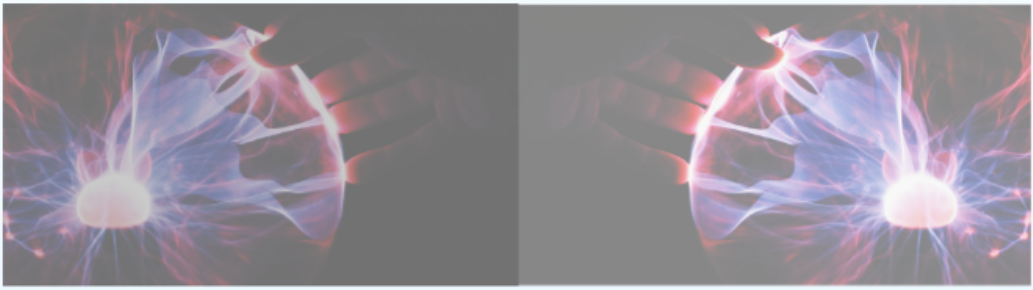
Abstract Index Book

39th National Symposium
On

PLASMA SCIENCE AND TECHNOLOGY-2024
(PLASMA – 2024)

December 17-20, 2024



Theme: Plasma for Viksit Bharat

Organized By The Department of ICT and ECE,
School of Technology,
Pandit Deendayal Energy University,
Gandhinagar, Gujarat 382421

-: CO-SPONSORS OF PLASMA – 2024 :-

राष्ट्र की सेवा में परमाणु BRNS ATOMS IN THE SERVICE OF THE NATION	**Board of Research in Nuclear Sciences (BRNS), Govt. of India**
PANDIT DEENDAYAL ENERGY UNIVERSITY A RESERVOIR OF KNOWLEDGE	**Pandit Deendayal Upadhyay Energy University (PDEU), Gandhinagar, Gujarat**
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39th National Symposium on Plasma Science & Technology – PLASMA 2024

17-20 December 2024

Pandit Deendayal Energy University, Gandhinagar

Theme: Plasma for Viksit Bharat

PDEU PANDIT DEENDAYAL ENERGY UNIVERSITY

Formerly **Pandit Deendayal Petroleum University**

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प्लाज़्मा अनुसंधान संस्थान
Institute for **Plasma Research**

Message

I am happy to know that the 39th National Symposium on Plasma Science & Technology (PLASMA-2024) is being organized by Pandit Deendayal Energy University (PDEU), Gandhinagar in association with the Plasma Science Society of India (PSSI) from 17-20 Dec. 2024.

The Institute for Plasma Research (IPR) is pursuing research in Fusion Science and Technology as well as Societal/Industrial applications of plasmas. It is well known that plasma science & technology has made major advances over the past few decades. IPR is involved in an ever-growing list of plasma applications in industry, agriculture, textile processing, waste disposal, aerospace technologies, medical/health systems, etc.

As a major step towards indigenous technology development and 'Aatmanirbhar Bharat', IPR has established an Atal Incubation Centre (AIC-IPR Plasmatech Innovation Foundation), as a section 8 company owned by DAE, which will act as a Deeptech incubator. The aim is to effectively translate lab scale technologies to large scale demonstrable technologies & products. Incubatees get access to the state-of-the-art infrastructure and technologies, while IPR gets the opportunity to deploy homegrown technologies. Till date, AIC-IPR has signed incubation agreements with four startups while another 5 are in the pipeline. AIC-IPR also aims to support MSMEs and Indian industries in PPP mode so as to emerge as a leader in commercialization of plasma technologies.

I am sure that participation in this symposium would motivate young researchers from different branches of science and engineering to enter the challenging fields of plasma science & technology. Lastly, on behalf of IPR, I would like to thank PSSI and PDEU, the organizers, for their sincere efforts in organizing this symposium. I extend my best wishes to all the participants and hope that the symposium will achieve its desired objectives.

(Shashank Chaturvedi)
Director

PDEU PANDIT DEENDAYAL ENERGY UNIVERSITY

Formerly **Pandit Deendayal Petroleum University**

Welcome Message

It is with immense pleasure that I extend a warm welcome to all participants of the **39th National Symposium on Plasma Science and Technology (PLASMA 2024)**. On behalf of the entire PDEU family, it is both an honor and a privilege to be part of this prestigious event that celebrates the transformative power of **Plasma Science and Technology**.

Plasma science has emerged as a cornerstone of innovation, influencing industries and research across the globe. This symposium provides an extraordinary platform for researchers, scholars, and industry leaders to converge, exchange groundbreaking ideas, and foster collaborations. With seven diverse tracks, ranging from **fundamental plasma physics** to **astrophysical and space plasma**, and **fusion science and technology**, PLASMA 2024 truly reflects the wide-reaching impact of plasma science on society.

I am confident that the discussions and deliberations here will drive the translation of cutting-edge research into practical solutions that address global challenges. At PDEU, we take pride in our growing recognition as a center of excellence in research, with Plasma Science being a key focus area, supported by significant funding, including from the **Department of Atomic Energy**. Our state-of-the-art infrastructure, world-class faculty, and thriving research ecosystem stand testament to our unwavering commitment to advancing this domain.

PLASMA 2024 is a celebration of interdisciplinary collaboration, featuring keynote speeches, technical sessions, panel discussions, and poster presentations. These activities are designed to offer participants a comprehensive platform to share their insights and engage in meaningful discussions. This symposium exemplifies our shared vision of fostering knowledge exchange and innovation to propel India towards a brighter future.

I extend my heartfelt gratitude to the organizing committee, esteemed speakers, and all participants for their dedication and invaluable contributions in making this symposium a grand success. Your collective efforts are instrumental in shaping the future of plasma science and its application for societal benefit.

As we gather under the theme **"Plasma for Viksit Bharat,"** let us harness the collective wisdom and expertise present here to drive groundbreaking innovations. Together, we can address the pressing challenges of today and build a sustainable, prosperous future for Bharat.

I wish all participants a productive and enriching experience at PLASMA 2024. May this symposium inspire you to push boundaries, explore uncharted territories, and transform visionary ideas into practical solutions, paving the way for a truly **Viksit Bharat**.

Dr. S. Sundar Manoharan
Director General,
Pandit Deendayal Energy University, Gandhinagar

SOT
SCHOOL OF TECHNOLOGY

Message

I am honored to warmly welcome all participants to the 39th National Symposium on 'Plasma Science and Technology (PLASMA 2024)'. As a leading institution dedicated to fostering innovation and research, Pandit Deendayal Energy University (PDEU) is proud to host this prestigious symposium in collaboration with the Plasma Science Society of India (PSSI).

PLASMA 2024 embodies the spirit of interdisciplinary collaboration, bringing together researchers, academicians, and industry professionals to share ideas, explore advancements, and address global challenges through the lens of Plasma Science and Technology. Covering a diverse range of topics—from fundamental plasma physics to cutting-edge applications in fusion technology, astrophysic s, and beyond—this symposium highlights the crucial role of plasma science in shaping a sustainable and progressive future for India.

The School of Technology (SoT) at PDEU is proud to be part of this endeavor. With state-of-the-art facilities, dedicated faculty, and a vibrant research ecosystem, SoT continues to support groundbreaking research in plasma science and its various applications. The enthusiastic participation of students, faculty, and experts at PLASMA 2024 reflects the dynamic growth of this field and underscores its potential to contribute to India's vision of a "Viksit Bharat".

I extend my sincere gratitude to the organizing committee, the national advisory committee, and all contributors for their efforts in ensuring the success of this symposium. I would also like to thank the esteemed speakers and participants for sharing their expertise and insights, which will undoubtedly enrich our discussions and inspire innovative solutions.

I wish all participants a fruitful and engaging experience at PLASMA 2024. This symposium catalyzes transformative research, fostering collaborations that lead to impactful advancements for a better tomorrow.

Dhaval Pujara
Director, School of Technology
Pandit Deendayal Energy University, Gandhinagar

The Plasma Science Society Of India

(Regn. No. F-828, Ahmedabad)

I am happy to announce that Plasma Science Society of India (PSSI) is organizing 39th National Symposium on Plasma Science and Technology (PLASMA-2024) in association with Pandit Deendayal Upadhyay Energy University during 17-20 December 2024 at Gandhinagar, Gujarat. The main objective of PLASMA 2024 is to evaluate current research trends in plasma science and technology across the country and openly discuss for future plasma research program. Plasma technology is advancing as an important area not only in fusion energy but in many other industries and hence becoming truly an interdisciplinary phenomenon. More and more challenges are thrown with respect to the advancement in many sectors and performance demand in almost every industry. It is high time that the PSSI should take more pro-active initiative to popularize Plasma Science and Technology in the academic institutions and connect more industries for constructive collaborations. This year PSSI conference theme 'Plasma Technology for VIKSIT BHARAT' is more appropriate to provide a proper platform to the young researchers of our country to present and discuss their findings and connect them to the industry so that collectively we can contribute to the mail goal 'VIKSIT BHARAT' by 2047. We look forward to encouraging new collaborations with the stake holders and with appropriate future benefit. PSSI symposium is consisting of many thrilling programs designed to facilitate scientific temperament and exchange ideas.

I take this opportunity to thank the management and ECE department of PDEU for their unstinted support to make this symposium happen. I express my sincere thanks to the national, local organizing committee and paper review committee members to screen all papers in a meticulous way. I hope that all participants will enjoy the symposium and sincerely express by best wishes for the grand success of the PLASMA-2024.

(Arun K. Sarma)
President, PSSI

http://www.pssi.in

PHONE 91-79-2396 2181
FAX 91-79-2396 2285
E-MAIL india.pssi@gmail.com
WEB http://www.pssi.in

Institute For Plasma Research
Bhat, Near Indira Bridge
Gandhinagar 382 428
Gujarat (India)

Message from Vice-President PSSI

A warm welcome to all participants of the 39th National Symposium on Plasma Science & Technology (PLASMA 2024) with the theme "**PLASMA TECHNOLOGY FOR VIKSIT BHARAT**", being organized by Plasma Science Society of India (PSSI) in association with Pandit Deendayal Energy University (PDEU), Gandhinagar from December 17-20, 2024. PSSI has been conducting this National conference, for the past few decades on a regular basis, with the primary objective to promote Plasma Science and Technology by providing a platform for young researchers and scientists working in various Universities / Institutions / Research Labs across India to present their work and get an opportunity to interact with their contemporaries and peers. Through these initiatives, PSSI has always made efforts to take these conferences across India in an effort to create an awareness of the ongoing plasma research and development nationwide.

Apart from fundamental plasma research with a major emphasis on space plasmas and fusion plasmas during the last century, plasma research in India has grown to widen it R&D efforts to various sectors of plasma applications in the current era. Needless to say, plasma is now seen as an integral part of many commercial systems for a wide range of industrial and societal applications ranging from energy & environment, space, health & medicine, agriculture, to name a few thematic areas, even though the identity of plasma has remained merely as a utility tool for many in the industry. With this wide range of sectors wherein plasma has been able to penetrate through, it is important that there is a platform for the industry and academia to come together and plan a path for collaborative research that would be beneficial for the society at large. This also calls for efforts for creating an awareness amongst the younger generation, both at school and undergraduate level, which will pave the way for creating cohorts of human resources working towards further upliftment of plasma science and technology for the future. Hence, it is a pleasure to inform that PDEU in association with PSSI has been able to provide an entire session for presentations by Industry representatives in PLASMA2024. I hope that these small steps will help us work towards greater goals in future.

I take this opportunity to also pay homage to some our eminent PSSI members who left for their heavenly abode during this past one year. May their souls rest in peace and let their efforts and contributions, during their lifetime, be a benchmark for all of us to work towards achieving greater heights.

I would like to conclude by thanking the administration of PDEU and School of Technology (SoT), PDEU for coming forward to host this symposium and providing all logistics in ensuring that the same can be conducted. I also would like to thank the National and Scientific Advisory Committees for providing their valuable advice and taking out time for evaluating all submissions. I would like to also appreciate the local organizing committee for their unwavering efforts in undertaking all the background works needed to ensure this symposium can be held during the third week of December 2024. I extend my best wishes to the local organizers of PLASMA 2024 for being able to make this symposium a grand success. I wish all the participants to be able to go back after this symposium with enhanced knowledge and having made new friends for a lifetime along with nice memories of their stay in Gandhingar.

Ramesh Narayanan

(Ramesh Narayanan)

Message from the Head of Departments

Dear Delegates, Researchers, and Esteemed Guests,

It is with immense pride and great pleasure that we extend our heartfelt welcome to all participants of the 39th National Symposium on Plasma Science and Technology (PLASMA-2024) from December 17-20, 2024, dedicated to advancing our understanding of plasma science and its multifaceted applications. This event serves as a platform to foster collaboration, inspire innovation, and showcase groundbreaking research in the field of plasma physics, technology, and allied disciplines.

