

ATMA RAM MEMORIAL VOLLEYBALL TOURNAMENT



January 17-19, 2020

Souvenir



CSIR-Central Mechanical Engineering Research Institute, Durgapur

Atma Ram Memorial Volleyball Tournament (ARMVT-2020)

January 17-19, 2020

SOUVENIR

CMERI Staff Club
CSIR-Central Mechanical Engineering Research Institute
MG Avenue, Durgapur – 713209, West Bengal

Atma Ram Memorial Volleyball Tournament – 2020



CONTENTS

- 1. Messages for the Tournament**
- 2. Homage to Dr. Atma Ram**
- 3. About the Venue**
- 4. CSIR-SPB**
- 5. CMERI Staff Club**
- 6. Participating Laboratories**
- 7. Organising Committee**
- 8. Articles from Authors**
- 9. The Tribute Song**
- 10. Acknowledgement**



**Message from
President, CMERI Staff Club and Director, CSIR-CMERI**



*It is indeed our pride and honour that CSIR-CMERI, Durgapur is hosting the prestigious **Atma Ram Memorial Volleyball Tournament (ARMVT-2020)** of CSIR during 17th to 19th January, 2020. The central team of CSIR, teams from other CSIR laboratories, local industries and organizations will be participating in the above tournament.*

Today, in this fast paced materialistic era, it is very important to have such kind of event. Apart from instilling new sparks in our daily work life, such events help us to rejuvenate and renew ourselves with fresh zeal and vigour. Games and sports not only improve our physical fitness but also promotes psychological well-being by improving our mood and reducing stress. Also participation in such events foster team spirit which is very much required in an R&D institution like CSIR-CMERI.

I am also very happy to know that a souvenir will be released to mark the event. The organisers and members are putting their best and untiring efforts in organising the event and I wish them all success in their endeavours.

I also take this opportunity to wish everybody a very happy and prosperous New Year 2020 and a New Decade ahead.

*May the **ARMVT-2020** be a grand success!*

(Prof. Harish Hirani)



सीएसआईआर-भारतीय विषविज्ञान अनुसंधान संस्थान
CSIR-INDIAN INSTITUTE OF TOXICOLOGY RESEARCH



वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्
COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH

प्रोफेसर आलोक धावन

एफएचएससी, एफएमएस, एफआरएससी, एबीएस

निदेशक

Professor Alok Dhawan

FNASc, FAMS, FRSC, ATS

Director



संदेश

मुझे अत्यंत हर्ष हो रहा है कि सी.एस.आई.आर. - केन्द्रीय यांत्रिक अभियांत्रिकी अनुसंधान संस्थान, दुर्गापुर (पश्चिम बंगाल), सीएसआईआर के पूर्व महानिदेशक तथा एक दूरदर्शी वैज्ञानिक, डॉ आत्मा राम, की स्मृति में जनवरी 17-19, 2020 आत्मा राम मेमोरियल वॉलीबॉल टूर्नामेंट (ARMVT-2020) का आयोजन कर रहा है। इस आयोजन के लिए मैं सीएसआईआर-सीएमआईआरआई को हार्दिक बधाई देता हूँ।

निरन्तर खेल गतिविधियों में भाग लेने से मानव में न केवल शारीरिक और मानसिक फिटनेस आती है बल्कि साथ-साथ आत्मविश्वास भी सबल होता है। टूर्नामेंट में किसी टीम या खिलाड़ी की जीत या हार महत्वपूर्ण नहीं होती है, महत्वपूर्ण होती है खेल भावना जो कि एक दृष्टिकोण है और यह निष्ठापूर्वक खेलने, टीम साथियों एवं विरोधियों के प्रति शिष्टाचार, नैतिक व्यवहार और सत्यनिष्ठा दिखाने को प्रेरित करता है। ऐसे अवसर खिलाड़ियों में आपसी मजबूत बंधन अन्तर्निविष्ट करने के अतिरिक्त उनकी अदृश्य प्रतिभा को दर्शाने एवं उभारने का मौका प्रदान करते हैं। ये खेलकूद प्रतियोगिताएँ, प्रधानमंत्री द्वारा आह्वाहनित सशक्त, स्वस्थ और नव-भारत निर्माण में योगदान स्वरूप होती हैं। साथ साथ ये अवसर सीएसआईआर परिवार-सदस्यों में नेतृत्व-गुण, गुणवत्ता-प्रबंधन और सहयोग-भावना विकसित करने के मंच होते हैं।

