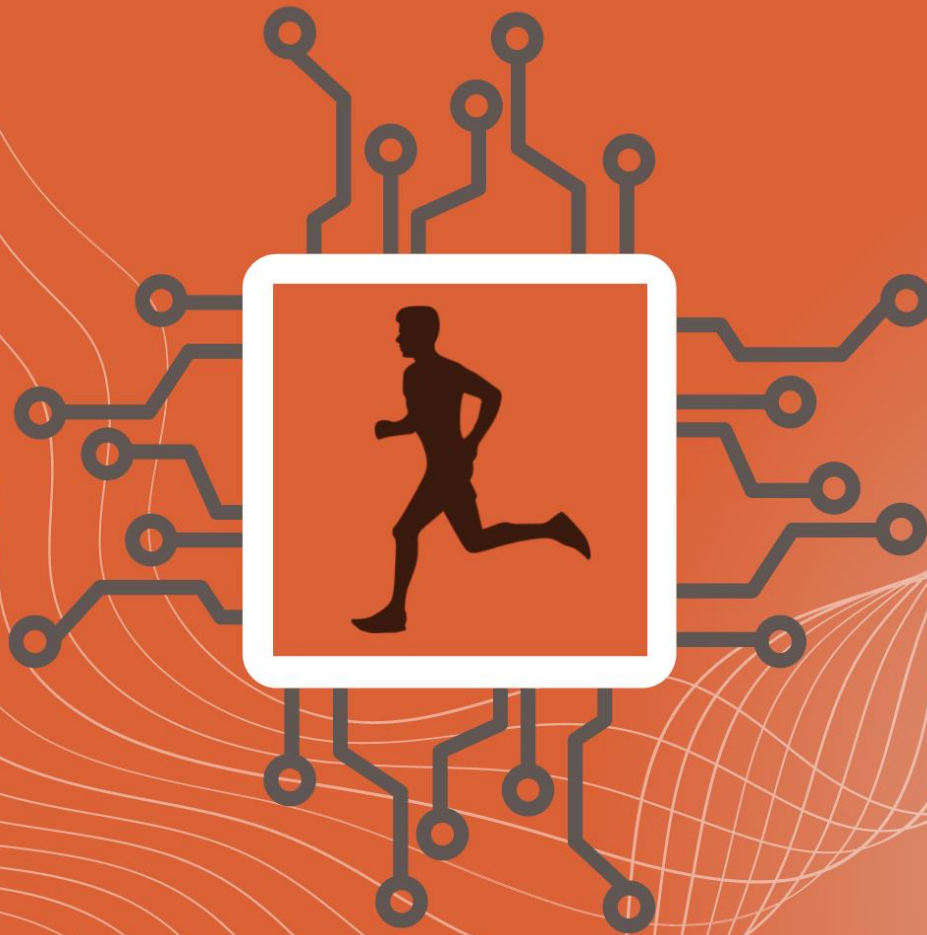


NEWSLETTER

Sports Engineering Association



SportE



Volume . 1

Issue . 1

November 2022

<http://sportsea.org/>

MESSAGE FROM PRESIDENT SEA

The Sports Engineering Association (SEA)

Sports Engineering Association (SEA), India is a recognized group of people from engineering, sports science and industry pledged to work towards the cause of sports, fitness, and industry. The SEA is registered as a non-profit organization under the Companies Act, 2013, for promoting sports engineering among students and faculty of various sports science and engineering Institutes in India. It intends to work towards sustainable engagement of technology in sports. SEA is committed to serve the community of sports to promote technology involvement in the field of sports through information sharing among members.

SEA is registered and approved under 12-Clause (iv) of first proviso to sub-section (5) of section 80G to receive donations for promoting technology in sports and games, in India.



