



National Conference on Management of Biodiversity in North Eastern India (NCMBN-2024)

OCTOBER 23-25, 2024



Important Dates:

- Submission of Abstract: June 15, 2024 (Onward)
- Registration: July 01, 2024 (Onward)

Venue:

ICAR Research Complex for North Eastern Hill Region,
Umiam, Meghalaya



National Conference

on

Management of Biodiversity in North Eastern India (NCMBN-2024)

OCTOBER 23-25, 2024

Venue

- ICAR Research Complex for North Eastern Hill Region, Umiam, Meghalaya

Organizers

- Indian Society of Plant Genetic Resources, New Delhi
- ICAR Research Complex for North Eastern Hill Region, Umiam, Meghalaya
- ICAR-National Bureau of Plant Genetic Resources (NBPGR), New Delhi

Co-Organizers

- ICAR-Agricultural Technology Application Research Institute(ATARI), Zone-VII, Umiam, Meghalaya
- ICAR-Agricultural Technology Application Research Institute (ATARI), Zone-VI, Guwahati, Assam
- ICAR-National Research Centre on Orchids, Pakyong, Sikkim
- Alliance for Bioersity International and CIAT, New Delhi
- Protection of Plant Varieties and Farmers Rights Authority (PPV&FRA), New Delhi
- CSIR-North East Institute of Science & Technology, Jorhat, Assam
- Trust for Advancement of Agricultural Science (TAAS), New Delhi

Knowledge Partners (Potential)

- Central Agricultural University, Imphal, Manipur
- North Eastern Hill University, Shillong, Meghalaya
- Assam Agricultural University, Jorhat, Assam
- Uttar Banga Krishi Viswavidyalaya, Pundibari, Cooch Behar, West Bengal
- Nagaland University, Lumami, Nagaland
- Manipur University, Kanchipur, Imphal, Manipur
- Mizoram University, Tanhril, Aizawl, Mizoram
- Sikkim University, Tadong, Gangtok, Sikkim
- Tripura University, Agartala, Tripura
- Arunachal University of Studies, Namsai, Arunachal Pradesh
- ABI, ICAR- RC-NEH, Umiam, Meghalaya
- Defence Research Laboratory, DRDO, Tezpur, Assam
- Institute of Bioresources and Sustainable Development, Imphal, Manipur
- National Biodiversity Authority (NBA), Chennai

CONTEXT AND RATIONALE

North-eastern India, with 25.5 million hectares of the total geographical area, comprises 8 states, viz., Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Nagaland, Tripura, and Sikkim. About 70% of the population in the region is dependent on agriculture, with land holding ranging from 0.005 to 4.0 hectares, and about 80% of them are marginal and small farmers. The region is almost self-sufficient in food security, but the majority of the population, especially children and women, suffer from protein and energy malnutrition, and micronutrient (vitamin and minerals)-related disorders, which are essential for sustaining healthy life.

The region possesses a diverse climate, varying from tropical to alpine, favourable for the existence of diverse plant species, including wild and cultivated species. Hence, the region is designated as a 'hot spot' for biodiversity. Although, the region shares only 7.7% of India's geographical area, but it contributes 21.67% of the national forest cover, 50% (8000 species) of the flowering plants, 39% (7,000 plant species) of higher plants, and 37% (300 species) of the wild edible plants in India. Furthermore, the region is considered



the primary center of origin for crop species like rice, mandarin, banana, cucumber, brinjal, Indian bean, ginger, turmeric, large cardamom, taro, yam, bamboo, orchid, lily, and a secondary center of diversity for maize, chillies, chow-chow, beans etc. Besides, many underutilized crops like perilla, job's tear, faba bean, winged bean, rice bean, lima bean, sword bean, tree bean, tree tomato, edible mushrooms, ferns, lotus, *etc.* are grown by the local tribes and play an important role in ensuring the nutritional security of the local population. The region is also known for superior quality of the produce. Geographical Indications (GI) tags have been granted for several agricultural crops/commodities, such as, Joha rice, Boka Chaul, Kaji Nemu, Tezpur Litchi, and Karbi ginger of Assam; Adi Kekir ginger and Khaw Tai (Khamti rice) of Arunachal Pradesh; black rice (Chakhao), Tamenglong Orange, Sirarakhong's Hathei chilli, Kachai lemon, and Siroy lily of Manipur; Memong Narang and Khasi Mandarin of Meghalaya; Large Cardamom and Dalle chillies of Sikkim; King-chillies, Tree tomato and Sweet cucumber of Nagaland; Birds eye chillies of Mizoram; and Queen pineapple of Tripura. Besides crop species, the region is also rich in diverse landraces of livestock such as Siri (Sikkim and West Bengal), Lakhimi (Assam), Thutho (Nagaland), Masilum (Meghalaya) breed of the cattles; Chittagong (Meghalaya & Tripura), Miri and Daothigir (Assam), Kaunayen (Manipur) breeds of chicken, Sumi-Ne (Nagaland), Assam Hill (Assam & Meghalaya) of goat, Niang Megha (Meghalaya), Tenyi Vo (Nagaland), Doom (Assam), Mali (Tripura), Manipuri Black (Manipur) and Wak Chambil (Meghalaya) breed of pig and have been registered due to their unique traits. The region is also known for the diverse genetic resources in the fishes including 197 potential foods, sports and aquarium fish species belonging to 27 families under 74 genera and 33 has been found endemic to the region.

