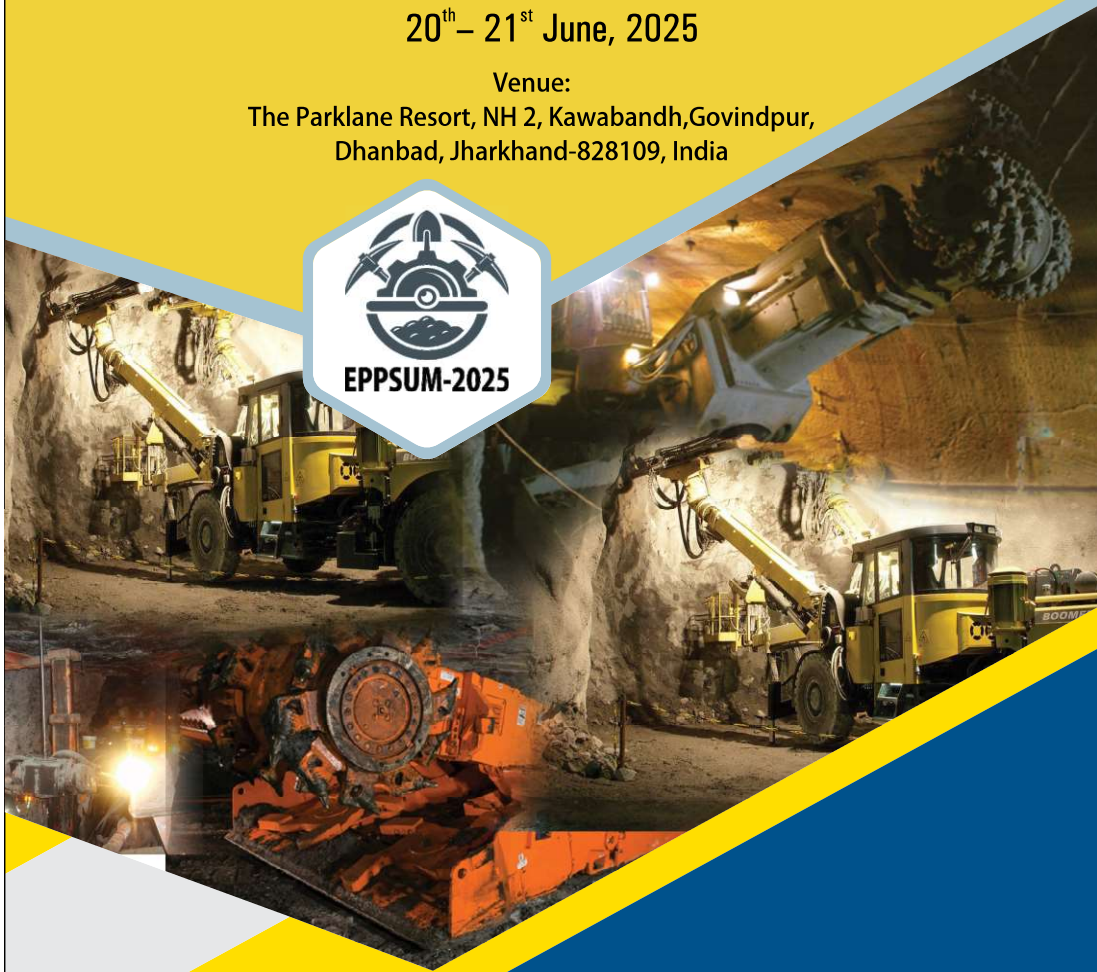


International Workshop on
**Enhancing Production, Productivity and
Safety in Underground Mining**
(EPPSUM-2025)
and Exhibition

20th – 21st June, 2025

Venue:

The Parklane Resort, NH 2, Kawabandh, Govindpur,
Dhanbad, Jharkhand-828109, India



Organised by



PMRC Private Limited

(Panigrahi Mining Research and Consultancy Private Limited)
Cottage No. D/17, Nalanda Cottages, Hirak Road, Near Memco More
Barwadda, Dhanbad – 826004, Jharkhand, India
Website : www.pmrccindia.com

Preamble



PMRC Private Limited (Panigrahi Mining Research and Consultancy Private Limited) is incorporated with the Ministry of Corporate Affairs (MCA), Government of India. It is also registered with the Ministry of Micro, Small and Medium Enterprises (MSME) under the Government of India. Headquartered in Dhanbad, this company was founded with a vision to contribute meaningfully to the research and development (R&D) landscape in India's mining, minerals and energy sectors. The primary mission of PMRC is to advance comprehensive studies on mineral deposits across India, strengthen the mineral industry and share valuable insights to drive economic growth within the sector.