The conference received abstract from fundamental studies on plasma behavior to pioneering developments in industrial and medical applications, these contributions highlight the transformative potential of plasma science in addressing some of society's most pressing challenges. **The conference participants represent about seventy-five esteemed institutions and research organizations spanning nearly every region of India.** As the Head of Departments, we are deeply honored to support this conference, which not only reflects our commitment to academic excellence but also reaffirms our shared vision of building a sustainable and technologically advanced future. We encourage each of you to engage in fruitful discussions, forge meaningful collaborations, and explore innovative pathways that push the boundaries of plasma science.

We would like to express our sincere appreciation to the organizing committee from PDEU and Institute of Plasma Research (IPR), contributors, and participants for their tireless efforts in making this conference a success. Together, let us shape the future of plasma research and its impact on our world.

The Department of Electronics and Communication Engineering (ECE) and Department of Information and Communication Technology (ICT), wishing you an inspiring and enriching experience at the conference.

Warm regards,

Dr. Ganga Prasad Pandey
HoD, ECE, PDEU

Dr. Paawan Sharma
HoD, ICT, PDEU

Conveners Message:

On behalf of the organizing committee, it is my distinct pleasure to welcome you all to the **39th National Symposium on Plasma Science and Technology (PLASMA-2024) from December 17-20, 2024.** It is a collaborative effort by **PDEU Gandhinagar** and the **Plasma Science Society of India (PSSI)**. The event celebrates the remarkable advancements in **Plasma Science and Technology**, a field that continues to drive transformative innovations and nurture a vibrant global research community.

The primary objective of the PLASMA conference series is to provide a dynamic platform for researchers to share their latest findings, exchange ideas, and foster collaborations. **PLASMA 2024** proudly features:

- **17 invited talks** by Indian experts, including one distinguished international speaker.
- **34 oral presentations** highlighting cutting-edge research.
- **350+ poster presentations**, showcasing contributions from students and faculty.
- Special sessions for prestigious awards such as the **Buti Young Scientist Award**, **Guzdar Award**, **Sholapurwala Award**, and **Soddha-PSSI Award**.

These sessions highlight the depth and diversity of research in plasma science, underscoring its pivotal role in shaping a **Viksit Bharat**.

We express our heartfelt gratitude to the **National Advisory Committee** and the **Executive Committee** for their invaluable guidance on topics, speakers, and other elements of the symposium. Their insights have been instrumental in crafting a robust and engaging program.

Our deepest appreciation goes to **Shri K. N. Vyas, Former Secretary, DAE, Prof. Shashank Chaturvedi, Director, IPR**, **Prof. S. Sundar Manoharan, Director General, PDEU Gandhinagar** Col (Dr) Rakesh Kumar Shrivastawa, Registrar, PDEU for accepting our invitation and grace the event. My Immense gratitude to **Prof. Dhaval Pujara, Director, SoT, PDEU**, Dr. Ganga Prasad Pandey, HoD, ECE and Dr. Paawan Sharma, HoD, ICT for their steadfast support and encouragement. My heartfelt thanks to the organizing committee members especially Dr. Manish Mandloi, Dr. Gunjan, Dr. Amit G Kumar, Dr. Kamal Garg, and Ms. Shivangi Mehta. We also acknowledge the crucial contributions of **PSSI**, **IPR**, especially Prof. **Paritosh Chaudhuri, Dr. Amulya Kumar Sanyasi, and N Ramasubramanian Mani** and **PDEU** for their relentless support in organizing this symposium.

We are immensely grateful to the **Board of Research in Nuclear Sciences (BRNS)** and **Anusandhan National Research Foundation (ANRF)** for their financial support, reaffirming the shared commitment to advancing plasma science for societal benefit. I would like to thank our sponsors Atos Instruments (Platinum Sponsor), Grow Control Powertech Pvt Ltd (Gold Sponsor), Revine Technologies Pvt. Ltd (Silver Sponsor), COMSOL Multiphysics Pvt. Ltd (Silver Sponsor).

Lastly, we extend a special thanks to all participants and speakers for their enthusiastic contributions. Your dedication to presenting groundbreaking research aligns perfectly with the vision of this conference: to harness **Plasma Technology** for a self-reliant and progressive Bharat.

It is an honor to welcome you to **PLASMA 2024**. May this symposium inspire innovative ideas, foster collaborations, and pave the way for a sustainable and prosperous future. Together, let us continue to push the boundaries of this exciting field and contribute meaningfully to a **Viksit Bharat**.

Manish Kr.

Dr. Manish Kumar
Convener, PLASMA 2024

Abhishek Kumar

Dr. Abhishek Kumar
Co-Convener, PLASMA 2024

About PSSI

Great advances have been made in plasma theory and applications throughout the world in the last couple of decades. In India too, significant contributions have been made for the past four decades or so. Plasma Science Society of India (PSSI), which was formed in 1978, is a promoting body of this subject in India. PSSI provides a forum of interaction amongst the scientists, engineers, faculties and students working in this exciting area of research. The Society has a wide network with more than 1900 members from research institutions, universities and industries. It is continuously growing with an objective of popularizing and creating awareness amongst the youngsters about the plasma science and technology and the immense research opportunities that this field now offers. To this end, PSSI organizes every year the Plasma Science and Technology Symposium at various national laboratories and university centres in India. In addition, various national Seminars/Workshops/Colloquium on focused themes are also being organized periodically. It has also started to organize national PSSI - Plasma Scholars Colloquium (PSSI-PSC) annually in various parts of the country.

Briefly the objectives of the society are as follows:

- To encourage the study of all aspects of plasma science & technology.
- To promote active interaction among all persons, bodies, educational and research institutions (private and/or state owned) and industries in the field of plasma science & technology.
- To issue such publications (e.g. newsletters, reports, bulletins, journals incorporating research and teaching ideas, e-newsletter, etc.) from time to time, as may be decided upon by the executive council of the society.
- To popularize the plasma science among the educational and research institutions and the general public of India by arranging lectures/conferences/workshops on various aspects of plasma science & technology.
- Striving to include plasma science courses in colleges and universities-curricula.
- Cooperating in the conducting of symposium, conferences, panel discussions, workshops, etc. Supporting research students in the form of research fellowships and travel support to attend plasma conferences in India.
- To encourage coordinated research programmes among Indian Plasma Scientists and exchange of research personnel between research institutions and Universities in India.

PSSI Awards

PSSI in conjunction with external sponsors, has instituted many awards for outstanding research works in the area of Plasma Science & Technology. Right now, the following awards are presented during the National Symposium every year in its annual m

- Buti Young Scientist Award
- Parvez Guzdar Award
- Z. H. Sholapurwala RF Award
- Jaidutt Saraswati Sodha PSSI Plasma Award
- PSSI Poster and Oral Awards
- Z. H. Sholapurwala Poster Award

About PDEU

PDEU was established as a Petroleum University in 2007 with a focus on fossil fuels and later emerged as India's only energy university in the year 2021, dedicated to energy education and research. Today, the university has marked its presence as a renowned institution with noteworthy national and international visibility. PDEU is aggressively contributing towards Nation's **Aatma Nirbhar Bharat** Abhiyan.

Pandit Deendayal Energy University's 100 acre campus is located in Gandhinagar, which is the capital city of Gujarat and located 23 Km North from a well-developed city called Ahmedabad with a population of 8 million people. The city is famous for its remarkable cultural development and social life.

PDEU offers multiple courses ranging from engineering, arts and management along with maximum exposure and opportunities to its students through various national and International exchange programs with Best Universities worldwide. For development of its faculties and staff the University endeavours for various Joint Exchange and Research programs.

The university has four schools, located on the same campus. The schools include the School of Energy Technology (SoET) (formerly, School of Petroleum Technology), the School of Technology (SoT), the School of Management (SoM) (formerly, School of Petroleum Management), and the School of Liberal Studies (SLS). The President of University Board of Governors is Dr. Mukesh Ambani.

About Ahmedabad

Standing tall on the banks of the Sabarmati River, Ahmedabad weaves a tapestry of history and legend. Founded in 1411 by Ahmed Shah I, it was Gujarat's capital for centuries. Ahmedabad boasts architectural marvels like the Bhadra Fort and Sidi Sayed Mosque, whispering tales of its Mughal past. Yet, beneath the bustling commercial heart lies a spiritual core. Legends of Saint Maneknath and the Goddess Lakshmi add a touch of mystique, while Jain temples and mosques stand side-by-side, reflecting the city's vibrant tolerance. Today, Ahmedabad is a center for trade and textiles, a city where the past thrives in the present.

About Gandhinagar

Gandhinagar is a planned city in the western Indian state of Gujarat. Gandhinagar, Gujarat's new capital city and one of the beautiful and greenest city in India, lies on the west bank of the Sabarmati River, about 464 km away from Mumbai, the financial capital of India. Gandhinagar presents the spacious, well-organized look of an architecturally integrated city. Thirty sectors, into which the city has been divided, stretch around the central Government complex. Each sector has its own shopping and community center, primary school, health center, government and private housing. Apart from which there is a generous provision for wide open green parks, extensive planting and a large recreational area along the river giving the city a lush green garden-city atmosphere. Gandhinagar's roads are numbered, and have cross roads named for Gujarati alphabets like "K", "KH", "G", "GH", "CH", "CHH", "J". All roads cross every kilometer, and at every crossing traffic circles decrease the speed of traffic. The Akshardham is a massive Hindu temple with ornate carvings and sculpted pillars, plus a water show in its sprawling gardens. Dandi Kutir museum traces the life of leader Mahatma Gandhi, who was born in Gujarat. South, along the Sabarmati River, the Indroda Nature Park has a zoo and botanical gardens, plus an adjacent dinosaur and fossil park.

Conference Schedule

Day-1 (17th December 2024, Tuesday)

09:00 to 10:00	10:00 to 10.45	10.45 to 11.15	11:15 To 13:15		13:15 to 14:15	14:15 to 16:00		16.00 to 17.15	17:30 To 18.30
Inaugural Function	**Keynote Address**	**High Tea**	**Session-1 Buti Memorial (Astrophysical & Space Plasma)**		**Lunch**	**Buti Award Presentations**		**Tea + Poster Session (ASP & FP)**	**Award Presentations** **1) Parvez Guzdar Award** **2) Shodha-PSSI Award** **3) Sholapurwala Award**
			Memory	15 min		BYSA-1	20 min		
			Invited-1	30 min		BYSA-2	20 min		
			Invited-2	30 min		BYSA-3	20 min		
			Oral-1	15 min		BYSA-4	20 min		
			Oral-2	15 min		BYSA-5	20 min		
			Oral-3	15 min					

Day-2 (18th December 2024, Wednesday)

9:00 to 11:00		11.00 to 11.15	11:15 to 13:15		13:15 to 14:15	14:15 to 15:45		16.00 to 17.30	17:30 onwards
Session-2 (Fundamental Plasma)		**Tea**	**Session-3 (Fusion Science & Technology)**		**Lunch**	**Session-4 (Mega Science Projects: ITER, LIGO)**		**Tea + Poster Session (FST)**	**Visit to Akshardham (Light& Sound)**
Invited-1	30 min		Invited-1	30 min		Invited-1	30 min		
Invited-2	30 min		Invited-2	30 min		Invited-2	30 min		
Oral-1	15 min		Oral-1	15 min		Oral-1	15 min		
Oral-2	15 min		Oral-2	15 min		Oral-2	15 min		
Oral-3	15 min		Oral-3	15 min					
Oral-4	15 min		Oral-4	15 min					

Day-3 (19th December 2024, Thursday)

9:00 to 11:00		11.00 to 11.15	11:15 to 13:00		13:00 to 14:00	14:00 to 16:00		16.00 to 17.15	17:30 onwards
Session-5 (High Temp. Plasma)		**Tea**	**Session-6 (Exotic and Pulsed Plasma)**		**Lunch**	**Session-7 (Plasma Applications)**		**Tea + Poster Session (HTP, EP & PA)**	**PSSI GBM & Cultural Program & DG's Dinner**
Invited-1	30 min		Invited-1	30 min		Invited-1	30 min		
Invited-2	30 min		Invited-2	30 min		Invited-2	30 min		
Oral-1	15 min		Oral-1	15 min		Oral-1	15 min		
Oral-2	15 min		Oral-2	15 min		Oral-2	15 min		
Oral-3	15 min		Oral-3	15 min		Oral-3	15 min		
Oral-4	15 min					Oral-4	15 min		

Day-4 (20th December 2024, Friday)

9:00 to 11:00		11.00 to 12.00	12:00 to 13:15		13:15 to 14:15	14:15 to 16:00	16.00 to 16.30	16:30 onwards
Session-8 (Simulation Plasma)		**Tea + Poster Session (SP)**	**Session-9 (Vendor's Talk)**		**Lunch**	**Poster Awards & Valedictory Session**	**High Tea**	**Adjourn**
Invited-1	30 min		Invited - 1	15 min				
Invited-2	30 min		Talk-1	15 min				
Oral-1	15 min		Talk-2	15 min				
Oral-2	15 min		Talk-3	15 min				
Oral-3	15 min		Talk-4	15 min				
Oral-4	15 min							

