

Curriculum Vitae

Dr. Bikash Dey
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Educational Qualifications:

- **Ph.D** in physics from Central Institute of Technology, Kokrajhar, Assam, India.
- **M.Sc** in physics from Gauhati University, Assam, India;(2011-2013), secured 1st class (CGPA – 7.26).
- **B.Sc** in physics from Kokrajhar Govt. College, Kokrajhar, Assam, India (2008-2011), secured 1st class (69.2%).
- **H.S** from Kokrajhar Govt. College, Kokrajhar, Assam, India (2006-2008), secured 1st class (61%).
- **H.S.L.C** from Netaji Subhas Vidya Niketan H.S school, Basugaon, Assam, India; secured 1st class (66.66%).

Exam Qualified:

- State Eligibility Test (SET), UGC, NE Region, in 2015 for lectureship.

Award:

- **Anundoram Borooah award** from Assam State Government for securing 1st division in HSLC examination held in 2006.

Professional Experience:

- Ten years teaching experience as an Assistant Professor in **Science College, Kokrajhar, BTR, Assam.**
- Three years teaching experience as a Guest Faculty in **Bodoland University.**

List of Papers Published in International Journals:

1. **Influence of Al doping on crystal structure, magnetic and optical properties of TiO₂ compounds.** B.Dey, R. Narzary, S. Ravi, S. K. Srivastava. Journal of Physics and Chemistry of Solids 194 (2024) 112225 [IF=4.3]
2. **Room temperature ferromagnetism, optical band gap widening in Mg-doped ZnO compounds for spintronics applications.** B. Dey, R. Narzary, Sushree Nibedita Rout, Manoranjan Kar, S. Ravi, S. K. Srivastava. Ceramics International (2023) [IF=5.2]
3. **Room Temperature d⁰ Ferromagnetism of Ag:ZnO Compounds.** B. Dey, J. Mallick, M Kar, S. K. Srivastava. Journal of Superconductivity and Novel Magnetism, 36 (2023) 657 [IF=1.675].
4. **Observation of room temperature d⁰ ferromagnetism, bandgap narrowing, zero dielectric loss, dielectric enhancement in highly transparent p-type Na-doped rutile TiO₂ compounds for spintronics applications.** B. Dey, Shantanu Kumar Panda, Jyotirekha Mallick, Santanu Sen, B.N.Parida, A.Mondal, Manoranjan Kar, S. K. Srivastava, J. of Alloys and Compounds 930 (2023) 167442. [IF=6.371]
5. **Room temperature d⁰ ferromagnetism, band-gap reduction, and high optical transparency in p-type K-doped ZnO compounds for spintronics applications.** B. Dey, R. Narzary, Shantanu Kumar Panda, Jyotirekha Mallick, A. Mondal, S. Ravi,

- Manoranjan Kar, S. K. Srivastava. *Materials Science in Semiconductor Processing* (2022) [IF=3.927].
6. **Crystal structure, microstructure, optical, dielectric, and magnetic properties of TiO₂ nanoparticles.** B. Dey, S. K. Srivastava. *Journal of Materials Science: Materials in Electronics* (2022) [IF=2.779].
 7. **Crystal Structure, Optical and Dielectric Properties of Ag:ZnO Composite Like Compounds.** B. Dey, R. Narzary, L. Chouhan, S. Bhattacharjee, B. N. Parida, A. Mondal, S. Ravi, S. K. Srivastava
Journal of Materials Science: Materials in Electronics 33 (2022)2855–2868 [IF=2.478]
 8. **Tailoring room temperature d⁰ ferromagnetism, dielectric, optical and transport properties in Ag-doped rutile TiO₂ compounds for spintronics applications.** L. Chouhan, R. Narzary, B. Dey, Shantanu Kumar Panda, Murli Kumar Manglam, L. Roy, R. Brahma, A. Mondal, M. Kar, S. Ravi, S. K. Srivastava. *Journal of Materials Science: Materials in Electronics* 32 (2021) 28163 [IF=2.478].
 9. **Influence of K/Mg co-doping in tuning room temperature d⁰ ferromagnetism, optical and transport properties of ZnO compounds for spintronics applications** R. Narzary, B. Dey, Sushree Nibedita Rout, A. Mondal, G. Bouzerar, Manoranjan Kar, S. Ravi, S. K. Srivastava *J. of Alloys and Compounds* 934 (2023) 167874 [IF=6.371].
 10. **Influence of Na/Mg co-doping in tuning microstructure, transport, optical and magnetic properties of TiO₂ compounds for spintronics applications** R. Narzary, B. Dey, S. Sen, B. N. Parida, A. Mondal, S. Ravi, S. K. Srivastava *Magnetochemistry* 8 (2022) 150 [IF=3.336].
 11. **Optical Band Gap Tuning, Zero Dielectric Loss and Room Temperature Ferromagnetism in (Ag/Mg) co-doped SnO₂ compounds for Spintronics Applications.** R. Narzary, B. Dey, L. Chouhan, S. Kumar, S. Ravi, S. K. Srivastava. *Materials Science in Semiconductor Processing* 142 (2022) 106477 [IF=3.927].

