

Dr. Kamal Kumar Tanti

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SYNOPSIS **Ph.D. (Physics), M.Sc. (Physics), MBA (Currently pursuing), P.G. Diploma in Remote Sensing and GIS, TEFL Certification, Certification in Chinese;** Winner of **Sahitya Akademi Yuva Puraskar** in 2012 for Assamese language

TOTAL EXPERIENCE 14+ Years (Teaching: **7.7 Years**; Industrial: **3.8 Years**; Research: **3+ Years**)

EMPLOYMENT HISTORY **Director (R&D)** February, 2021 – Till date
Centre for Environment & Climate Action Foundation, Guwahati, India

- **Major Responsibilities:** Leading a team of scientists, experts, and managers in the fields of environment, biodiversity, climate change & sustainable development

Assistant Professor of Physics September, 2017 — January, 2021
Rajiv Gandhi Institute of Petroleum Technology, Sivasagar — 785460, India
(*Institute of National Importance established under the Act of Parliament*)

- **Courses taught:** Engineering Physics I & II, Applied Physics, Physics Lab
- **Administrative Responsibilities:** (a) Chairman of Tender Preparation and Evaluation Committee, (b) Member of Academic Committee.

Assistant Professor of Physics July, 2013 — September, 2017
MIT University, Meghalaya, Shillong — 793003, India (formerly UTM Shillong)

- **Courses taught:** Engineering Physics, Remote Sensing & GIS, Mathematics, Business Statistics, Business Computing, Philosophy of Science, Electronics
- **Major Responsibilities:** Course structuring, delivering lectures, conducting examinations and evaluation, guiding students' projects & assignments, helping students for writing research papers, review-articles, reports etc.
- **Administrative Responsibilities:** (a) Member of Examination Cell (b) In-charge - Career Services (c) Course Coordinator (d) Member of Time-Table Committee, (e) Coordinator of UTM Literary Club, (f) Editor of UTM Newsletter

Assistant Manager - Business Development April, 2011 — June, 2013
GeoVision Technologies Pvt. Ltd., Mumbai – 400705, India

- **Major Responsibilities:** Business development, sales, technical support and operations of GIS & GPS-based telematics hardware/software applications, system integration & IT services.

Pre-sales & Technical Support Engineer August, 2008 – December, 2009
EDS Technologies Pvt. Ltd., Pune – 411004, India

- **Major Responsibilities:** Post- & pre-sales technical support of Real-Time2D/3D Modeling & Visual Simulation software tools.

Junior Research Fellow August, 2006 – August, 2008
Tata Institute of Fundamental Research (TIFR), Mumbai – 400005, India

- Worked on the design, calibration & testing of *Ultra-Violet Imaging Telescope* (UVIT), onboard **ASTROSAT** - First Indian Multi-wavelength Satellite for the Astronomical observations, launched by ISRO in 2015.

EDUCATION

Ph.D. in Physics (Astronomy & Astrophysics) – April, 2013

Gauhati University, Guwahati – 781014, India &

Tata Institute of Fundamental Research (TIFR), Mumbai — 400005, India

Thesis title: *Massive Star Formation*

Thesis Supervisor: Dr. Kalpana Duorah, Associate Professor, Gauhati University

Thesis Examiners: Prof. Dhruba Jyoti Saikia, National Centre of Radio Astrophysics, Pune & Prof. Annapurni Subramaniam, Indian Institute of Astrophysics, Bangalore.

MBA (HRM) – *Currently pursuing* (Expected completion: December, 2021)

Indira Gandhi National Open University, Regional Centre, Shillong, India

Post-Graduate Diploma in Remote Sensing & GIS – December, 2006

University of Allahabad, Allahabad – 211002, India

First Class First Position, 83.5 %, *Specialization*: Remote Sensing, GIS & GPS

Thesis title: *A GIS-based Road Information System of Tripura, with special case study of Agartala City*. Supervisor: Dr. Dibyajyoti Chutia, NESAC, ISRO, Shillong, India.