Symposium Address by Shri K. N. Vyas

Former Chairman, Atomic Energy Commission (AEC), Secretary of Department of Atomic Energy (DAE)

INDEX OF THE PRESENTATIONS

INVITED PRESENTATIONS		
Name/Affiliation		**Abstract Title**
Session – 1 Astrophysical & Space Plasma (17th Dec - 11:15 Hrs. – 12:30 Hrs.)		
Memory	Prof. Venkat N. Ramani *AHV, Ahmedabad*	**Remembering Prof. Bimala Buti For Her Tremendous Contributions To Plasma Science.**
Invited – 1	Prof. Ramitendranath Bhattacharya *Physical Research Laboratory, Udaipur*	**Data-Constrained Magnetohydrodynamic Simulation Of Solar Coronal Transients**
Invited – 2	Dr. Dipanjan Mukherjee, *IUCAA, Pune*	**How Relativistic Jets From Supermassive Black Holes Shape Galaxy Evolution**
Session – 2 Fundamental Plasma (18th Dec – 09:00 Hrs. – 10:00 Hrs.)		
Invited – 1	Prof. Shantanu Karkari *IPR, Gandhinagar*	**Revisiting the Basics in Fusion Research through Linear Plasma Devices**
Invited – 2	Dr. Subir Biswas, *IASST, Guwahati*	**Ionization Instability: Investigation of it in a Linear Plasma Device**
Session – 3 Fusion Science & Technology (18th Dec – 11:15 Hrs. – 12:15 Hrs.)		
Invited – 1	Prof. Shishir Deshpande, *IPR, Gandhinagar*	**A Staged Approach to Indian DEMO: The Role of an Integrated Test Facility and $Q_E \leq 1$ Pilot Plant.**
Invited – 2	Dr. Joydeep Ghosh, *IPR, Gandhinagar*	**Tokamak Operation With Low-Edge Safety Factor ($Q_{edge} < 2$) Value: Can It Be Scaled To A Fusion Reactor?**

Session – 4 Mega Science (18th Dec – 14:15 Hrs. – 15:15 Hrs.)		
Invited – 1	Dr. Arun Chakraborty *ITER – India, Gandhinagar*	**India In ITER – Technical And Management Perspectives From A Collaboration Of 18+ Years**
Invited – 2	Dr. Subroto Mukherjee *LIGO Division, IPR, Gandhinagar*	**Laser Interferometer Gravitational Wave Observatory (LIGO) - Developments In India**
Session – 5 High Temperature Plasma (19th Dec – 09:00 Hrs. – 10:00 Hrs.)		
Invited – 1	Dr. Debaprasad Sahu, *IIT –Delhi, Delhi*	**Current status of ELNIBS- ECR based Large Negative Ion Beam Source for NBI system**
Invited – 2	Dr. Rakesh Tanna, *IPR, Gandhinagar*	**Confinement improvement, disruption and runaway electron mitigations experiments in ADITYA/ADITYA-U tokomaks.**
Session – 6 Exotic & Pulsed Plasma (19th Dec – 11:15 Hrs. – 12:15 Hrs.)		
Invited – 1	Prof. Vishvesh Badheka *PDEU Gandhinagar*	**Additive Manufacturing Processes and Applications**
Invited – 2	Dr. T. K. Borthakur, *CPP – IPR, Guwahati*	**ELM relevant Heat Loading Studies using Pulsed Plasma Accelerator at CPP-IPR**
Session – 7 Application Plasma (19th Dec – 14:00 Hrs. – 15:00 Hrs.)		
Invited – 1	Dr. S. K. Nema, *FCIPT - IPR, Gandhinagar*	**Development of Plasma Technologies for Industries and Society**.
Invited – 2	Prof. Laxminarayana Rao, *IISc, Bangalore*	**Neutral pH High Strength PAW from a Pin-to-Water System and its Application in Medicine and Agriculture**

Session – 8 Simulation Plasma (20th Dec – 09:00 Hrs. – 10:00 Hrs.)		
Invited – 1	Dr. Devendra Sharma, *IPR, Gandhinagar*	**Magnetized Plasma Modes With Ion Participation In Space, Laboratory And Computer Simulations**
Invited – 2	Dr. Vikrant Saxena, *IPR, Gandhinagar*	**Target Normal Sheath Acceleration of Protons with Structured Targets**
Session – 9 Vendor's Presentation (20th Dec – 12:00 Hrs. – 12:15 Hrs.)		
Invited – 1	Dr. Arun Sarma, *NECTAR, New Delhi*	**On Role of Industry Supporting Research and Development**

ORAL Presentations

Abstract ID	Author's Name	Abstract Title
Session – 1 Astrophysical & Space Plasma (17th Dec - 12:30 Hrs. – 13:15 Hrs.)		
216	Yogesh Kumar Maurya PRL, Udaipur	**Dynamics Of 3D Magnetic Nulls In Initially Chaotic Magnetic Field Devoid Of Any Nulls Through MHD Simulations.**
245	Manesh Michael Bharata College, Cochi	**Ion-Acoustic Shock Waves In A Multi-Ion Plasma With Superthermal Electrons And Ion: An Application To Saturn's Magnetosphere.**
336	Sachin Sharma IIT, Jammu	**Stationary Kolmogorov Turbulence in Dusty Plasma Experiments**
Session – 2 Fundamental Plasma (18th Dec – 10:00 Hrs. – 11:00 Hrs.)		
14	Mithun Karmakar SVNIT, Surat	**Wave Breaking Of Ion Acoustic Waves In Electron–Ion Plasma In Presence Of Fully Relativistic Electron Beam**
24	Hema Maan BARC, Mumbai	**Effect Of Various Electron–Thermal Equation Of State Models In Radiation Hydrodynamics Simulations Of Laser-Driven Systems.**
205	Paragjyoti Sut IASST, Guwahati	**Experimental Study Of Double Layer Oscillations With An External Signal.**
278	Renu Bahl IPR, Gandhinagar	**Experimental Investigation Of The Mach Probe In The Supersonic Flow In The Helicon Plasma Thruster System.**
Session – 3 Fusion Science & Technology (18th Dec – 12:15 Hrs. – 13:15 Hrs.)		
39	Mukti Ranjan Jana	**NBI Ion Source Back Plate: From Concept To Delivery.**

	IPR, Gandhinagar	
63	P N Maya *IPR, Gandhinagar*	**A Case For An Integrated Test Facility For Fusion Science & Technology Development**
233	Srikanta Sahu *IPR, Gandhinagar*	**Magneto-Convective Fluctuation Studies In Molten Metal MHD Duct Flow.**
269	Ananta Sahu *IPR, Gandhinagar*	**Test Results Of Indigenously Developed Helium Refrigerator/Liquefier And Upgradation Plan For Tokamak Application.**
Session – 4 Mega Science (18th Dec – 15:15 Hrs. – 15:45 Hrs.)		
ITER – IN	Sanjeev Varshney *ITER –India, Gandhinagar*	**Current Status of IN-DA Diagnostic Systems for ITER**
LIGO – IN	Vijay Bedakihale *IPR, Gandhinagar*	**LIGO-India Vacuum System Prototyping**
Session – 5 High Temperature Plasma (19th Dec – 10:00 Hrs. – 11:00 Hrs.)		
80	Suraj Gupta *IPR, Gandhinagar*	**Design And Optimization Of An Objective Lens For High Resolution Visible Imaging Diagnostics In The Aditya-U Tokamak.**
198	Kumudni Tahiliani *IPR, Gandhinagar*	**Overview Of Bolometer Diagnostics In Aditya-U Tokamak And Future Plans.**
263	Patryk Nowak vel Nowakowski *LUT, Poland*	**Analysis Of The PMT Signal In The ITER HXRM System Prototype**
351	Snehlata Aggarwal	**A Study Of The Experimentally Observed Core Ion Temperature With**

	IPR, Gandhinagar	**Other Operational Parameters Of Aditya Tokamak Plasma Discharges.**
Session – 6 Exotic & Pulsed Plasma (19th Dec – 12:15 Hrs. – 13:00 Hrs.)		
54	Deepak Kumar *JNU, New Delhi*	**Impact Of Dust Dynamics And Radiative Condensation Instability In Strongly Coupled Astrophysical Dusty Plasma.**
120	Hirakjyoti Sarma *Tezpur University, Tezpur*	**Phase Transition Of Three-Dimensional Finite-Sized Charged Dust Clusters In A Plasma Environment.**
316	Shivangi Bidoliya *RRCAT, Indore*	**Proton Energy Enhancement In Laser Plasma Acceleration Through Controlled Pre-Plasma Scale-Length.**
Session – 7 Application Plasma (19th Dec – 15:00 Hrs. – 16:00 Hrs.)		
7	Nandhu V. Gnanasekar *Bharathiar University, Coimbatore*	**Zno Functionalized Plasma-Treated Polymer Films: A Novel Antibacterial Strategy For Medical Applications.**
135	Purvi Dave *FCIPT, Gandhinagar*	**Influence Of Plasma Process Parameters On Bacterial Adhesion Properties Of Silicone Catheter Surfaces.**
155	Ramesh Kumar Buddu *IPR, Gandhinagar*	**Overview Of Helicon Plasma Thruster Project And Results.**
328	Gopal Gote *IIT, Mumbai*	**Plasma Focused Electron Beam Gun For Wire-Fed Additive Manufacturing.**
Session – 8 Simulation Plasma (20th Dec – 10:00 Hrs. – 11:00 Hrs.)		

47	Lucky Saikia *CPP-IPR, Guwahati*	**Enhancement In Neutron Production Rate By Improving Ion Confinement Time In An Inertial Electrostatic Confinement Fusion Device**
265	Arzoo Malwal *IPR, Gandhinagar*	**Off-Target Gradient-Driven Flows In Inboard Limited Aditya-U Plasmas.**
273	Ankit Dhaka *IPR, Gandhinagar*	**Excitation And Relaxation Of Collective Modes In 1D Dusty Plasma**
Session – 9 Industry Participation (20th Dec – 12:15 Hrs. – 13:15 Hrs.)		
Invited – 1	Dr. Arun Sarma, NECTAR, Delhi	On Role of Industry Supporting Research and Developmen
Talk – 1	ATOS India	
Talk – 2	Grow Control Power Tech Pvt. Ltd.	

BUTI Award Presentations

BUTI Young Scientist Presentations: 17th Dec - 14:15 Hrs. – 16:00 Hrs.		
Oral – 1	Geethika B R *IPR, Gandhinagar*	**A Study On Polarized Emission And Its Impact In Spectroscopic Characterization Of Laser Produced Aluminium Plasma**
Oral – 2	Shilpa S *CUSAT, Cochin*	**Time Resolved Imaging and Optical Emission Spectroscopy of Colliding Laser Produced Plasmas**
Oral – 3	Satyam Agarwal *PRL, Ahmedabad*	**Investigation of Self-Organization in Solar Flare Using Data-Constrained MHD Simulations**
Oral – 4	Radhika T P *IIT, Delhi*	**Control of Plasma Parameters and Discharge Transitions through Power Increment Modulation in a Radio Frequency Atmospheric Pressure Plasma Jet**

Oral – 5	Ankit Kumar *IPR, Gandhinagar*	**Effect Of Impurity Seeding On Edge Toroidal Rotation In Aditya-U Tokamak**

PERVEZ GUZDAR Award Presentations

Pervez Guzdar Young Scientist Presentations: 17th Dec - 17:30 Hrs. – 18:30 Hrs.		
Presentation - 1	Krushna Chandra Barik *University of California, Berkeley, USA*	***Generation of Kinetic Alfven Waves and Their Role in Magnetospeheric Dynamics***
Presentation - 2	Kuldeep Singh *Khalifa University, Abu Dhabi, UAE*	***Nonlinear Waves in Planetary Magnetosphere***

Web – Link: www.pssi.in

Poster Presentations

Astrophysical and Space Plasmas
17th December 2024, 16:00 Hrs – 17:15 Hrs

Sr. No	Poster ID	Abstract ID	Title/ Author/ Affiliation
1	ASP-01	1	**Effect Of Charged Dust On The Nonlinear Coupled Dynamics Of The Equatorial Electrojet Irregularities** *Sanjib Sarkar, Alupurduar University, West Bengal*
2	ASP-02	23	**Experimental Investigation Of X-Ray Emission From Spacecraft Materials, Impacted By 12-28 Kev Electrons** *Kailash Verma, IIT – BHU, Varanasi*
3	ASP-03	33	**Effects Of Intrinsic Spin Magnetization On The Jeans Instability In Anisotropic Dense Plasma Including Viscosity Tensor And Ohmic Diffusion** *Vinesh Sangwan, Jawaharlal Nehru University, New – Delhi*
4	ASP-04	49	**Generation Mechanism For Electromagnetic Nonlinear Structures Over The Lunar Magnetic Anomaly** *Rubia R, VSSC, Banglore*
5	ASP-05	51	**Non-Ideal MHD And Cosmic Rays Effects On Thermal Instability In Gravitating Astrophysical Plasmas** *Pallab Boro, Jawaharlal Nehru University, New – Delhi*
6	ASP-06	93	**Nonlinear Coupling Of Kinetic Alfven Waves And Ion Acoustic Waves In The Inner Heliosphere** *Mani K Chettri, Sikkim University*
7	ASP-07	94	**Magnetogenesis Via The Canonical Battery Effect** *Modhuchandra Laishram, Pohang University, Korea*
8	ASP-08	157	**Magnetohydrodynamics Simulation Of A Confined X-Class Flare In Noaa Active Region 11166** *Sanjay Kumar, Patna University, Patna*

