# NEWSLETTER

Volume: 39, Issue: 1, June 2023

# Nepal Physical Society

## President's Message

Dear valued members of the Nepal Physical Society,

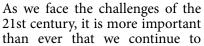
On behalf of the executive committee, I extend warm greetings and heartfelt congratulations on the occasion of our 39th annual day convention. It is my honor and privilege to serve as the President of the Nepal Physical Society (NPS) for the 2022-2024 tenure.

I would like to express my sincere gratitude to all esteemed life members of NPS for their support in electing a new executive committee. The appointment of a female President in the Nepal Physical Society is a significant milestone in the organization's history. After 40 years since its inception, the society has finally elected a woman to take on the role of President. This achievement represents a shift towards inclusivity and gender equality in the field of physics in Nepal. The society hopes that this appointment will inspire more women to pursue careers in physics and contribute to the advancement of physics knowledge and research in the country. I also take this opportunity to recognize and appreciate the hard work and dedication of all our members. Your efforts in promoting research, fostering a community of passionate researchers, and advancing our understanding of physics have been invaluable.

Founded in 1984, NPS is one of the oldest and pioneering scientific and professional societies in Nepal, with chapters in all seven provinces. Currently, the society has approximately 1500 life members. NPS organizes monthly talk programs, seminars, and workshops with invited speakers from around the world. The society has also organized nationwide competitions, called Nepho, to select participants for Ipho-2023, and provided training and classes for secondary level students for the competition. Additionally, NPS publishes a half-yearly journal named "Journal of Nepal Physical Society." [https://www.nepjol.info/index.php/jnphyssoc].

I am pleased to announce that NPS is becoming an Associate Territory Member of the International Union of Pure and Applied Physics (IUPAP). In this context, the society is organizing the International Conference on Physics for Sustainable Energy (ICPSE) on September 22-23, 2023, with the goal of signing a memorandum of understanding with IUPAP. For this event, IUPAP has allocated 7000 Euros to ICPSE-023, designating it as an IUPAP Centenary Satellite event. The memorandum aims to promote the mutual sharing of scientific and technological knowledge and expertise to better serve the Nepali scientific diaspora. NPS is also a member of the Association of Asia Pacific

Physical Societies and has had a reciprocal relationship with the American Physical Society since 1995. Furthermore, the memorandum of understanding between NPS and the Association of Nepali Physicists in America is also a positive development.





support scientific research and development. The work of the Nepal Physical Society serves as a shining example of the transformative power of science, and I encourage you to continue your excellent work in promoting scientific research and development in Nepal. Your efforts to foster collaboration and interdisciplinary research are critical to ensuring that Nepal remains at the forefront of scientific discovery. Your participation in the monthly talks, conferences, workshops, and seminars has enabled researchers and scholars to share their knowledge, discuss new findings, and explore innovative ideas. Your contributions to the field of physics have been instrumental in advancing scientific research and development in Nepal. The work you do in exploring new frontiers of physics has the potential to change the way we perceive the world around us and inspire future generations of scientists and researchers.

In this regard, I want to reaffirm my commitment to supporting the work of the society and ensuring that we have the necessary resources and tools to continue thriving. Whether it is by providing access to research, teaching, outreach efforts, or fostering connections between physicists in Nepal and globally, I believe that we have a crucial role to play in

in shaping the future of physics and promoting scientific discovery.

Lastly, I congratulate all members on this special day and wish you a productive and inspiring convention. Thank you for your commitment and dedication. By working together, we can continue to make great strides in advancing our understanding of physics and promoting a better future for all. Let us continue to collaborate, inspire each other, and push the boundaries of what we know to be possible.

Sincerely,

Nilam Shrestha Pradhan, PhD

President -Nepal Physical Society Tri-Chandra Multiple Campus, Kathmandu Nepal

#### From the Editorial



We are delighted to present the 39th issue of the NPS newsletter. This newsletter provides a summary of the NPS's scientific activities, including news, seminars, talks/scientific visits, physics-related events, meetings, and conferences.

On April 22-23, 2022, the 38th annual general meeting (AGM) of the NPS was conducted at the Central Department of Physics, TU, Kirtipur. The AGM elected a new executive committee, which has been actively involved in NPS activities since its election.

NPS organized Nepal Physics Olympiad (NePhO) on February in which many students across the country were participated in preselecting exam. The most of the NPS effort has been devoted for the selection procedure for first round for IPhO participants. We would like to thank all professors/faculties and NPS members for encouraging students to participate NePhO. We highly appreciate the contribution of professors and faculties for their constant involvement and guidance for the selection procedure of first round of IPhO . NPS executive committee has been organized physics Olympiad meeting with more than 50 +2 physics teacher held at CDP, T.U. on 28t shrawan, 2079. All physics teachers are cordially invited to participate physics Olympiad meeting for the benefit of their young students who will will to participate in the IPhO, 2023.

Moreover, NPS publishes peer review research journal, 'Journal of Nepal Physical Society (JNPS)'. Nevertheless, from this year we are highly dedicated to publish JNPS and to strengthen its quality.

Finally, I would like to appeal for greater efforts in promoting collaborative excellence in physics research and education from national and international organizations. I urge all NPS chapters to play the active roles and work together on scientific and public outreach activities in the local community. I am optimistic that the activities of NPS will flourish further with supports from all valued members. I look forward to your constructive comments, queries, suggestions, and correspondences.

