

Faculty Profile

Name : Mr. Ajay Gahlot
Designation : Associate Professor
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Area of Interest/Specialization: Plasma Physics, waves in dusty & strongly coupled dusty plasma
Experience : 17 years



Key Publications:-

1. Research Papers in National and International Journals

S No.	Title of Paper (Vol and Page No.)	Name of Journal	National/ International	SCI/SCIE/SSCI/ ESCI	Year of Publication	Impact Factor
1	Kinetic Theory of effect of dust charge fluctuations on the parametric decay of lower hybrid wave instability by relativistic runaway electrons in tokamak (Vol. 28, 043701)	Physics of Plasma (POP)	International	SCI	2021	2.1
2	The effect of dust grains on the weibel instability in presence of large amplitude electrostatic wave (Vol. 27, 043702-5)	Physics of Plasma (POP)	International	SCI	2020	2.1
3	Resonant Decay of a Langmuir wave in the presence of dust grains in a cylindrical plasma, (vol. 58 ,302-310).	Contributions to Plasma Physics (CTPP)	International	SCI	2018	1.44
4	Theoretical Modelling of Modulational Instability of a Lower Hybrid wave in a complex plasma,	Progress in Electromagnetic Research (PIER-M)	International	SCI	2017	2.4

	(Vol. 57, 63-71).					
5	Excitation of dust acoustic waves by an ion beam in a plasma cilijnder with negatively charged dust grains, (vol. 21, 103702-6)	Physics of Plasma (POP)	International	SCI	2014	2.1
6	Effect of dust charge Fluctuations on current-driven electrostatic ion-cyclotron instability in a collisional magnetized plasma,(vol. 20, 053704-6).	Physics of Plasma (POP)	International	SCI	2013	2.1
7	Excitation of lower hybrid waves by a gyrating ion beam in a negative ion plasma,(vol. 20, 033706-6).	Physics of Plasma (POP)	International	SCI	2013	2.1
8	Decay instability of an upper hybrid wave in a magnetized dusty plasma, (vol. 20, 013706-7).	Physics of Plasma (POP)	International	SCI	2013	2.1
9	Higher harmonics generation by a spiraling ion beam in a collisional magnetized plasma,(vol.79, 577-585)	J.Plasma Physics	International	SCI	2013	1.16
10	Distortion of an amplitude modulated electromagnetic signal with time dependent dust charging, (vol.78, 33-38).	J.Plasma Physics	International	SCI	2011	1.16

11	The effect of dust charge fluctuations on collisional drift waves in a magnetized plasma cylinder, (vol. 17, 123703-9).	Physics of Plasma (POP)	International	SCI	2010	2.1
12	The effect of dust charge fluctuations on lower hybrid suppression of drift waves in a magnetized plasma cylinder,(vol. 17, 023702—7).	Physics of Plasma (POP)	International	SCI	2010	2.1
13	Excitation of upper hybrid waves by a gyrating relativistic electron beam in a magnetized dusty plasma cylinder,(vol. 16, 123708-5).	Physics of Plasma (POP)	International	SCI	2009	2.1
14	Ion beam driven ion acoustic waves in a plasma cylinder with negative ions, (vol. 15, 073705-6).	Physics of Plasma (POP)	International	SCI	2008	2.1
15	Effect of dust on amplitude modulated electromagnetic beam in a plasma, (vol. 15, 043701-5)	Physics of Plasma (POP)	International	SCI	2008	2.1
16	Collisional drift waves in a magnetized dusty plasma cylinder,(vol.7, 37-41).	International Journal of Engineering and innovative Technology (IJEIT)	International	-	2018	-
17	Effect of dust charge fluctuations on upper hybrid wave instabilities in magnetized dusty plasma (Vol.32,	Intl. Journal of Modern Physics: Conf series, Vol.)(world scientific)	International	SCI	2014	0.5

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2. Research Papers presented in Conferences/ Seminars

S No.	Title of Paper	Name of Conferences/ Seminars	National/ International	Name of Host Institution	Year
1.	Modulational instability of alower hybrid wave in a magnetized dusty plasma	7 th National conference on Advances in metrology	National	MSIT, New Delhi	2021
2.	Resonant Decay of a Langmuir wave in the presence of dust grains in a cylindrical plasma	22 nd National Symposium on Radiation Physics	National	JNU, New Delhi-110067	2019
3.	Effect of time dependent dust charging on an amplitude modulated electromagnetic signal	Innovations in Science, Engineering & Technology	International	Arya Post Graduate College, Haryana	2019
4	The role of dust grains on modulational instability of a lower hybrid wave in magnetized plasma	New Frontiers in Engineering, Science and Technology	International	Delhi Technological University (DTU)	2018
5	The effect of dust charge fluctuations on resonance decay instability of Langmuir wave in a complex plasma	Advanced Materials and nanotechnology	National	Jaypee Institute of Information Technology	2018
6	Stabilization of collisional drift waves in a complex plasma	Research Trends in Engineering, Applied Science and management	International	Conference info & academic science	2018
7	The lower hybrid suppression of drift waves in a magnetized dusty plasma cylinder	Recent trends in Engineering, Science and management	International	Vedant college of Engineering & Technology	2018
8	The theoretical modeling of decay instability of upper hybrid wave in a dusty	Recent innovations in science ,Engineering and	International	Sri Venkatesware college of Engineering &	2018

	plasma cylinder	Management		technology	
9	Enhancement of resonance decay instability of Langmuir wave.	Recent trends in Engineering Science and management	International	Reva University	2018
10	Enhancement of modulational instability of a lower hybrid wave due to dust charge fluctuations.	Recent innovations in science ,Engineering and Management	International	Nanasaheb Mahadik college of Engineering	2018
11	The effect of dust charge fluctuations on modulational instability of a lower hybrid wave in a complex plasmas	Advances in Applied Sciences, Engineering and Technology	International	K.R. Mangalam University	2017
12	The impact of positively charged dust grains on modulational instability of a lower hybrid wave.	Advancements and Innovations in Engineering, Technology & Management	International	Joginpally B.R Engineering College	2017
13	Ion beam driven Rayleigh Taylor instability in dusty plasma	New Frontiers of Engineering, Science, management and Humanities	International	Conference info & academic science	2017
14	The modulational instability of a lower hybrid wave in magnetized dusty plasma.	Solid state Chemistry & Allied Areas	National	Delhi Technological University (DTU)	2017
15	Excitation of ion-acoustic waves by an ion beam in a plasma cylinder with negative ions	Recent trends in synthesis and Applications of advanced Materials	National	MAIT & Delhi technological University (DTU)	2011

Awards and Recognitions:-

1. A letter of Appreciation is received from MSIT for academic year 2014-15 for outstanding contribution and continued dedication towards the multi-dimensional growth of the institute.