



Dr. Jyotsna Sharma is an Assistant Professor in the department of Physics at South Asian University (An international university established by SAARC nations), New Delhi, India. She obtained her PhD degree in the area of Plasma Physics from Jawaharlal Nehru University, New Delhi. She has a total of 16 years of experience of teaching physics to engineering students. The area of her research interest includes the study of plasma & dusty plasma, interaction of ion & electron beams with plasma and study of instabilities in ECR ion sources etc. She has published more than 60 research papers in SCI & Scopus-indexed international journals of high repute. She has also participated in many national and international conferences for the presentation of her research work in Spain, Canada, Singapore, Paris and USA. She has completed one research project of Rs. 22 Lakh received from SERB-DST. She has authored three reference/text books with Pearson and published one edited book with CRC press. She has authored several book chapters also in the areas of experimental and theoretical physics. She has filed five patents out of which two design patents; one is international and other one is national, has already been granted. She has guided 5 PhD students in the area of experimental and theoretical research for the award of a Ph.D. degree. She has research collaborations with several world reputed research institutes like CERN Switzerland and NSYSU, Taiwan and a member of many professional societies also.

Educational Qualifications

PhD from Jawaharlal Nehru University, New Delhi (2014)

M. Sc Physics from Kurukshetra University, Kurukshetra (2004)

Patents Granted/published

- National - “Design for a lamp post” Provisional Patent no.: 347383-001, filed in August 2021, granted in November 2021.
- Australian patent - “A system and process for recycling waste fabrics” final patent submitted in July 2021, granted on 20 April 2022, patent no.: 2021102805.
- Australian patent “A smart lamp-post for air purification” final patent submitted in August 2021, patent no. 2021104404, published.
- National-“Fabric with self cleaning property” Provisional Patent No.: 201911014025 filed on April 08, 2019 and final patent filed in April, 2020, published.
- National- "A System and Method for Preparing Chloroplast Nanoparticles" Provisional Patent No.: 201911016187 in May, 2019, published.

Research Project (Completed)

- “Kinetic theory of Electrostatic waves in dusty plasmas”-SERB Sponsored CRG project (EMR/2016/002699) March 2017 – March 2021, of Rs. 21,08,480/- (Rs. Twenty-one Lakh Eight Thousand Four Hundred and Eighty)

PhD Guided

- Degree awarded: 05

Books Published/edited

- *Engg. Physics*, authored & Published in June 2024 by Pearson Asia.
- “*Applied Physics for Engineers*” authored & Published in Sept. 2019 by Pearson Asia, ISBN: 978-93-893-4206-2
- “*Engineering Physics*” authored & Published in May 2018 by Pearson Asia, ISBN: 9789386873316
- “*Handbook of Sustainable Materials: Modelling, Characterization, and Optimization*” edited & published in March 2023 by CRC Press, ISBN:1000835022, EISBN-13: 9781000835021

Chapters Published in book/s

- “Semiconductor materials in electronic devices” published in book “Advances in Electronics and Communication Engineering”, Volume-2, Chief editor- Dr. Haung Xiao, Dongying, China, AkiNik Publications, ISBN: 978-93-90420-82-7, page no.: 51-71 in Sept. 2020.
- “ICT in Teaching Learning” published in book “Digital Education” by APH Publishing Corporation, Darya Ganj, New Delhi in September, 2018 and ISBN: 978-93-88316-08-8 in July 2018.
- “The applications of biosensors and biochips for prognosis and diagnosis of diseases”, Springer Nature, Singapore Pvt. Ltd., in book “Biomaterials based sensors”, 28 Feb 2023, Page no. 387-411, ISBN 978-981-19-8501-0_12
- “Study the effect of plant derived antimicrobials (PDAs) on multidrug tolerant pathogens” in the book “A source book of herbal pharmacotherapy”, ISBN no.: 987-93-5626-998-9, December, 2022.
- “E waste: hydro- and pyro- metallurgical extraction processes” in book ‘E waste: treasure or treat’ published by authors press, ISBN no.: 9789355297747, 3 March 2023.