The company's operations are guided by a Research Board and Expert Panel (RBEP) and ably supported by a Core Research Group (CRG). The RBEP includes prominent figures from both the research community and industry. These leaders offer their specialized expertise to manage and execute key research and consulting initiatives. The Core Research Group forms the organization's central knowledge base and supports the work of RBEP and propels the primary activities of the company. The team includes renowned scientists and engineers, who bring deep and specialized knowledge to PMRC's research and consulting efforts. Collectively, their expertise contributes to the evolution of a mining industry that is efficient, safe and environmentally sustainable. This organisational structure aims to shape a new era in mining, building a progressive and resilient sector capable of powering global progress. Through its knowledge and expertise, PMRC supports the innovative changes for improvement of production, productivity and safety with a strong foundation of opportunities for professionals, employees, investors and partners within the ecosystem.

Background of the International Workshop and Exhibition

The International Workshop on Enhancing Production, Productivity, and Safety in Underground Mining (EPPSUM – 2025) and Exhibition serve as a platform for industry experts, policymakers, and practitioners to explore the advanced mining practices keeping pace with global development. The Workshop will emphasize the challenges of underground mining, including environmental impacts, safety risks, and the extraction of energy and critical minerals. The workshop emphasizes balancing economic growth with environmental stewardship and social responsibility.

Key topics include strategies to enhance production and productivity, reduce occupational hazards and promote sustainable practices. Participants will discuss innovations in technology for improving production, productivity and safety with optimized resource extraction, while ensuring workers' safety and minimising risks. The event also highlights the implementation of innovative methods for coal and mineral extraction with Indian case studies on success and failure of implemented technology and the experience of the same will become a pathfinder for adoption of future strategies for improvement in underground mining.

An accompanying exhibition showcases cutting-edge technologies, sustainable solutions and safety equipment, illustrating the industry's progress towards enhancement of production, productivity and safety in underground mines. By fostering collaboration and knowledge sharing, EPPSUM – 2025 aims to support India's mining sector in meeting economic and energy demands while contributing to a sustainable and equitable future for all stakeholders of the society.



Inaugural Session of the Workshop



Inaugural Session of the workshop is scheduled to be held at 09:30 A.M. on 20th June, 2025. In view of the importance of mine safety in underground mining, Mr. Ujjwal Tah, Director-General, Directorate General of Mines Safety (DGMS), Dhanbad has kindly consented to preside over the Inaugural Function.



Mr. P. M. Prasad, Chairman, Coal India Limited has kindly agreed to be the Chief Guest of the Inaugural Session, which will pave the way for further discussions on underground mining for the next 02 (two) days.

Subjects Proposed to be Covered in the Workshop

There will be distinguished lectures on the following topics:

1. **Geotechnical Innovations in Deep Mining**
 - Novel approaches to ground stability in extreme conditions.
2. **Mechanised Underground Mining**
 - Mine mechanisation, deployment of autonomous vehicles and robotic drills
3. **Advanced Monitoring Systems for Ground Movements**
 - Real-time tools for detecting and mitigating ground instability
4. **Support Systems for Ground Control**
 - Development of high-strength and adaptive support structures.
5. **Innovative Ventilation System Designs**
 - Optimizing airflow for productivity and safety in complex mine layouts
 - Minimizing the energy consumption in mine ventilation Systems.
6. **Adoption of Innovative Mine Cooling Systems in Indian Scenario**
 - Novel approaches to reducing heat in deep and high-temperature mining environments
7. **Mine Fire Monitoring and Control**
 - Mine fire Control in Opencast and Underground Mining
8. **Pathways to Net Zero Emissions in Underground Mining**
 - Strategies for achieving carbon neutrality through innovation and operational efficiency.
9. **Numerical Modelling in Rock Mechanics**
 - Applications of computational tools for analyzing stress and deformation.
10. **Advanced Drilling and Blasting Techniques**
 - Innovations in precision blasting and controlled fragmentation.
11. **Sustainable Practices in Underground Mining and Methane Control**
 - Minimizing environmental impact and promoting sustainable resource utilization.
 - Ensuring safe working conditions through effective methane management.
12. **Digital Transformation in Underground Mining**
 - Integration of IoT, AI and Big Data for optimized production and safety.
13. **Occupational Health and Safety in Underground Mining**
 - Risk Assessment and Safety Management System
14. **Underground Mine Water Management and Treatment**
 - Strategies for handling and recycling of mine water.
15. **Economic and Operational Challenges in Deep Mining**
 - Cost management and operational optimization in challenging ore deposits.
16. **Artificial Intelligence and Machine Learning in Resource Estimation**
 - Predictive analytics for ore body modelling and resource evaluation.
17. **Policy and Regulation in Underground Mining**
 - Updates on global regulations and their implications for safety and productivity.