सीएसआईआर- खेल संवर्धन बोर्ड, अपनी विभिन्न गतिविधियों के माध्यम से सीएसआईआर वैज्ञानिकों व कर्मचारियों के महान-मूल्यों को प्रोत्साहित करने तथा इन्हें अन्तर्निविष्ट करने में निरन्तर प्रयासरत रहा है। इस अवसर पर, खेल संवर्धन बोर्ड की तथा मैं स्वयं की ओर से, आप सभी का गर्मजोशी से इस प्रतिष्ठित प्रतियोगिता में स्वागत करता हूँ तथा विभिन्न संस्थानों से आए खिलाड़ियों को उनके अच्छे प्रदर्शन की शुभकामनाएँ देता हूँ। मुझे पूर्ण विश्वास है कि आप अपने प्रदर्शन के जन्म के साथ साथ, विश्व प्रसिद्ध दुर्गापुर के लोकप्रिय स्मारकों एवं आकर्षक पर्यटक स्थलों के मनोरंजक दृश्यों का भी आनंद लेंगे।

यह सीएसआईआर का एक अभूतपूर्व टूर्नामेंट है जिसमें सीएसआईआर के अतिरिक्त दुर्गापुर के अन्य विभागों से आयी टीमों अपनी श्रेष्ठ प्रतिभा का प्रदर्शन करेंगी। मैं आशा करता हूँ कि इस अवसर पर सभी टीमों के बीच आपसी सहयोग एवं सहकारिता के नए आयाम स्थापित होंगे।

मैं आप सभी को इस प्रतियोगिता में अच्छे प्रदर्शन की शुभकामनाएँ देता हूँ। साथ ही साथ, मैं आत्मा राम मेमोरियल वॉलीबॉल टूर्नामेंट (ARMVT-2020) की अपार सफलता की कामना करता हूँ।

आलोक धावन

आलोक धावन

अध्यक्ष, सीएसआईआर-खेल संवर्धन बोर्ड

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एनएबीएल द्वारा रासायनिक एवं
जैविक परीक्षण हेतु प्रत्यास्थित
Accredited by NABL for chemical
and biological testing



विषासता परीक्षण: जीएलपी अनुसंधान सुविधा
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CSIR SPORTS PROMOTION BOARD

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Council of Scientific & Industrial Research
Rafi Marg, New Delhi-110001



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Hindi Officer
CSIR-CEERI

From the Desk of Secretary, Sports Promotion Board



MESSAGE

It is difficult to hide my excitement in expressing my joy for the occasion of Atmaram Memorial Volleyball Tournament being organized by CSIR-CMERI, Durgapur during 17-20 January, 2020.

Sports fraternity of CSIR is continuously upholding the ethics, commitments and goals through engaging themselves in various forms of sports activities. By doing so they have come ought to be great contributor in maintaining a healthy and happy organization.

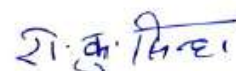
CSIR, since its inception in 1942, has been led by coveted leaders like Dr. S S Bhatnagar, Dr. Atmaram, Dr. MGK Menon and alike. CSIR- Sports Promotion Board has been continuously giving tributes to all its past leaders through organizing various tournaments in their fond memory.

To give befitting tribute to Padmashri, Dr. Atmaram, who served CSIR both as founder of Central Glass & Ceramic Research Institute and Director General, CSIR, 'Atmaram Memorial Volleyball Tournament' is being organized. Although having basic education in Sanskrit and Persian, he was a leading Glass Technologist of India.

CSIR Volleyball Team has been selected through a very stringent selection process and I am confident that this team will make all-out efforts to bring the trophy to CSIR. I expect that other participating teams will put up tough fight to all other teams.

I express my gratitude to CSIR-CMERI for organizing 'Atmaram Memorial Volleyball Tournament, 2020'. I wish all the success to the Teams participating in the tournament.

"Without your involvement, you can't succeed. With your involvement, you can't fail." - Dr. A P J Abdul Kalam



(Dr. Rakesh Kumar Sinha)

Email: head@csirhrdc.res.in, rkshin@csir.res.in Tele: 0120-2788940, 0120-2789882



Message from Organising Secretary



We are very pleased that CSIR-Sports Promotion Board has entrusted our institute, the CSIR-Central Mechanical Engineering Research Institute, Durgapur, to organise the invitational Atmaram Memorial Volleyball Tournament during 17th -19th January 2020. I believe it is an honour for the entire CSIR-CMERI family.