Sincerely,

Hom Bahadur Baniya, M.Phil., Ph. D. Editor in Chief Nepal Physical Society

# Nepal Physical Society, Executive Committee (2022-2024)



President Prof. Dr. Nilam Shrestha Pradhan



Immediate Past President Prof. Dr. Narayan P. Chapagain



Vice President Dr. Lekha Nath Mishra



Secretary Dr. Hari Shankar Mallik



J. Secretary Mr. Madhu Sudan Paudel



Treasurer Dr. Hari Krishna Neupane



Editor in Chief Dr. Hom Bahadur Baniya



Member Mr. Balendra Prasad Bhatt



Member Mrs. Khem Kumari Lamichhane



Member Mr. Mukunda K.C.



Member Mr. Ram Sharan Karki



Associate Editor Dr. Sanju Srestha



Associate Editor Dr. Niraj Dhital

## **Province-1 Chapter Executive Committee**



President Prof. Dr. Devendra Adhikari



Vice-President Mr. Keshab Prasai



Secretary Dr. Shashit Kumar Yadav



Mr. Kamal Nath Dawadi



Treasurer Miss. Roshana Paudyal



Mr. Jhag Prasad Baral



Member Dr. Ram Prasad Koirala



Mr. Arjun Dhungana



Member Mr. Nilkantha Dahal



Member Mr. Akash Adhikari



Mr. Arun Kumar Karna

## **Madhesh Chapter Executive Committee**



President Mr. Hareram Mishra



Vice-President Mr. Shiv Kumar Das



Secretary Mr. Amirilal Yadav



J. Secretary Mr. Jaya Kumar Yadav



Treasurer Mrs. Puspa Chaudhary





Mr. Kameshwar Mahaseth



Member Mr. Ramhit Yadav



Member Mr. Brajbhushan jha



Member Mr. Mukesh Kr. Yadav



Member Mr. Sanjiv Upadyaya

# **Bagamati Chapter Executive Committee**



President Prof Dr. Harihar Paudyal



IP President Prof. Dr. Sitaram Bahadur. Thapa



V. President Prof. Arun Kumar Shrestha



Secretary Udaya Bdr. Thapa



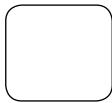
J. Secretary Dr. Rajendra Adhikari



Mr. Moti Bhusal



Member Ishwor Chandra Paudyal



Member Bishnu Pd. Pokhrel



Mr. Tej Bikram Thapa

# Gandaki Chapter Executive Committee



Dr. Krishna Raj Adhikari



IP President Mr. Min Raj Lamsal



Vice-President Dr. Kapil Adhikari



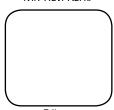
Secretary Mr. Ravi Karki



Treasurer Mr. Dipak Adhikari



Joint- Secretary Mr. Amrit Dhakal



Editor Mr. Aabiskar Bhusal

## Lumbini Chapter Executive Committee



President Prof. Dr. Ananta Panthi



Vice-President Dr. Bed Raj K.C



Secretary Mr. Lakshminath Bhattarai



Mr. Chudamani Rajaure



Mr. Shalikaram Bhandari



Member Mr. Aashish Chaudhary



Member Mr. Dharmabandhu Poudel



Member Mr. Naresh Acharya



Member Mr. Santosh Kumar K.C.



Member Ms. Shanta Sharma



Member Mr. Shishir Adhikary

## **Karnali Chapter Executive Committee**



President Mr. Tarani Prasad Yadav



Vice-President Mr. Dharma Raj Paudel



Secretary Mr. Krishna Prasad Chapai



J. Secretary Mr. Bhim Bahadur BC



Treasurer Mr. Anil Kumar Gurung





Member Mr. Jagat Pandey



Member Mr. Dinesh Kandel



Mr. Madhab Chapain



Mr. Dipak Kumar Acharya



Mr. Gajendra Pun

# Far-Western Chapter Executive Committee



President Prof. Dr. Bhawani Datt Joshi



Vice-President Mr. Prakash Raj Pant



Secretary Mr. Badri Poudel



J. Secretary Mr. Badri Poudel



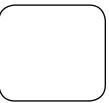
Treasurer Mr. Krishna Dev Bhatt



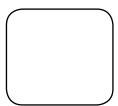
Member Mr. Bir Bahadur Rokaya



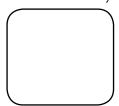
Member Mr. Prem Raj Joshi



Member Mr. Dev Raj Ojha



Member Mr. Hari Datt Panta



Member Mrs. Nirmala Kalauni



Member Ms. Reshma Basukalu

## **Advisory Board**



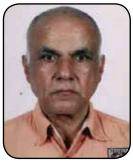
Prof. Dr. Devendra Raj Misra



Prof. Dr. Lok Narayan Jha



Prof. Dr. Shekhar Gurung



Prof. Dr. Shesh Kant Aryal



Assoc. Prof. Basant Kumar Gautam



Prof. Dr. Uday Raj Khanal



Prof. Dr. Sitaram P. Byahut



Prof. Dr. Jeevan Jyoti Nakarmi



Prof. Dr. Bhadra P. Pokharel

## Nepal Physical Society **Presidents (1983-2024)**



Prof. Dr. Shankar Prasad Pradhan (1983-1986)



Prof. Dr. Balaram Joshi (1986-1988)



Prof. Dr. Kedar Lal Shrestha (1988-1990)



Prof. Dr. Narayan Hari Joshi (1990-1993)



Prof. Dr. Lok Narayan Jha (1993-1997)



Prof. Dr. Devendra Raj Mishra (1997-2001)



Prof. Dr. Shekhar Gurung (2001-2005 and 2009-2013)



Prof. Dr. Shesh Kant Aryal (2005-2007)



Assoc. Prof. Ramesh Shakya (2007-2009)



Prof. Dr. Jeevan Jyoti Nakarmi (2013-2016)



Prof. Dr. Pradeep K. Bhattarai (2016-2019)



Prof. Dr. Narayan P. Chapagain (2019-2022)



Prof. Dr. Nilam Shrestha Pradhan (2022-2024)

#### **NPS Division**

NPS executive committee has formed the NPS division based on research filed of interest to promote the collaborative research work in the physics community.

