



NEWSLETTER

# SportE



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**SPORTS ENGINEERING  
ASSOCIATION**



<https://sportsea.org/>

## FROM THE DESK OF CHIEF EDITOR



**Dr. Suvanjan  
Bhattacharyya**

Dear Readers,

It is my great pleasure to welcome you to this edition of our **Sports Engineering e-Newsletter**, a dedicated platform created to highlight the rapidly evolving intersection of engineering, technology, and sport. In an era where athletic performance, injury prevention, and fan engagement are increasingly driven by science and innovation, sports engineering has emerged as a transformative discipline with global impact.

This e-newsletter is more than a collection of articles—it is a medium for **knowledge dissemination, collaboration, and inspiration**. Our primary objective is to bring cutting-edge developments in sports engineering to a diverse readership that includes researchers, academicians, industry professionals, sports scientists, coaches, and students. From advanced materials for sports equipment and wearable sensor technologies to biomechanics, data analytics, artificial intelligence, and sustainable design in sports infrastructure, we aim to capture the breadth and depth of this exciting field.

By curating high-quality content, recent research highlights, technological breakthroughs, and real-world applications, this newsletter serves as a bridge between **fundamental research and practical implementation**. It also provides a platform for young researchers and innovators to showcase their work, share ideas, and engage with a growing global community passionate about engineering solutions for sports performance and safety. Most importantly, this e-newsletter is about **spreading awareness**—creating conversations around how engineering is reshaping modern sport and how interdisciplinary collaboration can push boundaries further. I strongly encourage our readers to actively engage with the content, share insights, and contribute to future issues.

Together, let us continue to foster innovation, encourage excellence, and promote the impactful role of sports engineering in shaping the future of sport.

Sincerely,

## MESSAGE FROM THE FOUNDER DIRECTOR, SEA INDIA



**Dr. Pintu Modak**

**Birla Institute of Technology & Science, Pilani (Rajasthan) India**

*“Your knowledge will never become your power unless you apply it in your respective field”*

Good infrastructure is the backbone of a developed country. It means in sports having adequate standard facilities like accredited academies, Synthetic/artificial sports flooring/Fields, Sports movement analyzing center, Sports Data Science center, Sports nutrition, Sports Performance Research Center, Manufacturing quality equipment among others. Sports Infrastructure is one of the important issues in India fundamentally depends on import and outsourcing them.

Despite a phenomenal growth in Indian Sports, the status of sports infrastructure in India is still not at a desired level. The Govt has been taking many steps for creation of sports infrastructure, installation of synthetic playing surfaces and promotion of games and sports in universities and colleges. They aim at broad basing of sports and promotion of excellence in sports. But this initiative will never be materialized unless we can connect engineering with sports and focus on domestic manufacturing of sports goods and infrastructure indigenously aligning with Make in India initiative.

The good news is that the central Government has taken a welcoming initiative in the Union Budget'26 under the Khelo India Mission, envisioned to transform the sports sector over the next decade and allotted Rs. 500 crores towards Promotion of Sports Goods Manufacturing. The initiative is expected to promote domestic manufacturing, encourage innovation and strengthen India's presence in global sports supply chains. Recognizing India's potential in the global sports manufacturing ecosystem, the Budget also proposes a dedicated initiative for sports goods manufacturing.

The budget'26 also shown its intent upgrading the Khelo India Mission to take a comprehensive approach for strengthening the sports ecosystem across the country focusing on:

- (a) Integrated talent development pathways supported by training centers which are foundational, intermediate and elite level.
- (b) Systematic development of coaches and support staff.

- (c) Integration of sports science and technology.
- (d) Competition and leagues to promote sports culture and provide platform.
- (e) Development of sports infrastructure for training and competition.

This mission is expected to create structured athlete pathways, strengthen institutional capacity and improve performance outcomes at all levels. If this initiative is implemented with a dedicated intention the Indian sports will move towards a positive development.

Sports Engineering Association (SEA), India since inception we have been working with such intent to connect engineering with sports to boost domestic sports manufacturing. We organize various activities like conferences, workshops, projects etc. to bridge the gap between engineering and sports. It is indeed very important for researchers from engineering and sports science to work together not only for infrastructure development indigenously but also for reduction of injuries in athletes while they participate in sports.