The importance of games is now being increasingly recognized globally from personal and social perspectives. Games and sports are essential for the all round development of a personality. I firmly believe that playing games and sports keep our body agile, active, youthful, energetic and co-operation among teams. A sport as an activity assists in aptly synchronising a healthy body and a vibrant mind.

I am glad to note that National Team of CSIR, SAIL-DSP, CISF, RAF, ECL and host laboratory CSIR-CMERI are participating in this gala event. The event, which is about to host 80 players spanning the entire CSIR fraternity and PSUs, is going to be an exciting and competitive assembly of high spirits. Such an August Sporting Assembly fosters a sense of brotherhood and camaraderie among the fellow CSIR family members.

I am hoping that this tournament apart from sportive spirit, will also generate environment conducive for interactions, exchange of ideas among the staff members.

I am grateful to CSIR-SPB for giving us the opportunity to host this event and providing all necessary support as well as constant guidance to make this event successful.

I take this opportunity to extend my heartiest thanks to our Director, CSIR-CMERI for his support and guidance in organising the event.

I sincerely wish all the teams to take part in this event with true sportsman spirit and enjoy the tournament.

Lastly, on behalf of organising committee, I extend my best wishes all the participating teams.

15th January 2020

(Umesh Patkar)



Homage to Dr. Atma Ram



Dr. Atma Ram (12 October 1908 – 6 February 1983) was an Indian scientist. In his memory, the Atmaram Award is given by the Central Institute of Hindi, an autonomous institute run by the Ministry of Human Resource Development of the Government of India. He was the Director of Central Glass and Ceramic Research Institute and assumed the post of Director General of Council of Scientific and Industrial Research on 21 August 1966. He was also Principal Advisor to Prime Minister and Union Cabinet on Science and Technology from 1977 to 1983.

The Government of India honoured him in 1959, with the award of Padma Shri, the fourth highest Indian civilian award for his contributions.

This tournament is dedicated to the memory of this great scientist and visionary of Indian science, who was among one of the greatest leader of CSIR-India.

Organising Committee

About the Venue

Durgapur is a Tier-II city in Paschim Bardhaman district, in the state of West Bengal, India. Durgapur is the 3rd largest urban agglomeration after Kolkata and Asansol in West Bengal and happens to be the 2nd planned city in India after Chandigarh and has the only operational dry (inland) port in the Eastern part of India. Durgapur was planned by two American Architects- Joseph Allen Stein and Benjamin Polk in 1955.

The Central Mechanical Engineering Research Institute (also known as CSIR-CMERI Durgapur or CMERI Durgapur) is a public engineering research and development institution in Durgapur, West Bengal, India. It is a constituent laboratory of the Indian Council of Scientific and Industrial Research (CSIR). This institute is the only national level research institute in the field of mechanical engineering in India.

The CMERI was founded in February 1958 under the endorsement of the CSIR. It was founded to develop national mechanical engineering technology, particularly in order to help Indian industries. During its first decade, the CMERI mainly focused its efforts towards national technology and import substitution. Currently, the Institute is making R&D efforts in the front-line areas of research such as Robotics, Mechatronics, Microsystem, Cybernetics, Manufacturing, Precision agriculture, Embedded system, Near net shape manufacturing and Biomimetics. Besides conducting research, the Institute works towards different R&D based mission mode programs of country to provide suitable technological solutions for poverty alleviation, societal improvement, energy security, food security, aerospace, mining, automobile and defense.

The CMERI Centre of Excellence for Farm Machinery (CMERI-CoEFM) (Erstwhile MERADO) was established as Mechanical Engineering Research & Development Organization (MERADO) at Ludhiana as an extension center of CMERI to concentrate on the technology development and expertise needs of around 65,000 small & medium scale industries, concentrated in and around Ludhiana, Punjab. This extension center of CMERI, Durgapur is now concentrating on precision farming, multi-cropping and productivity improvement of available land that would lead to conservation of seed, water and fertilizer through the development of advanced farm machinery equipped with advanced sensors.

The institute also offers various skill development programmes, integrated M.Tech.-Ph.D. programmes from the Academy of Scientific and Innovative Research in New Delhi in Mechatronics, and applied and Computational Mechanics. Other on-demand short-term courses are also arranged in the area of mechanical engineering and allied discipline. The CMERI offers opportunities to do projects twice a year for undergraduate students from reputed engineering colleges like IITs, NITs etc. in the field of Robotics, Information Technology, Mechanical Engineering, Electronics, Computer Science, Mechatronics and Material Science.