Participation

The International Workshop EPPSUM - 2025 invites the enthusiastic participation of practicing engineers, managers, planners, policymakers, scientists and academics, who wish to delve deeply into critical issues facing underground mining, especially in India. This platform brings together leading experts from key mineral-producing companies to share their expertise and experiences for spinning of the knowledge from one company to a multitude of companies. Through this programme, participants will engage in learning diverse issues and their solution and focused discussions on challenges and advancements in underground mining, with an emphasis on innovative practices, technological developments and strategic planning. By fostering collaborative dialogue, the programme aims to build a network for sharing insights and driving forward evolutionary and revolutionary changes essential to India's mining future.

Venue

The Parklane Resort, NH 2, Kawabandh, Govindpur, Dhanbad – 828109, Jharkhand, India (<https://parklaneresort.in/>)

Accommodation

The organizer has negotiated discounted accommodation rates for delegates and exhibitors at the Parklane Resort. Participants can book their stay directly by contacting Mr. Rajiv Das, Deputy General Manager of Parklane Resort, Dhanbad, at his email: gm.parklaneresorts@gmail.com with a copy to PMRC mail id: pmrcindia5@gmail.com.

Tentative Programme

Day 1 : Friday, 20th June, 2025

08.30 hrs.	: Registration
09.30 – 10.45 hrs	: Inaugural Session
10.45 – 11.00 hrs	: Tea/Coffee Break
11.00 – 13.00 hrs	: Technical Session I
13.00 – 14.00 hrs	: Lunch Break
14.00 – 16:00 hrs	: Technical Session II
16:00 – 16:15 hrs	: Tea/Coffee Break
16:15 – 17:15hrs	: Technical Session III
17:15 – 18:30 hrs	: Networking Break
18:30 – 21:30 hrs	: Key Note Dinner

Day 2 : Saturday, 21st June, 2025

10:00 – 12:00 hrs	: Technical Session IV
12:00 – 12: 15 hrs	: Tea/Coffee Break
12:15 – 13:15 hrs	: Technical Session V
13:15 – 14:00 hrs	: Lunch Break
14:00 – 16:00 hrs	: Technical Session VI
16:00 – 16:15 hrs	: Tea/Coffee Break
16:15 – 17:00 hrs	: Concluding Session

Sightseeing trips to Topchanchi or Parasnath can be arranged upon request with an additional fee.

Registration & Participation / Delegation Fee

	Early Bird Delegation Fee up to 15.04.2025 (excluding GST)	Delegation Fee after 15.04.2025 (excluding GST)
Corporate entities / Industrial bodies	INR 8,000/-	INR 10,000/-
Academicians and Researchers	INR 6,000/-	INR 7,000/-
Students	INR 3,000/-	INR 4,000/-

* GST @ 18% or at prevailing rates to be paid by the sponsoring organisation / delegates.

* Registration Form is enclosed as a separate sheet.

Souvenir Advertisement Fee (excluding GST)

Back Cover Colour	INR 50,000/-	Full Page Colour	INR 25,000/-
Inside Back Cover Colour	INR 30,000/-	Half Page Colour	INR 15,000/-

* GST @ 18% or at prevailing rates to be paid by the advertiser.