Reviewership/Membership of Professional Bodies

- Reviewer of international journal “Zeitschrift für Naturforschung A” indexed in Scopus.
- Reviewer of Journal of Pure and Applied Microbiology” Indexed in Scopus (Elsevier), Emerging Sources Citation Index (Clarivate Analytics)
- Reviewer of international journal “Applied Nanoscience”.
- Reviewer of International Canadian Journal “Journal of Materials Science Research”, ISSN 1927-0585 (Print), ISSN 1927-0593 (Online).
- Editor of International Journal “International Journal of Education and Applied Sciences Research”, ISSN 2345-6728. Member of International Journal of APCBEES (Asia-Pacific Chemical, Biological & Environmental Engineering Society (APCBEES) membership number : 201773.

Lectures/Invited talks Delivered/Session chaired

- Session Chaired, “16th International Conference on Plasma Science & Applications (ICPSA – 2023) 12 – 14 December, 2023” organized by Department of Physics, University of Lucknow, Lucknow –226007, India
- Session Chaired, “AIAMMS-2023” organized by School of Engineering & Technology, JECRC University, Jaipur on 3-4 November 2023.
- Delivered a lecture “Explore pathways to success: career counseling for science students” on 26 October 2023 at KRMU.
- Session chaired, “1st International conference on Mechatronics and artificial intelligence” on Feb., 26-27, 2021
- Delivered a lecture “Scanning electron microscopy” national workshop “Instrumentation Techniques” on 5 November 2019 at USIC-JNU.
- Delivered a lecture “XRD – crystal structure determination” during two-day national workshop ‘Characterization Techniques’ on 3-4 October 2019 at USIC-JNU.
- Delivered a lecture on “Effects of Cell Tower Radiations on human Health” during two-day FDP (16th-17th August, 2013) held at KIIT College of Engineering, Gurugram.
- Delivered a lecture on “Unemployment in Youth” at KIIT College of Engg., Gurugram (15th April, 2013).
- Delivered a lecture on “Dusty plasmas in Space and Atmosphere” FDP, KIIT College of Engg., Gurugram (4th -5th April, 2013).

Conferences/Seminars/Workshops Organized

- National workshop as Convener “Advancements in accelerators and plasma for mankind”, 16 September 2022.
- National workshop as co-Convener on “Molecular spectroscopic techniques”, 27 November 2021.
- National workshop as Convener on “X-ray diffraction technique”, 24 September 2020.
- National online quiz “Prevention and safeguards from COVID-19”, 29-30 May 2020 as convener.
- National symposium “29th National Symposium on radiation Physics”, organizing secretary at JNU during 8-10 November 2019.

- National workshop as organizing secretary, “Instrumentation Techniques” at JNU, New Delhi 5 Nov 2019.
- National Workshop “National Workshop on Characterization Techniques” as Organizing Secretary in collaboration with JNU, New Delhi during 3-4 October, 2019.
- National Workshop “Scanning Electron Microscopy” as Organizing Secretary in collaboration with JNU, New Delhi on 14th June, 2019.
- National Workshop “Principles and Techniques of Electron Microscopy” as Organizing Secretary in collaboration with JNU, New Delhi during 28th – 29th March, 2019.
- International Seminar on ‘Biosensors’, speakers were invited from ‘National Sun Yet-sen University, Taiwan’ on 7th Jan, 2019.
- International Conference on Advances in Applied Sciences, Engineering and Technology “AASET-2017”(as Convener) at K. R. Mangalam University, Gurugram during 17th – 18th August, 2017 in collaboration with JNU, NIT Delhi, Vigyan Bharti and Computer Society of India (Funded by CSIR, Johnson Controls etc.)
- National Seminar entitled “Applications of Nanomaterials for Environment and Tech. Development” (as Coordinator) at KIIT Group of Colleges, Gurugram during 11th -12th Feb, 2011.