9	ASP-09	166	**Exploring Magnetic Coupling And Wave Properties Of Sunspot Umbral Atmosphere** *Ananya Rawat, Physical Research Laboratory, Udaipur*
10	ASP-10	170	**Studying Flare Ribbon Dynamics Using MHD Simulation** *Sushree Sangeeta Nayak, University of Albama, Huntsville*
11	ASP-11	171	**Probing Progression Of Small-Scale Flare Heating In The Lower And Upper Solar Atmosphere** *Girjesh Gupta, Physical Research Laboratory, Udaipur*
12	ASP-12	173	**Jeans Instability In Nonthermal Eibi-Gravitating Magnetized Complex Astroclouds** *Dipankar Roy, Tezpur University*
13	ASP-13	208	**Cool Down Analysis Of 80K Cryopump** *Naresh Chand Gupta, Institute for Plasma Research, Gandhinagar*
14	ASP-14	209	**Fabrication Aspects Of 80K Cryopump For LIVISTA** *Rakesh Kumar, Institute for Plasma Research, Gandhinagar*
15	ASP-15	228	**Study Of Small-Scale Compact Chromospheric Brightenings Using Data From MAST And SDO** *Hasil Dixit, Physical Research Laboratory, Ahmedabad*
16	ASP-16	247	**Quasi-Longitudinal Whistlers In The Lower Hybrid Regime** *Gayatri Barsagade, Institute for Plasma Research, Gandhinagar*
17	ASP-17	281	**Space Weather Predictions Through Cosmic Ray Variations** *Rajesh Kumar Mishra, Tropical Forest Research Institute, Jabalpur*
18	ASP-18	282	**Cosmic Ray Anisotropies Under Different Geomagnetic Conditions** *Rekha Agarwal, Govt. Science College, Jabalpur*
19	ASP-19	283	**Head-On Collision Of Heavy- And Light-Nuclei Acoustic Waves In White Dwarfs** *Rupinder Kaur, Pt. Mohan Lal D College for Women, Gurdaspur, Punjab*

20	ASP-20	335	**Estimating Formation Heights Of AIA Channels In Sunspot Umbrae Using 3-Min Magneto-Acoustic Waves** *Sanjay, UPES, Dehradun*
21	ASP-21	338	**Investigation Of Alfvén Wave Dynamics In Self-Gravitating Rotating Spin-Polarized Astrophysical Degenrate Electron-Positron-Ion Plasma** *Ravi Kant Dwivedi, University of Lucknow*
22	ASP-22	342	**Theoretical Study Of Solitary Waves In Spin-Polarized Astrophysical Quantum Plasmas** *Atherv Saxena, University of Lucknow*
23	ASP-23	345	**Interaction Of Solar Wind Plasma With The Earth's Magnetosphere** *Sham Singh, Chandigarh Engineering College, Landran, Mohali*
24	ASP-24	347	**Connection Between Solar Plasma And Geomagnetic Indices** *Shriram Lahauriya, Govt. P. G. Autonomous College, Datia*
25	ASP-25	362	**Jeans Instability In Ultra-Relativistic Degenerate Strongly Coupled Quantum Plasmas Including Radiation Pressure** *Ravinder Bhambhu, Jawaharlal Nehru University, New Delhi*
26	ASP-26	--	**Intense Geomagnetic Storms and it's Causes in Interplanetary Magnetic Field and Arising Phase of Solar Cycles 23 & 24** *Moushmi Jaiswal, Government Science College, Jabalpur*

Fundamental Plasmas
17th December 2024, 16:00 Hrs – 17:15 Hrs

Sr. No.	POSTER ID	Abstract ID	Title/Author/Affiliation
1	FP - 01	2	**Phase-Mixing Of Electron Acoustic Waves In Plasmas With Kappa-Distributed Hot Electrons** *Anubhab Biswas, Jadavpur University, Kolkata*
2	FP - 02	12	**Scattering Of Pump Electromagnetic Wave In Thermal Cluster Plasma**

			Riddhima Sadhu, Birla Institute of Technology, Mesra
3	FP - 03	17	**Effect Of Magnetic Field On Hot Cathode DC Discharge Plasma** *Aritra Tarafder, IASST, Guwahati*
4	FP - 04	20	**Exact Nonstationary Electron Oscillations In Bounded Resistive Plasmas** *Gopal Basak, Jadavpur University, Kolkata*
5	FP - 05	26	**Magnetic Field Topology For A Non-Filamentary Toroidal Current: A Numerical Approach** *Suman Aich, Institute for Plasma Research, Gandhinagar*
6	FP - 06	27	**Generation Of Terahertz Radiations By Excitation Of Surface Plasmons Over A Graphene-N-Insb Interface In A Magnetic Field** *Rohit Srivastav, Institute for Plasma Research, Gandhinagar*
7	FP - 07	28	**Studies Of Electromagnetic Wave Propagation In Different E-M Regime With FDTD Simulation** *Himabindu Manthena, Institute for Plasma Research, Gandhinagar*
8	FP - 08	37	**Second Harmonic Generation Of Elliptical Laser Beam In Thermal Quantum Plasma** *Kulkaran Singh, DAV University, Punjab*
9	FP - 09	46	**Investigation Of Plasma Plume And Helicon Source Parameters In Prototype Helicon Plasma Thrusters (PHPT) With SLP** *Narender Singh, Institute for Plasma Research, Gandhinagar*
10	FP - 10	56	**The Stimulated Raman Scattering Of A High-Power Beam In Quantum Plasma: Impact Of Relativistic And Ponderomotive Nonlinear Effects** *Taranjot Singh, DAV Univerisity, Jalandhar, Punjab*
11	FP - 11	64	**Using The Reductive Perturbation Method For Ion-Acoustic Dressed Soliton In Plasmas With Superthermal Electron And Positron** *Maneesh, Govind Guru tribal University, Rajasthan*
12	FP - 12	70	**Characterization Of Slayer Exciter Based Low Power Atmospheric Pressure Ar Plasma Jet Using Optical Emission Spectroscopy (OES)**

			Vishwas Shankar, M S Ramaiah University, Bengaluru
13	FP - 13	73	**Characterization Of A Spark Discharge Using Mach–Zehnder Interferometer** *Judhistir Shamal, Institute for Plasma Research, Gandhinagar*
14	FP - 14	76	**A Novel Rogowski Coil To Detect The Pulsed Currents Associated With High Frequency Electromagnetic Waves In A Plasma** *Ambesh Kumari, Institute for Plasma Research, Gandhinagar*
15	FP - 15	105	**Study On Plasma Parameters In A Compact Inertial Electrostatic Confinement Fusion Device In Presence Of An External Magnetic Field** *Nishant Bharali, CPP-IPR, Guwahati, Assam*
16	FP - 16	106	**A Non-Destructive Method For Plasma Trajectory Estimation In Non-Neutral Plasmas** *Kunal Singha, Institute for Plasma Research, Gandhinagar*
17	FP - 17	109	**Terahertz Generation Via Unipolar And Bipolar Laser Pulses In Plasma: A Comparative Study Of Ponderomotive Forces And Their Effects** *Anjana K P, Institute for Plasma Research, Gandhinagar*
18	FP - 18	110	**Spectroscopic Characterization Of CCRF Plasma** *Varsha S, Institute for Plasma Research, Gandhinagar*
19	FP - 19	125	**From Conventional To Advanced Accelerators – A Comprehensive Review** *Hariprasad M S, Lovely Professional Univeristy, Punjab*
20	FP - 20	126	**On The Study Of Two Colliding Plasmas In A Compact Plasma System** *Parthasarathi Das, Ravenshaw University, Cuttack*
21	FP - 21	127	**On The Diagnosis OF Pulsed Washer Gun Argon Plasma By Triple Probe And Faraday Cup** *Bipin Kumar Sethy, Ravenshaw University, Cuttack*

22	FP - 22	133	**Excitation And Detection Of Electromagnetic Waves In Magnetized Plasma Using Loop Exciter And Helmholtz Coil Setup In Large Volume Plasma Device** *Deepak Rajpurohit, Institute for Plasma Research, Gandhinagar*
23	FP - 23	148	**Data Adequacy For Deep Learning Assisted Microwave Plasma Interaction Based Plasma Density Diagnostics** *Pratik Ghosh, Institute for Plasma Research, Gandhinagar*
24	FP - 24	158	**Arbitrary Amplitude Dust-Ion Acoustic Nonlinear And Supernonlinear Wave Structures In A Magnetized Five Components Plasma** *Paltu Halder, Jadavpur University, Kolkata*
25	FP - 25	163	**Characteristics Of Nonlinear Electron Oscillations In Warm Plasma** *Sharmistha Sain, Diamond Harbour Women's University*
26	FP - 26	169	**Development Of Electrical Diagnostics For RF Capacitive Discharge** *Prabhakar Srivastav, Institute for Plasma Research, Gandhinagar*
27	FP - 27	179	**Dynamics Of Dust Particles In Presence Of Hot Electrons** *Dinesh Rathod, Institute for Plasma Research, Gandhinagar*
28	FP - 28	190	**Laser Driven Wake Wave In Pair-Ion Electron Plasma With Inclusion Of Ion Dynamics** *Priyank Bhardwaj, SVNIT, Surat*
29	FP - 29	192	**Investigation Of Ionization Instability In A Linear Plasma Device** *Dibyajyoti Bora, IASST, Assam*
30	FP - 30	195	**Characterization And Optimization Of A Triple Langmuir Probe (TLP) Diagnostic For IMPED** *Bhoomi Khodiyar, Institute for Plasma Research, Gandhinagar*
31	FP - 31	202	**Updated Data Acquisition And Control System For SMARTEX-C** *Yogesh Yeole, Institute for Plasma Research, Gandhinagar*
32	FP - 32	222	**Study Of ECR-Based Plasma Parameters In A Medium Volume Plasma Processing System** *Gaurav, IIT – Delhi*

33	FP - 33	227	**Suppression Of Electrostatic Turbulence By Low Frequency Zonal Flow** Tanmay Karmakar, Institute for Plasma Research, Gandhinagar
34	FP - 34	246	**Determination Of Radial Plasma Correlation Length In Presence Of Finite Pressure Gradient In Large Volume Plasma Device** *Chandan Sahu, Institute for Plasma Research, Gandhinagar*
35	FP - 35	250	**Interaction Of Electrostatic Wave Packets Via Coupled Nonlinear Schrodinger (CNLS) Equations In A Plasma With Two Temperature Electrons Featuring (R, Q) Distribution** *Vanshika Khanna, GNA University, Punjab*
36	FP - 36	258	**Deriving Intensity Scaling Laws Of Laser Plasma Parameters From Absorption Data** *Uday Chakravarty, RRCAT, Indore*
37	FP - 37	261	**Effect Of Floating Wall On Plasma Parameters In A Modified Double Plasma Device** *Pragya Joshi, IIT- Delhi*
38	FP - 38	271	**Study Of Aditya-U GDC Plasma By Laser Heated Emissive Probe** *Abha Kanik, Institute for Plasma Research, Gandhinagar*
39	FP - 39	274	**Study Of Parametric Instability In Anharmonic Oscillator Model Of Floating Potential Oscillations In Low Temperature Plasma** *Jayaprakash Kaliyamurthy, Vel Tech. Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai*
40	FP - 40	276	**Fabrication And Optimization Of Plasma Diagnostics In Helicon Plasma Source Laboratory** *Debanjali Roy, CPP-IPR, Assam*
41	FP - 41	277	**Establishing Control On Fast Electromagnetic Steering Of Helmholtz Coil For Evolving Magnetic Reconnection Experiment In Large Volume Plasma Device – Upgrade** *Pankaj Kumar Srivastava, Institute for Plasma Research, Gandhinagar*
42	FP - 42	280	**Comparative Study Of Optical Emission Spectroscopy And Langmuir Probe Diagnostics In A 33 Khz AC Plasma System** *Ayush Kumar, IISER, Mohali*
43	FP - 43	289	**Driven Ion Acoustic BGK Mode**