Keeping our vision in mind to promote sports engineering, we have recently organized our 4th International conference on sports engineering successfully on 10-12 October 2025 at Radisson Hotel, Gurugram. In which more than 300 delegates participated across India and abroad. The conference is supported by the Ministry of Youth Affairs and Sports, New Delhi and Qualisys, India. I express my sincere appreciation to them as without their support it would not be possible to conduct the event successfully. On behalf of the organizing committee. I would also like to extend my sincere gratitude to all authors for their valuable contributions to the event. Hope to continue working together in future too towards our vision to promote sports engineering in India.

Best wishes

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## TECHNICAL ARTICLE

### Status of Microbial Hygiene Indicators among Sports Persons Engaged in Various Indoor Environments

#### Authors:

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**ICMR-National Institute of Nutrition, Hyderabad, Telangana. India-500007**

#### Introduction

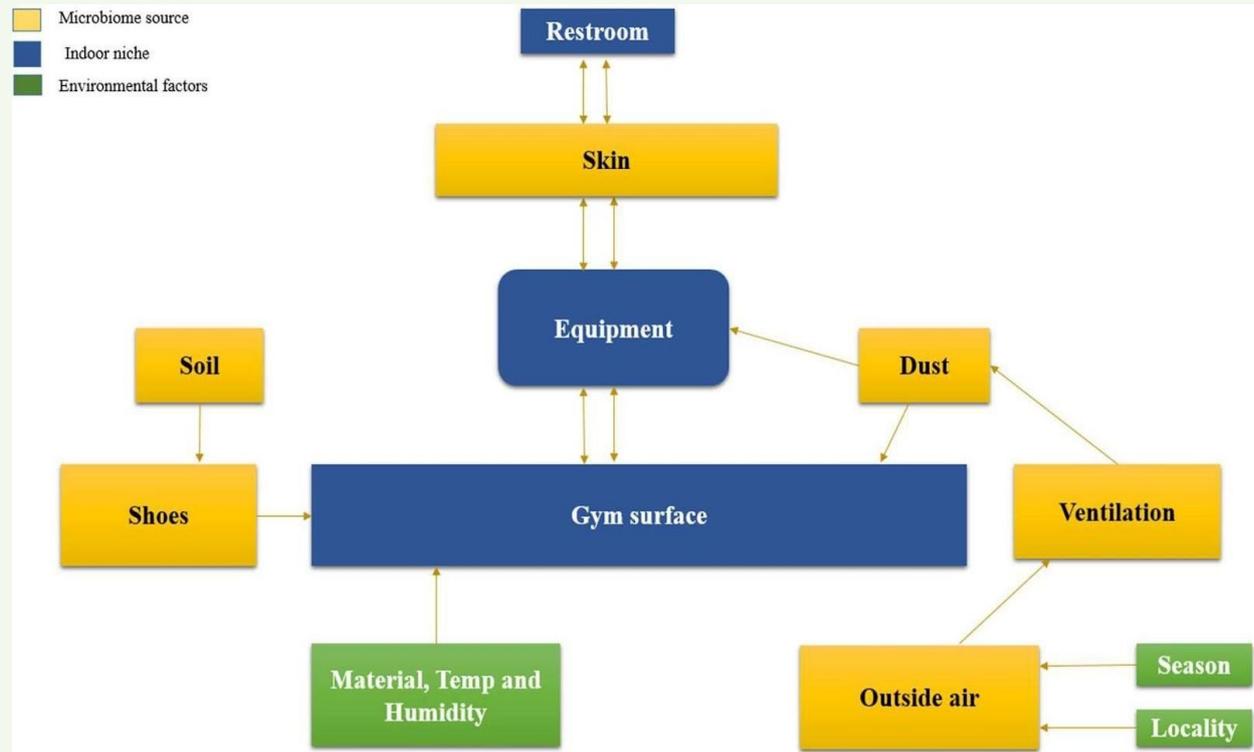
Humans continuously interact with a diverse range of microorganisms in the environment. Only a small proportion of microbes are capable of interacting with the host. Microbial indicator organisms are harmless microorganisms associated with the potential for some microbiological risk. Advancements in construction technologies have caused greater use of synthetic buildings, leading to more comfort with lower costs. These technologies provide indoor environments in which contaminants are readily produced and may build up in higher concentrations than the outside. Carbon dioxide, temperature, relative humidity, wind speed, viable mold, and airborne dust levels are the parameters of indoor environments. Bioaerosols, also known as biological aerosols are airborne particles that come from biological sources such as bacteria, fungi, animals, viruses, pollens, and spores as well as their by-products such as toxins and allergens. Contamination present on the surfaces may become airborne and inhaled by athletes and trainers. It is also possible that the translocation of surface contamination can penetrate intact skin or contact with a wound results in internal exposure.