LIST OF PUBLICATIONS

1. Twinkle Pahuja, Amit Kumar, **Jyotsna Sharma** and Anuj Vijay, “Parametric coupling of whistler waves with gyrating ion beam in a complex plasma”, Contributions to plasma Physics 2024, 25 July 2024, page no. 1-<https://doi.org/10.1002/ctpp.202400055>, ISSN 15213986, 08631042
2. Twinkle Pahuja, Amit Kumar, Himak Sagar, Ruby Gupta, **Jyotsna Sharma**, “Impact of External Magnetic field on Temperature Anisotropy driven Weibel Instability in a magnetized plasma” AIP advances, 20 Feb 2024, AIP Advances 14, 025136 (2024), <https://doi.org/10.1063/5.0189656>
3. Anshu, **Jyotsna Sharma**, and Suresh C. Sharma, “The Collisional Study of EIC Waves in a Magnetized Dusty Plasma with the Inclusion of a DC Electric Field”, Physica Scripta, Volume 99, Number 8, 4 July 2024, 085602 DOI 10.1088/1402-4896/ad5b99
4. Anshu Kumari, **Jyotsna Sharma** and Suresh C. Sharma, Analytical Modelling of Inhomogeneous Energy Density Driven (IEDD) Instability in a Magnetized Dusty Plasma Cylinder, “Brazilian Journal of Physics (2024), vol. 54, Issue 8, 16 November 2023, <https://doi.org/10.1007/s13538-023-01383-w>.
5. Anshu, Suresh C Sharma and **Jyotsna Sharma**, “In the existence of a transverse dc electric field, the kinetic theory of current-driven EIC waves excitation in a magnetized dusty plasma, Contribution to Plasma Physics 2022, page no.: 1-13, 11 July 2022, DOI: 10.1002/ctpp.202200073. ISSN 15213986, 08631042
6. Anshu, S. C. Sharma and **Jyotsna Sharma**, “Kinetic treatment of lower hybrid waves excitation in a magnetized dusty plasma by electron beam”, Indian Journal of Physics, 29 August 2023, Volume 98, pages 1147–1153, (2024), <https://doi.org/10.1007/s12648-023-02865-y>
7. Sudha Yadav, Ravi Kumar and **Jyotsna Sharma**, “Analytical modelling to study the magnetic field-assisted growth of graphene in the reactive plasma”, Material today proceedings, 23 June 2023, <https://doi.org/10.1016/j.matpr.2023.06.053>

8. **Jyotsna Sharma**, Siddhartha Singh, Amit Kumar, Ruby Gupta, “Study of the Shear Alfvén Waves via Parametric Degeneration of Lower Hybrid Pump Wave in Dusty Plasma”, *Brazilian Journal of Physics* (2023), volume 53, article no. 28, 15 July 2023, <https://doi.org/10.1007/s13538-023-01333-6>
9. Amit Kumar, Meena Yadav, Ruby Gupta and **Jyotsna Sharma**, Temperature Anisotropy Driven Weibel Instability in Carbon Plasma, *AIP proceedings* 2745, 030004 (2023), page no. 1-12, <https://doi.org/10.1063/5.0132257>, 11 July 2023.
10. **Jyotsna Sharma**, Amit Kumar, “Excitation of Whistler Wave Instabilities Using a spiraling Electron Beam in a plasma” *Iranian Journal of Science* (2023), <https://doi.org/10.1007/s40995-023-01559-8>, 5 Dec 2023
11. Amit Kumar, Ruby Gupta, Rajat Dhawan, Namita Sabhrawal and **Jyotsna Sharma**, “Theoretical Study on Weibel instability in the existence of large amplitude Langmuir wave inside a Plasma”, October 2023, *E3S Web of Conferences*, 430, 01272 (2023), *ICMPC 2023*, <https://doi.org/10.1051/e3sconf/20234300127272>
12. **Jyotsna Sharma** and Suresh C Sharma, “Neutral beam driven ion cyclotron instability of lower hybrid wave in a tokamak plasma”, *AIP Advances*, Volume 12, Issue 8, 26 August 2022, 085321 (2022); <https://doi.org/10.1063/5.0102140>, ISSN:2158-3226
13. Amit Kumar, Ruby Gupta and **Jyotsna Sharma**, Electromagnetic Weibel instability in spatial anisotropic electron-ion plasmas, *AIP Advances*, Vol. 12, 065013, 9 June 2022, ISSN:2158-3226 .
14. Amit Kumar, Rajat Dhawan, Ruby Gupta and **Jyotsna Sharma**, “Generation of ion cyclotron instability by parametric coupling of gyrating ion beam with lower hybrid wave in a complex plasma”, *Materials today Proceedings*, <https://doi.org/10.1016/j.matpr.2022.04.228>, 22 April 2022, ISSN: 2214-7853
15. Amit Kumar, Ruby Gupta and **Jyotsna Sharma**, “Effect of dust grains on the parametric coupling of a lower hybrid wave driven ion cyclotron wave in a tokamak plasma” *AIP Advances* 12, 035026 (2022); 14 March 2022, doi: 10.1063/5.0085062 , ISSN:2158-3226
16. Amit Kumar, Ruby Gupta and **Jyotsna Sharma**, “Generation of whistler wave by parametric decay of lower hybrid wave in a complex plasma” *AIP Advances*, vol. no. 11, 115022, 16 Nov. 2021. <https://doi.org/10.1063/5.0072235> , ISSN:2158-3226
17. Meena Yadav and **Jyotsna Sharma**, “Electrostatic Ion-cyclotron Wave Excitation by a Gyration Ion Beam in a Magnetized Plasma Containing Heavy Positive Ions” *Indian Journal of Pure & Applied Physics*, Vol. 59, 671-677, October 2021, DOI: <http://op.niscair.res.in/index.php/IJPAP/article/view/54110>
18. Meena Yadav, Kamal Kumar and **Jyotsna Sharma**, “ Theoretical Investigations of Gyration Ion Beam-Driven Ion-Acoustic Wave Instability in Plasma Using First Order Perturbation Theory”, *Mathematical Problems in Engineering*, Volume 2022 | Article ID 1688442 |, 30 Dec 2022 <https://doi.org/10.1155/2022/1688442>
19. Anju Kumari; Kavita Kumari; Faheem Ahmed; Mohamad M Ahmad; **Jyotsna Sharma**; Ankush Vij; Shalendra Kumar “Role of Bi excess on structural, electrical, optical and magnetic properties of BiFeO₃ nanoparticles" *Journal of Materials Science: Materials in Electronics*, 2 Sept 2021, <https://doi.org/10.1007/s10854-021-06860-z>
20. Ahmed Nabih Zaki Rashed*, Kausar Jahan, Gade Harish Babu, Mahmoud M. A. Eid, **Jyotsna Sharma**, Shaik Hasane Ahammad, Md. Amzad Hossain*, Pratap Kumar Dakua

