

ALIPURDUAR COLLEGE

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PERSONAL PROFILE

Name: SANJIB SARKAR

Educational Qualifications: BSc., MSc., Ph.D

Designation: Assistant Professor

Date of Joining: 23/12/2019

Area of Teaching: Mathematical Physics, Optics, Electricity and Magnetism

Research interest: Experimental Plasma Physics, Dusty Plasma, Dust in Fusion, Plasma Applications

Contact & Mail Id:

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Previous College: Kadi Sarva Vishwavidyalaya

Gandhinagar

Gujarat

Lecturer of Physics from 25/07/2016 to 16/12/2016

Date of Retirement: 09/11/2052



***RESEARCH AND ACADEMIC CONTRIBUTIONS:**

Title of M.Phil: None

Date of Award: N.A.

Title of the Ph.D: *Experimental investigation of cogenerated dusty plasma*

Date of Ph.D Award: 04/09/2015 (Jadavpur University)

Post Doctoral Degree:

1. Postdoctoral Fellow at **Institute for Plasma Research**, Gandhinagar, India (April 15, 2015 to July 25, 2016).
2. Postdoctoral Fellow at **Institute of Plasma Physics, Chinese Academy of Sciences, Hefei, China** (March 20, 2017 to December 20, 2019).

Published Papers in National / International Journals:

1. **Sanjib Sarkar**, M. Bose, J. Pramanik and S. Mukherjee, "*Experimental Observation of the behaviour of Cogenerated dusty plasma using bipolar pulsed direct current power supply*", **Physics of Plasmas** 20, 024506(2013).
2. **Sanjib Sarkar**, M. Bose, S. Mukherjee and J. Pramanik, "*Spatiotemporal evolution of dielectric driven cogenerated dust density waves*", **Physics of Plasmas** 20, 064502 (2013).
3. **Sanjib Sarkar**, Malay Mondal, M. Bose and S. Mukherjee, "*Observation of external control and formation of void in cogenerated dusty plasma*", **Plasma Sources Sci. Technol.** 24, 035007 (2015).
4. **Sanjib Sarkar**, Chiranjib Barman, Malay Mondal, M. Bose, and S. Mukherjee, "*Analysis of defects in externally driven dust density wavefronts in cogenerated dusty plasma using time resolved Hilbert-Huang transform*", **J. Phys. D: Appl. Phys.** **49**, 205201(2016).
5. Jyoti Atul, **Sanjib Sarkar**, Sushil K Singh, "*Nonlinearly Coupled Dynamics of Irregularities in the Equatorial Electrojet*", **Phys. Lett. A** 380, 1446(2016).
6. Malay Mondal, **Sanjib Sarkar**, S. Mukherjee and M. Bose "*Experimental observation of dust circulation in unmagnetized cogenerated dusty plasma*", **Contrib. Plasma Phys**, 58, 56 (2018).
7. Jyoti K Atul, Rameshwar Singh, **Sanjib Sarkar**, Oleg V. Kravchenko, Sushil K. Singh, Prabal K. Chattopadhyaya and Predhiman K Kaw "*Magnetic shear Damped Polar convective fluid Instabilities*" **Journal of Geophysical Research: Space Physics**, 123, 808(2018).
8. **Sanjib Sarkar**, Rui Ding, Jianhua Yang, Hai Xie, Baoguo Wang, and Junling Chen "*Intrinsic dust dynamics and temporal correlation with plasma parameters in Experimental Advanced Superconducting Tokamak (EAST)*" **Physics of Plasmas** 25, 122505 (2018). [**Editor's Pick**]

Publications other than Journal articles (books, chapter in books): None

Books with ISBN/ISSN number published by International Level Publishers: N.A.

Books with ISBN/ISSN number published by National Level Publishers: N.A.

Invited Lectures delivered / Papers presented (National / State level Seminars):

1. Sanjib Sarkar, “Experimental observation of the behaviour of cogenerated dusty plasma in absence & presence of dielectrics”, Talk delivered at National Symposium on nonlinear & complex phenomena, Jadavpur University, Kolkata, 7 – 9 January, 2014.
2. Sanjib Sarkar, “Video analysis of dust events in EAST tokamak”, XIth China-Russia-Belarus Workshop PERSPECTIVE OF PLASMA TECHNOLOGIES, August 23-26, 2018 in Xi’an, China.

Articles/ Chapters published in Books: None

Completed Project: Major & Minor--- None

Title of the Project: N.A.

Papers Presented in Conferences, Seminars, Workshops, Symposia:

International:

1. Sanjib Sarkar, M. Bose, S. Mukherjee, and J. Pramanik, “Experimental investigation of hydrodynamical instabilities in unmagnetized dusty plasma using bipolar pulsed power supply”, International Conferences on Complex Plasma Processes and Nonlinear Dynamical System (ICPPNDS), IPR, Gandhinagar, India, 6 – 9 November, 2012.
2. Sanjib Sarkar, M. Bose and S. Mukherjee, “Removal of carbon dust using negative pulsed dc bias”, International Conference on Physics of Dusty Plasmas (ICPDP), New Delhi, India, 3 – 7 March 2014.

National:

1. Sanjib Sarkar, M. Bose, J. Pramanik, and S. Mukherjee, “Development of low pressure plasma system to study cogenerated dust formations”, Plasma Science Society of India (PSSI) Symposium at Birla Institute of Technology (BIT), Patna, India, 21 – 24 December, 2011.
2. Sanjib Sarkar, M. Bose, J. Pramanik, S. Mukherjee, “Observation of void formation in dusty plasma”, 1st PSSI – Plasma Scholars Colloquium, Institute for Plasma Research (IPR), Gandhinagar, India, 3 – 4 July, 2012.
3. Sanjib Sarkar, M. Bose, S. Mukherjee and J. Pramanik, “Effect of dielectrics on cogenerated dusty plasma”, PSSI – PLASMA – 2013 at KIIT, Bhubaneswar, Orissa, India, 3 – 6 December, 2013.
4. Sanjib Sarkar, M. Mondal, M. Bose and S. Mukherjee, “Rotational vortex motion of dust cloud in co-generated dusty plasma”, 4th PSSI-Plasma Scholar’s Colloquium, Jadavpur University, Kolkata, India, 6-7 August, 2015.

5. Sanjib Sarkar, M. Chaudhuri, A. Satya Prasad and S. Mukherjee, "Formation Of Tungsten nanoparticle in low pressure dc magnetron discharge" PSSI- PLASMA- 2015 at Saha Institute of Nuclear Physics, Kolkata.

State Level Seminar: N.A.

Participation in Conferences, Seminars, Workshops, Symposia: Same as Above

Other Academic Activities:

1. Guidance of a student of MSc. Project during PhD.
2. Conducted tutorial classes in Phd course work in 2015-16 academic sessions at Institute for Plasma Research (IPR), Gandhinagar during Postdoctoral Study.
3. Research collaboration with Institute for Plasma Research(IPR), Gandhinagar, Jadavpur University, Institute of Plasma Physics, China (ASIPP) and with Luke Simons of Imperial College London dusty Plasma Group.

Other Activities: None

Member of Professional Bodies:

1. Life member of Plasma Science Society of India (PSSI) (LM-988).
2. Member of Division of Plasma Physics, **Association of Asia Pacific Physical Societies (AAPPS-DPP).**