#### Microbial Hygiene Indicators and associated Health Implications

The term ‘Indicator organisms’ has been used as an important tool for evaluating microbial safety and quality. These organisms can provide insight into the overall microbiological state of space and alert us to the possible existence of dangerous pathogens. Microbiological sampling aims to assess the contamination of a surface by checking the microbial indicators produced by the fallout of microorganisms from the air. There are various types of indicators present in the environment. The level of air contamination depends on the number of people inside a sports facility and the efficiency of the ventilation system. The most common bacteria identified as Staphylococci, E. coli etc. Staphylococcus aureus emanates from the nasal passages, skin, lesions of man, etc. The most common bacteria that affects athletes is found to be MRSA. The most common fungal genera in indoor environments are Penicillium, Aspergillus, Cladosporium, Alternaria, and yeasts. Tinea pedis is a type of fungus commonly found in sports persons and originates from swimming pools, gymnasiums, floors, and common rooms. Sports persons face heightened risks of skin conditions due to microbial exposure in communal indoor training environments. The study noted that 20.4% of participants experienced skin allergies linked to sweat and lack of hygiene, while 5.5% reported immediate itchiness upon contact with unhygienic surfaces. These findings highlight the susceptibility of

sportspersons to conditions such as fungal infections, particularly in sports requiring skin-to-skin contact or the use of shared facilities, supporting the existing research on dermatophyte prevalence among athletes.

### Sources of Microbial Contamination



### Assessment of Microbial Hygiene Status

The study employed a cross-sectional descriptive design to assess the Microbial hygiene indicators among sports training in various indoor environments. Surface swabs, Handwash samples, and Air samples were collected from 55 sports participants across 11 indoor sports facilities in Hyderabad. Microbiological analysis was conducted using standard methods, including colony counting on selective agar media and Biochemical tests for identification of pathogens. Surface swabs showed higher contamination, particularly with *Staphylococcus aureus* (85.45%). Air samples showed the minimum contamination, with only Fungi detected in all cases. The findings underscore the urgent need for improved hygiene practices, facility cleanliness, and microbial monitoring to mitigate health risks in training environments.

### Conclusion

#### Preventive and Control Strategies

To address these concerns, specific measures are essential. Enhancing ventilation systems to ensure optimal air circulation and maintaining indoor humidity levels between 30% and 50% can significantly reduce microbial growth. Incorporating HEPA filters and increasing natural ventilation could further improve air quality. Education campaigns emphasizing the importance of hand hygiene, regular equipment disinfection, and personal protective measures such as the use of gloves, could also drive behavioral change among sportspersons. Facility managers should enforce strict cleaning protocols and regularly monitor microbial contamination levels to maintain hygienic conditions.

**Key message**

- Take a proper shower as soon as possible.
- Remember to wash your gym clothes regularly and wear flip-flops or shower shoes.
- Remember to avoid touching your face, wash your hands frequently especially after a workout.
- Bring your mat for floor exercises, especially yoga, and ensure it is clean and germ-free.
- Invest in a high-quality, refillable water bottle preferably filtered or metal to avoid BPA and clean it frequently using hot water.

**WINNERS' ABSTRACT "ICSE 2025"****Paper ID: ICSE25A025****Immersive Technologies in Athletic Development: The Role of VR in Modern Sports Training****\*Srishti Ruhhal****B.Tech, Department of CSE(AI), Meerut Institute of Engineering and Technology, affiliated by AKTU****Email: [ruhalsrishti04@gmail.com](mailto:ruhalsrishti04@gmail.com)**