Our uncommon goals



Prof. M.S Dasgupta
President, Founder-Director, SEA

Incorporated with MCA on 30th January, 2019, Sports Engineering Association ventured into a hitherto uncharted territory in India, ushering Engineers into the sporting arena! Understanding the human body as a machine and its uniqueness is the first challenge. Any problem solving in this domain is truly a multidisciplinary one. There is no dearth of challenges and surprises in every step that you take, especially when this is an emerging field world over. It is no rocket science though, every engineer, as per of his/her professional training, is equipped with the requisite tools. But it challenges your creativity, demands imagination and the ability to apply the acquired knowledge in new areas and has a tremendous potential for entrepreneurship – a win-win for the bright and restless young engineers. SEA is

committed to creating healthy avenues for mutual interaction among Engineers from all disciplines with the sports educators, coaches, athletes, sporting governing bodies, regulators and entrepreneurs, challenging them consciously to find sustainable engineering solutions for the problems they face.

This newsletter, we believe, will develop as a gem in the crown, it is mandated to chronicle the developments in the journey of SEA, taking along its members and well-wishers.

FROM THE DESK OF CHIEF EDITORS

**Dr. Abhijeet Digalwar****Dr. Arun Jalan****Dr. Lalit Sharma**

Dear Readers,

It gives us immense pleasure to launch the first edition of the SEA newsletter “SportE” for 2022. On behalf of SEA members and editorial team, we take this opportunity to extend our sincere thanks to the President ISEA Dr. Lloyd Smith, Professor Washington State University, Vice Chancellor, BITS Pilani, Prof. Souvik Bhattacharyya and Director, BITS Pilani - Pilani Campus Prof. Sudhirkumar Barai for their appreciations and best wishes for the newsletter.

In this issue, we will recount the various conferences, workshops, seminars/webinars, training programs, and many activities in which SEA members were actively involved from the inception of SEA until the November of 2022.

We have introduced a separate section for the full-time students, in which they can participate in the fun-oriented quiz and also win a prize. The purpose of the quiz is just to promote awareness about science and sports among the student community. This section also includes future opportunities for the student members of SEA.

The newsletter also highlights the MoUs signed with various organizations and institutions for research opportunities in the domain of sports engineering which provide benefits to the members of SEA.

At the end, the newsletter introduces the founding members and life members of SEA to the readers.

Last but not the least, we would like to thank President SEA, Prof. M.S. Dasgupta and Secretary SEA, Dr. Pintu Modak and the editorial board members for their everlasting support throughout the creation of this edition.



भारतीय खेल प्राधिकरण

SPORTS AUTHORITY OF INDIA

नेताजी सुभाष राष्ट्रीय क्रीडा संस्थान : पटियाला



MESSAGE FROM SR. EXECUTIVE DIRECTOR, NSNIS, PATIALA



FOREWORD

It's my pleasure to write this foreword of good will for the success of Newsletter by Sports Engineering Association (SEA). Sports Engineering & Sports Technology may seem easy to sports fans. Different stakeholders of sports ecosystem know very well that it is very difficult to achieve high level performance. Winning does not happen in a straight line. It is the result of incredible efforts, dedication, passion, but also the result of the willingness to learn something new every day in every possible field which can help improve performance.

Through this Newsletter even better and more information will be available to coaches, athletes, sports scientists and sports medicine professionals. It is my hope that this Newsletter will help all those who want to change in sports engineering and sports technology indigenously. This Newsletter will be available at Birla Institute of Technology and Sciences (BITS), Pilani.

Best wishes to the editorial board of SEA for their credible efforts.

Warm Regards,

Col. Raj Singh Bishnoi

**MESSAGE FROM PRESIDENT
INTERNATIONAL SPORTS ENGINEERING ASSOCIATION (ISEA)**



Lloyd Smith
Professor, Washington State University
509 335 3221



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International Sports Engineering Association
Sheffield Hallam University
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Greetings from the ISEA. It is my great honor to serve as president of this wonderful organization. I've been a member of the society for 18 years. Throughout my tenure in the society, I've enjoyed meeting and interacting with many who are making significant contributions to sport. I'm inspired by their energy and openness as we meet and interact. I'm constantly amazed at the number of interesting challenges my colleagues solve and the contributions we've made as a society to make sport more accessible and safe, while enhancing athletic performance and health. First and foremost, the ISEA strives to promote and strengthen the Sports Engineering discipline. We do through synergistic partnerships with sports federations and societies, such as SEA. The ISEA sponsors the Sports Engineering journal. This provides an important and respected outlet of our research. It's archive now spans over 20 years, and includes numerous seminal contributions to sport. The ISEA works to provide opportunities for collaboration and mentorship. This is primarily done through our biannual meeting, but also occurs through smaller events including various summer school activities. It is an important element of the ISEA that helps strengthen the members and develop new researchers and leaders. I encourage all readers of this newsletter to be creative as you identify challenges in sport and seek opportunities to improve and enrich sports through engineering.