Integrated farming systems are the main traditional farming practices in the region. However, the growing demands for food due to the increasing population possess challenges to food and nutritional security. The loss of biodiversity due to deforestation, mining, shrinking of the wetland, biotic and abiotic stresses, and climate change further aggravated the problems. These emerging challenges are of grave concern for the loss of biodiversity as well as food and nutritional security of the region. The target of food and nutritional security, i.e., zero hunger and poverty by 2030 as envisioned in the Sustainable Development Goal (SDGs) of United

Nations, can be achieved only through new innovations and the full potential utilization of vast genetic resources to address issues of declining factor productivity such as soil health, water availability, incidences of diseases and pests, energy crises, livelihood security of small holders, and emerging challenges of climate change. To promote economic, strategic and cultural relations with the vast Asia-Pacific region under the Act East Policy, the Government of India has taken several initiatives, like the development of infrastructure related to road, railways and other means of connectivity which may likely to cause erosion of genetic diversity to certain extent. To conserve the vast genetic diversity present in the region, urgent steps should be taken to address the emerging challenges and threats.

Indian Society of Plant Genetic Resources (ISPGR), New Delhi in collaboration with ICAR Research Complex for NEH Region, Umiam, Meghalaya and ICAR-National Bureau of Plant Genetic Resources (NBPGR), New Delhi, is organizing a National Conference on “Management of Biodiversity in North Eastern India (NCMBN-2024)” aiming to (i) provide an opportunity to researchers, academicians, policy makers, students and farmers to present their research results, views and suggestions relating to current developments in the area of genetic diversity management and develop the roadmap for future, and (ii) sensitize all the stakeholders for innovative conservation and utilization of the diverse genetic resources of the region for sustainable agriculture and the way forward of genetic resources-led livelihood and nutritional security for resource-poor farmers and consumers.

Indian Society of Plant Genetic Resources, New Delhi extends you a warm invitation for your active participation in the conference to accomplish its objectives.

THEMES AND SUB-THEMES

1. **Biodiversity for Food and Agriculture including Animals and Fisheries**

Sub-themes: Status, ethno-botany, traditional knowledge, collection, evaluation, characterization etc.

2. **Innovations and Modern Tools for Ex Situ Conservation and Utilization**

Sub-themes: Biotechnology tools for trait discovery to address climate change, ex-situ conservation (seed, *in vitro*, cryo), geo-informatics, digital sequence information (DSI), artificial intelligence (AI), and information and communication technology (ICT)/digital technology.

3. **In situ/On-Farm Conservation by Local Communities**

Sub-themes: Role of communities, farmers, Krishi Vigyan Kendras (KVKs), Non-Governmental Organizations (NGOs), Farmer Producer Organizations (FPOs).

4. **Access, Exchange, Benefit Sharing and IPR Systems**

Sub-themes: Intellectual Property Rights (IPRs), Protection of Plant Varieties and Farmers' Rights Act (PPV&FRA), Biological Diversity Act (BDA), Patent, Geographical Indications (GI), Genetic Stock Registration, National/International Legal Instrument for Access and Benefit Sharing (ABS), Transboundary Movement/Exchange.

5. **Entrepreneurship and Value Addition**

Success stories - Food products, production, marketing issues, role of youth and women

6. **Capacity Building and Public Awareness**

Educational curricula, awareness through media communication, front line demonstrations (FLDs).