**Abstract:** Virtual Reality (VR) is rapidly transforming traditional methods of sports training by providing immersive, interactive, and highly customizable environments for athletes at all levels. This review explores the multifaceted applications of VR in sports training, ranging from skill acquisition, tactical analysis, reaction time enhancement, to rehabilitation and cognitive training. By simulating real-world scenarios and allowing repeatable practice sessions without the risk of physical injury, VR serves as a powerful tool for both physical and mental conditioning. The paper delves into how VR aids in improving performance metrics through motion capture, real-time feedback, and data analytics. Sports such as football, basketball, tennis, and even extreme sports have seen promising implementations of VR-based training systems. Furthermore, VR enables coaches and trainers to assess and correct player techniques with greater precision while facilitating remote training sessions—bridging geographical barriers and expanding access to quality training. Despite the challenges posed by high hardware costs and limited accessibility in certain regions, recent advancements in lightweight headsets, mobile VR platforms, and affordable motion tracking solutions are making the technology more viable for wider adoption. The paper also discusses ways to enhance the accessibility and effectiveness of VR through cloud-based VR applications, AI integration, and hybrid AR/VR models that blend physical and virtual worlds. This review critically examines the current landscape, existing technological limitations, and future prospects of VR in sports training. It emphasizes the transformative potential of VR not only in elite sports performance but also in grassroots and amateur levels, promoting inclusive development. Through a synthesis of case studies, research findings, and emerging innovations, the paper underscores VR's growing role in shaping the future of sports training.

**Keywords:** *Immersive Training, Cloud Based VR, VR Motion Tracking, Hybrid AR/VR, Data Analytics in Sports*

**Paper ID: ICSE25B007**

## **Fractional Modelling of Aerodynamic Drag on Cyclists: A Non-Local Dynamics Approach**

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This research explores the aerodynamic drag experienced by cyclists through a fractional partial differential equation framework, emphasizing the non-local effects of air viscosity on velocity distribution. By incorporating a fractional derivative, the model captures memory-dependent interactions in fluid dynamics, with a nonlinear drag term reflecting velocity-squared dependency. The study examines a spatial domain around the cyclist, applying realistic boundary conditions based on ambient wind and cyclist speeds. Results reveal velocity profiles that peak at the cyclist's position, with drag forces aligning with physical expectations, ranging from negligible to significant values. The influence of fractional order on drag and velocity is analyzed, providing insights into the role of non-local effects in sports aerodynamics. Visualizations highlight variations across different fractional orders, offering a foundation for optimizing cyclist performance. This work establishes a versatile framework for future investigations into fractional dynamics in aerodynamic applications.

Keywords: *Fractional PDE, Aerodynamic drag, Cyclist Modeling, Non-local dynamics, Velocity profile, Drag force*

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**Paper ID: ICSE25C077**

## **Multidimensional Impact of Sports Participation on Student Health, Cognition, and Mental Well – Being**

**\*Yashwanth R.<sup>1</sup>, Harshith Gowda M.<sup>2</sup>, Vishwanatha C. N.<sup>3</sup>**

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This paper investigates the multidimensional benefits of sports participation on student development, highlighting measurable improvements in physical, psychological, academic, and social outcomes. Based on a dataset involving approximately 250 students, it was observed that athletes demonstrated a 23.68% reduction in resting heart rate (58 bpm vs. 76 bpm), a 27–39% lower risk of obesity, and significant gains in muscular strength and metabolic health. Psychologically, sports participation reduced cortisol levels after just 20–30 minutes of vigorous activity, while enhancing mood regulation through increased serotonin and endorphin levels. Academically, student-athletes showed improved memory, attention span, and grade point averages, with aerobic fitness contributing 16–20% to daily energy expenditure and positively correlating with cognitive performance. Socially, sports fostered better communication, stronger peer relationships, and a heightened sense of belonging. These findings affirm that structured athletic engagement is not merely extracurricular but a critical component of holistic education, contributing significantly to student resilience, leadership, and long-term success.

**Keywords:** *Sports participation, Student development, Physical health, Academic performance, Mental well-being*

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## CONFERENCE REPORT “ICSE 2025”