Book chapters:

- System-Size dependence of the effective temperature of FAIR energy. *Title of Book: Convergence, ISBN: 978-93-88593-33-5.*
- Effect of Mg doping on Crystal Structure, Micro-structure and Magnetic properties of ZnO compound. *Title of Book: Spectrum: A Multidisciplinary Research Book in Science, ISBN: 978-93-89904-99-4.*
- A study on Crystal Structure and Dielectric properties of Mg-doped SnO₂ compounds. *Title of Book: Research in India, ISBN: 978-93-92301-95-9.*
- Study of the Structural and Optical Features of Sn_{1-x}Sb_xO₂ for Applications in Optoelectronics. *Title of Book: INTEGRATING DISCIPLINES: A NEW APPROACH TO MULTIDISCIPLINARY RESEARCH” (VOL-I), ISBN: 978-93-341-2573-3.*

Conference Papers/ Participations/Paper Presented:

1. New promising materials for spintronic devices: d⁰ ferromagnetic oxides. **Bikash Dey.** Bodoland International Knowledge Festival (BIKF-2023) 27th – 2nd March, 2023 at Bodoland University, Kokrajhar, Assam India.
2. Influence of potassium doping on structural, optical, and magnetic property of ZnO compound. **Bikash Dey,** Dr. Sandeep Kumar Srivastava. National conference on Science and Technology for Sustainable Development (STSD-2022), 9th – 10th September 2022 at Science College, Kokrajhar, Kokrajhar, Assam, India.
3. Crystal structure, microstructure, optical, dielectric, and magnetic properties of TiO₂ nanoparticles. **Bikash Dey,** Dr. Sandeep Kumar Srivastava. North East Research Conclave

(NERC-2022), 20th – 22th May, 2022 at Indian Institute of Technology, Guwahati, Assam, India.

Seminar, Workshop, Conference, etc. attended:

1. Workshop on “**High-End Equipment’s: Fabrication and Characterization of Electronic Devices**” at Indian Institute of Technology Patna on 21th – 27th July, 2022.
2. National Webinar on the topics “**Quality Research Publications: Hallmark For Higher Educations**” organized by Internal Quality Assurance Cell (IQAC) of Birjhora Mahavidyalaya, Bongaigaon on 22nd July 2020.
3. Two Week Online Workshop on "**ADVANCED CONCEPTS FOR DEVELOPING MOOCS**" organized by Teaching Learning Centre Ramanujan College, University of Delhi from July 02 - July 17, 2020.
4. Two Week Online Workshop on "**Comprehensive e-Learning to e-Training guide for Administrative Work**" organized by Teaching Learning Centre Ramanujan College, University of Delhi from May 25 - June 05, 2020.
5. Short Term Online Course on **Computational Physics** organized by the Department of Physics, Bodoland University held from 12th to 18th May 2020.
6. One day workshop on **LATEX**, at Science College, Kokrajhar on 19th of October, 2019.

Subject Taught:

- First Semester → Mathematical Physics I, Computer programming in Sci-lab/Python.
- Second Semester → Electricity & Magnetism.
- Third Semester → Mathematical Physics II, Computer programming in Sci-lab/Python.
- Fourth Semester → Mathematical Physics III, Computer programming in Sci-lab/Python.
- Fifth Semester → Advance Mathematical Physics, Computer programming in Sci-lab/Python.
- Sixth Semester → Electromagnetic Theory, Classical Mechanics, Experimental Technique.

Computer Skills:

- Operating systems: Windows, Ubuntu
- Programming Skills: Sci-lab, C++, Python, Fortran 77, 90, 95.

Laboratory Skills:

- High temperature furnace
- Palletizing machine
- Electronic Balance
- Hall Effect Measurement set-up
- Electrometer for high resistivity measurement
- Constant current/voltage source

Languages Known:

English, Hindi, Bengali (mother tongue) and Assamese.

Declaration:

I, Bikash Dey, solemnly declare that the particulars given above by me are correct to be best of knowledge and believe.

Date: 16th February, 2026

Place: Basugaon, BTR, Assam