			Chingangbam Amudon, Institute for Plasma Research, Gandhinagar
44	FP - 44	292	**Comprehensive Study Of Iodine Plasma Using Relativistic Cross-Section Calculations And Collisional Radiative Modelling** *Ayushi Agrawal, IIT – Roorkee*
45	FP - 45	293	**Cylindrical Non-Neutral Plasma Experiment** *Krishna Kumar Singh, Institute for Plasma Research, Gandhinagar*
46	FP - 46	310	**Control Of Plasma Parameters And Discharge Transitions Through Power Increment Modulation In A Radio Frequency Atmospheric Pressure Plasma Jet** *Radhika T P, IIT – Delhi*
47	FP - 47	312	**Spatio-Temporal Evolution And Frequency Shifting Of Twisted Laser In Underdense Plasma** *Subhajit Bhaskar, IIT – Delhi*
48	FP - 48	320	**Quantum Effects In Piezoelectric Semiconductor Plasmas : Solitons And Transmission Feasibility** *Abhishek Yadav, Lucknow University*
49	FP - 49	324	**Electron Acoustic Solitary Waves In Electron – Ion Quantum Plasma With Kappa Distributed Electrons** *Aakanksha Singh, Lucknow University*
50	FP - 50	326	**Investigation Of Acoustic Waves In A Microwave Atmospheric Pressure Plasma Jet** *Suryasunil Rath, IIT – Delhi*
51	FP - 51	339	**Study Of Relativistic Effects In High -Intensity Laser Plasma Systems Using Qed Approach** *Priya Mishra, Lucknow University*
52	FP - 52	341	**Effective Theory Of Plasma And Mass Generation Mechanism** *Prabhat Singh, Lucknow University*
53	FP - 53	346	**Vacuum Photodiode Detector For Broadband Vacuum Ultraviolet Detection At Aditya U Tokomak: Initial Results** *Divya Pratap Singh, UPES, Dehradun*
54	FP - 54	348	**Electron Acceleration By Super-Gaussian Laser Pulses** *Shivani Aggarwal, University of Lucknow*

55	FP - 55	356	**Diagnostic Of Single And Multi-Ar Plasma Jets Using Optical Imaging: Impact Of Waveform Modulation On Radical Emission And Power Efficiency** *Satishbabu Thota, IIT – Tirupati*
56	FP - 56	360	**Study Of Various Laser Profile For Terahertz Radiation Generation** *Reenu Gill, Rajkeeya Mahavidhyalaya, Todarpur*
57	FP - 57	367	**Partition Function For Cold Plasmas** *Smrutishree Pratihary, Pondicherry University*
58	FP - 58	369	**Trapping And Detrapping Of Electrons In A DC Glow Discharge Plasma Under Double Layer Condition** *THANGJAM RISHIKANTA SINGH, Pondicherry University*
59	FP - 59	375	**Interaction Of Obliquely Incident Intense Laser With Inhomogeneous Plasma And Validation Of Electromagnetic Fields For Different Polarization** *Mamta Yadav, Institute for Plasma Research, Bhat, Gandhinagar*

FUSION SCIENCE & TECHNOLOGIES
18th December 2024, 16:00 Hrs – 17:30 Hrs

Sr. No.	POSTER ID	Abstract ID	Title/Author/Affiliation
1	FT-01	4	**Overview Of Prototype Developments At Remote Handling And Robotics Technology Development Division In IPR** *Jignesh Chauhan, Institute for Plasma Research, Gandhinagar*
2	FT-02	11	**Overhauling Of 1700kva Diesel Engine And Upgradation Of The Controler** *G. K. Rajan, Institute for Plasma Research, Gandhinagar*
3	FT-03	13	**Data Acquisition System For SST-1 Vacuum Vessel And PFC** *Arunprakash Arumugam, Institute for Plasma Research, Gandhinagar*

4	FT-04	15	**Operational Challenges Faced During The Operation Of Liquid Lead Lithium Magnetohydrodynamics (LLMHD) Experimental Loop And Their Mitigation** *Anita Patel, Institute for Plasma Research, Gandhinagar*
5	FT-05	16	**Assessment By Non-Destructive Testing Of SS304L To ETP-Cu Friction Weld For Fusion Research** *Tapankumar Patel, Institute for Plasma Research, Gandhinagar*
6	FT-06	25	**Carriage Soft Catch Breaking Mechanism For 20 M/S EML: Electrical Design Features** *Prasad Rao, Institute for Plasma Research, Gandhinagar*
7	FT-07	30	**Evaluation Of Friction Coefficient In Dissimilar Metal Friction Welding: Copper To Stainless Steel For Fusion Research Application** *Hardik Vyas, Institute for Plasma Research, Gandhinagar*
8	FT-08	34	**3d Computational Fluid Dynamics Analysis Using Ansys Of Prototype Ion Extractor Grid For NBI System** *Tejendrakumar Patel, Institute for Plasma Research, Gandhinagar*
9	FT-09	42	**Electron Impact Excitation Cross-Section Data Of Neutral Hydrogen Above 10 Kev Electron Energies** *Gajendra Singh, Institute for Plasma Research, Gandhinagar*
10	FT-10	44	**Design And Development Of Interferometer Calibration System** *Kiran Patel, Institute for Plasma Research, Gandhinagar*
11	FT-11	45	**Operational Experience Of 30kA 30V Power Supply With Rebco Based High Temperature Superconducting Cables** *Azad Makwana, Institute for Plasma Research, Gandhinagar*
12	FT-12	48	**Development Of 42 Ghz Gyrotron Cooling System Console Using Ni Labview 2020 And Epics With Css An Opensource Platform** *Jatinkumar Patel, Institute for Plasma Research, Gandhinagar*

13	FT-13	52	**A Comprehensive Study Of Oxygen Impurity Emission In Aditya-U Tokamak** *Ritu Dey, Institute for Plasma Research, Gandhinagar*
14	FT-14	55	**Development Of Read-Out Unit For Photodiode Based X-Ray Detectors** *Praveena Kumari Shukla, Institute for Plasma Research, Gandhinagar*
15	FT-15	58	**Commissioning And Test Results For Poloidal Field-1 Power Supply** *Amit Ojha, Institute for Plasma Research, Gandhinagar*
16	FT-16	61	**Customizable Pulse Train Generator For Correction Coil Power Supply For Aditya-U Tokamak** *Manisha Bhandarkar, Institute for Plasma Research, Gandhinagar*
17	FT-17	65	**Vacuum Thermal Shield Over Liquid Metal Loop Section For Potential Nuclear Fusion Application: Conceptual And Engineering Design** *Pratipalsinh A Rayjada, Institute for Plasma Research, Gandhinagar*
18	FT-18	67	**Automation Of Capacitor Charging Power Supply (CCPS) For Inductively Driven Pellet Injector System Of Aditya-U Tokamak** *Vismaysinh Raulji, Institute for Plasma Research, Gandhinagar*
19	FT-19	69	**Development Of 100 Kg Electromagnetic Launcher: Mechanical Design Features Of Double Sided Linear Induction Motor (DLIM)** *Arvind Kumar, Institute for Plasma Research, Gandhinagar*
20	FT-20	77	**Effect Of Different Viscosity Adjuster On Dip Coating Solution Of Er_2O_3** *Margi Jani, Institute for Plasma Research, Gandhinagar*
21	FT-21	79	**Design Of High Bandwidth Current Amplifier With Impedance Matching For Helmholtz Coil Calibration** *Suresh I, Institute for Plasma Research, Gandhinagar*
22	FT-22	82	**Electromagnetic Interference Aspects For NBI Power Supply Control System**

			Laxmi Kant Bansal, Institute for Plasma Research, Gandhinagar
23	FT-23	97	**Metal Foil IR Bolometer For Aditya-U Tokamak** *Ashok Kumar Kumawat, Institute for Plasma Research, Gandhinagar*
24	FT-24	98	**An Analysis Of Tritium Permeation For Moderate Sized Fusion Pilot Plants** *Priyanka Brahmbhatt, Institute for Plasma Research, Gandhinagar*
25	FT-25	99	**Control And Operation Philosophy Of Water Polishing System For Prototype Experiments In Fusion Machine** *Shiva Kant Jha, ITER – India, Gandhinagar*
26	FT-26	101	**Ensemble Based Machine Learning Model To Develop Ai Based Disruption Predictor For Aditya Tokamak** *Jyoti Agarwal, Institute for Plasma Research, Gandhinagar*
27	FT-27	103	**Design Considerations For Controlling Vertical Plasma Position In Aditya-U Tokamak** *Rohit Kumar, Institute for Plasma Research, Gandhinagar*
28	FT-28	104	**Technical Strategies On The Implementation Of New Instrumentation And Interlock For The ECRH System** *Harshida Patel, Institute for Plasma Research, Gandhinagar*
29	FT-29	108	**Electrical Modelling, Simulation & Analysis Of Positive Neutral Beam System** *Laxmi Narayan Gupta, Institute for Plasma Research, Gandhinagar*
30	FT-30	111	**In -House Development Of Filament Hour Logger System For Iter-India Gyrotron Test Facility(IIGTF)** *Rajvi Parmar, ITER – India, Gandhinagar*
31	FT-31	114	**Design Of A Spiral Mirror For Plasma Heating Using Optical Vortices** *Nilam Ramaiya, Institute for Plasma Research, Gandhinagar*
32	FT-32	119	**Testing Of Cold Trap For Removal Of Ppm Levels Of Water Vapours From Helium Gas** *Deepak Yadav, Institute for Plasma Research, Gandhinagar*

33	FT-33	122	**Design And Experimental Study Of A Differential Pumping System For Hydrogen Pellet Injector** *Jyoti Shankar Mishra, Institute for Plasma Research, Gandhinagar*
34	FT-34	124	**Upgrade Of Vacuum Variable Capacitors Motor Software For ICRH DAC** *Ramesh Joshi, Institute for Plasma Research, Gandhinagar*
35	FT-35	128	**FPGA-Based Control Circuit For Two Stage Evaporative Dump Of Electron Plasma In SMARTX-C For Temperature Diagnostics** *Minsha Shah, Institute for Plasma Research, Gandhinagar*
36	FT-36	129	**Development Of -5kV, 1A High Voltage Dual Mode Power Supply For 1kW, 2.45GHz Magnetron Source** *Bhavesh Kadia, Institute for Plasma Research, Gandhinagar*
37	FT-37	132	**Power Measurements For PAM Based LHCD System Installed On Aditya-U Tokamak** *Kirankumar Ambulkar, Institute for Plasma Research, Gandhinagar*
38	FT-38	134	**Generation Of Density Profile From Multichannel Heterodyne Interferometer System** *Umeshkumar Nagora, Institute for Plasma Research, Gandhinagar*
39	FT-39	136	**First Results From 18-28 GHz K-Band Reflectometry On Aditya-U Tokamak** *Janmejay Buch, Institute for Plasma Research, Gandhinagar*
40	FT-40	138	**Analytical And Simulation Based Study On Voltage Variation In Mismatch Section Of ICRF System** *Sandeep Kumar, Institute for Plasma Research, Gandhinagar*
41	FT-41	139	**Experimental Measurements Of Effective Thermal Conductivity Of Compressed Ceramic Pebble Beds** *Maulik Panchal, Institute for Plasma Research, Gandhinagar*
42	FT-42	140	**DC Bus-Bar Sizing, Routing And Installation For SS-ST Coil Power Supplies**

			Prakash Parmar, Institute for Plasma Research, Gandhinagar
43	FT-43	141	**Experimental Measurement Of Coefficient Of Thermal Expansion Of Pebble Beds** *Harsh Patel, Institute for Plasma Research, Gandhinagar*
44	FT-44	142	**In -House Development Of Crowbar Fired Status Latching System For Iter-India Gyrotron Test Facility (IIGTF)** *Madeena Valli Shk, ITER – India, Gandhinagar*
45	FT-45	143	**Fault Analysis, Repair And Testing Of Unit A (2MVA Dual Output Transformer)** *Chandra Sekhar Singh, Institute for Plasma Research, Gandhinagar*
46	FT-46	144	**Customizable Pulse Train Generator For Correction Coil Power Supply For Aditya-U Tokamak** *Manisha Bhandarkar, Institute for Plasma Research, Gandhinagar*
47	FT-47	145	**Integrated Testing Of Voltage Variation System Post Repair And Its Operation With Klystron** *Saifali Sharma, Institute for Plasma Research, Gandhinagar*
48	FT-48	147	**Impact Of MHD Activity On The Energetic Electrons In LHCD-Assisted Plasma Scenarios In The Aditya-U Tokamak** *Komal Yadav, Institute for Plasma Research, Gandhinagar*
49	FT-49	149	**Confinement Improvement, Disruption And Runaway Electron Mitigations Experiments In Aditya/Aditya-U Tokamaks** *Rakesh Tanna, Institute for Plasma Research, Gandhinagar*
50	FT-50	150	**Development And Testing Of Control Program For Operating Stepper Motor System Of Twin Source Matching Network With TS-DACS** *Ratnakar Kumar Yadav, Institute for Plasma Research, Gandhinagar*
51	FT-51	151	**Design, Simulation And Fabrication Of Prototype Toroidal Field Power Supply (TFPS) For SSST** *Urmil Thaker, Institute for Plasma Research, Gandhinagar*