### “4th International Conference on Sports Engineering (ICSE 2025), Gurugram, India”

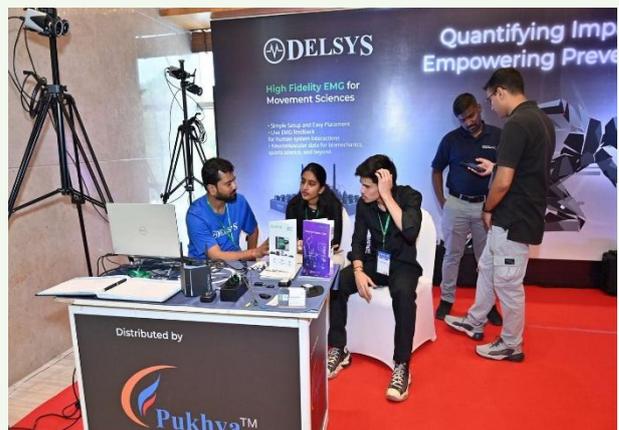
The **4th International Conference on Sports Engineering (ICSE 2025)** was held from 10–12 October 2025 at the Radisson Hotel Gurugram, a five-star venue that gave an amazing setting for high-level academic and professional engagement. This conference marked a significant milestone in advancing interdisciplinary scholarship at the intersection of sports science, engineering, and technology more into development of Sports Engineering in India. International academic collaboration was a defining feature of ICSE 2025, with institutional partnerships from **INEFC, Barcelona University, Spain, Thammasat University, Thailand,** and **TAR UMT, Malaysia, Dronacharya Govt College, Gurugram** as associate member boosting the global orientation of the conference.

The conference witnessed enthusiastic participation from over 200 delegates, representing a wide and multidisciplinary constituency. Participants showing from across India and several other countries, including the United States, the United Kingdom, Spain, Malaysia, Thailand, and Japan. The delegate profile enriched with researchers, faculty members, doctoral and postgraduate students, industry professionals, sports practitioners, policymakers, and representatives from public-sector institutions. This diversity significantly enriched the quality of academic discourse, collaborative engagement, and cross-sectoral exchange throughout the conference.



#### Pre-Conference Workshops:

The conference commenced on **October 10, 2025**, with pre-conference workshops designed to strengthen practical and methodological competencies among participants. A flagship workshop titled “*Analyzing Sports Performance Using 3D Motion Capture Systems*” stood out for its strong applied orientation. Conducted in collaboration with gold sponsors **Qualisys** and **Delsys**, the workshop provided hands-on training in kinematic analysis, electromyography (EMG) integration, and real-time data interpretation. These sessions were particularly helpful for early-career researchers, building them with industry-relevant technical skills essential for high-precision movement analysis.



### Inauguration and Recognition of Excellence

The formal inauguration on Day 2 set a reflective and aspirational tone for the conference. A highlight of the ceremony was the conferment of the **Lifetime Sports Achievement Award** upon **Harbinder Singh**, the legendary triple Olympian and member of India's 1964 Tokyo Olympic gold medal-winning hockey team. In his address, he reflected on the evolution of Indian sports and emphasized the urgent need for indigenous, engineering-led solutions tailored to the specific needs of Indian athletes. Also, the presented **Best Student Member Award to Mr. Manish Meena, Associate at Indian School of Business, Hyderabad**, for contributions towards development of Sports Engineering across the country, applauding their contribution for the development.



ICSE 2025 featured parallel technical sessions showcasing double-blind peer-reviewed research papers, with accepted contributions scheduled for publication in **Scopus-indexed Springer proceedings**. The thematic breadth of the conference reflected both depth and relevance, with key tracks including:

- Artificial Intelligence and Sports Analytics
- Biomechanics and Injury Prevention
- Sports Aerodynamics and Equipment Design
- Inclusive and Adaptive Sports Engineering

Collectively, these sessions highlighted emerging methodological rigor and innovation-driven research addressing real-world challenges in sports performance and safety.

### Innovation and Showcase

A dedicated **Innovation Showcase** with keynote speakers like Prof. David James, CEO Labosport which enabled startups and industry leaders to demonstrate cutting-edge technologies, including wearable sensor systems, virtual reality-based training platforms, and advanced performance analytics tools. Followed by panel discussions focusing innovation-led manufacturing and aligned closely with India's *Make in India* vision, showing the importance of the role of sports engineering in building domestic technological capability and entrepreneurial growth.

### The Last Day of Conference:

The conference concluded on **October 12, 2025**, with a Valedictory Function recognizing outstanding research papers and student projects. ICSE 2025 successfully strengthened the sports engineering ecosystem in India by fostering interdisciplinary collaboration, bridging academia and industry, and promoting globally relevant yet locally grounded research. The best paper in each category was awarded a cash prize in recognition of their dedication and efforts in conducting the research. (Please see list below for best paper award). The conference laid a strong foundation for future editions to further expand international cooperation and advance engineering-driven innovation in sport.