M.Sc. Physics – December, 2004

Gauhati University, Guwahati – 781014, India

First Class, 67.3 %, *Specialization*: Electronics & Condensed Matter Physics

Thesis title: *Polarimetry*. Supervisor: Dr. J. C. Pandey, ARIES, Nainital, India

B.Sc. Physics – May, 2002

Cotton College, Gauhati University, Guwahati– 781001, India

First Class with Distinction Marks, 64.9 %

HS (10+2) – May, 1999

Cotton College, Guwahati – 781001, India; **First Div. with Star Marks, 77.0 %**

HSLC (10th) – May, 1997

Tezpur Govt. Boys' HS School, Tezpur – 784001, India

First Div. with Star Marks, 80.6 %

PROFESSIONAL QUALIFICATION

TEFL Certification, TEFL Professional Development Institute, UK, 2020.

MOOC on Chinese for Beginners, Peking University, China, 2020.

E-Course on Climate Change: From Learning to Action, United Nations Institute for Training and Research (UNITAR), Geneva, Switzerland, 2020.

Certificate Course on Concept of GIS & GPS, Cotton College, India. 2005.

HONORS AND AWARDS

Sahitya Akademi Yuva Puraskar, 2012 for *Assamese language*

Munin Barkataky Literary Award, 2008

Junior Research Fellowship by Indian Space Research Organization (ISRO) for **ASTROSAT** Satellite Project (August, 2006 – August, 2008)

University Record Holder of Marks, 2007 – University of Allahabad

Assam State Child Scientist Award & Scholarship, NCSC, 1995

Assam Middle English Scholarship, 1993 & **Assam Lower Primary Scholarship**, 1991

RESEARCH PUBLICATIONS

JOURNAL PUBLICATIONS

- **Kamal Kumar Tanti**, Nayan M. Saikia & M. Swer; *Trend and Variability of Rainfall: A Case Study of Shillong City*; **ADB-U-Journal of Engineering Technology**, Vol. 6, Issue 2, July, 2017, pp. 22-24 (ISSN: 2348-7305) [UGC-CARE List Journal]
- **Kamal Kumar Tanti**; *Interactive Road Information System of a Modern City: A GIS and GPS-Based Approach*; **International Journal of Advanced Remote Sensing and GIS**, Vol. 4, Issue 1, 2015, pp. 976-979 (ISSN: 2320-0243; IF: 1.97) [Google Scholar Citation: 1]
- **Kamal Kumar Tanti**; *SED Modeling of 10 Massive Young Stellar Objects*; **International Journal of Theoretical and Applied Physics**, Vol. 5, No. 1, June, 2015, pp. 1-13 (ISSN: 2250-0634; IF: 0.4575)
- **Kamal Kumar Tanti**, J. Roy and K. Duorah; *Spectral Energy Distributions and Age Estimates of 40 massive young stellar objects*; **Advances in Astronomy and Space Physics**, Vol. 2, Issue 2, 2012, pp. 139-142 (ISSN: 2227-1481) [Indexed in Web of Science (Emerging Sources Citation Index) & SAO/NASA ADS] [Google Scholar Citation: 4]
- **Kamal Kumar Tanti**, J. Roy and K. Duorah; *Spectral Energy Distributions and Age Estimates of Five Massive Young Stellar Objects*; **International Journal of Astronomy**, Vol. 1, No. 4, 2012, pp. 62-67 (ISSN: 2169-8848; IF: 0.5)
- **Kamal Kumar Tanti**, Jayashree Roy and K. Duorah; *SEDs and Age Estimates of MYSOs: Study of Galactic Massive Star Forming Regions*; **International Journal of Scientific & Engineering Research**, Volume 2, Issue 10, October, 2011 (ISSN: 2229-5518; IF: 4.4)

BOOK

- **Kamal Kumar Tanti**; *Interactive Road Information System of a Modern City: A GIS and GPS-Based Approach*; LAP LAMBERT Academic Publishing, Germany. ISBN: 978-3-659-70516-8, 2015.