52	FT-52	153	**Liquid Metal MHD Flow Analysis In A Square Duct Under Inclined Magnetic Field** *Arpita Vipat, Institute for Plasma Research, Gandhinagar*
53	FT-53	154	**LI-Vista : A Facility To Trap Water** *Sunil S, Institute for Plasma Research, Gandhinagar*
54	FT-54	172	**Geant4-Based Simulation Of An Advanced Diagnostic System For Investigating Runaway Electron In The Aditya-U Tokamak** *Soumitra Banerjee, Institute for Plasma Research, Gandhinagar*
55	FT-55	175	**Experimental Measurement Of Heat Flux Decay-Length And Convective Power Loss In Aditya-U Tokamak** *Sk Injamul Hoque, Institute for Plasma Research, Gandhinagar*
56	FT-56	180	**Response Of Electronics System To Neutron Radiation Using 14MeV Neutron Source** *Pramila Gautam, Institute for Plasma Research, Gandhinagar*
57	FT-57	183	**Theoretical And Experimental Estimation Of Cryogenic Heat Load Of Indigenous Refrigerator Plant For Tokamak Application** *Omkar Chandratre, Institute for Plasma Research, Gandhinagar*
58	FT-58	185	**DEM-CFD Simulations For Heat Transfer Analysis In Mixed Pebble Bed Concept Of Helium Cooled Solid Breeder (HCSB) Blanket** *Deepak Sharma, Institute for Plasma Research, Gandhinagar*
59	FT-59	186	**Epics Based Phase Shifter Control System On Raspberry Pi** *Vishnu B. Patel, Institute for Plasma Research, Gandhinagar*
60	FT-60	189	**ECR Pulsed Discharge Cleaning Operation In Aditya-U Tokamak** *Kaushal Patel, Institute for Plasma Research, Gandhinagar*
61	FT-61	191	**Thermal And Structural Simulation Of HCSB Blanket Concept For Fusion Pilot Plants**

			Piyush Prajapati, Institute for Plasma Research, Gandhinagar
62	FT-62	194	**Advancements In Diagnostics For Accelerator-Based Neutron Generators** *Sudhirsinh Vala, Institute for Plasma Research, Gandhinagar*
63	FT-63	196	**Development And Testing Of Prototype Insulation System For SST-1 In-Vessel Coils** *Swati Roy, Institute for Plasma Research, Gandhinagar*
64	FT-64	199	**Design Of Configurable Signal Processing Hardware For Real Time Plasma Control Applications Using Micropython On Pyboard** *Praveenlal Edappala, Institute for Plasma Research, Gandhinagar*
65	FT-65	204	**An Experimental Device For Study On Plasma Production By ICRF Antenna** *Kishore Mishra, Institute for Plasma Research, Gandhinagar*
66	FT-66	206	**Design, Development And Testing Of Vacuum Compatible High Voltage Feedthrough For Residual Ion Dump (Rid) Application In Robin** *Mahesh V, Institute for Plasma Research, Gandhinagar*
67	FT-67	207	**Commissioning And Performance Evaluation Of An 2MVA, 11 KV Converter Transformer** *Kumar Saurabh, Institute for Plasma Research, Gandhinagar*
68	FT-68	215	**Predicting Plasma Disruptions: A Novel Approach Using Non-Extensive Geodesic Acoustic Mode (Negam) Theory** *Shahrukh Barejia, Institute for Plasma Research, Gandhinagar*
69	FT-69	218	**Estimation Of Effective Pumping Speeds In High Vacuum Plasma Devices** *Pratibha Jakhmola, Institute for Plasma Research, Gandhinagar*
70	FT-70	220	**Integration And Testing Of Antenna And RF Matching System For ICRF Plasma Experiment** *Dharmendra Rathi Institute for Plasma Research, Gandhinagar*

71	FT-71	221	**Epics Based Supervisory Control And Monitoring For Li-Vista** *Arnab Dasgupta, Institute for Plasma Research, Gandhinagar*
72	FT-72	223	**Investigation Of Aluminum Film Deposition And Reflectivity Recovery In Simulated First Mirrors For ITER Like Experiments** *Sheetal Singh, Institute for Plasma Research, Gandhinagar*
73	FT-73	224	**Measurement Of Nuclear Cross-Section For 65Cu(N,2n)64Cu And 63Cu(N,2n)62Cu Reaction** *Zara Aftab, Institute for Plasma Research, Gandhinagar*
74	FT-74	229	**Auxiliary Power Supplies Integration With 120kW RF Amplifier** *Hrushikesh Dalicha, ITER – India, Gandhinagar*
75	FT-75	232	**Optimization Of System Configuration In An ECR-Based Large Area Negative Ion Beam Source [ELNIBS] Through Langmuir Probe And Mass Spectrometer Measurements Towards Production Of Negative Hydrogen Ion** *Bibekananda Naik, IIT - Delhi, Delhi*
76	FT-76	236	**Options And Design Requirements For HCLL Blanket For Fusion Pilot Plant** *Piyush Prajapati, Institute for Plasma Research, Gandhinagar*
77	FT-77	238	**Analysis Of Plasma Equilibrium And Non-Inductive Current Drive For Fusion Pilot Plants** *Promod Sharma, Institute for Plasma Research, Gandhinagar*
78	FT-78	239	**Operation And Maintenance Of 10 KW Solid-State Power Amplifier For ICH&CD RF Source** *Naveen Maurya, ITER – India, Gandhinagar*
79	FT-79	240	**Design, Development, And Initial Test Results Of Fixed Anode X-Ray Source** *Sapna Mishra, ITER India, Gandhinagar*
80	FT-80	242	**Mechanical Challenges Faced & Resolved During Assembly And Operation Of 120 KW Amplifier** *Ulhas Kisan Dethe, ITER – India, Gandhinagar*

81	FT-81	243	**Linear Devices For Fusion Relevant Plasma Technologies** *Shantanu Kumar Karkari, Institute for Plasma Research, Gandhinagar*
82	FT-82	248	**Design, Manufacturing, Testing Of Customized Liquid Helium Transfer Line For Indigenous Helium Plant For Tokamak Application** *Omkar Chandratre, Institute for Plasma Research, Gandhinagar*
83	FT-83	249	**Solar Cell As A Light Sensitive Trigger For Ion Source Protection** *Manas Bhuyan, Institute for Plasma Research, Gandhinagar*
84	FT-84	251	**Development Of 13kV 2A DC Power Supply For Residual Ion Dump (RID) Of Negative Ion Source (Robin)** *Bhavesh Kumar, Institute for Plasma Research, Gandhinagar*
85	FT-85	252	**I&C Safety Functions & Control Schema Of Chilled Water System For Tokamak Machine** *Anuj Kumar Garg, ITER – India, Gandhinagar*
86	FT-86	253	**Overview Of Electronics Components And Equipment's Used For Neutral Beam Data Acquisition And Instrumentation Applications** *Karishma Qureshi, Institute for Plasma Research, Gandhinagar*
87	FT-87	254	**On The Adequacy Of Spatial Gap Between Blanket And VV For Moderate Sized Fusion Reactors For Rh Compatibility Of Modular Blanket** *Naveen Rastogi, Institute for Plasma Research, Gandhinagar*
88	FT-88	255	**Design And Development Of RF Phase Shifter For Ion Cyclotron Resonance Heating (ICRH) Applications** *Vijayakumar L, Institute for Plasma Research, Gandhinagar*
89	FT-89	256	**In-House Mass Flow Meter** *Priyadarsini Gaddam, Institute for Plasma Research, Gandhinagar*
90	FT-90	257	**Design And Development Of Very High Susceptance Stub Tuner For ICRH Applications**

			Veera Babu Vangalla, Institute for Plasma Research, Gandhinagar
91	FT-91	259	**In-house Development Of Wideband 10 KW Solid State Power Amplifier - Challenges, Remedies And Test Results** *Manojkumar Patel, ITER – India, Gandhinagar*
92	FT-92	260	**Tritium-Titanium Target Degradation Studies Using SDTRIMSP Simulations & Experimental Validation Using 14 MeV Neutron Generator At IPR** *Varun Savadi, Institute for Plasma Research, Gandhinagar*
93	FT-93	266	**Control And Removal Of Fuel Retention In Aditya-U Tokamak** *Kumarpalsinh Jadeja, Institute for Plasma Research, Gandhinagar*
94	FT-94	270	**Study Of The Stripping Cell Efficiency And The Focusing Property Of The Electrostatic Analyser Of Neutral Particle Analyser Diagnostic** *Snehlata Aggarwal, Institute for Plasma Research, Gandhinagar*
95	FT-95	284	**Design And Analysis Of The Cryogenic Extruder Of Solid Hydrogen** *Vishal Gupta, Institute for Plasma Research, Gandhinagar*
96	FT-96	285	**Study Of Ventilation System For Tritium Facility And Nuclear Fusion Plants** *Bhargavkumar Pandya, Institute for Plasma Research, Gandhinagar*
97	FT-97	286	**Developing Indigenous Cryopumping Solutions To Support Plasma Science And Technologies** *Samiran Mukherjee, Institute for Plasma Research, Gandhinagar*
98	FT-98	287	**First Observation And Characterisation Of Accelerating Mode Disruptions In Aditya-U Tokamak** *Harshita Raj, Institute for Plasma Research, Gandhinagar*
99	FT-99	288	**3D Simulation And Measurement Of Magnetic Field In Aditya –U Tokamak** *Ananya Kundu, Institute for Plasma Research, Gandhinagar*

100	FT-100	290	**Transformer-Based Deep Learning Model To Predict Disruptions At Aditya-U** *Ramesh Joshi, Institute for Plasma Research, Gandhinagar*
101	FT-101	294	**Thyristor Selection And Validation For High Current Power Supplies In Fusion Machines** *Darshankumar Parmar, Institute for Plasma Research, Gandhinagar*
102	FT-102	295	**Development And Testing Of Vacuum Pressure Monitor And Data Logger For INTF Vacuum System** *Jignesh Bhagora, ITER India, Gandhinagar*
103	FT-103	296	**Overhauling Of 1700KVA Diesel Engine And Upgradation Of The Controller** *G. K. Rajan, Institute for Plasma Research, Gandhinagar*
104	FT-104	297	**Numerical Study Of Two Phase Liquid Nitrogen Flow In Square Tube With Varying Heat Flux** *Arvind Tomar, Institute for Plasma Research, Gandhinagar*
105	FT-105	302	**Multi Body Dynamics (MBD) Simulation For Gravity Compensated Robotic Actuator** *Laxya Savaliya, Institute for Plasma Research, Gandhinagar*
106	FT-106	303	**Study The Effect Of Fast Heating & Cooling On Thermal And Electrical Properties Of CuCrZr Material** *Premjit Singh Kongkham, Institute for Plasma Research, Gandhinagar*
107	FT-107	304	**3kW 1MHz Soft Switching Inverter Card For High Frequency Power Supplies** *Niranjanpuri Goswami, Institute for Plasma Research, Gandhinagar*
108	FT-108	305	**Experimental Results Of Indigenously Designed Oil Adsorber Bed For Helium Compressor System** *Hiteshkumar Kavad, Institute for Plasma Research, Gandhinagar*
109	FT-109	307	**Simulation And Measurement Of Ohmic Transformer Coil Of Small Scale Spherical Tokamak (ST-ST)** *Ananya Kundu, Institute for Plasma Research, Gandhinagar*

110	FT-110	311	**A Study Of Heat Transfer Coefficient In Circular And Square Tubes** *Tanishi Das, PDEU, Gandhinagar*
111	FT-111	315	**Investigation Of Observed Hα Emission Peaks During The Current Ramp-Up Phase Of Aditya-U Tokamak Discharges** *Subhojit Bose, Institute for Plasma Research, Gandhinagar*
112	FT-112	318	**Effect Of Reversed Magnetic Shear In Aditya-U Tokamak** *Gopal Krishna M, Institute for Plasma Research, Gandhinagar*
113	FT-113	319	**Design & Analysis Of Micro Meshing Cryogenic Filter For Helium Gas In Helium Liquification Plant** *Nawratan Kumar, Institute for Plasma Research, Gandhinagar*
114	FT-114	343	**Commissioning, Integration And Testing Of A New Filament Power Supply For 42GHz, 500kW Gyrotron In ECRH System** *Kanubhai Parmar, Institute for Plasma Research, Gandhinagar*
115	FT-115	344	**Use Of Triply Periodic Minimal Surfaces (TMPS) Based Cooling For Challenging Thermal Applications In ECRH System** *Hardik Mistry, Institute for Plasma Research, Gandhinagar*
116	FT-116	352	**Numerical Analysis And Development Of GUI For Hydroformed Pillow Plate Panel For Cryogenic Application** *Manoj Kumar, Institute for Plasma Research, Gandhinagar*
117	FT-117	365	**Integrated Experiment Control System For Inverse Mirror Plasma Experimental Device (IMPED)** *Jignesh Kumar Patel, Institute for Plasma Research, Gandhinagar*
118	FT-118	366	**Installation, Testing And Commissioning Of Control And Relay Panel (CRP-6) For 31.5 MVA, 132/22 KV Power Transformer At IPR Substation** *Chirag Bhavsar, Institute for Plasma Research, Gandhinagar*