Sincerely,

A handwritten signature in black ink, appearing to read 'Lloyd Smith', written over a light grey background.

Lloyd Smith, ISEA President

MESSAGES

Mr. Anil Kumar Suravaram
Founder-Director, SEA



“Watch your thoughts, they become your words;
watch your words, they become your actions;
watch your actions, they become your habits;
watch your habits, they become your character;
watch your character, it becomes your destiny.”

All of us at Sports Engineering Association of India are delighted to bring this inaugural edition of the SEA Newsletter to you.

We sincerely believe that there is vast potential for Sports Engineering in India and in general in this industry globally. And we believe that with the small steps we are taking with SEA - by being the thought-leaders in this space, by providing the forum for Conferences & White Papers, and fostering ideas and innovations - we will create the conditions for rapid strides in the near future.

We hope this humble endeavor creates and nurtures a vibrant culture of sports engineering in India.

We promise to make the newsletter very thought provoking, with the belief, that good thoughts will eventually pave the way to a great destiny!

Jai Hind!

Mr. Shiv Prakash Singh
Founder-Director, SEA



It is a matter of great pleasure and satisfaction that we are going to release the first issue of the SEA Newsletter “SportE”.

I believe that the newsletter will serve as a window through which the complete activities, achievements and progress made since its inception can be viewed.

We aim to involve the young engineers for working towards sports technology with their innovative ideas so that playing sports become safe and improve performance.

SEA also aims to work with the sports industries to come out with a sustainable production technology in sports equipment and facilities indigenously. Hence, the SEA can be an important platform for those we want to work for sports development in India.

Best wishes for the success and bright future of “SportE”.

Prof Rajesh Prasad Mishra
Founder-Director, SEA



I am delighted to write this message of favor for doing the e-newsletter by the Sports Engineering Association (SEA), nurtured at BITS Pilani, Pilani campus. It is cheering to learn that SEA is releasing its first edition of the Newsletter named SportE. SEA assents a vital place as a link between various disciplines of Engineering and science with the sporting community in the country.

Across the discipline of engineers, scientists and physical educationists throughout the world are working together towards improving sports technology. I am buoyant that this newsletter will successfully show the sights of the activities of SEA, imitate the ambitions of the potential tycoons in the sports technology domain, and will also help associate with people having proficiency and curiosity in this field.

All the very best to the team of SEA for their genuine effort.



Birla Institute of Technology and Science, Pilani

Pilani | Dubai | Goa | Hyderabad | Mumbai

Souvik Bhattacharyya, Ph.D., FNAE, FNASc, FWAST
Vice-Chancellor & Senior Professor



Prof. Souvik Bhattacharyya
Vice-Chancellor & Senior Professor

I am glad to see that the Sports Engineering Association (SEA) is going to publish a quarterly newsletter chronicling their works and aspirations. I witnessed some pioneering work by SEA in terms of organizing India's first international conference on Sports Engineering in 2017.

SEA undertakes a very important task of raising awareness about the latest developments in Technology space for possible application in sports. Technology can be applied in myriads of ways to assist performance improvement, enhancing safety and increasing audience engagement in sports. I believe this initiative of SEA will be successful and it will help nurture the interest and attention of engineering students and researchers towards various challenges in the sports domain. The newsletter should facilitate healthy discussion and mutual exchange among engineers, scientists and sporting fraternity towards fruitful projects for benefit of all the stakeholders

I express my best wishes to the editorial team of SEA for their sincere efforts.