## BEST PAPER AWARDS AT “ICSE 2025”

### **BEST PAPER AWARD IN STUDENT CATEGORY**

Three awards were presented to the top student papers

#### **1st Prize (INR 20,000)**

*Paper Number:* ICSE25A025 — “Immersive Technologies in Athletic Development: The Role of VR in Modern Sports Training”

**Awardee:** Ms. Srishti Ruhel, B.Tech (CSE-AI), Meerut Institute of Engineering and Technology (AKTU)

#### **2nd Prize (INR 15,000)**

*Paper Number:* ICSE25C064 — “The Functional Importance of Fascia in Sports Science and Rehabilitation”

**Awardees:** Gargie Chatterjee (Student, MYAS–NIN, ICMR–National Institute of Nutrition), Maheshwar Mekam (HOD, Extension & Training Division, ICMR–NIN), Nagajyothi Ala (Assistant Professor, MYAS–NIN), Chennakeshavulu Vemula (Assistant Professor, MYAS–NIN)

#### **3rd Prize (INR 10,000)**

*Paper Number:* ICSE25C143 — “AI-Driven Prediction of Injury Risk in Athletes Using Training and Recovery Data: A Machine Learning Approach to Proactive Sports Management”

**Awardees:** Zeenat Khan, Mohammed Muzammil Choudhari, Adhithi C. Iyer (Students, R V College of Engineering, Bengaluru) Vishwanatha C. N. (Physical Education Director, R V College of Engineering) Khalid Khan (Director of Physical Education, Karnataka State Law University, Hubballi).

### **BEST PAPER AWARD IN GENERAL CATEGORY**

Three awards were presented for the best papers across Tracks A, B, and C

#### **Track A (INR 25,000)**

*Paper Number:* ICSE25A089 — “Real-Time Combat Training Analytics: Skeleton-Based Temporal Action Localization in Unstructured Video”

**Awardees:** Dr. Ravi Hegde and colleagues from IIT Gandhinagar, IIT Madras, and AKTU.

#### **Track B (INR 25,000)**

*Paper Number:* ICSE25B007 — “Fractional Modeling of Aerodynamic Drag on Cyclists: A Non-Local Dynamics Approach”

**Awardees:** Dr. Rishi Kumar Pandey (Symbiosis International University) Prof. Abhijeet K. Digalwar (BITS Pilani)

#### **Track C (INR 25,000)**

*Paper Number:* ICSE25C077 — “Multidimensional Impact of Sports Participation on Student Health, Cognition, and Mental Well-Being”

**Awardees:** Yashwanth R., Harshith Gowda M., Vishwanatha C. N. from R V College of Engineering, Bengaluru.

## SEA ANNUAL GENERAL MEETING 2025

*The Sports Engineering Association (SEA) convened its Annual General Meeting on 11 September 2025 at the Radisson Hotel, Udyog Vihar, Gurugram.*

### Sports Engineering Association (SEA)

**11 October 2025 | Gurugram**

The Sports Engineering Association (SEA) conducted its Annual General Meeting (AGM) on 11 September 2025 at the Radisson Hotel, Udyog Vihar, Gurugram. The meeting brought together distinguished academicians, researchers, industry professionals, and student members to reflect on the year's progress and prepare the strategic direction for the Association's near future.

The session started with Mr. Anil Kumar S. nominated as Chairperson. In his opening remarks, he reflected on the growing importance of strengthening the engineering perspective in sports and promoting start-up initiatives under the SEA platform.

### Membership Growth and Institutional Engagement

Prof. M. S. Dasgupta, President of SEA, announced the induction of 22 new professional members and 17 new student members, reflecting the Association's expanding academic and professional footprint. The Secretary, Dr. Sharad Shrivastava, mentioned the significant improvement in the recent International Conference on Sports Engineering and reiterated SEA's broader vision, extending engagement beyond the annual conference through sustained academic and industry collaboration.

Members acknowledged the need to increase collaborative initiatives across institutions, noting that only one such event had been conducted during the year. There was strong consensus on expanding institutional participation, co-branding opportunities, and structured outreach programs.

The financial report indicated steady growth and responsible fiscal management. Thorough discussion was held on association's finance and building the community through it.