Sponsorship and Promotional Opportunities

The Corporate Entities, Industrial bodies, Research and Academic Institutions may sponsor and support the event by paying the applicable charges listed below:

Type of Sponsorship	Charges (excluding GST)	No. of free Delegates
Diamond Sponsorship	INR 5,00,000/-	05
Gold Sponsorship	INR 3,00,000/-	03
Silver Sponsorship	INR 2,00,000/-	02
Bronze Sponsorship	INR 1,00,000/-	01
Lunch Sponsorship	INR 1,00,000/-	01
Dinner Sponsorship	INR 2,00,000/-	02

* GST @ 18% or at prevailing rates to be paid by the sponsor.

Sponsors will receive proper acknowledgment during the event and will have the opportunity to distribute their promotional materials. The programme will be conducted on a residential basis and the companies / delegates will bear their lodging charges in the resort or any other nearby hotel.

Exhibition

PMRC Private Limited is pleased to present the Exhibition of Mining Equipment and Services, scheduled to take place on 20th and 21st June, 2025 at New Lawn of Parklane Resort, NH2, Dhanbad.

This event will showcase a comprehensive range of mining machinery, safety equipment and services, bringing together key industry stakeholders and contributing to the sector's continued growth. The exhibition will span approximately 140 feet x 100 feet for constructed stalls of size 10 feet x 12 feet. In addition, hard floor bare space will be available for display of large size machinery. Each constructed stall will include:

- Partition wall panels
- Two 16/6-amp multipin sockets
- One counter/table
- Basic single-phase electricity
- Synthetic carpet
- One ceiling fan
- Three chairs
- General security and stall cleaning services
- Fascia (in English)
- Air cooling arrangements
- One dustbin

Participation Charges:

- **INR 75,000/- per stall**
- **The hard floor open space on chargeable basis depending on the requirement.**

For exhibitors opting for hard floor space, prior consultation regarding the area is required. Exhibitors requiring additional arrangements in the constructed stall should arrange these items at their own cost.

A layout of the exhibition area is produced on a separate sheet enclosed herewith.

Payment details

All payments are to be made through Demand Drafts drawn in favour of "PMRC Private Limited Dhanbad" payable at Dhanbad.

Name of the Bank : State Bank of India

Current Account No: 39220658915

Branch Name : ISM Campus Branch, Dhanbad

MICR Code: 826002006

IFSC/RTGS Code : SBIN0001641

PAN No: AALCP0993K

GSTIN No : 20AALCP0993K1Z7

Payment can also be made via electronic transfer to the above bank account. Please share the payment details, including the purpose of the payment.

Dhanbad: The Venue

Dhanbad, located in Jharkhand, is India's 39th largest urban centre and a renowned coal mining hub. The city houses major institutions like IIT (ISM) Dhanbad and CSIR-CIMFR, advancing mining technology and research. The headquarters of the key organizations like Bharat Coking Coal Limited (BCCL) and the Directorate General of Mines Safety (DGMS) operate from Dhanbad, emphasizing mining and safety standards. With robust rail and highway connections, Dhanbad is well-connected nationwide, with the nearest airport in Durgapur and others in Ranchi, Deoghar and Kolkata.

Beyond mining, Dhanbad also contributes to arts, literature, and music. Nearby attractions include Topchanchi Wildlife Sanctuary, a popular recreational spot 38 km away and Parasnath Hills, a prominent Jain pilgrimage site with a peak of 1,350 meters, located 80 km from the city. Known as India's coal mining capital, Dhanbad blends industrial prominence with cultural and natural richness.