#### Division of Astrophysics (DAP)

Chair: Prof. Dr. Binil Aryal, Dean, IoST Members:

- Prof. Dr. Saroj Nepal, MMC
- Dr. Ajay Kumar Jha, CDP
- Dr. Shiv Narayan Yadav, PMC
- Dr. Arjun K Gautam, BMC
- Dr. Niraj Dhital, CDP
- Dr. Janak Ratna Malla
- Dr. Daya Nidhi Chhatkuli

#### Division of Atmospheric and Space Physics (DASP)

Chair: Prof. Dr. Narayan P. Chapagain Members:

- Prof. Dr. Khem Narayan Poudyal
- Prof. Dr. Binod Kumar Bhattrai
- Prof. Dr. Ram Prasad Regmi
- Dr. Bed Raj KC
- Dr. Shreeram Sharma
- Dr. Binod Adhikari
- Dr. Krishna Raj Adhikari
- Dr. Darbindra Pandit

#### **Division of Bio-Medical Physics (DBMP)**

Chair: Dr. Hari Prasad Lamichhane Members:

- Dr. Kanchan Prasad Adhikari
- Dr. Tika Ram Lamichhane
- Dr. Sagar Regmi

#### **Division of Geophysics (DGP)**

Chair: Prof. Dr. Harihar Paudyal Members:

• Prof. Dr. Anant Panthi

#### Division of Plasma Physics (DPP)

Chair: Prof. Dr. Raju Khanal

Members:

- Prof. Dr. Deepak Prasad Subedi
- Dr. Lekhanath Mishra
- Dr. Ujwal Man Joshi
- Dr. Raju Bhai Tyata
- Dr. Rajendra Shrestha
- Dr. Ganashyam Thakur
- Dr. Suresh Basnet

- Dr. Gobinda Prasad Panta
- Dr. Rajesh Prakash Guragain

#### **Division of Condensed Matter Physics (DCMP)**

Chair: Prof. Dr. Narayan Prasad Adhikari Members:

- Prof. Dr. Devendra Raj Adhikari
- Dr. Gopi Chandra Kafle
- Prof. Dr. Bhawani Dutta Joshi
- Dr. Khemanand Neupane
- Dr. Shashit Kumar Yadav
- Dr. Nurapati Pantha
- Dr. Kapil Adhikari
- Dr. Saran Lamichhane

#### **Division of Material Science (DMS)**

Chair: Prof. Dr. Leela Pradhan Joshi Members:

- Prof. Dr. Shankar Prasad Shrestha
- Prof. Dr. Tika Bahadur Katuwal
- Prof. Dr. Sitaram Bahadur Thapa
- Prof. Dr. Rajendra Parajuli
- Prof. Dr. Ohm Prakash Niraula
- Prof. Dr. Purna Bahadur Chanda

#### **Division of School of Computing (DSC)**

Chair: Dr. Dibakar Sigdel

Members:

- Mr. Prakash Man Shrestha
- Dr. Sanju Shrestha
- Mrs. Usha Joshi
- Dr. Amba Datt Pant
- Mr. Karan Giri
- Mr. Devendra Raj Upadhyay
- Mr. Madhu Sudan Paudel
- Mr. Yogesh Maharjan

#### **JNPS-Editorial Board Members**

Dr. Hom Bahadur Baniya

Dr. Bhawani Joshi

Dr. Sanju Shrestha

Dr. Nirai Dhital

Dr. Shatish Kumar Yadav

Dr. Dinesh Acharya

Dr. Rajesh Prakash Guragain

## Publication of Journal of Nepal Physical Society (JNPS)

The Nepal Physical Society (NPS) has released the third issue of the eighth volume of the Journal of Nepal Physical Society (JNPS). The primary objective of this journal is to contribute to the process of knowledge-building on experimental, theoretical, and simulation works by providing a platform for scholarly discussion on the roles of researchers and reviewers.

The JNPS contains original and relevant manuscripts from various fields of research in physics. NPS

encourages everyone to support its endeavor to promote and disseminate knowledge derived from research activities in physics. NPS acknowledges and expresses gratitude to all the contributors who have made this issue a success. In particular, the reviewers are recognized for their valuable suggestions and feedback. The NPS editorial board welcomes comments, queries, suggestions, and correspondence to improve the quality of JNPS.

#### Collaboration between NPS and ANPA

Nepal Physical Society (NPS) and Association of Nepali Physicists in America (ANPA) have signed on MoU (Memorandum of understanding) with purpose of creating a framework for collaboration and cooperation between the two organizations via mutual sharing of scientific and technological ideas and expertise to better serve Nepali scientific diaspora. As a part of collaborative work between NPS and ANPA, a special issue has been published in JNPS, featuring 9 selected peer-reviewed original research and review articles out of 64 scientific works presented at the ANPA conference in 2022.