Note- Parallel sessions will be organized for crops, animals and fisheries under respective themes / sub-themes

CATEGORIES OF PRESENTATIONS

Keynote Lectures: Scientists across India, policy makers and administrators will be invited to deliver special lectures related to Biodiversity of crops, livestock and fisheries under different thematic areas. Keynote lectures will be of **12 minutes duration**.

Lead Lectures: Lead lecture will be of **10 minutes duration** that will cover emerging technologies and scientific advancements in the area of agro-biodiversity and conservation. Lead speakers of the conference will be requested to provide 3-4 pages extended summaries of their presentation.

Contributory/ Oral Papers: Limited number of papers will be selected by a committee for oral presentation based on importance of subject and its relevance to the sub- themes of the Conference. The speakers will be informed well in advance for making the presentation. The presentation will be of **5-6 minutes duration**.

Poster Presentations: All the delegates will get an opportunity to present their contributory research papers through poster presentation. Materials for fixing the posters will be provided by the organizers. The size of the poster should be 48" (L) X 36" (W) with standard font size used for posters.

Best Oral/Poster Award: An expert committee will judge best oral and poster presentations under each thematic area. All the registered participants will be provided with a certificate of participation.

OFFICIAL LANGUAGE

English is the official language of the conference.

CALL FOR ABSTRACT

Abstracts (Maximum 400 words, should include title, authors name, affiliation and corresponding authors' email ID of unpublished research works related to the conference themes are invited for presentation(Oral and Poster). Abstracts, Keynote papers (Not more than 1000 words) and lead papers (not more than 1500 words) are to be submitted preferably through e-mail attachment at ncmbn2024@gmail.com.

IMPORTANT DATES

Date for start of the abstract submission: June 15, 2024

Last date for submission of abstracts /papers: July 31, 2024

Acceptance of abstracts/paper: August 20, 2024

Date of registration without late fee: October 20, 2024

REGISTRATION

Duly filled registration form along with details of registration fee should also be communicated through e-mail at ncmbn2024@gmail.com.

REGISTRATION FEE

- ❖ ISPGR member: ₹ 5000/-
- ❖ Non-ISPGR members: ₹ 6000/-
- ❖ Students/ Research fellow: ₹ 2000/-
- ❖ Industry/private organization: ₹ 10000/-
- ❖ Accompanying Persons: ₹ 2000/- (No Welcome kit will be provided to Accompanying Persons)

❖ Extra ₹ 1000/- for Late fee after 20th October, 2024

The registration fee should be paid either through online, demand draft or NEFT in favour of the “Indian Society of Plant Genetic Resources” New Delhi to the following account number:

Name of the Bank & Branch: Canara Bank, Beej Bhawan, Pusa Camus, New Delhi-110012

Account No.: 91212010004780, **IFSC:** CNRB0019121, **MICR No.:** 110025088, **Swift Code:** CNRBINBBBFD

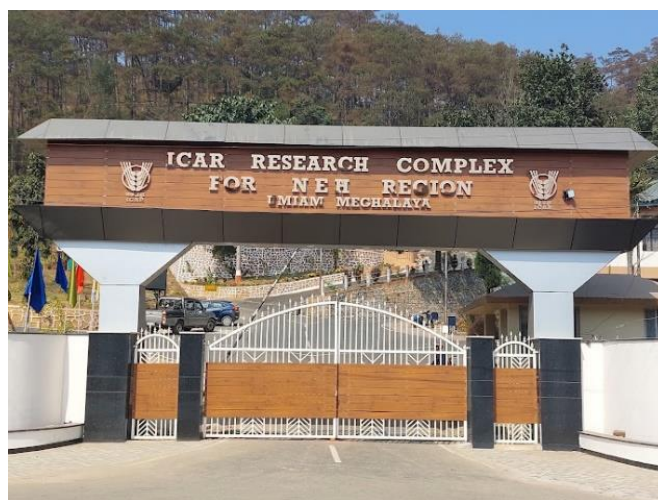
SPONSORSHIP

The organizers seek financial support from different stakeholders, especially the government and non-governmental organizations to make this academic event a grand success. The sponsorships in various categories viz. **Diamond, Gold and Silver Sponsors** will be welcomed. Organization/Company's logo on event backdrops, publications, colour advertisement