Working Group for EPPSUM-2025

- 1) **Prof D. C. Panigrahi**, Managing Director, PMRC Private Limited, Dhanbad and Formerly Director, IIT (ISM) Dhanbad.
- 2) **Mr. N. C. Jha**, Member, Research Board and Expert Panel, PMRC Private Limited and Formerly Chairman and Director (Technical), Coal India Limited.
- 3) **Dr. Amalendu Sinha**, Member, Research Board and Expert Panel, PMRC Private Limited and Formerly Director, CSIR-Central Institute of Mining & Fuel Research (CSIR-CIMFR), Dhanbad.
- 4) **Mr. A. K. Debnath**, Member, Research Board and Expert Panel, PMRC Private Limited and Formerly Chairman-cum-Managing Director, CMPDI.
- 5) **Prof B. K. Shrivastav**, Consultant, PMRC Private Limited, Dhanbad and Formerly Prof & Head, Department of Mining Engineering, IIT (BHU) Varanasi
- 6) **Mr. Narayan Rajak**, Consultant, PMRC Private Limited and Formerly Dy. Director-General of Mines Safety, DGMS, Dhanbad.
- 7) **Dr. Rajendra Singh**, Member, Core Research Group, PMRC Private Limited and Formerly Chief Scientist and Head, Strata Mechanics Division, CSIR-CIMFR.
- 8) **Dr. Gautam Banerjee**, Consultant, PMRC Private Limited, Dhanbad and Formerly Chief Scientist, CSIR-CIMFR, Dhanbad.
- 9) **Dr. N. Sahay**, Member, Core Research Group, PMRC Private Limited and Formerly Chief Scientist and Head, Mine Ventilation & Fire Discipline, CSIR-CIMFR.
- 10) **Dr. Ajoy Kumar Singh**, Consultant, PMRC Private Limited, Dhanbad and Formerly Chief Scientist & Professor, AcSIR, CSIR-CIMFR, Dhanbad.
- 11) **Dr. R. K. Tiwary**, Chief Scientist, PMRC Private Limited, Dhanbad and Formerly Senior Scientist, CSIR-CIMFR, Dhanbad.
- 12) **Mr. N. K. Hembram**, Senior Principal Research Engineer, PMRC Private Limited, Dhanbad.
- 13) **Mr. Abhinav Saini**, Principal Research Engineer, PMRC Private Limited, Dhanbad.
- 14) **Dr. Swati Tomar**, Research Engineer, PMRC Private Limited, Dhanbad.
- 15) **Dr. Ajay K. Singh**, Chief Research Coordinator, PMRC Private Limited and Formerly Head, Methane Emission and Degasification Division, CSIR-CIMFR - **Convenor of the Event.**

Address for communication:

PMRC Private Limited

(Panigrahi Mining Research & Consultancy Private Limited)

Cottage No. D/17, Nalanda Cottages, Hirak Road, Near Memco More,
Barwadda, Dhanbad – 826004, Jharkhand, India

E Mail: pmrcindia5@gmail.com/pmrc.projects@gmail.com

Website : www.pmrcindia.com, **Phone:** +916299742377

Point of contact : Ms. Silky

Contact No.: +91-9905944048 (Personal)
: +91-7319642226 (Laboratory)

In case of further requirements:

Mr. Abhinav Saini :

+91-9909048605, +91-9981913575

Registration Form



International Workshop on Enhancing Production, Productivity and Safety in Underground Mining (EPPSUM-2025) and Exhibition



Name (In Capital) :

Designation :

Organisation :

Address :

..... Pin Code

E-mail :

Phone : Mobile

Sponsored by

Please tick() whichever is applicable:

- Intend to attend the Seminar as a Participant/Delegate
- Intend to sponsorno (s) Participants/Delegates
- Interested in Diamond Sponsorship
- Interested in Gold Sponsorship
- Interested in Silver Sponsorship
- Interested in Bronze Sponsorship
- Interested in Lunch Sponsorship
- Interested in Dinner Sponsorship
- Interested to advertise in Souvenir of the Workshop

Back Cover (colour)

Inside Back Page Cover (colour)

Full Page (colour)

Half Page (colour)

- Booking of Exhibition stall / hard floor space

Enclosed Bank Draft/Cheque No. dated.....

For Rs..... drawn on.....

Payable at Dhanbad in favour of **"PMRC Private Limited, Dhanbad"**.