# Nepal Physics Olympiad (NePhO) Activity

The NePhO (Nepal Physics Olympiad Committee), a subcommittee of NPS, organized a one-day orientation program on the 23rd of Shrawan, 2079. The main objective of the NePhO committee was to arrange a national-level physics olympiad and assemble a team to participate in the IPhO/APhO events. To achieve this goal, the committee authorized the implementation of a national-level pre-selection test for high school graduates who wished to take part in the 53rd International Physics Olympiad in Tokyo, Japan, scheduled for July 10th to 17th, 2023. The preselection test took place on December 10th, 2022, and witnessed a remarkable turnout of enthusiastic high school graduates. The top 5 students from the test have been chosen to represent Nepal at the 53rd International Physics Olympiad (IPhO2023) in Tokyo, Japan, while the remaining students are placed on a waiting list in sequential order.

8. Ns.	Symbol No.	Theory 80%	Expt. 20%	TOTAL Marks	Name	Institute/College
2	176	60.0	15.6	75.6	Asyan Shah	St. Xavier's College, Maifighai
3	51	56.4	15.4	71.8	Medhay Khanal	Budhmilkentha School
4	35	54.4	17.0	71.4	Asbartan Man Karmacharya	St. Xavier's College, Mailighat
3	235	58.8	11.4	70.2	Bloog Dangel	Trinity international college Dhibana
6	210	56.0	12.8	68.8	Meaisk Raw	The Times International College, Dillibazza
7	17	51.6	13.8	65.4	Arith Arthibari	St. Xavier's College, Maitighau
8	34	52.0	12.5	64.5	Sakar Bhandari	Trinity international college Dilibara;
9	53	50.0	13.2	63.2	Ropesh Sali Kami	Kashgandu Model Secondary School, Bagbarar
10	50	51.2	11.9	63.1	Bibek Chaudhary	SOS Herman Omeiaer. Sapotaimi
41	219	50.0	12.4	62,4	Abhishek Rans	St. Xavier's College, Maitighar
12	297	50.4	9.4	59.8	Sarveodra Nath Shukla	Tilottana Campos. Butwil
13	208	46.4	12.9	59.3	Statifesdes Chaudhary	Tilottuna Campus, Butwel
14	236	42.8	16.2	59.0	Swapail Sapkota	Trinity international college Dilbazar
15	56	44.8	11.4	56.2	Anyusa Aryal	New Horizon English Boarding School
10	Survaions	44.4	11.0	56.0	Abhiyaa Regmi	Oxford College, Burwai
17	41	40.4	15.7	54.1	Adirya Kuuse Shidi	Valmiki Shikala Sadus, Chitwas
10	47	32.0	12.5	44.5	Anyush Poodel	Velmiki Shikshe Sedes, Chitwes
19	223	38.4	Abo	28.4	Kortik Sah	Trinity international college Dilibums

We express our gratitude to all the professors/faculties, CEOs of respective colleges, and NPS members who provided support for the pre-selection of the students.

## NPS 38th Convention held on April 22-23, 2022

NPS 38th annual general meeting (AGM) was held on April 22-23, 2022, at the Central Department of Physics, TU, Kirtipur. The AGM elected a new executive committee and since then the executive committee has been actively involved in NPS activities. NPS Executive Committee would like to thank all valued NPS members for making the NPS 38th Annual Convention a grand success. We would like to extend our special thanks to the Chief Guest of the inauguration ceremony Dr. Sunil Babu Shrestha, (Vice-Chancellor, NAST), Special

guests Prof. Dr. Shivalal Bhusal (Rector, T.U), Prof. Dr. Binil Aryal (Dean, IoST, T.U), and all senior professors and presidents of other professional societies.

Moreover, we would like to thank all professors who served as chairs and judges of the scientific session, presenters, and all the participants. The scientific session was outstanding, and all presenters did great jobs. Congratulations to all the presenters and huge congratulations go to the winner of the scientific session.

#### Committee for the NPS Constituent Amendment

The NPS executive committee meeting held on Shrawan 22, 2078 formed a committee to amend the constituent of the NPS. The committee was formed according to the following:

- 1. Prof. Dr. Shekhar Gurung (Coordinator)
- 2. Prof. Dr. Pradip Pradhan (Member)

- 3. Prof. Dr. Navendra Narayana Nidhi (Member)
- 4. Mr. Basant Kumar Gautam (Member)
- 5. Prof. Dr. Bhadra Pokharel (Member)
- 6. Prof. Dr. Nilam Shrestha (Member)
- 7. Prof. Dr. Ananta Panthi (Member)
- 8. Dr. Gopi Chandra Kafle (Member)
- 9. Assoc. Prof. Minraj Lamsal (Member)

## Accomplishment of the NPS

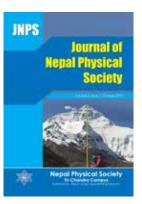
Over the past few years, the NPS has accomplished notable milestones, including the nomination of its president as an academician of NAST, representing professional organizations. Additionally, the NPS president has been appointed to the Physical Science Committee of NAST.

