SLET(NE)** Examination in 2018 with a score of 228.
3. Qualified All India Engineering Entrance Examination (**AIEEE**) in 2010.

Collaborators

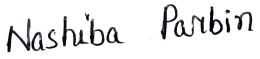
1. Dr. Hicham Lekbich, Equipe Physique Moderne, Rayonnement et Applications, Laboratoire des Systèmes Intelligents, Matériaux et Energies durables, FST Errachidia, Université Moulay Ismail de Meknés, Morocco.
2. Dr. Dhruba Jyoti Gogoi, Department of Physics, Madhabdev University, Assam - 784164, India.
3. Mrs. Gayatri Mohan, Department of Physics, Sibsagar Girls' College, Assam - 785640, India.
4. Dr. Jyatsnasree Bora, Department of Physics, Madhabdev University, Assam - 784164, India.
5. Prof. Umananda Dev Goswami, Department of Physics, Dibrugarh University, Assam - 786004, India.
6. Dr. Abderrahman El Boukili, Equipe Physique Moderne, Rayonnement et Applications, Laboratoire des Systèmes Intelligents, Matériaux et Energies durables, FST Errachidia, Université Moulay Ismail de Meknés, Morocco.
7. Dr. Moulay Brahim Sedra, Material and Subatomic Physics Laboratory (LPMS), FSK, University Ibn Tofail, Kenitra, Morocco.

Personal details

- Father's Name : **Nasibuddin Ahmed**
- Mother's Name : **Shahnaj Begum**
- DOB : **09/11/1991**
- Nationality : Indian
- Marital Status : Married
- Address : Eshwari Oakdale Apartments, JP Nagar 8th Phase, Bengaluru - 560076

Declaration

I hereby declare that all the above-mentioned information is correct and true to the best of my knowledge.



Date: 16/03/2026
Place: Bangalore

Signature: **Nashiba Parbin**