Souvik



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Birla Institute of Technology and Science, Pilani

Pilani Campus

Prof. Sudhirkumar Barai, Ph.D.
Director & Senior Professor



Prof. Sudhirkumar Barai
Director & Senior Professor

November 16, 2022

Message

I am pleased to write this message of good will for the success of the e-newsletter by Sports Engineering Association (SEA), incubated and headquartered at BITS Pilani. It is heartening to learn that SEA is releasing its first edition of Newsletter named *SportE* in November this year. SEA assumes an important position as a bridge between practicing Engineers and students of engineering with the sporting fraternity in the country. Here Engineers and sports scientists from across India are working together towards improvement of sports technology indigenously. I am confident this newsletter will successfully portray the glimpses of the activities of SEA, reflect the aspirations of the budding entrepreneurs in sports technology domain and will also help connecting with people having expertise and interest in this field.

Best wishes to the editorial team of SEA for their sincere efforts.

Warm Regards,

Sudhirkumar Barai



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Dr. Pintu Modak
Founder - Director, SEA

“Not let your mind bite You, bite your Mind instead to perfect your PERCEPTION”.

My perception says - “Accomplishing a work is not important but the WAY of accomplishing the work is rather more important which makes a champion in every field irrespectively”.

Grooming a champion needs an appropriate environment and the engineering makes it perfect. When the engineering helps in creating an environment for athletes to play safe and improve performance, we call it Sports Engineering.

Sports Engineering may be a new domain in India but not different from Classical Engineering. It is simply the application of Classical Engineering in Sports. The Sports Engineering is a field that focuses on design and production of Sports Equipment, Facilities & Infrastructure, and Performance Measurement. It is based not only on Mathematics, Physics and their branches (Mechanics, Thermodynamics, Aerodynamics etc.) but also on Production Technology, Materials Science, Machine Learning, Kinesiology etc. Sports Performance is therefore considered to be a multidisciplinary approach. However, Sports Engineering and Sports Science are not similar (as disciplines) as many people get confused but both work for athletes from outside and inside (the athletes) respectively in improving performance.

Sports Engineering Association (SEA) in India is incepted with a sincere intent to provide Engineers, Sports Scientists and Industry Personnel with a common platform to work together as a Single Force towards Sports Performance. We therefore invite you to join us in this endeavor. I do believe that this Newsletter will help us to propagate the activities of the Association among all those who can strengthen our efforts to achieve the mission of SEA.

NEWS ITEMS

1ST INTERNATIONAL CONFERENCE (23-25 October, 2017)

<https://www.bits-pilani.ac.in/icse2017/>

International Conference on Sports Engineering

The first International Conference was organized during 23-25 October, 2017 in Jaipur, in Association with International Sports Engineering Association, (UK) and under the auspices of the Ministry of Youth Affairs & Sports, New Delhi.

The aim of the conference was to bridge the gap between Engineering, Technology and Sports in order to provide a collaborative platform enabling sharing of domain knowledge for mutual benefit.

**2ND INTERNATIONAL CONFERENCE (3-5 March, 2022)**

<http://icse.sportsea.org/>

International Conference on Sports Engineering

The Second International Conference on Sports Engineering was organized in Jodhpur (Rajasthan) India during 3-5 March, 2022 at Jodhpur in association with BITS Pilani (Rajasthan) and ISEA, (UK) supported by the Ministry of Youth Affairs & Sports, New Delhi.

The theme of the conference was **Sports training and Technology** focusing on Engineering & Technology, Data Science in Sports, Applied Science & Technology in Practice.

**INTERNATIONAL WORKSHOPS**

- The first International workshops was conducted in Jaipur on 23rd October 2017 focused on quality assurance of synthetic sports flooring in which Prof. David James, Sheffield Hallam University, UK and Prof. Paul Fleming, Loughborough University, UK were the resource persons.
- The second International workshop was conducted on 3rd March 2022 in Jodhpur focused on analyzing sports performance and fitness, expatiated by Dr. Klaus Bartonietz, Coach of Mr. Neeraj Chopra while the second session was conducted on 5th March 2022 focused on "Tracking sports performance using data science" expatiated by Mr. Adhitya VJ Iyer, Sports Broadcaster & Analyzer with ICC, BCCI & IPL.