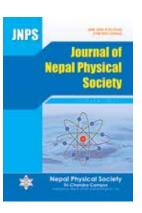
Volume: 39, Issue: 1, June 2023

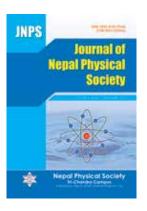
Newsletter: Nepal Physical Society | 11

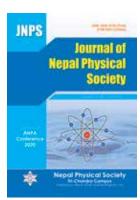
#### JNPS Issues

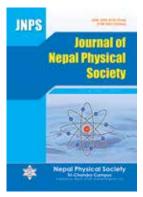














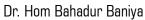






### **Editorial Team**







Prof. Dr. Bhawani Joshi



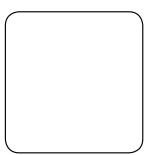
Dr. Sanju Shrestha



Dr. Niraj Dhital



Dr. Shatish Kumar Yadav



Dr. Dinesh Acharya



Dr. Rajesh Prakash Guragain

# Visit to Brooklyn College-The City University of New York August -2023

As the President of the Nepal Physical Society, **Prof. Dr. Nilam Shrestha Pradhan** had the honor of being invited to visit the research laboratory established by Prof. Dr. Mim Lal Nakarmi at Brooklyn College, The City University of New York (CUNY), from August 10-15, 2023. Accompanied by Dr. Naresh Man Shakya and Dr. Nikesh Maharjan, Prof. Shrestha visited the laboratory developed by Prof. Nakarmi.



During the visit, Dr. Nikesh, a student of Prof. Nakarmi, introduced the ongoing programs and showcased the advanced equipment available in their lab. Prof. Shrestha had the opportunity to explore various areas of research, with a particular focus on the exciting field of photonic material development and characterization. The lab was well-equipped with facilities for material synthesis using chemical vapor deposition, optical characterization through deep UV photoluminescence, and electro-optical reflectance spectroscopy. They also had resources for electrical characterization using Hall effect measurement and surface characterization via Atomic Force Microscopy. Prof. Shrestha also observed instructional laboratory used for advanced Physics lab course. The laboratory has equipment designed and manufactured by TeachSpin suitable for open-ended advanced physics projects.



This visit holds immense potential for fostering knowledge exchange and establishing a solid foundation for future research collaborations with the esteemed Department of Physics at Tribhuvan University. Prof. Mim Lal Nakarmi, expressing great enthusiasm, has shown interest in offering scholarships to our faculty members for Ph.D. studies. Moreover, Prof.



Nakarmi has also proposed an internship program for research scholars, showcasing his generous support for promoting physics and its development through collaboration.

Volume: 39, Issue: 1, June 2023

Newsletter: Nepal Physical Society | 13

#### **Scientific Visits**

- Prof. Narayan Prasad Adhikari, Central Department of Physics, TU visited The Abdus Salam International Center for Theoretical Physics during May 16 to July 1 2022 for the academic Discussion. He delivered a talk entitled "Developing Science in Third world Countries" in ICTP. At the mean time he also visited and presented a talk entitled "Biomolecular Simulation at Tribhuvan University Nepal" on 14 June 2022 at Max Planck Institute for Polymer Research Mainz Germany.
- **Prof. Narayan Prasad Adhikari** visited Indian Institute for Science Education and Research Pune during October 7-October 29. He also delivered a talk entitled "Effects of Defects on structural, electronic, magnetic and transport properties of Heterostructures with graphene" on 11 October 2022.
- **Prof. Narayan Prasad Adhikari** delivered an invited talk (zoom) to Universitas Indonesia in the topics "Repair Mechanism of AGT for Methylinduced DNA Damage" on 23 November 2022.
- Prof. Narayan Prasad Adhikari delivered a talk

- "International Physics Olympiad: Introduction" on 13 August 2022 to the program organized by Nepal Physical Society.
- Prof. Narayan Prasad Adhikari visited/carried on Academic discussion/presented talk about the research work carried in Tribhuvan University in his Group by Masters and PhD students in Columbia University NY USA, City University New York NY and Florida International University Florida USA during his visit to USA February 27-March 19. He also presented his work in American Physical Society Meeting in March 6 2023 in Las Vegas.
- Asst. Prof Dr. Hari Krishna Neupane Amrit college, Tribhuvan University gave an oral presentation on a topic entitled "Effect of N & C sites vacancy defects in (G/h-BN) HS of 2D materials", in 21st International Workshop on Computational Physics and Materials Science; Total Energy and Force Methods held at the Abdus Salam International Centre for Theoretical Physics (ICTP), in Trieste from 11 January 2023 to 13 January 2023.

#### **NPS Talk Series**

- Prof. Dr. Binil Aryal, Dean, IOST, TU delivered a talk entitled "Pedagogy of Research supervision Changing Trend" on 18th June 2022 in zoom meeting jointly organized by Central Department of Physics and Nepal Physical Society, Nepal Physical Society.
- Assistant Prof. Dr. Indra Dev Sahu, Campbellsville
  University, USA delivered a talk entitled "Progress
  in Biophysical Techniques for Studying Membranes
  Protein" on 23rd June 2022 at Central Department
  of Physics. The event was organized jointly by
  the Central Department of Physics and the Nepal
  Physical Society.
- Associate Prof. Dr. Dinesh Manandhar, Centre for

- Spatial Information Science (CSIS), The University of Tokyo, Japan delivered a talk on the title entitled "GNSS and Space Weather: Explore Collaboration and Technology Promotion" on 22nd July 2022 in the Nepal Physical Society (Zoom).
- **Prof. Dr Narayan Prasad Adhikari,** Central Department of Physics, TU gave a talk entitled "Computational physics in Nepal" on 19 August 2022 in Nepal Physical Society (zoom).
- Prof. Dr. Mim Lal Nakarmi, Department of Physics, Brooklyn College- The City University of New York, USA, delivered a talk entitled "Atomiclike emission in UV region from hexagonal boron nitride for quantum emitter" on 18th November,

14 | Newsletter: Nepal Physical Society Volume: 39, Issue: 1, June 2023

- 2022 in Nepal Physical Society (zoom).
- **Prof. Dr. Sitaram Byahut,** Central Department of Physics, Tribhuvan University delivered a talk entitled "Quantum Entanglement-Nobel Prize in Physics 2022" on 16th Dec 2022, at the Central Department of Physics. The event was organized jointly in a hybrid mode by the Central Department
- of Physics and the Nepal Physical Society.
- **Prof. Dr. Raju Khanal,** Central Department of Physics, Tribhuvan University delivered a talk entitled "Plasma and Nuclear Activities in Central Department of Physics, Tribhuvan University, Kirtipur" on 20th January, 2023 in Nepal Physical Society (zoom).