Diamond Sponsors	:	₹ 3.0 lakh/- (Three complimentary registration, logo on abstract / Souvenir and one full page coloured advertisement)
Gold Sponsors	:	₹ 2.0 lakh/- (Two complimentary registration, logo on abstract / Souvenir and half page coloured advertisement)
Silver Sponsors	:	₹ 1.0 lakh/- (One complimentary registration, logo on abstract / Souvenir and half page coloured advertisement)

ABOUT THE INSTITUTE

The ICAR Research Complex for North Eastern Hill Region (ICAR RC NEH) was established on January 9, 1975 under the aegis of the Indian Council of Agricultural Research (ICAR). This first-of-its kind institute under ICAR encompasses all the disciplines of agriculture, horticulture, animal sciences, agricultural engineering, agroforestry, fishery and social sciences to cater the research needs of the tribal areas of NEH Region including Sikkim. Beside research and extension, the institute is also actively involved in human resources development, offering the UG, PG, and PhD programmes under the IARI as a hub in North-eastern India. The headquarter (HQ) of the institute is located in Meghalaya (Barapani), while its regional centres are located at Basar (Arunachal Pradesh), Imphal (Manipur), Kolasib (Mizoram), Jharnapani (Nagaland), Lembucherra (Tripura) and Gangtok (Sikkim). The institute has 20 Krishi Vigyan Kendras (KVKs) attached to different centres and HQ for providing on/off campus training to the practising farmers, school dropouts and farm women in the field of agriculture and allied sectors. In the current year 2024, the institute is celebrating the Golden Jubilee (50th Anniversary) of its foundation in serving the nation.



ABOUT THE SOCIETY

The Indian Society of Plant Genetic Resources (ISPGR) was founded in 1987 as a multidisciplinary scientific body involved in the various issues of plant genetic resources (PGR) and related fields located at ICAR- National Bureau of Plant Genetic Resources (NBPGR), New Delhi. It currently has > 950 members, nearly 800 of them being life members. The ISPGR was formally registered under the Indian Societies Act (1860) on November 3, 1987 with the Registrar of Societies, Delhi (Registration No. S/18336 of 1987). Membership is

open to all persons interested in the field of PGR in India and abroad. Presently the Society is progressing very well under the able and dynamic leadership of Dr RS Paroda, as its President. Besides organizing seminars, symposia, to disseminate the knowledge on PGR, the Society is also publishing Indian Journal of Plant Genetic Resources, a reputed journal covering all the aspects of PGR.

ACCOMMODATION

A wide range of accommodation in budget and luxury hotels at Umiam and nearby in the vicinity of the conference venue is available. The tariffs at the current rates are in the range of Rs. 3000/- to Rs. 7000/- per day for single/Double occupancy. Accommodation is available in wide range of guest houses near the venue.

ROADMAP AND WEATHER

The seminar venue is well connected by road, rail and air route. The seminar venue is located 100 km from Guwahati airport, 80 km from Guwahati railway station and 10 km from Shillong airport. Weather during the seminar is expected to be cool and pleasant with the temperature range of 18°C to 25°C. Participants are advised to carry light woollen clothes.

CONFERENCE COMMITTEE

Chief Patrons	Dr. R. S. Paroda	President, ISPGR and Chairman, TAAS, New Delhi
	Dr. Himanshu Pathak	Secretary, DARE and Director General, ICAR, New Delhi
Patrons	Dr. P. L. Gautam	Chancellor, RPCAU, Pusa, Samastipur, Bihar
	Dr. Trilochan Mohapatra	Chairman, Protection of Plant Varieties and Farmers' Rights Authority, New Delhi
	Dr. S. K. Chaudhari	Deputy Director General, Natural Resources Management, ICAR, New Delhi
	Dr. T. R. Sharma	Deputy Director General, Crop Science, ICAR, New Delhi
	Dr. S. K. Singh	Deputy Director General, Horticulture, ICAR, New Delhi
	Dr. R. C. Agrawal	Deputy Director General (Agric. Education), ICAR, New Delhi
	Dr. J. K. Jena	Deputy Director General (Fisheries), ICAR, New Delhi
	Dr. K. M. Bujarbaruah	Vice President NAAS, Former DDG, Animal Science, ICAR, New Delhi & Former VC, AAU, Jorhat, Assam
	Dr. Anupam Mishra	Vice Chancellor, Central Agricultural University, Manipur, Imphal
	Dr. P. S. Shukla	Vice Chancellor, North Eastern Hill University, Shillong, Meghalaya
	Dr. B. C. Deka	Vice Chancellor, Assam Agricultural University, Jorhat, Assam
	Dr. H. S. Gupta	Chairman, Assam Agriculture Commission, Former DG-BISA & Former Director, ICAR-IARI, New Delhi
	Dr. G. P. Singh	Director, ICAR-National Bureau of Plant Genetic Resources, New Delhi
National Advisory Committee		
	Dr. A. K. Singh	Director, ICAR-Indian Agricultural Research Institute, New Delhi
	Dr. G. P. Singh	Director, ICAR-National Bureau of Plant Genetic Resources, New Delhi
	Dr. B. P. Mishra	Director, ICAR- National Bureau of Animal Genetic Resources, Karnal, Haryana
	Dr. Uttam K. Sarkar	Director, ICAR-National Bureau of Fish Genetic Resources,