### Awards and Recognition

A key highlight of the AGM was the conferring of the **Lifetime Achievement Award** upon Padma Shri Harbinder Singh for his outstanding contribution to Indian Hockey. The **Best Student Member Award** was presented to Mr. Manish Meena (IIT Gandhinagar), recognizing exemplary engagement and contribution to the field of Sports Engineering.

### **Strategic Initiatives and Future Directions**

The discussion help upon proposed key initiatives:

- Enhancing sponsorship efforts to broaden SEA’s outreach and attract international participation.
- Launching regular online sessions featuring experts from academia and industry, with the possibility of introducing a certification course. Also encouraging institutional memberships and organizing collaborative hackathons. Developing a core curriculum framework in Sports Engineering and engaging with AICTE to introduce minor programs nationwide.
- Strengthening SEA’s digital and social media presence through a dedicated Marketing Committee, and establishing specialized committees (Workshop, Travel, Conference, and others) to streamline operations.
- Hosting future conferences in academic institutions to foster multidisciplinary research and start-up ecosystems.

### **Conclusion:**

The AGM concluded at 8:30PM with a vote of thanks. The meeting reflected SEA’s strong institutional foundation, growing membership, financial stability, and a clear strategic roadmap focused on academic excellence, industry collaboration, digital outreach, and national expansion.

The Sports Engineering Association continues to advance its mission of integrating engineering innovation with sports science, building research, education, and entrepreneurship in Sports Engineering across India and beyond.

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## EDITORIAL TEAM

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3. Shiv Naresh Sports Pvt Ltd
4. SporTech Innovation Lab Pvt Ltd, Pune, India

## STUDENT PROJECT SCHEME

### Project financial support

We encourage students from engineering and science disciplines to actively participate in various activities such as product design, movement analysis, app development, and software development. To support their involvement, we are announcing a cash support program. All student members are eligible to apply, and the application process is open throughout the year. To apply, please submit a one-page summary of your project along with your student membership number to [sportsengineeringindia@gmail.com](mailto:sportsengineeringindia@gmail.com).

Additionally, SEA (Sports Engineering Association) provides funding opportunities to student members for undertaking small projects in sports technology. We also strive to offer them a nationwide platform to showcase their development work through newsletters and conferences.

### Student Project Scheme

The Student Project Scheme is a core element of our commitment to fostering innovation and research in sports technology. The scheme is aimed at encouraging individual student members or groups to delve into innovative technology applications within the sports domain.

#### Key Features of the Scheme:

**Financial Support:** Students can apply for funding of up to Rs. 10,000 to facilitate their research projects or the development of prototypes, models, or products.

1. **Duration:** Projects under this scheme should be completed within a six-month timeframe, allowing students to channel their efforts efficiently.
2. **Application Procedure:** The detailed application procedure, including eligibility criteria and submission guidelines, can be accessed on the SEA website: <http://sportsea.org>. We encourage all full-time undergraduate or postgraduate students in engineering, science, or sports science to consider joining SEA as student members to avail themselves of these exciting opportunities.

### Showcasing Development Work

SEA recognizes the importance of providing a platform for students to showcase their projects and findings. We facilitate this through newsletters and conferences, ensuring that their efforts gain visibility at a national level.

Embrace this opportunity to turn your innovative ideas into reality with the support of SEA's Student Project Scheme. We are dedicated to nurturing the next generation of sports engineers and scientists, driving advancements that will shape the future of sports technology. Join us in this exciting journey of exploration and innovation!



