

CURRICULUM VITAE

NAME: DR. MANASH JYOTI BORUAH

ADDRESS FOR CORRESPONDANCE:

Department of Physics

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DESIGNATION: ASSISTANT PROFESSOR.

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EDUCATIONAL QUALIFICATION:

- **Ph.D in Physics from Tezpur University, 2019.**
- **MSc. in Physics from Dibrugarh University, 2011.**
- **BSc. in Physics from Sibsagar College, Joysagar, 2009.**

ACHIEVEMENTS:

- Qualified the **UGC - National Eligibility Test (UGC - NET)** for eligibility of Assistant Professor held on **28 – 12 – 2014** in the subject **Electronic Science**.
- Qualified **State Eligibility Test (SET)** for Lecturer ship in the Universities and Colleges of NE Region in the subject **Physical Science** conducted by State Level Eligibility Test Commission, Assam (N-E-region) held on **09 – 09 – 2012**.
- Secure '**first class with distinction**' in **Physics as Honours** under Dibrugarh University (DU) in **B. Sc, 2009**.
- Secured '**Star Marks**' in **H. S. L. C. Examination** under SEBA, **2004**.

RESEARCH EXPERIENCE:

- **PhD: (January 18, 2013 to January 22, 2019).**
Area of work: Optical characterization of particulate matter using indigenous computational and experimental techniques.

WORK EXPERIENCES:

- Working as an Assistant Professor in the Department of Physics, Jengraimukh College, Majuli since 21.12.2020.
- Worked as a Teaching Assistant in Tezpur University, Napaam, Tezpur from 31.07.2015 to 1.5.2018.
- Worked as a PhD Research Scholar in the Dept. of Physics, TU from 01.01.2013 and awarded on 22.1.2019.
- Successfully completed Faculty Induction Programme, Online mode during August 03-September 02, 2021 organized by the Teaching Learning Centre, Tezpur University.

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- Successfully completed 5 day National level Faculty Development Programme on Methods of Material Synthesis organised by Department of Physics and Electronics under DBT – Star College scheme, Bhavan's Vivekananda College of Science, Humanities and Commerce, Sainikpuri, Secunderabad. 18 – 22 January, 2022.

PAPER PUBLICATION:

- [1] **Boruah, Manash J.**, et al. Laboratory simulation and modeling of size, shape distributed interstellar graphite dust analogues: A comparative study, *Planetary and Space Science*, 125, 27-36, 2016.
- [2] **Boruah, Manash J.**, et al. Light scattering studies of randomly oriented polycrystalline fayalite micro particles as interstellar dust analogues, *Journal of Quantitative Spectroscopy and Radiative Transfer*, 196, 213-221, 2017.
- [3] **Boruah, Manash J. & Ahmed, G.A.** Visible light scattering properties of irregularly shaped silica microparticles using laser based laboratory simulations for remote sensing and medical applications, *Laser Physics*, 28 (1), 015701, 2018.
- [4] **Boruah, M. J., Gogoi, A., & Ahmed, G. A.** Scattering by interstellar graphite and fayalite composite dust analogues: computer simulation and laser-based laboratory measurements. *Journal of Astrophysics and Astronomy*, 42(2), 1-28, 2021

POSTER/PAPER PRESENTED IN NATIONAL / INTERNATIONAL CONFERENCES / WORKSHOPS:

- [1] **Manash Jyoti Boruah & Gazi A. Ahmed.**, Light Scattering Computations and Experimental analyses of highly irregular interstellar dust analogue samples, North East Meet of Astronomers II (NEMA – II), 2017, at Department of Physics, Tezpur University, Napaam, Tezpur, Assam, India.
- [2] **Boruah, Manash J. & Ahmed, Gazi A.**, DDA based computational light scattering studies of Interstellar silicate dust analogue samples supported by experimental analyses., XL Conference of the Optical Society of India, International Conference on Light and Light based Technologies (ICLLT 2016), At Tezpur University, Napaam, Tezpur, Assam, India.
- [3] **Boruah, Manash J. & Ahmed, Gazi A.**, Modeling and experimental light scattering studies of interstellar dust analogue samples using DDA. XXVII IUPAP Conference on Computational Physics (CCP2015), At Indian Institute of Technology Guwahati, Assam, India.
- [4] **Boruah, Manash J. & Ahmed, Gazi A.**, Modeling of irregular shaped dust particles using DDA with light scattering studies for analogue samples, International Conference on Electronic Devices, Circuits, Applied Electronics and Communication Technology (EDCAECT 2015), at Department of Electronics & Communication Technology Gauhati University, Gauhati, Assam, India.
- [5] **Boruah, Manash J. & Ahmed, Gazi A.**, Experimental and computational light scattering study of carbonaceous dust analogues (IDMC-2014), 15 – 18 December, 2014, at Tezpur University, Tezpur, Assam.
- [6] **Manash Jyoti Boruah**, Debabrat Kalita and Gazi Ameen Ahmed, Experimental and computational light scattering study of carbonaceous aerosols and dust, IInd In-house symposium “Contemporary Physics & The Role off IPR” held at the Physics Department, Tezpur University, Tezpur organized by Department of Physics, Tezpur University under the sponsorship of UGC-SAP and TU-IPR Cell, Tezpur, Assam, India, February 7, 2014.

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- [7] **Manash Jyoti Boruah**, Simulation of light scattering properties of interstellar fayalite dust analogues, Dust in Astrophysics (ICDA-2020), 31 August – 1 September, 2020, at Department of Physics, Assam University, Silchar, Assam, India.

CONFERENCE / WORKSHOP/SCHOOLS ATTENDED:

- [1] Attended **SERB School on Optical Metrology** sponsored by SERB, Department of Science and Technology, Govt. Of India, held during June 01 to June 21, 2016 at the Department of Physics, Tezpur University, Tezpur, Assam.
- [2] **International workshop on HYBRIDPHOTONICS 2015**, held from 24-26th February 2015 at Department of Physics, Tezpur University, Tezpur, Assam, India.
- [3] **Workshop on Computational Aspects of Research in Physics**, 31st October- 1st November 2014 held at the Department of Physics, Tezpur University organized by the Department of Physics, Tezpur University and supported by UGC-SAP.
- [4] **Workshop on ASTROSAT Data Analysis**, 3 – 5 May, 2017 held at Tezpur University organized by the Department of Physics, Tezpur University and sponsored by IUCAA.
- [5] **Workshop on the Applications of Laser Based Imaging in Material Science**, 11 – 12 March, 2022, held at J.B. College (Autonomous), Jorhat, Assam and sponsored by DST-SERB.

BOOK CHAPTER:

- [1] **Manash Jyoti Boruah**, “Static Light Scattering: A Powerful Tool for Optical Characterization”, DEVELOPMENT AND ADAPTATION IN SCIENCE, ENGINEERING AND TECHNOLOGY, **Chapter 17, pp. 117 – 125, 2014, Pub Kamrup College Press, ISBN No. 978-93-81691-26-7.**
- [2] **Manash Jyoti Boruah**, “Computational Tools for Light Scattering Studies of Irregularly Shaped Particles”, A TEXTBOOK ON THE RECENT DEVELOPMENT IN PHYSICAL SCIENCES, **Chapter 6, 126 – 152, 2017, Krishi Sanskriti Publications, ISBN No. 978-93-85822-38-4**

AREA OF INTEREST:

- **Light Scattering**
- **Interstellar dust**
- **Astrophysics**
- **Optoelectronics**
- **Optics and Photonics**
- **Electronics**