NATIONAL WORKSHOPS

Dated: March 20, 2021, Venue: BITS Pilani

The first **National Workshop on sports engineering** was organized on March 20, 2021 at BITS Pilani for science teachers from High schools focused on importance of science in sports and how they can connect science with sports in their class room teaching.



Dated: August 18, 2022, Venue: BITS Pilani

The second National Workshop on sports engineering was organized on 18 August, 2022 at BITS Pilani for science teachers from school

Theme of Workshop: Application of engineering knowledge in sports development, quality assurance of sports infrastructure and facilities including sports surface and maintenance of the facilities.

The theme of the workshop was "Science of Sports Training".



NEW BIHAR CHAPTER OPENING

State Chapter:

SEA is happy to announce formation of 1st state chapter of SEA: Sports Engineering Association, Bihar state

Founding Directors of SEA, Bihar state Chapter

1. Dr. Arijit Putatunda, Group A Officer, NIT Patna,
2. Dr. Ambrish Maurya, Assistant Professor, Mechanical Engineering, NIT Patna,
3. Dr. Chetan Kumar Hirwani, Assistant Professor, Mechanical Engineering, NIT Patna,
4. Dr. Gagan Deep Meena, Assistant Professor, Electrical Engineering, NIT Patna,
5. Dr. Bhabani Shankar Das, Assistant professor, Civil Engineering, NIT Patna,

The founding members of Bihar Chapter of SEA



Webinars/Seminars Webinar I	<p>International webinar organized on June 20, 2020 on sports engineering.</p> <p>SPEAKERS: Dr David James, MD, Labosports, UK Topic: “Application of sports technology in sports performance” Mr Anil Kumar, MD, Great Sports tech Ltd. India Topic: Quality assessment of synthetic sports flooring</p>
Webinar II	<p>International webinar on July 18, 2020.</p> <p>SPEAKERS Prof. Kazuya Seo, Professor in Yamagata Univ., Japan, Topic: “Lesson of Sports Engineering” Mr Rohith Timothy, sports engineer, India Topic: “Aerodynamics in Sports”</p>
Webinar III	<p>International webinar on August 12, 2020</p> <p>SPEAKERS: Dr. Klaus Bartonietz Sports Bio-mechanics expert, Germany The Coach of Mr. Neeraj Chopra, Indian Javelin Thrower, India Topic: “Sports Technology and Training-Problems and prospects” Dr. Pintu Modak BITS, Pilani Topic:“Revisit the Basics of Sports Training”</p>
Webinar IV	<p>International webinar on September 19, 2020</p> <p>SPEAKERS: Prof. Rahul Banerjee, Professor, and Director, LNM Institute of Information Technology (LMNIIT), Jaipur, India. Topic: “Avoidance of Sport-related Injuries and Support for Rehabilitation and Sport-specific Technique-Correction through a Hybrid Intelligent System Approach” Dr. Navneet Goyal, Professor in Computer Science, BITS Pilani, India. Topic: “Role of Artificial Intelligence in Sports performance”</p>
Webinar V	<p>International webinar on October 17, 2020</p> <p>SPEAKERS: Dr. Venkatesh Kadbur Prabhakar Rao, Professor, Mechanical Engineering, BITS Pilani Topic: “Musculoskeleton Biomechanics”. Prof. Stephan Odenwald, Pro-Vice Dean, Sports Engineering program, Deptt. Of Sports Equipment & Technology. Technische Universität Chemnitz Department of Mechanical Engineering, Germany. Topic: “Measuring Kinetics and Kinematics in Sports”</p>
Webinar VI	<p>International Webinar on November 21, 2020.</p> <p>SPEAKERS: Mr. Gaurav Sundararaman, Sports analyst, India Topic: “Sports Analytics (applied)” Dr. Sudhanshu Shekhar Roy, High Performance Director (talent Identification) SAI, India Topic: “Overview of sports performance and infrastructure”.</p>
Webinar VII	<p>International Webinar on 18th December’2020.</p> <p>SPEAKER: Prof. Beer Pal Singh, Professor in Physics at C C S University, Meerut, UP India. Topic: “Applied nanotechnology in sports training and coaching”.</p>

International Webinar on January 16, 2021.