- and Deepak Kumar Panda, “Optical fiber signal strength based on Raman optical amplifiers schemes in dense wavelength multiplexed communication systems”, *J. Opt. Commun.* 2022; pp 1-11, 19 Dec. 2022, <https://doi.org/10.1515/joc-2022-0272>
21. Suveda Aarya, Pawan Kumar, Mamta Bhatia, Sanjeev Kumar, **Jyotsna Sharma** and Siddhartha “Gamma rays induced modification in ultrahigh molecular weight polyethylene(UHMWPE), *Advances in Polymer technology*, vol. 2021, August 2021, <https://doi.org/10.1155/2021/7013154>.
 22. **Jyotsna Sharma**, Suresh C Sharma and Ajay Gahlot, “Kinetic theory of effect of dust charge fluctuations on parametric decay of lower hybrid wave instability by relativistic runaway electrons in tokamak” *Phys. Plasmas* 28, 043701 (2021); <https://doi.org/10.1063/5.0041282>, 08 April 2021, I. F. – 2.4
 23. Renu Singla, Timothy A. Hackett, Sarvesh Kumar, **Jyotsna Sharma** and Manish K. Kashyap, “Curie temperature engineering in a novel 2D analog of iron ore (hematene) via strain”, *Nanoscale Adv.*, 2020,2, pp. 5890-5896, 22 Nov, 2020.
 24. Monika Vats, **Jyotsna Sharma**, Shatendra Sharma, R. K. Rakesh Kumar and Cheng-Hsin Chuang, “Synthesis, Characterization and Photocatalytic Activity of Tin Oxide Nano-crystals” *Current Nanoscience*, vol. 16, page no.: 1-8, Nov. 2020, <file:///C:/Users/JOYTSNA/AppData/Local/Temp/Sharma-MS.pdf>
 25. S. kumar, **Jyotsna Sharma**, Prashant Sharma et al., “Observations of drift wave parametric instabilities in an electron cyclotron resonance ion source” *Plasma Physics and Controlled Fusion*,62,105013 (August 2020), <https://doi.org/10.1088/1361-6587/aba8d8>, I.F.: 2.87
 26. Kunwar Singh, Anil Malik, **Jyotsna Sharma**, and Meena Yadav, “Effect of laser polarization and target location on acceleration of electrons generated during ionization of gases by a laser pulse” *AIP advances* 10, 065026, 19 June 2020, <https://aip.scitation.org/doi/10.1063/5.0007265>, I. F. -1.9
 27. Monika Vats, Gaurav Sharma, Tanvi Sharma, Shalendra Kumar, **Jyotsna Sharma**, Shatendra Sharma and Bindu Mangla, “The synthesis, characterization and application of Cobalt Ferrite Nanoparticles In Lipstick”, *AIP Conference Proceedings* 2220, 020119 (2020); <https://doi.org/10.1063/5.0005448>, 5 May 2020. I. F- 0.4
 28. **Jyotsna Sharma**, Hitesh Aggarwal, Shailendra rawat, kanika rawat, Monika Vats, and Shatendra Sharma, “Electronic and Optical Properties of Nickel Doped Potassium Titanate nanostructures: A DFT Study”, *AIP Conference Proceedings* 2220, 020112 (2020), May 5, 2020; <https://doi.org/10.1063/5.0001752>, I. F- 0.4
 29. **Jyotsna Sharma**, Chandan Thakur, Monika Vats, Shweta and Shatendra Sharma, “Green Synthesis of Zinc Oxide Nanoparticles Using Neem Extract”, *AIP Conference Proceedings* 2220, 020107 (2020), 5 May 2020, <https://doi.org/10.1063/5.0002093>. I. F- 0.4
 30. **Jyotsna Sharma**, Osheen Yadav, Kajal Garg, Shailendra rawat, Monika Vats, and Shatendra Sharma, “DFT Study of Electronic and Optical Properties of Nickel doped