Date :

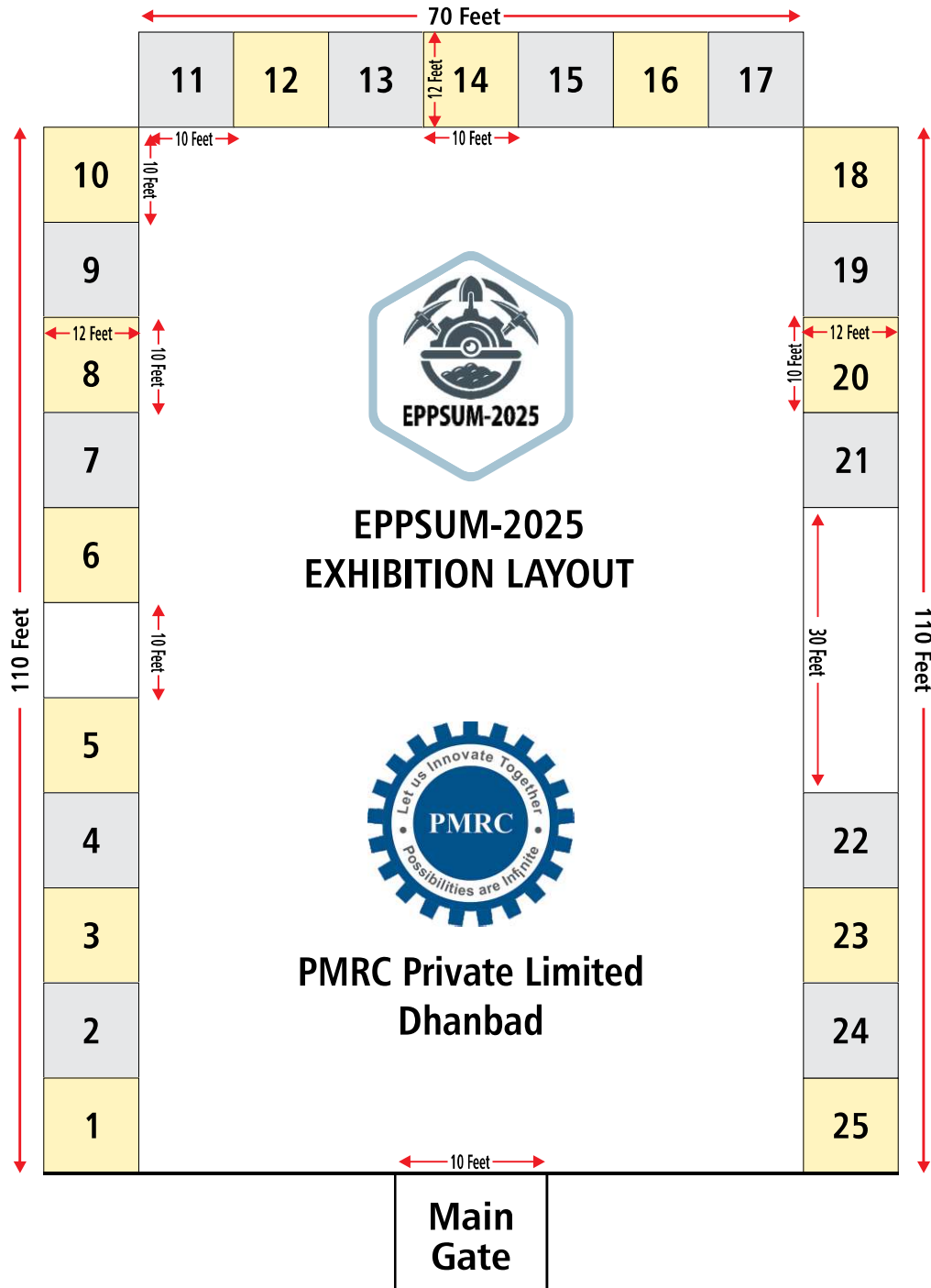
Signature of Sponsoring
Organisation with Seal

Signature of Participant/
Delegate

To be forwarded to:

PMRC Private Limited.

Cottage No. D/17, Nalanda Cottages, Near Memco More
Hirak Road, Barwadda, Dhanbad – 826004, Jharkhand, India



Exhibition Area and Stalls

The exhibition will be held on the New Lawn of the Parklane Resort, adjacent to the EPPSUM-2025 Workshop venue. This rectangular lawn spans an area of 100 x 140 feet and will accommodate 25 stalls, each measuring 12 x 10 feet, arranged along three sides as illustrated in the layout below. Considering the summer season, the exhibition area will be equipped with shading and cooling arrangements to ensure the comfort of both exhibitors and delegates. Pathways will be designed for smooth navigation and necessary amenities will be provided to enhance the overall experience for participants.