The Speakers

Prof. C. Ashok, Principal, ANJAC, Madurai University, Sivakasi (TN) India

Topic: "Implementation of Outcome Based Education in Sports Biomechanics"

Webinar VIII

Dr. Samatha Benedict

Asst. Professor, EEE Dept. BITS Pilani (Raj) India

Topic: "Wearable Devices and its Application in Sports Fitness"

Prof. Rajesh Kumar Mishra

Associate Professor, Mechanical Dept. BITS Pilani (Raj) India

Topic: "Ergonomics Applied in Sports"**International Webinar on Feb. 20, 2021****CHIEF GUEST**

Prof. Sudhirkumar Barai

Director, BITS, Pilani – Pilani Campus (raj.) India

Webinar IX

SPEAKER: Mr. Rahul Nagar, Co-Founder & Director, str8bat, India**Topic:** "Every sports equipment speaks: Are you ready to listen?"**SPEAKER:** Prof. Shinichiro Ito

Professor in Dept. of Mechanical Engineering, Kogakuin University, JAPAN

Topic: "Science of Swimming and the Swimming of the Soft Shelled Turtle."**International Webinar was conducted on 20th Jan 2022****SPEAKER:** Prof John Mcphee,

Webinar X

P. Eng. Design Engineering, University of Waterloo, CANADA

Topic: "Improving Sports Performance using Predictive Dynamic Simulation and Machine Learning"**International webinar was conducted on 16th April 2022.****SPEAKER:** DR. HARSHAL AKOLEKAR,

Webinar XI

Assistant Professor, Mechanical Engineering,

IIT Jodhpur, Rajasthan, INDIA

Topic: "Computational Fluid Dynamics Based Machine Learning: Industrial Applications and Opportunities in Sport Aerodynamics"**National Online Seminar Organized on "Concepts and Design of Sport Surfaces"**

Organized by Dr. Vishwanatha C N, Director-Physical Education R V College of Engineering, Bengaluru & member of SEA on 31/08/2021

National Seminar I

SPEAKERS:

Dr Puttaraju, VC, Mandya University, Mandya, Karnataka

Mr. Anil Kumar Suravaram

M D, Great Sportstech Limited, Hyderabad, India, Founding Member, SEA

National online seminar on "Sports Engineering Technology & Management"

Organized by Dr. Vishwanatha C N, Director-Physical Education R V College of Engineering, Bengaluru & member of SEA on 11/08/2021

National Seminar II

SPEAKERS:

Dr. Pintu Modak

Prof. M S Dasgupta

Mr. Anil Kumar Suravaram

Dr. P K Venketesh

Mr. Rajas Jawalkar

Dr. K N Subramanya

Online Certificate Course
Five-day online certificate course on introduction to sports engineering, Level I

Five-day online certificate course on sports engineering (level-I) first ever conducted successfully in India during 27-31 May 2021.

MEMORANDUM OF UNDERSTANDING (MoU)

- MoU signed with **International Sports Engineering Association (ISEA), UK** on February 12, 2021 with a goal to share a mutual mission to develop research and education in sports engineering.
- MoU signed with **Wool Research Association (WRA)**, Pune, Maharashtra, India on January 10, 2022 to encourage between the two Institutions in the work area identified and to recognize the development and specifications made by the participants.
- MoU signed with **The International Association of Physical Education and Sports, Philippines** on June 8, 2022 with a goal to serve as technical collaborators for organizing and promoting the events and activities of the associations.
- MoU between BITS Pilani and **Sports authority of India (SAI), New Delhi** signed on July 18, 2022 for mutual collaboration, at the behest of SEA.

ONGOING PROJECTS BY SEA MEMBERS AND COLLABORATORS

Academic / Commercial enquiry about any of these projects from interested party are welcome.

CFD study of Javelin flight characteristics: The aim of the study is to determine optimal release parameters for a javelin with varying wind conditions, and study flow features using Lift to Drag ratio relations for cases of headwinds, tailwinds and cross winds using numerical simulations. These relations will help coaches and players augment their training plan with more realistic conditions data.