119	FT-119	371	**Enhancing The Performance Of Flat-Plate Solar Collectors Using Graphene Nanoflakes-Cuo/Water Hybrid Nanofluids** *Sayanyan Mukherjee, Institute for Plasma Research, Gandhinagar*
120	FT-120	373	**Thermal-Hydraulics Investigation And Design Optimization Of Pillow Plate Panels For Application In Fusion Reactor** *Hemang Agravat, Institute for Plasma Research, Gandhinagar*

HIGH TEMERATURE PLASMA
19th December 2024, 16:00 Hrs – 17:15 Hrs

SR. No.	POSTER ID	Abstract ID	Title/Author/Affiliation
1	HTP-01	6	**Design And Characterization Of Multi-Channel Receiver System** *Karishma Pandya, Institute for Plasma Research, Gandhinagar*
2	HTP-02	18	**Compression Of Super-Gaussian Laser Beam In Plasma Having Relativistic Nonlinearity** *Pratibha Nitu Jaiswal, Deen Dayal Upadhyaya Gorakhpur University*
3	HTP-03	38	**Exploring Filament Current Approximation For Tokamak** *Priyanka Verma, Institute for Plasma Research, Gandhinagar*
4	HTP-04	62	**Progress In Impurity Transport Study In ADITYA And ADITYA-U Tokamaks** *Malay Bikas Chowdhuri, Institute for Plasma Research, Gandhinagar*
5	HTP-05	68	**Characterization Of The Start-Up Generated Runaway Electrons For Ohmic Plasma** *Shishir Purohit, Institute for Plasma Research, Gandhinagar*
6	HTP-06	72	**Utilization Of Multi-Channel Vertical View Soft X-Ray Diagnostic For Radial Position Measurement In ADITYA-U Tokamak** *Asha Adhiya, Institute for Plasma Research, Gandhinagar*

7	HTP-07	74	**The Critical Role Of Plasma Physics In The Design Of A Tokamak Fusion Reactor** *Jagabandhu Kumar, Institute for Plasma Research, Gandhinagar*
8	HTP-08	86	**Design Of Magnetic Diagnostics On Small Scale Spherical Tokamak** *Sameer Kumar, Institute for Plasma Research, Gandhinagar*
9	HTP-09	100	**Effect Of Admixture (D2 + X% Kr) Gas On Radiation Emission In 3.1kJ Plasma Focus Device** *Rohit Srivastava, BARC, Mumbai*
10	HTP-10	112	**Conceptual Design Of A Space Resolved EUV Spectroscopy Diagnostic For ADITYA-U Tokamak** *Manish Rathor, Institute for Plasma Research, Gandhinagar*
11	HTP-11	113	**Study Of Toroidal Rotation Of C^{+1} Impurity Ions Using Near-Infrared Spectroscopy On ADITYA-U Tokamak** *Nilam Ramaiya, Institute for Plasma Research, Gandhinagar*
12	HTP-12	116	**Pulse Compression Using Stimulated Brillouin Scattering Technique** *Pabitra Kumar Mishra, Institute for Plasma Research, Gandhinagar*
13	HTP-13	117	**Low Z Impurity Behavior In Edge Region Of Impurity Seeded ADITYA Tokamak Plasma** *Aman Gauttam, Institute for Plasma Research, Gandhinagar*
14	HTP-14	118	**Investigation Of Iron Impurity Behavior In Neon Seeded ADITYA Tokamak Plasma** *Utsav Rajvanshi, Institute for Plasma Research, Gandhinagar*
15	HTP-15	152	**Analysis Of Core Ion Temperature Of ADITYA-U Tokamak Measured Using Passive Charge Exchange Visible Line Of C^{5+} Impurity** *Roshin Raj Sheeba, Institute for Plasma Research, Gandhinagar*
16	HTP-16	184	**Design And Development Of Rotatable Filters Assembly For Soft X-Ray Diagnostics Of ADITYA-U Tokamak** *Abhishek Kumar, Institute for Plasma Research, Gandhinagar*

17	HTP-17	210	**Energy Enhancement Of Fast Charge Exchange Neutrals With ICRH Heating As Observed Using Neutral Particle Analyser (NPA) In Aditya Tokamak** *Kumar Ajay, Institute for Plasma Research, Gandhinagar*
18	HTP-18	214	**Investigation Of Fueling Efficiency Of Gas Puffing In ADITYA-U Tokamak** *Dipexa Modi, PDEU, Gandhinagar*
19	HTP-19	226	**Study Of Inverse Sawteeth Oscillation Using Fast Visible Imaging Diagnostic In Aditya-U Tokamak** *Devilal Kumawat, Institute for Plasma Research, Gandhinagar*
20	HTP-20	230	**Investigation And Analysis Of Ion Cyclotron Resonance Heating Scenarios In The Aditya-U Tokamak** *Amit Kumar Singh, ITER-India, Gandhinagar*
21	HTP-21	231	**New Gas Puff Imaging (GPI) Techniques: From Concept To Development** *Ruchi Varshney, Institute for Plasma Research, Gandhinagar*
22	HTP-22	237	**Preliminary Investigations Of Apodization Functions For ECE Fourier Transform Spectroscopy** *Ravinder Kumar, ITER-India, Gandhinagar*
23	HTP-23	300	**Novel Limiter Design For Tokamak Operation** *Shishir Purohit, Institute for Plasma Research, Gandhinagar*
24	HTP-24	313	**Novel GAM-Like Mode Excitation Due To High-MHD Activity In ADITYA-U Tokamak** *Kaushlender Singh, Institute for Plasma Research, Gandhinagar*
25	HTP-25	317	**Fast Doppler Spectroscopy Diagnostics For Investigating Impurity Flow Velocity Dynamics In Aditya-U Tokamak** *Sharvil Patel, PDEU, Gandhinagar*
26	HTP-26	322	**Tomographic Reconstruction Of Plasma Radiation Power Loss Emissivity Profile Using Infrared Imaging Video Bolometer (IRVB) In ADITYA-Upgrade Tokamak** *Santosh Pandya, Institute for Plasma Research, Gandhinagar*

27	HTP-27	359	**Estimation Of Plasma Column Position And Shape Using Filament Model In Aditya-U Tokamak** *Bharat Hegde, Institute for Plasma Research, Gandhinagar*

EXOTIC PLASMAS
19th December 2024, 16:00 Hrs – 17:15 Hrs

Sr. No	POSTER ID	Abstract ID	Title/Author/Affiliation
1	EP-01	10	**Spatial Variation of Oscillatory Features in Ion Signal of Laser Induced Ruby Plasma Via Langmuir Probe** *Meenatchi Arumugam, IIT – Guwahati*
2	EP-02	19	**Investigation of Isotopic Fractionation in Laser Induced Plasma (LIP) Plume** *Anandhu Mohan, HBNI, BARC, Mumbai*
3	EP-03	31	**Laser-cluster interaction in an ambient magnetic field with circularly polarized laser light** *Kalyani Swain, Institute for Plasma Research, Gandhinagar*
4	EP-04	57	**Interplay of dust ordering and potential structures in magnetized low temperature plasmas** *Siddharth Bachoti, Auburn University*
5	EP-05	89	**Plasma Wave Assisted Two Photon Decay of Skew Cosh-Gaussian Laser Beam in Collisional Magnetized Plasma Embedded With Nanoclusters** *Sujeet Kumar, University of Allahabad, Prayagraj*
6	EP-06	91	**Nonlinear Absorption of Laser Beam in an Assembly of Carbon Nanotubes embedded with Static Magnetic Field** *Kaisar Ali, University of Allahabad, Prayagraj*
7	EP-07	156	**Experimental estimation of charge using laser radiation force in RF-driven dusty plasma** *Sushree Monalisha Sahu, Institute for Plasma Research, Gandhinagar*

8	EP-08	159	**Study of Two Dimensional Nonlinear Excitations of Charged Object in a Dusty Plasma** *Ajaz Mir, Institute for Plasma Research, Gandhinagar*
9	EP-09	165	**Dynamics Of Self-Focusing And Terahertz Generation Of Bessel-Gaussian Beam In Plasma With Density Ramp** *Prachi Saini, NIT, Jalandhar*
10	EP-10	176	**Experimental Study of Double Vortex Structures in a Dusty Plasma Medium** *Prasanta Amat, Institute for Plasma Research, Gandhinagar*
11	EP-11	182	**Terahertz Radiation Generation By The Interaction Of Laser Beams With Spherical Nano-Particles** *Ashish Yadav, Gurugram University, Haryana*
12	EP-12	187	**Experimental Investigation of the Formation Mechanism of a Dust Void in a Strongly Coupled Laboratory Dusty Plasma** *Prarthana Gogoi, IASST, Guwahati*
13	EP-13	197	**Effect Of Correlations On Collective Dust Dynamics In Magnetized Streaming Ions** *Niranjan Gogoi, Tezpur University, Assam*
14	EP-14	200	**Effect Of Electron And Ion Streaming On The Quantum Ion Acoustic Wave** *Tonuj Deka, Tezpur College, Assam*
15	EP-15	203	**Dust Agglomeration In The Presence Of Overlapping Debye Sphere Potential** *Bedanta Kumar Deka, Tezpur University, Assam*
16	EP-16	225	**Shock Wave Generation Using Colliding Laser Plasmas In Soft Stagnation Regime** *Atul Kumar, RRCAT, Indore*
17	EP-17	262	**Nanostructured Hemispherical Targets For Proton Acceleration Driven By Super-Intense Laser** *Jubaraj Choudhury, Tezpur University, Assam*
18	EP-18	264	**Interaction of a Strongly Coupled Dusty Plasma Medium With A Magnetic Obstacle** *Yoshiko Bailung, IASST, Guwahati*
19	EP-19	325	**Two Stream Instabilities in Magnetized Non-Relativistic Quantum Plasma** *Shailash Kumar Verma, IIT – Delhi*

20	EP-20	333	**Impact of Temperature on Soliton Reflection in Electron-Positron-Ion Plasma with Negatively Charged Dust Grains** *Deepak Karanwal, IIT – Delhi*
21	EP-21	334	**SPD-Hexagon Device for Dusty Plasma Experiment** *Ishnoor Bahl, IIT – Jammu*
22	EP-22	353	**Laser-Driven Acoustic Instabilities In Materials With Strain-Dependent Dielectric Constants In Quantum Plasma** *Surabhi Chourey, Govt. Degree College, Timarni*

PLASMA APPLICATIONS
19th December 2024, 16:00 Hrs – 17:15 Hrs

Sr. No.	POSTER ID	Abstract ID	Title/Author/Affiliation
1	PA -01	8	**Fabrication Of Stable Nix (X: Fe, Ti) Electrocatalysts Via Atmospheric Plasma Spray For Superior Water Splitting Efficiency** *Bharani N, Bharathiar University, Coimbatore*
2	PA -02	9	**Improvement Of Surface Properties Of Bio-Degradable Zein/PVA Polymeric Films Using Argon Plasma** *Vijay Dhanabal Maanika Harindran, Bharathiar University, Coimbatore*
3	PA -03	36	**Effect Of Cold Atmospheric Pressure Plasma On Medicinal Herb** *Asmita Shrestha, Kathamandu University, Nepal*
4	PA -04	40	**Comparative Study Of RCS For Plasma And Metal Monopole Antenna** *Nisha Panghal, Institute for Plasma Research, Gandhinagar*
5	PA -05	41	**Simulation And Experimental Radar Cross-Section Study Of Plasma Antenna Array System** *Unnati Patel, Institute for Plasma Research, Gandhinagar*

6	PA -06	43	**Utilizing Cold Atmospheric Plasma To Modulate Keratin Protein Self-Assembly** *Priya Bhatt, DST-IASST, Guwahati*
7	PA -07	50	**Excitation Of The 2.45 GHz Magnetron With Variable Pulse Width And Frequency Of High Voltage Pulse Power Source (HV-PPS) For Plasma Sterilizer Application** *Chirayu Patil, Institute for Plasma Research, Gandhinagar*
8	PA -08	53	**Measurement And Analysis Of Radial Ion Current Density For Argon And Xenon Ion Beam** *Siddesh M, Institute for Plasma Research, Gandhinagar*
9	PA -09	66	**Computational Analysis Of Dependency Of Characteristic Modes On Radiation Performance Of Plasma Antenna** *Abhigyan Baruah, Banaras Hindu University, Varanasi*
10	PA -10	78	**Methane Pyrolysis Using Non-Thermal Plasma For Production Of Solid Carbon And Hydrogen** *Anusha Halageri, IIT – Madras, Chennai*
11	PA -11	81	**Development Of Gridded Ion Thrusters At IPR** *Sanjeev Kumar Sharma, Institute for Plasma Research, Gandhinagar*
12	PA -12	83	**Radiation Analysis Of Experimental Set Up Comprises Of Tungsten Filament In Source Chamber** *Ritesh Kumar Srivastava, Institute for Plasma Research, Gandhinagar*
13	PA -13	87	**Deposition Of Sio_x/Tio_x Coatings On The Polymeric Substrates Using Cold Atmospheric Pressure Plasma Assisted Polymerization For Cell Compatibility Analysis** *Kiruba Durgini Perumal, SRM Institute of Technology, Tirchi*
14	PA -14	90	**Impact Of Applied Voltage, Air Gap, And Ground Arrangement On Discharge Power And Dielectric Capacitance In A Dielectric Barrier Discharge Plasma** *Reetesh Borpatra Gohain, IASST, Guwahati*
15	PA -15	102	**Design Of Exhaust System To Release NF_3 Gas From Plasma Etching System**