BOOK CHAPTERS

- **Kamal Kumar Tanti**; *Assessment of Trends and Variability of Rainfall for the Shillong City of Meghalaya, India*; **Modern Advances in Geography, Environment and Earth Sciences**, Book Publisher International, UK. Print-ISBN: 978-93-90149-92-6, E-ISBN: 978-93-90149-93-3, 2020.
- **Kamal Kumar Tanti**; *A Case Study on Road Information System of a Modern City*, **International Research in Environment, Geography and Earth Science**, Book Publisher International, UK. Print-ISBN: 978-93-90206-47-6, E-ISBN: 978-93-90206-48-3, 2020.

EDITED PROCEEDINGS

- Nayan Moni Saikia, **Kamal Kumar Tanti** & Pradeep Kumar Mallick (Eds.); *Proceedings of International Conference on Climate Change Mitigation and Technologies for Adaptation, 2016*, Vol. I & Vol. II; published by IRD India. ISBN: 978-93-81693-07-2, 2016.

CONFERENCE PUBLICATIONS (Papers in Conference Proceedings)

- **Kamal Kumar Tanti**, *An Analysis of Trends and Variability of Precipitation in Shillong City*; *Proceedings of International Conference on Climate Change, Biodiversity and Sustainable Agriculture (ICCBS-2018)*, December 13-16, 2018, Assam Agricultural University, Jorhat, India.

- **Kamal Kumar Tanti**, N. M. Saikia & M. Swer; *Trend and Variability of Rainfall: A Case Study of Shillong City*; **Proceedings of National Conference on Environmental Remote Sensing (NCERS 2016)**, pp. 37-39; December 13-14, 2016, Assam Don Bosco University, Guwahati, India.
- **Kamal Kumar Tanti**, N. M. Saikia & M. Swer; *An Investigation of Trends and Variability of Rainfall in Shillong City*; **Proceedings of International Conference on Climate Change Mitigation and Technologies for Adaptation (IC3MTA 2016)**, Vol. II, pp. 100-103; June 20-21, 2016, Shillong, India. **ISBN: 978-93-81693-07-2**
- **Kamal Kumar Tanti** and N. M. Saikia; *An Investigation of Trends and Variability of Rainfall in Shillong City*; **Proceedings of International Conference on Climate Change and Sustainability (IC3S 2015)**, Vol. I, pp. 54; December 21-23, 2015, Mumbai, India. **ISBN: 978-81-922978-5-9**
- **Kamal Kumar Tanti**; *An Interactive Road Information System of Agartala City: A GIS and GPS-based Approach*; **Proceedings of International Conference on Computing and Communication Systems (I3CS 2015)**, Vol. II, pp. 70-72; April 9-10, 2015, Shillong, India. **ISBN: 978-1-4799-5857-01**
- **Kamal Kumar Tanti**, J. Roy and K. Duorah; *Spectral Energy Distributions and Age Estimates of 50 massive young stellar objects*; **Proceedings of 11th Asian-Pacific Regional International Astronomical Union (IAU) Meeting (APRIM 2011)**, NARIT Conference Series, Vol. 1, 2013, pp. 311-312; July 26-29, 2011, Chiang Mai, Thailand. **ISBN: 978-616-12-0285-9**
- **Kamal Kumar Tanti**, J. Roy and K. Duorah; *SED modeling of 10 Massive Young Stellar Objects*; **Proceedings of 31st Scientific Meeting of the Astronomical Society of India (ASI 2013)**, ASI Conference Series, Vol. 9, pp. 114; Feb 20-22, 2013, Trivandrum, India. **ISBN: 978-81-922926-7-0**
- J. Roy, **K. K. Tanti**, P. C. Agrawal & K. Duorah; *Timing and Spectral Analysis of the X-ray Binary Pulsar XTE J1829-098*; **Proceedings of 29th Scientific Meeting of the Astronomical Society of India**, ASI Conference Series, Vol. 3, pp. 139; Feb 23-25, 2011, Raipur, India. **ISBN: 978-81-922926-1-8**