- Barium Titanate nanostructures., AIP Conference Proceedings 2220, 020125 (2020) , May 5, 2020; <https://doi.org/10.1063/5.0002221>. I. F- 0.4
31. Ajay Gahlot, Suresh Sharma, and **Jyotsna Sharma**, “The effect of dust grains on the Weibel instability in presence of large amplitude electrostatic waves” *Phys. Plasmas* 27, 043702 (2020); <https://doi.org/10.1063/1.5133756>, 01 April 2020, I. F. – 2.4
 32. Monika Vats, Rakesh Kumar, **Jyotsna Sharma** and Maitram Niraj Luwang, “Magnetic and luminescent multifunctional nanohybrid: Fe₃O₄@CaF₂:Tb³⁺: A facile synthesis and characterization”, *IJPAP*,58(1), I. F. 0.8, 25 Jan 2020. DOI: <http://op.niscair.res.in/index.php/IJPAP/article/view/25844/0>
 33. S. kumar, **Jyotsna Sharma**, Prashant Sharma et al., “Experimental investigation of plasma instabilities by Fourier analysis in an electron cyclotron resonance ion source”, “*Physical Review Accel. Beams*” vol. 21, Issue 9, 093402, ISSN 2469-9888 (online) 14th September 2018. I F- 1.788, DOI: <https://doi.org/10.1103/PhysRevAccelBeams.21.093402>.
 34. Pan, C. T., Chang, W. H., Kumar, A., Singh, S. P., Kaushik, A. C., Sharma, **Jyotsna Sharma**, Chaudhary, R. K. and Shiue YL, Nanoparticles-mediated Brain Imaging and Disease Prognosis by Conventional as well as Modern Modal Imaging Techniques: A Comparison. *Current pharmaceutical design*, 25(24), 2637-2649, April 2019. I. F. - 2.8, DOI: 10.2174/1381612825666190709220139
 35. Shailendra Rawat, **Jyotsna Sharma** and Shatendra Sharma, “Study of effect of annealing on morphology of hydrothermally synthesized potassium titanate fibers, *Indian Journal of Pure & Applied Physics*, Vol. 56, Issue 9, pp. 703-707, Sept. 2018, 0975-0959 (Online); 0301-1208 (Print), <http://nopr.niscair.res.in/handle/123456789/44988>. I F - 0.822, I. F- 0.822
 36. Shatendra Sharma and **Jyotsna Sharma**, “DFT study of electronic and optical properties of Cu₂O nanostructures”, AIP conference proceedings 2093, 020032 (15 April 2019). <https://doi.org/10.1063/1.5097101>. I. F.-0.4
 37. Shailendra Rawat, **Jyotsna Sharma** and Shatendra Sharma, “Hydrothermal synthesis and characterization of nickel doped potassium titanate” *Indian Journal of Pure & Applied Physics*, Vol. 56, pp. 453-460, June 2018, 0975-0959 (Online); 0301-1208 (Print). I F – 0.822
<http://nopr.niscair.res.in/handle/123456789/44497>
 38. **Jyotsna Sharma**, Parul Kaushik, Anu Choudhary and Shatendra Sharma, “UV degradation of hydrothermally synthesized potassium titanate nanowires” *Advanced Science Letters*, Vol. 24, Issue2, 842-843, March 2018, American Scientific Publishers, ISSN: 1936-6612 (Print): EISSN: 1936-7317 (Online), IF-1.253.<https://doi.org/10.1166/asl.2018.10856>. I F-1.253
 39. **Jyotsna Sharma**, Suresh C. Sharma and Daljeet Kaur, “Instability of Ion Beam Driven Electrostatic Ion-Cyclotron Waves in Collisional Magnetized Two Ion Component Plasma” *Progress in Electromagnetic Research*, 54, pp 123-128, (July, 2015), ISSN: 1937-6480, <http://www.jpier.org/PIERL/pierl54/19.15042703.pdf>. I F-2.322
 40. Suresh C. Sharma, Daljeet Kaur, Ajay Gahlot and **Jyotsna Sharma**, “Excitation of dust acoustic waves by an ion beam in a plasma cylinder with negatively charged dust