			Sudhir Tripathi, Institute for Plasma Research, Gandhinagar
16	PA -16	107	**Degradation Of Methylene Blue Dye As Waste-Water Pollutant Under Transient Corona Discharge Plasma Treatment: A Detailed Study** *Mangilal Choudhary, University of Delhi, Delhi*
17	PA -17	115	**Study Of Magnetized Plasma Sheath Dynamics Transition From Single Ion To Multiple Positive Ions** *Akshaya Kumar Shaw, Institute for Plasma Research, Gandhinagar*
18	PA -18	121	**A Non-Thermal Plasma Synergized Supported By Catalytic Investigation And Computational Analysis Of The Degradation Mechanism Of Chloro Containing Volatile Organic Compounds** *Smrutiprava Das, Ravenshaw University*
19	PA -19	130	**Underwater In-Situ Plasma Treatment For Cleaning And Bleaching Of Wool Fiber** *Nisha Chandwani, FCIPT, Gandhinagar*
20	PA -20	131	**Cold Plasma Treatment For Enhanced Germination And Dormancy Management Of Vegetable Seeds** *Arhan Gattu, Institute of Advanced Research, Gandhinagar*
21	PA -21	137	**Thermal Plasma Assisted Synthesis Of MNXOX From Spent Zinc-Carbon Batteries For Supercapacitor Application** *Mohamed Apsar J, Bharathiar University, Coimbatore*
22	PA -22	160	**Arc Plasma Assisted Rapid And Green Synthesis Of Biomass Derived Graphitic Carbon For Supercapacitor Applications** *Priyadarshini M, Bharathiar University, Coimbatore*
23	PA -23	161	**On The Performance And Optimization Of Silicon Based Drift And Pin Semiconductor X-Ray Detectors** *Sunil Kumar, Indian Institute of Information Technology, Bhopal*
24	PA -24	164	**Influence Of Laguerre Gaussian Laser Dynamics On Terahertz Generation Inside Inhomogeneous Plasma** *Mandeep Kaur, NIT, Jalandhar, Punjab*

25	PA -25	167	**Interaction Of Packed-Bed Dielectric Beads With Self-Excited Microwave Plasmas** *Rajsinh Rana, SVNIT, Surat*
26	PA -26	168	**Numerical Investigation Of The Radiation Properties Of Surface Microwave-Excited Plasma Antenna** *Jay Vora, SVNIT, Surat*
27	PA -27	174	**Generation Of Harmonic Radiation By Co-Propagation Of Two-Color Laser Beams In Plasma** *Pooja Sharma, University of Lucknow*
28	PA -28	177	**Clinical Pilot Study Of Shock Free Plasma Treatment On Human Skin Fungal Infection** *Abhijit Majumdar, Indian Institute of Engineering Science and Technology, Shibpur, Howrah*
29	PA -29	178	**Single-Step Synthesis Of Oxygen Vacancy Enriched Metal/Metal Oxide (Ag/CuOx) Nanocomposites By Generating Plasma Inside Liquid** *Palash Jyoti Boruah, IASST, Guwahati*
30	PA -30	188	**Harnessing Plasma-Generated Reactive Species For The Synthesis Of Different Phases Of Molybdenum Oxide** *Parismita Kalita, IASST, Guwahati*
31	PA -31	193	**Numerical Modelling Of Electron Cyclotron Resonance Iodine Plasma For Electric Propulsion Application** *Shubhankur Suvansh, SVNIT, Surat*
32	PA -32	213	**Characterization And Optimization Of Cold Plasma For Food Processing** *Jintumoni Pathak, CPP-IPR, Guwahati*
33	PA -33	217	**Development Of Sensor Module For Real-Time Temperature Measurement Of Plasma Thruster Antenna** *Nitesh Kataria, Institute for Plasma Research, Gandhinagar*
34	PA -34	219	**Investigating Breast Cancer Cell Death with Different Plasma Forming Gases in EFCAP: A Comparison Between Air and Argon** *Vandana Chaturvedi Misra, BARC, Trombay*
35	PA -35	234	**Production Of Hollow Proton Beam Using Tight Focusing By Solenoids** *Abhyudaya Tomer, BARC, Mumbai*

36	PA -36	235	**Study Of Iron Oxide Nanoparticles Synthesized By Dc Thermal Arc Plasma Process In Presence Of External Magnetic Field** *Savita Pannu, FCIPT, Gandhinagar*
37	PA -37	244	**Spatial Variation Of Plasma Parameters In Magnetized Capacitively Coupled Discharge** *Anuravi Sharma, IIT-Delhi, Delhi*
38	PA -38	267	**Various NF_3 Gas Abatement Techniques For The NF_3 RF Glow Discharge Plasma Etching System** *Vrushank Mehta, Institute for Plasma Research, Gandhinagar*
39	PA -39	268	**Experimental Validation Of Thrust Vectoring Capabilities Of ECR Thruster Using Permanent Magnets** *Neethu Balachandran Kuruvath, IIT – Delhi, Delhi*
40	PA -40	275	**Investigation Of The Process Of Hydrogen Peroxide Synthesis During Plasma Water Interaction** *Nirupama Tiwari, BARC, Mumbai*
41	PA -41	298	**Simulation Of Capacitively Coupled Plasma Etching Systems Using COMSOL Multiphysics** *Zeel Raval, Institute for Plasma Research, Gandhinagar*
42	PA -42	299	**Plasma Nanostructured Surfaces For Self-Cleaning, Water Harvesting And Sensing** *Mukesh Ranjan, FCIPT, Gandhinagar*
43	PA -43	306	**Arc Stability Identification In Transferred Arc Plasma Using LSTM-Based Neural Network** *Nilotpal Kapri, IMMT, Bhubaneswar*
44	PA -44	308	**Application Of Hydrodynamic Cavitation And Cold Plasma For Tomato Juice Processing And Its Association With Human Health: Emerging Non-Thermal Technologies** *Mitali Munjani, PDEU, Gandhinagar*
45	PA -45	314	**Interaction Of An Intense Laser Beam With Anharmonic Clusters And Resonant Second Harmonic Generation** *Shivani Vij, DAV Institute of Engineering & Technology, Jalandhar*

46	PA -46	321	**Design And Study Of A Novel Capacitively Coupled Device Via COMSOL Simulation For PECVD Applications** *Salini Datta, IIT – Delhi*
47	PA -47	323	**Investigation Of Plasma Characteristics In DC Magnetron Sputtered Plasmas For The Deposition Of ITO Films** *Nisha, IIT-Delhi*
48	PA -48	327	**Assessing The Efficiency Of A Plasma Pyrolysis Plant For Sustainable Solid Waste Management** *Tejashwi Rana, IIT - Delhi*
49	PA -49	329	**Application Of Cold Plasma For Removal Of Chemical And Biological Contaminants From Culturally Significant Historical Objects** *Ruchi Ghosh, IMMT, Bhubaneswar*
50	PA -50	331	**Plasma Charging-Assisted Electrostatic Separation For Coal Beneficiation** *Pradyumna Barik, IMMT, Bhubaneswar*
51	PA -51	332	**A Novel Design Of Deflection System For High-Speed Scanning In Electron Beam Powder Bed Fusion Process** *Avinash Kumar Mehta, IIT – Bombay, Bombay*
52	PA -52	349	**Enhanced Degradation Of Textile Effluents Using Combined Effect Of RgO $CuMnO_2$ Catalysis And Non Thermal Plasma Treatment** *Swathi M, Vellore Institute of Technology, Chennai*
53	PA -53	354	**Plasma-Enhanced Ion Acceleration For Precision Radiotherapy: Utilizing Nanorod Structures And Electric Potential Modulation** *Swastik Sahu, Amity University, Noida*
54	PA -54	355	**Hydrophilicity Enhancement Of Linen Fabrics Using Non-Thermal Plasma With A Custom Dielectric Barrier Discharge (DBD) Reactor** *Ganesh Kuwar Chhetri, Kathmandu University, Nepal*
55	PA -55	357	**Influence Of Relative Humidity (RH) On The Characteristics Of Plasma And Plasma Activated Water (PAW)** *Santosh Dhungana, Tribhuvan University, Nepal*
56	PA -56	358	**Exploring The Electrochemical Properties Of The Rare- Earth Metal Oxide With Plasma**

			Manoj Kumar, IIT – Delhi
57	PA -57	363	**Impact Of Atmospheric Pressure Plasma Jet On The Morphological Properties Of Metallic Surfaces** *Saidul Sk, IIT – Delhi*
58	PA -58	364	**Electrical Diagnostics Of Dielectric Barrier Discharge For The Determination Of Optimum Power** *Akhilesh Kumar Singh, Kathmandu University*
59	PA -60	370	**Effect Of Corona Discharge On Soil Properties** *Ekta Yadav, Pondicherry University*
60	PA -61	374	**Innovations In Plasma Antenna Design: Exploring Surface Wave Propagation For Enhanced Performance In Communication Systems** *Manisha Jha, Institute for Plasma Research, Gandhinagar*
61	PA-61	--	**Cold Atmospheric Plasma Technology for Biomedical Applications: Bridging Innovation and Affordable Healthcare** *G Divya Deepak, Manipal Academy of Higher Education (MAHE), Manipal*

SIMULATION PLASMAS
20th December 2024, 11:00 Hrs – 12:00 Hrs

Sr. No	POSTER ID	Abstract ID	Title/Abstract/Affiliation
1	SP-01	3	**A Comparative Review of Relativistic Particle Pushers vis-a-vis Computation Time & Accuracy** *Mohammad Yasir, IIT – Delhi*
2	SP-02	22	**The effect of initial axial magnetic field on the evolution of interface instabilities in a magnetized Z-pinch system** *Vishal Mehra, BARC, Mumbai*

3	SP-03	29	**Particle-In-Cell Simulation of Beam-Plasma Interactions in an Electronegative Plasma with a Negative Ion Beam** *Kaushik Kalita, CPP-IPR, Guwahati*
4	SP-04	60	**Runaway Electron Dynamics in a Tokamak Under The Influence of Local Magnetic Field Perturbation** *Someswar Dutta, Institute for Plasma Research, Gandhinagar*
5	SP-05	71	**Simulation of Guiding Center Motion of Charged Particles in Tokamak Plasma** *Udaya Maurya, Institute for Plasma Research, Gandhinagar*
6	SP-06	75	**Benchmarking of an Advance Lower Hybrid Antenna (ALOHA) Coupling Code for PAM and GRILL Antenna** *Jagabandhu Kumar, Institute for Plasma Research, Gandhinagar*
7	SP-07	95	**Optimization and Simulation of a Helicon Antenna for Plasma Generation: A Comparative Study with Nagoya Type III Antenna** *Sachin Kumar, Institute for Plasma Research, Gandhinagar*
8	SP-08	96	**Reactive Molecular Dynamics Simulation of the Carbendazim Degradation Induced by Reactive Oxygen Plasma Species** *Ruchi Mishra, Institute for Plasma Research, Gandhinagar*
9	SP-09	146	**Numerical Simulation of Inertial Electrostatic Confinement Fusion Device** *Amardas Alli, Institute for Plasma Research, Gandhinagar*
10	SP-10	181	**Study Negative traingularity in ADITYA-U tokamak using IPREQ code** *Deepti Sharma, Institute for Plasma Research, Gandhinagar*
11	SP-11	212	**Investigation of stochastic heating in Capacitively Coupled Plasma (CCP) discharges** *Rishabh Singh, Institute for Plasma Research, Gandhinagar*
12	SP-12	330	**Study of Edge Harmonic Oscillation produced by radial shear in toroidal velocity** *KaushalKumar Parikh, Institute for Plasma Research, Gandhinagar*

13	SP-13	350	**Simulation of Runaway Electron Avoidance and Mitigation in ADITYA-Upgrade Tokamak and comparison with experimental observations** *Santosh Pandya, Institute for Plasma Research, Gandhinagar*
14	SP-14	372	**Subcritical Transition to Turbulence Induced by Columnar Vortex in a Plane Couette Flow** *Suruj Kalita, Institute for Plasma Research, Gandhinagar*
15	SP-15	376	**Simulation of Collisional Damping of Relativistic Plasma Oscillations using Sheet Simulation Technique** *Ardhendu Shekhar Mishra, Institute for Plasma Research, Gandhinagar*

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