

## Faculty Profile:

Name: Dr. Jyotirmoy Kalita

Designation & Affiliation: Assistant Professor, Department of Physics, Tingkhong College

Father's name: PRABHAT CH KALITA

Mother's name: MANJU KALITA

Date of birth: 14/04/1993

Marital status: Single

Nationality: Indian

Language known: Assamese, Hindi and English (read/write/speak)

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Current Address: Department of Physics, Tingkhong College, DU, Dibrugarh

### Educational Qualification:

<b>Educational degree</b>	<b>Board/University</b>	<b>Passing Year</b>	<b>Division/Rank</b>	<b>Percentage</b>
<b>HSLC</b>	<b>SEBA</b>	<b>2009</b>	<b>1st</b>	<b>82</b>
<b>HSSLC</b>	<b>AHSEC</b>	<b>2011</b>	<b>1st</b>	<b>68.8</b>
<b>TDC</b>	<b>Gauhati University</b>	<b>2015</b>	<b>1st</b>	<b>81.3</b>
<b>UG</b>	<b>Dibrugarh University</b>	<b>2017</b>	<b>1st</b>	<b>69.3</b>
<b>Ph.D.</b>	<b>Tripura University</b>	<b>2023</b>	<b>NA</b>	<b>A</b>
<b>NET</b>	<b>CSIR</b>	<b>2016</b>	<b>AIR 30</b>	<b>NA</b>

### Workshop/ Science Congress/ Conference attended

- National children science congress 2005/2006/2007
- National workshop on gravitational wave astronomy, November 2016

- National conference on current issues in cosmology, astrophysics and high energy physics, November 2015
- Light: not a light matter-a student's" symposium, 12 November 2016
- Lecture workshop on "air pollution greenhouse gases and climate changes", DU
- 20th national space science symposium, Pune. (Presented)
- Asia Pacific Radio science conference, New Delhi. (Presented)
- URSI-Varnashi-2020(Presented)
- TIMP, Guwahati,2021(Presented)
- URSI-GASS-2021, Rome, Italy (Presented), Awarded as Young Scientist in Commission-F
- PANE-2021, Tripura University (Presented), Awarded as Young Researcher

### **Project experience:**

1. "Study of the properties of coloured an colourless sample under the influence of uv and visible light" under the guidance of Dr. Runima Baishya Department of Physics Pragjyotish College , Guwahati
2. "Study the chac of home lizard" under the guidance of Nilima Bhagabati, cotton collegiate school for NCSC
3. "Investigation of driking water" under the guidance of Nilima Bhagabati,cotton collegiate school for NCSC
4. "Investigation on spatiotemporal distribution of clouds and dust storm in Martian Atmosphere" ISRO sponsored under Mars Orbiter Mission(MOM).
5. Joint ISF-UGC project related to thunderstorm activities

### **Achievements:**

1. Qualified in UGC CSIR NET examination 2016 with All India Ranking 30 in LS category.
2. Got state-level selection in Mathematics Olympiad
3. Got state-level selection in NCSC (National Children Science Congress)
4. Young Scientist Award, URSI-GASS 2021, Rome
5. Young Researcher Award, PANE, 2021, Tripura, India

## **List of Publication:**

### **Published Paper:**

1. Kalita, J., Mishra, M.K. & Guha, A. Martian Lee-wave cloud near Ascræus Mons during Martian years 33 and 34: a study based on the Mars colour camera (MCC) images. *Indian J Phys* 96, 25–41 (2021). <https://doi.org/10.1007/s12648-020-01978-y>
2. Jyotirmoy Kalita, Manoj Kumar Mishra, Anirban Guha, Martian limb-viewing clouds: A study based on MCC, MCS and MARCI observations, *Planetary and Space Science*, Volume 208, 2021, 105347, ISSN 0032-0633. <https://doi.org/10.1016/j.pss.2021.105347>
3. Jyotirmoy Kalita, Anirban Guha, Off-season lee wave cloud over the Arsia Mons in Mars: A study based on Mars Colour Camera (MCC), *Journal of Atmospheric and Solar-Terrestrial Physics*, Volume 227, 2022, 105805, ISSN 1364-6826, <https://doi.org/10.1016/j.jastp.2021.105805>

### **Published Book Chapter:**

1. J. Kalita, B. K. De, M. K. Mishra and A. Guha, "The properties of Martian high-altitude clouds: An investigation based on images captured from India's first Mars mission," 2019 URSI Asia-Pacific Radio Science Conference (AP-RASC), 2019, pp. 1-1, <https://doi.org/10.23919/URSIAP-RASC.2019.8738641>
2. J. Kalita and A. Guha, "Initial investigation on different types of clouds observed by Mars Color Camera (MCC) from India's first Mars Orbiter Mission (MOM)," 2021 XXXIVth General Assembly and Scientific Symposium of the International Union of Radio Science (URSI GASS), 2021, pp. 1-4, <https://doi.org/10.23919/URSIGASS51995.2021.9560281>
3. Kalita J., Mishra M.K., Guha A. (2021) Lee-Wave Clouds in Martian Atmosphere: A Study Based on the Images Captured by Mars Color Camera (MCC). In: Sengupta S., Dey S., Das S., Saikia D.J., Panda S., Podila R. (eds) *Selected Progresses in Modern Physics*. Springer Proceedings in Physics, vol 265. Springer, Singapore. [https://doi.org/10.1007/978-981-16-5141-0\\_19](https://doi.org/10.1007/978-981-16-5141-0_19)
4. J. Kalita, A. Guha and M. K. Mishra, "Martian Upper Tropospheric Twilight Clouds: First-time observation from India's First Mars Orbiter Mission (MOM)," 2022 URSI Regional Conference on Radio Science (URSI-RCRS), Indore, India, 2022, pp. 1-4, doi: <https://doi.org/10.23919/URSI-RCRS56822.2022.10118504> .

### **Academic/ Administrative Activities:**

1. Adjunct Faculty, CAS, Dibrugarh University
2. Coordinator, KKHOP, TC
3. Assistant Nodal Officer, RUSA, TC
4. Member, IQAC, TC