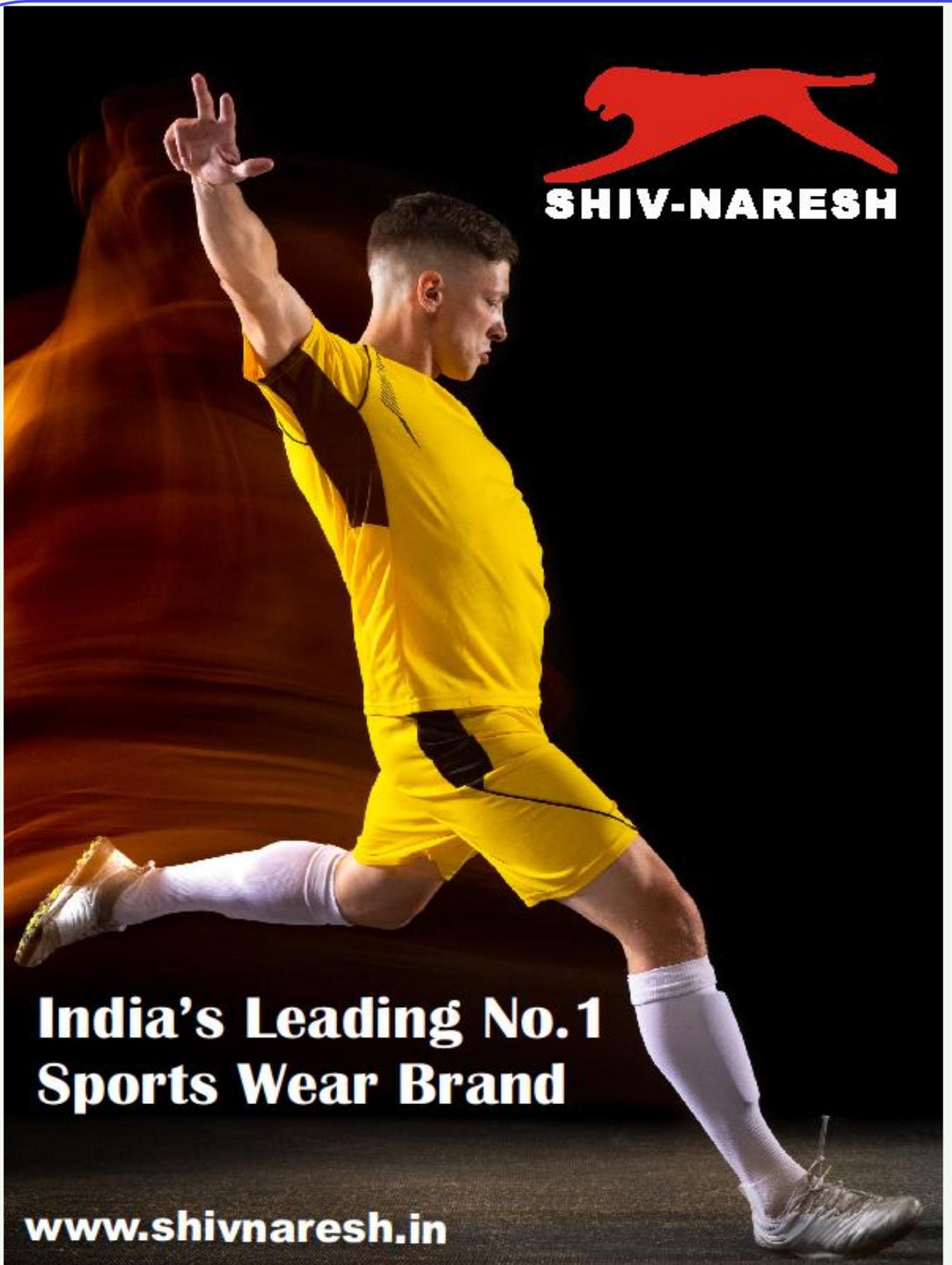
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## INVITATION FOR SEA MEMBERSHIP

### Contact:

We invite you to join us and become a member of the SEA family. Your expertise is important for us to take the mission of SEA forward.

**Membership Link:** <http://sportsea.org/joining-payment-process/>

### Opportunities/ Benefits of joining the SEA as Member:

1. Receive a Membership Certificate, inclusion of profile in Membership Gallery, discount on Conference registration charges
2. Opportunity to utilize the collaborative platform to interact with Domain experts and other members of SEA
3. Discount on conferences, workshops and any other professional development events organized by SEA
4. Student members may get an opportunity to work in research projects
5. Receive periodicals / newsletter, publish articles in periodicals & newsletters
6. Receive award / recognition for innovative contribution to the technology development Attend board meetings (only for life members)
7. Opportunity to open State Chapter (only for life members)
8. \* (A full-time student at any time during her/his period of study can join SEA as Student Member through a onetime payment of token membership fee. Student members are eligible to get Rs 10,000/- as grant for innovative project development. On completion of course, he/she will cease to be a Student Members but are encouraged to make fresh application for Life membership of SEA remitting the full life membership fee.)

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