	Lucknow, UP
Dr. A. K. Srivastava	Director, ICAR-National Bureau of Agriculturally Important Microorganisms, Mau, UP
Dr. S. N. Sushil	Director, ICAR-National Bureau of Agricultural Insect Resources, Bengaluru, Karnataka
Dr. V. M. Tiwari	Director, CSIR-North East Institute of Science & Technology, Jorhat, Assam
Dr. Anup Das	Director, ICAR Research Complex for Eastern Region, Patna, Bihar
Dr. V. K. Gupta	Director, ICAR-National Research Center on Pig, Guwahati, Assam
Dr. Girish Patil, S.	Director, ICAR-National Research Center on Mithun, Nagaland
Dr. S. P. Das	Director, ICAR-National Research Center on Orchid, Pakyong, Sikkim
Dr. Bikash Das	Director, ICAR- National Research Center on Litchi, Bihar
Dr. A. K. Mohanty	Director, ICAR-Agricultural Technology Application Research Institute(ATARI), Zone-VII, Umiam, Meghalaya
Dr. G. Kadirevel	Director, ICAR-Agricultural Technology Application Research Institute (ATARI), Zone-VI, Guwahati, Assam

Local Advisory Committee

Dr. A. K. Tripathi	Dean, College of Agriculture, CAU, Pasighat
Dr. B. N. Hazarika	Dean, College of Horticulture & Forestry, CAU, Pasighat
Dr. Dwipendra Thakuria	Dean, CPGS-AS (CAU), Umiam, Meghalaya
Dr. Ram Singh	Dean, College of Agriculture (CAU), Kyrdemkulai, Meghalaya
Dr. Rakesh Singh	Head, Division of Genomic Research, ICAR- NBPGR, New Delhi
Dr. Anju Mahendru Singh	Head, Division of Germplasm Conservation, ICAR-NBPGR, New Delhi
Dr. Rajkumar Gautam	Head, Division of Germplasm Evaluation, ICAR-NBPGR, New Delhi
Dr. P. K. Singh	Head, Division of Plant Exploration and Germplasm Collection, ICAR-NBPGR, New Delhi
Dr. V. Celia Chalam	Head, Division of Plant Quarantine, ICAR-NBPGR, New Delhi
Dr. Sunil Archak	Incharge, Germplasm Exchange & Policy Unit, ICAR-NBPGR, New Delhi
Dr. S. Hazarika	Head, DSRE, ICAR NEH, Umiam
Dr. Sandeep Ghatak	Head, DAFS, ICAR NEH, Umiam
Dr. B. K. Singh	Head, DCS, ICAR-NEH, Umiam
Dr. B.P. Singh	Head, DTAC, ICAR NEH, Umiam
Dr. S. K. Das	Academic Coordinator, IARI Hub, Umiam, Meghalaya
Dr. S. K. Majhi	Head, ICAR - CIFRI, Regional Center, Guwahati
Dr. K. Noren Singh	Professor, CPGS-AS, CAU, Umiam, Meghalaya
Dr. Pankaj Baiswar	Principal Scientist- Plant Pathology, ICAR NEH, Umiam

Core Organizing Committee

Chairman	Dr. R. S. Paroda	President, ISPGR and Chairman, TAAS, New Delhi
Co-Chairmen	Dr. V. K. Mishra	Director, ICAR RC for NEH Region, Umiam, Meghalaya
	Dr. R. K. Tyagi	Vice President, ISPGR, New Delhi
	Dr. J. C. Rana	Country Representative, Alliance Bioversity-CIAT, New Delhi
Members	Dr. Anuradha Agrawal	General Secretary, ISPGR, New Delhi
	Dr. Manjusha Verma	Joint Secretary, ISPGR, New Delhi
	Dr. Mohan Lal	Zonal Councillor (NE), ISPGR & PS, CSIR-NEIST, Jorhat, Assam
	Dr. Sanjeev Kumar Singh	Head, ICAR-KVK, Phek, Nagaland