grains”, *Physics of Plasmas* 21,103702, (October 2014), American Institute of Physics, NY, USA (I. F. 2.4)ISSN: 1070-664X,E-ISSN: 1089-7674.<https://doi.org/10.1063/1.4897318>. I F- 1.913

41. **Jyotsna Sharma**, Ajay Gahlot, Suresh C. Sharma and V. K. Jain, “Effect of dust charge fluctuations on upper hybrid wave instabilities in magnetized dusty plasma” *International Journal of Modern Physics*, vol. 32,1460350 August(2014), <http://www.worldscientific.com/doi/abs/10.1142/S2010194514603500>, (I. F- 1.153).
42. **Jyotsna Sharma**, Suresh C. Sharma, Anuradha Bhasin and V.K.Jain, “A local theory of effect of beam pre-modulation on gain and efficiency in a surface wave pumped free electron laser” *International Journal of Modern Physics*, August (2014), Vol. 32, 1460351,ISSN: <http://www.worldscientific.com/doi/abs/10.1142/S2010194514603512>, (I. F-1.153).
43. Shatendra Sharma and **Jyotsna Sharma**, “Spiraling ion beam driven electrostatic ion cyclotron wave instabilities in collision less dusty plasma” *International Journal of Modern Physics*, August (2014), vol 32, 1460352, <http://www.worldscientific.com/doi/abs/10.1142/S2010194514603524> ,(I. F. 1.153).
44. **Jyotsna Sharma**, Suresh C. Sharma, V. K. Jain and Ajay Gahlot, “Excitation of lower hybrid waves by a gyrating ion beam in a negative ion plasma”, *Physics of Plasmas* 20, 033706 (March 2013), American Institute of Physics, NY, USA (I. F. - 913).<https://doi.org/10.1063/1.4798426>
45. **Jyotsna Sharma**, Suresh C. Sharma and V. K. Jain, “Higher harmonic generation by spiraling Ion beam magnetized heavy negative ion plasma”, *Journal of Plasma Physics* (Feb 2013) vol. 79, part 5, pp. 577–585 (I. F. – 2.312), ISSN: 0022-3778. doi:10.1017/S002237781300007X
46. Ajay Gahlot, RituWalia, **Jyotsna Sharma**, Suresh C. Sharma and Rinku Sharma, “Decay Instability of an upper hybrid wave in a magnetized dusty plasmas”, *Physics of Plasmas*,20, 013706 (Jan 2013) American Institute of Physics, NY, USA (I. F. -1.913). <https://doi.org/10.1063/1.4788923>
47. Suresh C. Sharma, **Jyotsna Sharma** and AnuradhaBhasin and RituWalia, “Effect of beam pre-bunching on gain and efficiency in a surface wave pumped free electron laser”, *Journal of Plasma Physics*”, Volume 78, 635-640, April, 2012 (I. F. - 2.312).doi:10.1017/S0022377812000487
48. **Jyotsna Sharma** and Suresh C. Sharma, “Excitation of electrostatic ion-cyclotron waves by an ion beam in a two-ion Component Plasma”, *Physics of Plasmas* 17, 123701 (December 2010), American Institute of Physics, NY, USA (I. F. -1.913). <https://doi.org/10.1063/1.3522876>
49. Suresh C. Sharma and **Jyotsna Sharma**, “Excitation of ion cyclotron waves by a spiraling ion beam in a magnetized dusty plasma cylinder”, *Physics of plasmas* 17, 043704(April 2010), American Institute of Physics, NY, USA (I. F. -1.913). <https://doi.org/10.1063/1.3381156>