# **Conference and Workshop**

- Prof. Dr. Deepak Prasad Subedi, Department of Physics, Kathmandu University delivered a talk on the topic entitled "Atmospheric Pressure Dielectric Barrier Discharge (APDBD) and its applications" in 10th International Conference on the Frontiers of Plasma Physics and Technology (FPPT-10) held during 13-17 March 2023, Kathmandu, Nepal.
- Prof. Dr. Deepak Prasad Subedi from the Department of Physics at Kathmandu University actively participated in several conferences, including the 15th Asia-Pacific Physics Conference 2022 (APPC-15) organized by the Association of Asia-Pacific Physical Societies (AAPPS) during August 21-26, 2022 (Online), the International Conference AAPPS-DPP 2022 held during October 9-14, 2022 (Online), the 10th International Conference on Frontiers of Plasma Physics and Technology (FPPT-10) from March 13-17, 2023, in Kathmandu, Nepal, the International Symposium on Advances on Sustainable Polymers (ASP-23) held from April 11-13, 2023, also in Kathmandu, Nepal, and the 5th International e-Conference on Frontiers in Materials Engineering and NanoTechnology (ICFMET) organized by Shivaji University Kolhapur, Maharashtra, India from May 05-06, 2023 (online)
- Associate Prof. Dr. Lekh Nath Mishra, Department of Physics, Patan Multiple Campus,

- Tribhuvan University delivered a talk on the topic entitled "An experimental study of the influence of non-thermal plasma on liquid interface" in 10th International Conference on the Frontiers of Plasma Physics and Technology (FPPT-10) held during 13-17 March 2023, Kathmandu, Nepal.
- Associate Prof. Dr. Hom Bahadur Baniya, Amrit Campus, Tribhuvan University participated and gave a talk entitled "Experimental Study of Cold Atmospheric Pressure Plasma: Impact of Plasma Treatment on Physicochemical Parameters of Water Samples" in National Conference on Advances in Atmospheric and Material Science, held during 6-7 November, 2022 at Amrit Campus, Kathmandu.
- Associate Prof. Dr. Hom Bahadur Baniya, Amrit Campus, Tribhuvan University participated and presented a poster on the topic "Impact of Cold Atmospheric Plasma Treatment on Physicochemical Parameters of Water Samples" in 10th International Conference on the Frontiers of Plasma Physics and Technology (FPPT-10) held during 13-17 March 2023, Kathmandu, Nepal.
- Prof. Dr. Raju Bhai Tyata, Dr. Rajendra Shrestha, Dr. Suresh Basnet, Dr. Rajesh Prakash Guragain, Mr. Roshan Chalise, Mr. Devendra Raj Upadhyay Mr. Santosh Dhungana, Mr. Ganesh Kuwar

Volume: 39, Issue: 1, June 2023

Newsletter: Nepal Physical Society | 15

- **Chhetri,** and many M.Sc Scholars from Tribhuvan University including research fellows and scientists from different countries actively participated in 10th International Conference on the Frontiers of Plasma Physics and Technology (FPPT-10) held during 13-17 March 2023, Kathmandu, Nepal.
- Assistant Prof. Devendra Raj Upadhyay, Department of Physics, Amrit Campus, Tribhuvan University, Nepal participated and presented a paper entitled "In-situ evaluation of Uranium-238, Thorium-232, and Potassium-40 around mining area in South Lalitpur, Nepal, and associated radiological risk" at 9th National Conference on Science and Technology, Kathmandu, Nepal 26 28, June, 2022 held at Nepal Academy of Science and Technology, Nepal. He further participated and presented a paper entailed "Radiation Shielding Properties of Samarium Doped Lead Alumino
- Phosphate Glasses" at ANPA Conference, 15-17, July, 2022 organized by Association of Nepali Physicist in America. He also participated in XV International Committee for Future Accelerators (ICFA) School on Instrumentation in Elementary Particle Physics at Tata Institute of Fundamental Research (TIFR), Mumbai, 12 25, February, 2023
- Prof Dr. Rajendra Parajuli, Dr. Sanju Shrestha, Pitambar Shrestha, Vijay Kumar Jha, Usha Joshi, Dinesh Kumar Chaudhary, Rajesh Shrestha, Kalpana Gyawali, Rajesh Maharjan, Pradip Karki, Bidhya Thapa, Bal Vikram Khatri, Jhulan Powrel, Barun Ghimire and many researchers and students actively participated and presented their works in "National Conference on Advances in Atmospheric and Material Science", held during 6-7 November, 2022 at Amrit Campus, Kathmandu.

# Committee to Develop Rules and Regulations for NPS Award Establishment

The NPS executive committee meeting held on Magh 30, 2077, a committee was formed to develop rules and regulations for the NPS awards establishment. The following were the members of the committee:

- 1. Prof. Dr. Lok Narayan Jha (Coordinator)
- 2. Prof. Dr. Shekhar Gurung (Member)
- 3. Mr. Basant Kumar Gautam (Member)
- 4. Prof. Dr. Devendra Adhikari (Member)
- 5. Dr. Deependra Parajuli (Member)
- 6. Mr. Karan Giri (Member)

The committee submitted the report to the NPS executive committee in the given time frame.