Organizing-Secretary	Dr. Kuldeep Tripathi Dr. Monika Singh Dr. V. K. Verma	Zonal Councillor (N) & Treasurer, ISPGR, New Delhi Zonal Councillor (N), ISPGR, New Delhi Senior Scientist-Horticulture, ICAR NEH, Umiam, Meghalaya
Co-Organizing Secretaries	Dr. Amit Kumar	Senior Scientist-Plant Breeding, ICAR NEH, Umiam
Convenor	Dr. N. Uttam Singh Dr. Samir Das	Senior Scientist-Agricultural Statistics, ICAR NEH, Umiam Senior Scientist- Veterinary Public Health, ICAR NEH, Umiam
Co-Convenors	Dr. H. Rymbai Dr. Anirudha Roy Dr. Rahul Katiyar	Senior Scientist- Horticulture, ICAR NEH, Umiam PI, Agri-Business Incubation (ABI) Centre, ICAR NEH, Umiam Scientist- Animal Reproduction, ICAR NEH, Umiam
Technical Program Committee		
Chairman	Dr. R. K. Tyagi	Vice President, ISPGR, New Delhi
Co-Chairmen	Dr. J. C. Rana	Country Representative, Alliance Bioversity-CIAT, New Delhi
Members	Dr. Anuradha Agrawal Dr. Manjusha Verma Dr. Mohan Lal Dr. V. K. Verma Dr. Samir Das Dr. Chandan Debnath Dr. Harish G. D.	General Secretary, ISPGR, New Delhi Joint Secretary, ISPGR, New Delhi Zonal Councillor (NE), ISPGR & PS, CSIR-NEIST, Jorhat, Assam Senior Scientist-Horticulture, ICAR NEH, Umiam Senior Scientist-Animal Health, ICAR NEH, Umiam Senior Scientist-Fisheries Sciences, ICAR NEH, Umiam Incharge, ICAR-NBPGR Regional Station, Shillong
Member Secretary	Dr. Amit Kumar	Senior Scientist-Plant Breeding, ICAR NEH, Umiam

CONTACT DETAILS FOR ANY QUERY

Conference Secretariate

Organizing Secretary: **Dr. V. K. Verma (9436703255)**

Co-Organizing Secretaries: **Dr. Amit Kumar (8974630789), Dr. N. Uttam Singh (9402134177)**
& Dr. Samir Das (8730856556)

ICAR Research Complex for NEH Region, Umiam, Meghalaya

E-mail: ncmbn2024@gmail.com

FOR ADVERTISEMENT

The Souvenir of the conference which will contain messages from eminent persons and articles from renowned scientists, policy makers and administrators have provision for advertisement. Souvenir is a very important publication of the conference and is usually kept by the delegates for long period to be used as reference book. Interested Institute/ Organization/ Companies may contact the organizers. The rates for the advertisement are provided below

- Back cover page: ₹ 50,000/-
- Inside back page: ₹ 30,000/-
- Full page insertion: ₹ 25,000/-
- Half page insertion: ₹ 20,000/-



Maa Kamakhya Temple



Noh-Sngithiang-Falls



Dawki-Shnongpdeng



REGISTRATION FORM

**National Conference
on
Management of Biodiversity in North Eastern India (NCMBN-2024)
OCTOBER 23-25, 2024**
(Please filled the registration form and send to: ncmbn2024@gmail.com)

Name: (Prof/Dr/Mr/Ms).....

Designation:

Gender: Male Female

Institute/University:

Address:

.....

Mobile No.:..... Alternate Mobile No.:

Email ID: Alternate Email ID:.....

ISPGR Member: Yes.....No.....

Title of the Abstract:

.....

Session:.....

Mode of Presentation: Oral.....Poster.....

Date & Time of Arrival (for accommodation purpose):

Date & Time of Departure:.....

Details of Registration Fee

Details of Payment RsRegistration Category.....

Mode: Draft/Multi City/Cheque/RTGS/.....

Bank Details:

Ref. No. & Date:

Note:

- Please add your full name and NCMBN in the comment box while making online payment

Place:.....

Date:.....

(Signature of the Participant)