50. Anshu, S. C. Sharma and **Jyotsna Sharma**, “Lower hybrid waves excitation by a relativistic electron beam in a magnetized dusty plasma: kinetic theory” 46th EPS Conference on Plasma Physics, P2.3016, Jan, 2020. <http://ocs.ciemat.es/EPS2019PAP/pdf/P2.3016.pdf>
51. Shatendra Sharma, **Jyotsna Sharma** and Yogita Sharma, “DFT calculations of electronic and optical properties of SrS with LDA, GGA and mGGAfunctionals” International conference, AIP conference Proceedings 1728, 020095 (May, 2016); <https://doi.org/10.1063/1.4946146>.
52. **Jyotsna Sharma** and DilrajPreet Kaur, “Study of Ion Acoustic Shock Wave Instabilities in Ion Beam Driven Collisionless Magnetized Ion Beam Plasmas.” International Journal of Scientific Research, Vol. 4 (No. 10), 159-160 (October, 2015), ISSN No. 2277-8179, IF-4.7. [https://www.worldwidejournals.com/international-journal-of-scientific-research-\(IJSR\)/special_issues.php?m=October&y=2015&si_id=2](https://www.worldwidejournals.com/international-journal-of-scientific-research-(IJSR)/special_issues.php?m=October&y=2015&si_id=2)
53. **Jyotsna Sharma**, Suresh C. Sharma and V. K. Jain, “Nonlocal theory of electrostatic ion-cyclotron waves in magnetized Plasmas” International Conference, ICPIG-2013 held at Granada (Spain) during July 14 to July 19, 2013.
54. **Jyotsna Sharma** and Suresh C. Sharma, “Nonlocal effects of ion-cyclotron waves in two-component ion plasma”, Presented in National Conference —Recent Trends in Synthesis and Applications of Advanced Materials held at MAIT, Rohini, Delhi during 5-6th Dec., 2011.
55. Sarvesh Kumar, Yadhuvansh Mathur, **Jyotsna Sharma**, Niketan Jakhar, Manish K. Kashyap , Chandan Thakur, Aneesh Ambika Nagendran, Abhishek J.K., Satheesh Thampi R., Pooja U. Sharma Observation of Shear Alfvén waves for molecular ion beams in a magnetically confined plasma, 12-14, October 2022, Institute for Plasma Research, Gandhinagar, India
56. **Jyotsna Sharma**, Amit kumar, Meena Yadav, Sarvesh Kumar , Manish K. Kashyap, “Ion Beam Driven Lower Hybrid Wave Instability in a Magnetized Plasma Containing Two Ion Species” 12-14, October 2022, Institute for Plasma Research, Gandhinagar, India
57. Chandan Thakur, Niketan Jakhar, Manish K. Kashyap, **Jyotsna Sharma**, Sarvesh Kumar, “Charge State Stripping and Stopping Power Analysis of Lead Ions in Carbon Foils” 12-14, October 2022, Institute for Plasma Research, Gandhinagar, India
58. Niketan Jakhar, Manish K. Kashyap, Chandan Thakur, **Jyotsna Sharma**, Theoretical Investigation of Interaction of Kr and Xe Ions with Al Foils, 12-14 October 2022, Institute for Plasma Research, Gandhinagar, India