

## INDIVIDUAL TEACHER'S PROFILE



- 1) Name: **Dr. DIGANTA KUMAR SARMA**
- 2) Designation: **Assistant Professor**
- 3) Contact No. & Email id: **(+91) 98599-86681, sarma.diganta@gmail.com**
- 4) **Educational Qualifications:**
  - A)

Degree	Year	University	Specialization
M.Sc.	2000	Gauhati University	Electronics
PhD	2009	Jadavpur University	Atmospheric Science

B) Title of the Thesis: **Study of Atmospheric Variability with the help of onboard Active and Passive Sensors of TRMM and Ground based Doppler Radars.**

- 5) **Teaching Experience in year(s):** 5 Years
- 6) **Area (s) of Interest:** Precipitation, Mesoscale Convective System, Drop Size Distribution (DSD), Thermodynamics of Atmosphere, Electromagnetic Wave.
- 7) **Publication(s):** 09

### Research Paper (s) (Refereed Journal) :

- a. Devajyoti Dutta, **Diganta Kumar Sarma** and Sanjay Sharma, 2014, A Multisensor Analysis of the Life Cycle of Bow Echo over Indian Region International Journal of Atmospheric Sciences, Volume 2014, Article ID 207064, 9 pages, <http://dx.doi.org/10.1155/2014/207064>.
- b. D. Dutta, **D. K. Sarma**, M. Konwar, S. Sharma, R. M. Gairola, J. Das, S. Venkatateshwarlu, **2010**, Nowcasting of Yes/No rain situations at a station by using the soft computing technique to the radar image, Indian J of Radio & Space Phy. Vol 39 (2), pp 92-102. **(India)**
- c. Sharma, S., M. Konwar, **D. K. Sarma**, M. C. R. Kalapureddy, A. R. Jain, **2009**, Characteristics of rain integral parameters during tropical convective, transition and stratiform types of rain at Gadanki and its application in rain retrieval, *Journal of Applied Meteorology and Climatology*, Volume 48, Issue 6 (June 2009) pp. 1245-1266. **(USA)**
- d. **Sarma D. K.**, M. Konwar, S. Sharma, S. Pal, J. Das, U. K. De, G. Viswanathan, **2008**, An Artificial Neural Network based integrated regional model for rain retrieval over land and ocean, *IEEE. Trans. Geosci. Remote Sens.* Vol. 46, pp.1689-1696 **(USA)**.
- e. Sharma S., **D. K. Sarma**, M. Konwar, J. Das and A. R. Jain, **2008**, Retrieval of raindrop size distributions from the L - band and VHF wind profilers during convective and stratiform rain, *Indian J. Radio & Space Phys*, vol. 37, no.3, pp. 185-196, **(India)**.
- f. M. Konwar, **D. K. Sarma**, S. Sharma, U. K. De, S. Pal and J. Das, **2008**, Estimation of rain parameters from the spectral moments of L-band wind profiler by using multilayer perceptron network model, *Indian J. Radio & Space Phys*, vol. 37, no 5, pp. 341-352, **(India)**.

- g. **Sarma D. K.**, M. Konwar, S. Sharma, J. Das, S. Pal, **2006**, Characteristics of brightness temperature with respect to rain rate over ocean and land and its implication on rain retrieval, *Indian J. Radio & Space Phys*, Vol. 35, pp. 259-269 (**India**).
- h. M. Konwar, **D. K. Sarma**, J. Das and S. Sharma, **2006**, Shape of the rain drop size distributions and classification of rain type at Gadanki, *Indian J. Radio & Space Phys*, Vol. 35, pp. 360-367 (**India**).
- i. **Sarma D. K.**, M. Konwar, J. Das, S. Pal, S. Sharma, **2005**, A Soft Computing Approach for Rainfall Retrieval from TRMM, *IEEE. Trans. Geosci. Remote Sens.*, vol. 43, pp. 2879-2885 (**USA**).

**8) Conference/Seminar/Workshop/Symposium (Participation/Paper Presentation):**

- a. PC Assembling & Repairing, Department of Physics, Gauhati University, *December 21- 23, 2010. (India)*
- b. Advance workshop on Microprocessor Application and embedded system design, 21<sup>st</sup> November - 2<sup>nd</sup> December 2011, Department of Instrumentation and USIC, Gauhati University. (**India**)
- c. V<sup>th</sup> conference of Physics Academy of the North East (March 1 & 2, 2007), Gauhati University, Guwahati, Assam. (**India**)
- d. 2<sup>nd</sup> International Symposium on Quantitative Precipitation Forecasting and Hydrology, 4-8 June, 2006, Boulder, Colorado. (**USA**)
- e. Eleventh International Workshop on technical & scientific aspects of MST radar (MST 11), December 11-15, 2006, Gadanki/Tirupati. (**India**)
- f. Discussion meeting on Doppler Weather Radar calibration and its application for rain measurement by Prof V. Chandrasekhar, Colorado State University, USA at Brahmaprakash Hall, SHAR Centre, Sriharikota (17-18 July 2002). (**India**)

**9) Research Project**

Major/ Minor	Funding Agency	Title of the Project	Principal Investigator(s)	Date of implementation	Date of Completion
Minor	UGC (No. F.5-195/2011-12/MRP/NERO/10733) dated 30 Nov 2011	Rain prediction algorithm from meteorological data	Dr. Diganta Kumar Sarma	16/04/2012	29/07/2013

**11) Professional Membership:**

Name of Organization	Life Member/Annual
Physics Academy of North East (PANE)	Life Member

**12) Other Activity:**

- (a) Co-coordinator, college website committee.
- (b) Engaged in Preparing & Publication of Practical Hand – Books for Higher Secondary and Degree (Major & General) students
- (c) Engaged in publication of Departmental journal “NEBULA”.
- (d) Departmental Laboratory & Library maintenance.
- (e) Engaged in development of Departmental Automation Software.