Hockey Ball Thrower: There is need of designing dedicated Hockey ball thrower device. The machine should be able to replicate all the different angles and tempos that a hockey shoot, flick and scoop generates. It should be able to generate speeds of around 150 km/h which are very normal in hockey shoots and flicks.

Footwear testing device: The aim of this project is to integrate various strength and endurance testing practices in lab based testing of a footwear and provide quantitative benchmarking parameters about footwear quality assessment.

Wearable device: Development of surface electromyography (sEMG) system on a flexible substrate for the detection of muscular activity is aim of the project. The surface electromyography system will consist of electrode arrays to pick the muscular activity and adjoining electronics such as filters, amplifiers, and batteries on a single flexible PDMS platform, making it a genuinely wearable system.

Deep Learning application in nutrition tracking: Using an object detection tool such as RCNN, a food item will be identified and its quantity will be assessed enabling the device to estimate the calorie intake and nutritional value of food intake. The method to be implemented using deep learning, and computer vision techniques to assist nutrition tracking for athletes.

Image processing for automated scoring: To develop a suitable video capture and image processing approach for specific game and rule based system for automated scoring. The system can help the stakeholders to automatically log the score, raise alarm, track playing style and incremental improvements in a player game by providing real-time feedback.

STUDENT CORNER

PROJECT FINANCIAL SUPPORT

We encourage students' involvement from engineering and science disciplines in various activities like product design, movement analysis, apps development, software development etc. In this regard, cash support is announced here with. All student members are eligible to apply and application process is open any time of the year. Apply with a one-page summary of your project and student membership number to sportsengineeringindia@gmail.com.

SEA provides with a funding opportunities to student members to undertake small projects on sports technology, SEA also strive to provide them nationwide platform to present their development work through the newsletter ad conferences.

STUDENT PROJECT SCHEME

The objective of this scheme is to engage students in exploring innovative technology applied in sports. Under this Scheme, a student member of SEA as individual or as group can apply for a financial support up to Rs. 10000/- to undertake a minor research projects or some prototype/ model/ product development work.

The details of application procedure will be available soon on SEA website. i.e. <http://sportsea.org>. Full time student in UG/PG Engineering/ Science/ sports science are eligible to apply after joining as student member of SEA.

On-Line QUIZ

This Quiz is designed for students and only students can participate in the quiz. Purpose of the quiz is just to promote awareness about science and sports among the student community. No data will be stored on the website regarding your responses.

Students are required to follow the guidelines before attempting the quiz

- Students are required to furnish his/her personal details.
- The quiz will comprise Objective type Multiple Choice Questions (MCQs).
- Each question has four options, and the student has to click the appropriate option.
- Students can attempt the quiz only once.
- A quiz will open on December 01, 2022, and will close on December 31, 2022.
- Winners will be informed by email in fifteen days after the quiz closes.
- All winners shall be issued E-Certificates.
- The first five winners (first attempters) will be given student memberships in the Sports Engineering Association (SEA) for one year and can work closely with the team of SEA.
- Decisions of the quiz organizing team will be final discrepancy or dispute.

Use the following link to participate in the online quiz

<https://bit.ly/3tZIUaX>

UPCOMING EVENTS

1. 3rd international conference on Sports Engineering, November, 2023, Central theme " Engineering Applications on sports Performance " - other details will be announced soon
2. Online course on Data Science focusing on sports movement analysis - dates will be announced soon.
3. Workshop (offline) on "Data Science and Sports Performance" dates will be announced soon.

BEST PAPERS

Awards of 1st Conference

Best paper awards during first International Conference on Sports Engineering (ICSE 2017) during 23-25 Oct'2017 in Jaipur

The cash awards £250 sponsored by International Sports Engineering Association (ISEA), UK was distributed.

First Prize: £200

1. Author: Shyam Sunder Yadav,

Title: "Large Eddy Simulation of Flow Past Smooth and Dimpled Golf Balls: The Effect of Ball Rotation".

Second prize: £50

1. Author: Elumalai Govindarajan,

Title: "Design and Implementation of Wireless Sensor Network for Javelin Throw Athletes".

"Pan India student Design Contest"

A sum of £1000 was also sponsored by ISEA as cash prize to the winners of students' contest, award distributed among 6 student teams.