CONFERENCE PRESENTATIONS (Invited/Oral Talk/Poster/Abstract)

- **Kamal Kumar Tanti**; *Positive Co-relationship between Landslide and Rainfall: A Societal Impact Analysis for Shillong City*; **International Conference on Engineering Sciences and Technologies for Environmental Care**, February 21, 2020, CSIR NEIST, Jorhat, India. **(Oral Talk)**
- **Kamal Kumar Tanti**; *Traditional Climate Knowledge of North-East India; Eastern Himalayan Naturenomics Forum*, November 5, 2019, Balipara Foundation, Guwahati, India. **(Invited Talk)**
- **Kamal Kumar Tanti**; *Spatio-Temporal Variability and Trends of Low to High-scale Precipitation in Assam and Meghalaya*; **NICES Brainstorming Workshop**, January 29, 2018, Cotton University, Guwahati, India. **(Oral Talk)**
- V. Jennifer Joan Wallang & **Kamal Kumar Tanti**; *Positive Correlation between Landslide and Rainfall: A Societal Impact Analysis for Shillong City*; **National Conference on Interdisciplinarity: Theory & Practice**, July 22-23, 2016, NIT Meghalaya, Shillong, India. **(Oral Talk)**
- Rahul Mahanta & **Kamal Kumar Tanti**; *A Study of Severe Thunderstorms using Satellite Imagery*; **NESAC-Academia and Students' Interaction Meet**, June 24, 2016, NESAC, ISRO, Shillong, India. **(Oral Talk)**
- **Kamal Kumar Tanti**; *An Analysis of Rainfall Trends in Shillong City*; **1st International Conference on Climate Science**, March 7-8, 2016, Cotton University, Guwahati, India. **(Poster)**

- **Kamal Kumar Tanti**; *SED Modeling of 20 Massive Young Stellar Objects*; **40th COSPAR Scientific Assembly**, August 2-10, 2014, Moscow, Russia. (Abstract)
- **Kamal Kumar Tanti**; *GPS-based Real-time Road Traffic Monitoring System*; **40th COSPAR Scientific Assembly**, August 2-10, 2014, Moscow, Russia. (Abstract)
- **Kamal Kumar Tanti**; *GPS-based Real-time Road Traffic Monitoring System*; **Regional Conference on Geo-informatics for the Early Warning of Disasters with Special Emphasis on NER**, September 18-19, 2014, Shillong, India. (Oral Talk)
- **Kamal Kumar Tanti** and J. Roy; *A GIS-based Road Information System of Guwahati City*; **ISG-ISRS National Symposium on Remote Sensing and GIS for Environment**, December 4-6, 2013, Visakhapatnam, India. (Abstract)
- **Kamal Kumar Tanti**, J. Roy and K. Duorah; *Spectral Energy Distributions and Age Estimates of 40 massive young stellar objects*; **39th COSPAR Scientific Assembly**, July 14-22, 2012, Mysore, India. (Poster)
- **Kamal Kumar Tanti** and J. Roy; *A GPS-based Real-time Road Traffic Monitoring System*; **Annual Conventions of Indian Society of Remote Sensing & Indian Society of Geomatics**, December 5-7, 2012, New Delhi, India. (Oral Talk)
- **Kamal Kumar Tanti**; *Foreground as is traced from the Background: A lookback into the events of the Past*; **Young Astronomers' Meet**, Nov 29 - Dec 2, 2005, Pune, India. (Poster)