# 39<sup>th</sup> General Convention of Nepal Physical Society

39th General Convention of Nepal Physical Society is going to organize on Ashad 2, 2080 at the Central Department of Physics, TU, Kirtipur, Kathmandu.

#### **Title of Thematic Talk:**

- Times Higher Education World University Ranking & Tribhuvan University: Contribution from Physical Science – Prof. Dr. Binil Aryal (Dean, IoST, TU)
- Physics and Society Prof. Dr. Uday Raj Khanal (Retired from CDP, TU)
- Overview of Earthquake in Nepal Prof. Dr. Harihar Poudyal (Birendra Multiple Campus, TU, Bharatpur) and Prof. Dr. Anant Panthi (Butwal M. Campus, TU, Butwal)

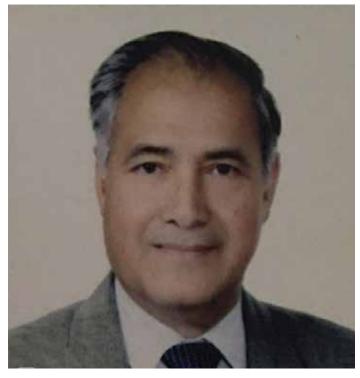
## Prof. Dr. Kedar Lal Shrestha Award (2023)

Late Prof. Dr. Kedar Lal Shrestha (1995/07/23 -2077/08/10), Life Member and one of the ideal scientists and a motivator. He received Ph.D. from Queensland University, Australia, in 1967. He was Head of the Central Department of Physics from 1971 - 1986, Tribhuvan University, Kathmandu, Nepal and he was President of Nepal Physical Society from 1988 to 1999. Not only this but also, he was Vice President in Nepal Academy of Science and Technology from 1992 to 1997. Apart from this, he was founder Chairman of Lalitpur Valley College. This award has been established with the financial support of Prof. Shrestha's family and administered by the Nepal Physical Society. For this award, they have donated a total sum of Rs. 6,50,000 (Six lakh fifty thousand only), which has been deposited at Nepal Bank Limited, Kirtipur branch as AkshyaKosh (Fixed Deposit) "Nepal Physical Society Award (Prof. Dr. Kedar Lal Shrestha Award)". The goal of this award is to encourage and motivate young Ph.D. graduate aged maximum 40 years working in the field of physics from Nepal.

- The award will be managed with an annual interest payment of the principal amount.
- Every year, an award goes to:
   Ph.D. graduate from Nepalese Universities having Nepalese citizenship working in the field of Physics.
- The award comprises a certificate, token of love, and cash.
- The award will be worth Rs. 40,000.

To be considered for a Ph.D. graduate, an applicant must be registered for the Ph.D. degree in a Nepalese universities. The candidate must be involved in physics research and have published excellent and original scientific research articles in the field of physics in reputable index journals.

Criteria and Guidelines for the Ph.D. graduate Award The publication must be of scientific quality (at least one publication in index journal). More specifically,



the publication must meet the following requirements:

- 1) Originality and creativity: how distinctive and innovative are the research?
- **2) Depth and breadth of treatment:** what is the treatment's depth and breadth, does it demonstrate understanding into the subject areas treated, and how complicated is the content addressed?
- 3) Importance and applicability to science: what is the research's significance, and has it been widely accepted in terms of its significance and applicability to science's future development?
- 4) **Presentation:** Well-structured, with a logical and consistent methodical sequence that assures that what is being presented is understandable. Applicant should be present his/her Ph.D. work within fifteen minutes.

#### **Necessary Documents**

A prospective candidate must submit the following documents:

Volume: 39, Issue: 1, June 2023

Newsletter: Nepal Physical Society | 17

- An explanation of why your research to be considered for this Award; this explanation must address criteria mentioned above (a summary of the study's findings no more than 1500 words)
- Curriculum Vitae (CV)
- Copies of research articles that have been published in index journals since the PhD enrolment up to 8 years. Also, the research articles should have already been published before the notice announcement.
- Photocopies of undergraduate and graduate academic transcripts.
- For confirmation of being a Ph.D. graduate a conferred certificate is required.
- Once awarded person will not be eligible for the same award for the next time.

#### **Evaluation Committee**

The NPS executive committee will appoint a five-member evaluation committee made up of

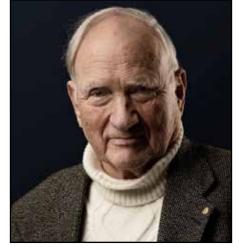
- professionals in physics who have earned a Ph.D. degree in Physics. The NPS president will necessarily be the one of the members of the evaluation committee.
- The successful candidate will be declared by the NPS executive committee. This decision is not subject to appeal.
- The committee members will assess each eligible published work against the aforementioned criteria.
- Members of the evaluation committee shall decline to evaluate papers of the Ph.D. graduate if he/ she serve as a Ph.D. supervisor, a close relative or colleagues, or co-authors of the publications.

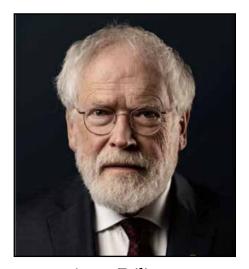
#### The day of the award

The NPS should make the award application process public at least with one month deadline of the application submission process. The award will be distributed in a formal ceremony at the annual NPS convention day.