1st Prize Mithila Ramani & Team from Sri Venkateswara College Of Engineering

2nd Prize Varun Mahesh & Team from BITS Pilani, Pilani Campus

3rd Prize Aashi Rastogi & Team from VIT University Vellore

Consolation Prize Pragati Agarwal & Team VIT University

Consolation Prize Rahul Bothra & Team from BITS Pilani, Pilani Campus

Consolation Prize Vaishak Thiruvankitam & Team from BITS Pilani, Dubai Campus

Awards of 2nd Conference

Best Papers awards of 2nd International conference on sports engineering (ICSE 2021) was sponsored by ISEA, England

1st Best papers (Rs. 15000/- each)

1. Paper Title: Real Time Ball Impact Localization on Table Tennis Racket using Neural Network.

Authors: Sucheth Shenoy, Vignesh, R B, Shreyas Kulkarni, K N Subramanya and Vishwanatha C N

2. Paper Title: Mathematical Modelling and Success Probability Analysis of Basketball Shots

Authors: Kaivalya Dabhadkar, Adeesh Bhargava and Sainath Bitragunta

3. Paper Title: CFD Simulation of Wind Flow and Wind Driven Rain for Eden Gardens Cricket Stadium in Kolkata

Authors: Suvanjan Bhattacharyya, Kunal Dey and Devendra Kumar Vishwakarma

4. Paper Title: The Simulation System Technology is Used to Correct

Specific Joints and Muscles During Utkatasana Yoga Posture Practise (Chair Pose) Using Neuromuscular Disease

Authors: Sudhan P, Babu D, Rajeev Sukumaran S, Radhakrishnan M and Janaki K

2nd Best Papers (Rs. 10000/-each)

1. Paper Title: Finite element analysis of bi-cycle frame for structural stability and road vibrations

Authors: Anish Kumar, Arun Kumar Jalan, Shital Patil and Pratibha Sinha

2. Paper Title: Latent Pose Features based Action Recognition Framework for Cricket Shots

Authors: Tanu Aneja, Brejesh Lall and Santanu Chaudhary

3. Paper Title: E-Governance in Sports Authority of India (SAI): The Role of Sai Website in Making Its Online Identity

Author: Supriya Ghadhwal.

4. Paper Title: Sports training through Video Analysis

Authors: Vishwanatha C N, Vaibhav Suresh, Vivek K B, vishwanath H K, Pratheek P and Sathya L

PAN India Open Student Video Contest – Design and Demonstration

Rs. 15000/- Cash Prize sponsored by M/S Shive Naresh Sports Pvt. Ltd

Topic - Contest to design and demonstrate: Automated sanitization, dirt, dust and debris removal for maintenance of various kinds of artificial Turf and synthetic sports surfaces.

Winner: Atharva Wagh, Adesh Chougule, Amit Manthekar, Yatin Kinare.

ANNUAL GENERAL BODY MEETING (SEA)

First Annual General Body meeting was held on July 29, 2019 at Hotel Holiday Inn, Aerocity, Gurgaon, India



Second Annual General Body Meeting was held online on March 29, 2020

Third Annual General Body Meeting was held on March 20, 2021 at BITS Pilani, Pilani campus, Rajasthan, India



Fourth Annual General Body meeting was held on August 18, 2022 at BITS Pilani, Pilani campus, Rajasthan, India



OUR ASSOCIATES

1. International Sports Engineering Association (ISEA), England
2. Wool Research Association (WRA), Pune, Maharashtra, India
3. Qualisys India
4. Kistler, India
5. Shiv Naresh Sports Pvt Ltd
6. Great sports, India
7. European College of Sports Science, Germany

MEMBERS - Lifetime, SEA



L/2020/10/14/10013

Mr. Rehan Sumar

CEO & MD, Go Sportz Global Infratech Pvt. Ltd



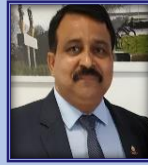
L/2020/10/14/10014

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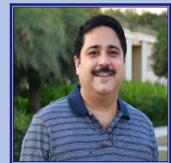
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