**FDPs,
WORKSHOPS,
SCHOOLS &
TRAINING
PROGRAMS**

- **National Level Workshop (Webinar) on Pedagogy for 21st Century Teaching and Research (PCTR 2020)**; August 10, 2020, Assam Don Bosco University, Guwahati, India
- **One-Week online Faculty Development Programme on Emerging Prospects of STEM Education in Engineering and Technology**; 21 - 28 July, 2020, Royal Global University, Guwahati, India
- **National Level Webinar on Future Enabling Education: North East India as Education Hub for Asia**; July 11, 2020, Federation of Indian Chambers of Commerce and Industry (FICCI), India
- **E-Faculty Development Programme on Post COVID-19 Paradigms - Opportunities and Challenges**; 25 - 27 June, 2020, The Assam Kaziranga University, Jorhat, India
- **National Level Webinar on Reorienting Academic Leadership, Pedagogy and Research in the Time of Crisis**; May 30, 2020, Tezpur University, Tezpur, India
- **National Workshop on Science Writing**; 7 - 14 February, 2020, Current Science Association, Bangaluru and Dibrugarh University, India
- **AICTE sponsored Faculty Development Programme for Student Induction (FDP-SI)**; 24 - 26 October, 2019, USTM, Meghalaya, India
- **National Workshop on Importance of Accreditation for Technical Education**; July 31 - August 1, 2019, Assam Science and Technology University, Guwahati, India
- **National Level Workshop on Pedagogy for 21st Century Teaching and Research(PCTR 2019)**; 12 - 13 June, 2019, Assam Don Bosco University, Guwahati, India

- **Workshop on High-Resolution Climate Projections and Analysis for India** (*under U.S.-India Partnership for Climate Resilience*); February 19, 2018, TERI, New Delhi, India
- **Workshop on Climate and Health** (*under U.S.-India Partnership for Climate Resilience*); October 23-24, 2018, TERI, New Delhi, India
- **Special Summer School (*Equivalent to Refresher Course/Orientation Programme*)**; June 27-July 17, 2016, UGC-Human Resource Centre, NEHU, Shillong, India
- **Workshop on Business Process Simulation**; September 10, 2013, UTM, Shillong, India
- **Joint ECT-IEEE GRSS Kolkata Chapter - Workshop on POLSAR Remote Sensing & Multi-modal Radar**; December 22-23, 2012, Gauhati University, Guwahati, India
- **Workshop on Astro-statistics**; December 21-23, 2005, Calcutta University, Kolkata, India
- **SERC School on Special Functions & Functions of Matrix Argument: Recent Developments & Recent Applications in Statistics & Astrophysics**; March 14 — April 15, 2005, CMS, Pala, Kerala
- **Summer School on Introductory Astronomy, Astrophysics & Atmospheric Sciences**; June 7-18, 2004, ARIES, Nainital, India

CONFERENCE/ WORKSHOP ORGANIZATION EXPERIENCE *Convener - International Conference on Climate Change Mitigation and Technologies for Adaptation, 2016*, Synod College, Shillong, June 20-21, 2016
 Member of Organizing Committee - Workshop on Business Process Simulation, UTM Shillong, Sept 10, 2013

REVIEWER EXPERIENCE *Reviewer - International Journal of Astronomy and Astrophysics (IJAA)*
Peer Reviewer - American Journal of Physics and Applications (AJPA)
Reviewer - Journal of Modern Physics (JMP)

PROFESSIONAL MEMBERSHIPS *Life member - Astronomical Society of India (ASI)*
Associate Member – Committee on Space Research (COSPAR)
Life Member – Indian Society of Remote Sensing (ISRS)

TECHNICAL SKILLS *Operating systems: Unix, Red Hat Linux, Sun Solaris, Ubuntu, Windows XP/Vista*
Astronomy Packages: IRAF, IRAF/DAOPHOT, VO
Modeling and Simulation Tools: MAK VR-Forces 2D/3D, VR-Vantage, MAK Stealth, MAK VR-Link, MAK RTI, MAK Gateway, VR-Exchange, Creator, Creator Terrain Studio, Terra Vista, Vega Prime, Stage Scenario, VAPS XT, DI-GUY
Programming Languages: C++, Matlab, Fortran, IDL, MS Visual Studio
GIS/GPS Packages: ArcGIS, Erdas, Leica Geo-office
Plotting packages: Gnuplot, SMPlot, MS-Excel
Documentation & Graphics: Latex, Lyx, ProText, MS Office, Adobe Photoshop
Virtualization software: VMWare Server