## The Nobel Prize in Physics 2022







Alain Aspect

John F. Clauser

**Anton Zeilinger** 

The Nobel Prize in Physics 2022 was awarded jointly to Alain Aspect, John F. Clauser and Anton Zeilinger "for experiments with entangled photons, establishing the violation of Bell inequalities and pioneering quantum information science". Alain Aspect, John Clauser and Anton Zeilinger have each conducted groundbreaking experiments using entangled quantum states, where two particles behave like a single unit even when they are separated. Their results have cleared the way for new technology based upon quantum information.

## **Congratulations**

- Nepal Physical Society proudly welcomes and extends heartfelt congratulations to our esteemed Life Member, Prof. Dr. Ramswartha Ray, on his recent appointment as Ambassador to Denmark. We take immense pride in this significant achievement and would like to express our deepest gratitude for his outstanding contributions to the field of physics and his unwavering dedication to promoting scientific excellence.
- Nepal Physical Society congratulates Associate Professor Jayashree Amatya on receiving the esteemed Prof. Fanindra P. Lohani Award (1988) for her outstanding contributions to Physics Teaching and Research in Nepal on June 29, 2022.
- The Nepal Physical Society extends its congratulations to Professor Dr. Ishwar Koirala on his recent appointment as the Executive Director, Centre for Research, Tribhuvan University.
- NPS executive committee would like to express congratulations to all the students who were successfully selected from the final round of NePhO-2023.

Name of the candidates according to merit is as follows:

- 1. Aayush Pandey
- 2. Aayan Shah
- 3. Madhav Khanal
- 4. Biyog Dangol
- 5. Manish Rawal
- Nepal Physical congratulates for Society Shankar Prasad receiving Prof. Dr. and Sudakshina Pradhan Award (2023). This award is honored to ..... (MSc girl topper in physics from Tribhuvan University) and ..... (a PhD research scholar) working in the field of physics in universities from Nepal.
- Nepal Physical Society congratulates ...... for receiving Prof. Dr. Kedar Lal Shrestha Award (2023). This award is honored to Ph.D. graduate from Nepalese Universities having Nepalese citizenship working in the field of Physics.

- Nepal Physical Society congratulates ...... for receiving Prof. Kedarnath Khanal Memorial Physical Science Award (2023). This award is honored to MSc Topper Student in Physics from the Tribhuvan University.
- NPS would like to express a wholeheartedly congratulation and extend best wishes to recently PhD graduates in Physics from Nepal.
  - 1. Dr. Lok Bahadur Baral
  - 2. Dr. Shyam Prakash Khanal
  - 3. Dr. Bhanu Bhakta Sapkota
  - 4. Dr. Janak Ratna Malla
  - 5. Dr. Darbindra Pandit
  - 6. Dr. Salikram Bhandari
  - 7. Dr. Hari Krishna Neupane
  - 8. Dr. Tarani Prasad Yada
  - 9. Dr. Anita MIshra
  - 10. Dr. Basudev Ghimire
  - 11. Dr. Ramesh Kumar Gohiwar
  - 12. Dr. Upendra Mehta
  - 13. Dr. Manoj Kumar Chaudhary
  - 14. Dr. Dayaniddhi Chhatkuli
  - 15. Dr. Jhulan Poudel
  - 16. Dr. Shankhar Prasad Chimoria
  - 17. Dr. Suresh Bansnet
  - 18. Dr. Gobinda Prasad Panta
  - 19. Dr. Rajesh Prakash Guragain
- NPS executive committee would like to express a wholeheartedly congratulations and extend best wishes to the promoted Professor of Physics at TU.
  - 1. Prof. Dr. Hari Lamichhane
  - 2. Prof. Dr. Bed Raj KC
  - 3. Prof. Dr. Arjun Gautam
- The Nepal Physical Society extends its congratulations to Asst. Professor Dr. Dipendra Parajuli for being appointed as a Senior Member of IEEE.

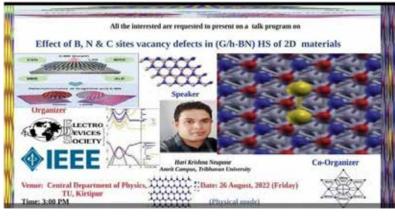
# Chapter Activities

# Obituary

## **Announcement of International Conference, 2023**

Nepal Physical Society is organizing the International Conference on Physics for Sustainable Energy (ICPSE) on September 22-23, 2023, Kathmandu, Nepal with the goal of signing a memorandum of understanding with International Union of Pure and Applied Physics (IUPAP).

The Atmospheric and Material Science Research Centre is organizing the International Conference on Lightning Electromagnetics and Applications of Semi-Conducting Materials (ICLEASM) in Kathmandu, Nepal, scheduled to take place from October 4th to 6th, 2023.















# Gallery







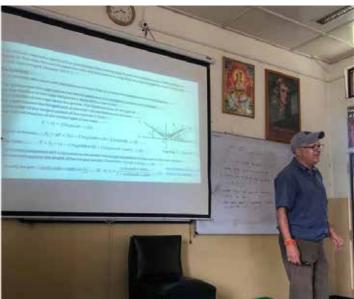


















24 | Newsletter: Nepal Physical Society





















# **Nepal Physical Society**

P.O. Box: 2934
Tri-Chandra College,
Ghantaghar, Kathmandu, Nepal
E-mail: info@nps.org.np
URL: www.nps.org.np