OBSERVATION EXPERIENCE 104-cm Sampurnanand Optical telescope (ARIES, Nainital, India)
 2-m Optical/Infrared HCT telescope (IIA, Bangalore, India)
 12-inch TIFR telescope (TIFR, Mumbai, India)
 12-inch & 16-inch Optical telescopes (GU Observatory, Guwahati, India)

PROJECTS

Non-uniformity near outer edges of bonded Star 250 Sensor for UVIT, 2006
Analysis of Defects of fibre optic cable of the bonded Star 250 Sensor for UVIT, 2006
Estimate the drift of ASTROSAT, using visible channel of UVIT, 2007
Construction of a Background model for UVIT, 2007
Foreground as is traced from Background: A look back into the events of past, 2005
Polarimetry (Masters' Project Work), 2004

LITERARY BOOKS

PUBLICATIONS

Marangburu Amar Pita (*Poetry*), published by - *Orthat*, Guwahati, India.
First published in 2007. **ISBN: 978-81-903691-5-2**
Awarded the **Sahitya Akademi Yuva Puraskar** for *Assamese language* in 2012 &
Munin Barkataky Literary Award in 2008.

Ninnabarga Samaj Oitijya (*Critical Essays*), published by - *Akhar Prakash*, Guwahati, India. First published in 2007.
Selected as *one of Top Ten Books* by Grantha Bandhab, Guwahati, India in 2008.

Uttar-Oupanibeshik Kabita (*Poetry*), published by - *Payrus*, Guwahati, India.
First published in 2018. **ISBN: 978-93-81287-96-5**

Post-Colonial Poems (*Poetry*), published by - *Red River Press*, New Delhi, India.
First published in 2019. **ISBN: 978-81-939403-5-8**

Asomar Chah Janagusthi-Adibasi Sakalar Nritaatik Parichai (*Edited Book*),
published by - *Asom Chah Janagusthi Sahitya Sabha*, Guwahati, India.
First published in 2020.

INTERVIEWS AND PROFILES

In sync with subaltern traditions, interviewed by Dr. Ashley Tellis & published in **THE HINDU — LITERARY REVIEW** on August 01, 2010.
Television & Radio Interviews with News Live, NE TV, Door Darshan, Prime News, DY 365, News Time & All India Radio.

PERSONAL DETAILS

Date of Birth: February 26, 1982
Sex: Male
Marital status: Married
Nationality: Indian
Languages known: English, Assamese, Hindi & Bengali
Father's Name: Mr. Sanjoy Kumar Tanti
Mother's Name: Mrs. Bani Tanti
Residential Address: House No. 72 B, Pub Sarania Main Road, Chandmari, Guwahati, Assam, India. PIN 781003.
Permanent Address: C/o - Sanjoy Kumar Tanti, No. 2 Kalaigaon, Kalaigaon, Dist.-Udalguri, Assam, India. PIN 784525.
Passport Details: Passport No. S4889452, Issued by – Regional Passport Office, Guwahati, India. Date of Issue – 19/03/2019, Date of Expiry – 18/03/2029.

REFERENCES

Professor Hiralal Duorah
Professor (Retired), Astrophysics Group
Department of Physics, Gauhati University
Guwahati – 781014. Assam, India.

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Phone: +91-94351-44681

Dr. Rahul Mahanta

Associate Professor, Department of Physics
Cotton University, Guwahati – 781001. Assam, India.

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Phone: +91-98540-76819

DECLARATION I do hereby declare that the information furnished above are true and complete to the best of my knowledge and belief.

Date:

Place:

(KAMAL KUMAR TANTI)