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Scientist, CSIR-IICB

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Sr. Tech (2), CSIR-Hqrs.

Mrs. Preeti
CSIR-Hqrs

Introduction to CSIR Sports Promotion Board

Sports are a universal form of recreation. They are also one of the great expressions of the aspirations of man to excel. Besides, sports help in building and maintaining a healthy mind in a healthy body. Perhaps, it was due to these very reasons that organization of sports and creation of recreational environment became an integral part of the personnel policy of CSIR.

Initiatives taken in the formative years by some of the CSIR laboratories, especially those in remote places like, Pilani, Bhavnagar, Karaikudi, Dhanbad, Jorhat, etc., to form staff clubs are laudable. These labs set up their staff clubs, as soon as they were established. However, organization of sports activities at the agency level in CSIR started later in 1953 with the initiative of the CSIR Headquarters when it hosted a tournament for the staff of Delhi based laboratories.

Objectives:

The objects for which the CSIR Sports Promotion Board is established are:

- To encourage, promote and strengthen the athletic and sports activities of the national laboratories/institutes/Headquarters of the Council of Scientific & Industrial Research;
- To foster esprit de corps amongst the Council employees and to provide them an opportunity to meet in the field of sports and recreation;
- To organise and hold championships, tournaments, competitions, exhibition matches, sports meets etc., on local, regional or all-India basis.
- To assist in the development, improvement and construction of sports grounds, stadia and other sports facilities;
- To affiliate and be affiliated to the National Sports Federations and any other recognised national Institution for the promotion of sports and games;
- To form all-India teams to represent CSIR in national and other sports events/tournaments;
- To arrange coaching classes/camps to improve the standard of sports of the Council employees; and
- To undertake such other lawful activities as may be decided by the Board from time to time.



CSIR-CMERI Staff Club

Prof. (Dr.) Harish Hirani	President
Dr. Sudip Kumar Samanta	Vice President
Mr. Jay Shankar Sharan	Vice President (Ex Officio)
Mr. Umesh Patkar	General Secretary
Mr. Chandresh Kumar	Joint Secretary (Sports & Games)
Mr. S. Y. Pujar	Joint Secretary (Cultural)
Mr. Harilal Ram	Joint Secretary (Library)
Mr. Susil Murmu	Executive Committee Member
Mr. Shailendra Kumar	Executive Committee Member
Mr. Vornojit Das	Treasurer
Mr. Pankaj Kumar	Auditor

Participating Laboratories/ Institute in the Tournament

- Council of Scientific and Industrial Research, New Delhi (CSIR Hq)
- CSIR-Central Mechanical Engineering Research Institute, Durgapur (CMERI)
- Durgapur Steel Plant, Durgapur (DSP)
- Eastern Coalfield Limited, Durgapur (ECL)
- Rapid Action Force, Durgapur (RAF)
- Central Industrial Security Force, Durgapur (CISF)

Organising Committee

Chairperson:

Prof. (Dr.) Harish Hirani, Director

Vice-Chairperson:

Dr. Anupam Sinha, Sr. Principal Scientist

Secretary:

Mr. Umesh Patkar, Pr. Scientist

Joint Secretary:

Mr. Chandresh Kumar, Assistant Section Officer

Treasurer:

Mr. Vornajit Das, Sr. Steno

Jt. Treasurer:

Mr. Shailendra Kumar, Assistant Section Officer

Executive Committee:***Dr. Anjali Chatterjee, Chairperson***

Dr. Sudip Kumar Samanta, Alternate Chairperson

Dr. Sambhunath Nandi, Member

Dr. N. C. Murmu, Member

Dr. A. K. Lohar, Member

Dr. Amit Ganguly, Member

Dr. Nilrudra Mondal, Member

Dr. Himadry Roy, Member

Mr. J. S. Sharan, Member

Mr. Parag Patar, Member

Mr. Ashok Kujur, Member

Mr. B. Dhar, Member

Mr. Pankaj Kumar, Member

Mr. Chandan Kumar, Member

Tournament Committee:***Dr. Sambhu Nath Nandi, Chairperson***

Dr. Ranjit Ray, Co-Chairperson

Dr. Ranajit Ghosh, Convenor

Dr. Bittagopal Mondal, Member

Mr. Susil Murmu, Member

Mr. H.K. Singh Sardar, Member

Mr. T.P. Hembram, Member

Mr. Ashis Dutta, Member

Mr. Rajkumar Mondal, Member

Security & Safety Committee:***Dr. Bibhuti Ghosh, Chairperson***

Mr. R. S. Kanwal, Convenor

Inauguration / Trans / Cultural committee:***Mr. Avinash Yadav, Chairperson***

Mr. S. Y. Pujar, Convenor

Mr. Tarun Haldar, Co-Convenor

Mr. Deepak Mondal, Member

Mr. Tanmoy Mondal, Member

Mr. Mohit Kumar Sahu, Member

Mr. Asutosh Yadav, Member

Accommodation Committee:***Ms. Tapan Ray, Chairperson***

Mr. Subrata Roy, Convenor

Mr. Sanjeev Dey, Member

Mr. Harilal Ram, Member

Food Committee:***Dr. Malay Karmakar, Chairperson***

Mr. Harilal Ram, Convenor

Mr. Sailendra Kumar, Member

Mr. Miraz Ansari, Member

Mr. Abhijit Singh, Member

Mr. Jagannath Bindhani, Member

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Ms. Rimjhim Bose, Convenor

Mr. Ranaditya Halder, Member

Souvenir and Advt. Collection Committee:***Dr. R. P. Barnwal, Chairperson***

Mr. Pratyush Pal, Convenor

Ms. Puja Banerjee, Member

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Mr. Sukanta Maji, Convenor

Mrs. Sujata Pachhal, Member

Mrs. Ava Rani Majhi, Member

Service Committee:***Dr. S. R. Debbarma, Chairperson***

Mr. Debi Prasad Das, Convenor

Mr. A. K. Gupta, Member

Mr. Ansuman Layak, Member

Mr. Prasanta Adhikary, Member



सीएसआईआर-भारतीय विषविज्ञान अनुसंधान संस्थान CSIR-INDIAN INSTITUTE OF TOXICOLOGY RESEARCH



सीएसआईआर-आईआईटीआर, लखनऊ, दक्षिण पूर्व एशिया में विषविज्ञान के क्षेत्र में एकमात्र बहुउद्देशीय शोध संस्थान है, जिसका आदर्श वाक्य है

"पर्यावरण, स्वास्थ्य की सुरक्षा एवं उद्योग के लिए सेवा"



अनुसंधान और विकास के क्षेत्र

- भोजन, औषधि और रसायन विषविज्ञान
- पर्यावरण विषविज्ञान
- नियामक विषविज्ञान
- नैनो चिकित्सा एवं नैनो सामग्री विषविज्ञान
- तंत्र विषविज्ञान एवं स्वास्थ्य आपदा आंकलन

उद्योगों और स्टार्टअप के साथ शोध एवं विकास में प्रतिभागिता

- सेंटर फार इनोवेशन एण्ड ट्रांसलेशनल रिसर्च (सीटार)

प्रस्तावित सेवाएं

- जीएलपी प्रमाणित पूर्व-नैदानिक विषाक्तता अध्ययन
- एनएबीएल आईएसओ/आईईसी 17025/2005 द्वारा मान्यता प्राप्त
- नवीन रसायनों का सुरक्षा/विषाक्तता मूल्यांकन
- जल गुणवत्ता मूल्यांकन और अनुवीक्षण
- विश्लेषणात्मक सेवाएं
- पर्यावरण अनुवीक्षण एवं प्रभाव आंकलन
- रसायनों/उत्पादों के बारे में सूचना

मान्यता

- वैज्ञानिक एवं औद्योगिक अनुसंधान संगठन एस.आई.आर.ओ.
- उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड (जल और वायु)
- भारतीय फेक्ट्री अधिनियम (पेय जल)
- भारतीय मानक ब्यूरो (संश्लेषित डिटर्जेंट)
- भारतीय खाद्य संरक्षा एवं मानक प्राधिकरण (एफएसएसआई)

उपलब्ध/विकसित प्रौद्योगिकी

- ओनीर-पेयजल हेतु एक अनाच्छा समाधान
- पोर्टेबल जल विश्लेषण किट
- पर्यावरण एवं मानव स्वास्थ्य हेतु संचल प्रयोगशाला
- सरसों के तेल में आर्जीमोन की शीघ्र जांच हेतु एओ किट
- खाद्य तेलों में अपमिश्रक बटर यलो की जांच हेतु एमओ चेक

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Some Interesting Facts about the Game of Volleyball

Origin of Volleyball

The game of volleyball, originally called “mintonette,” was invented in 1895 by William G. Morgan after the invention of basketball only four years before. Morgan, a graduate of the Springfield College of the YMCA, designed the game to be a combination of basketball, baseball, tennis, and handball.

The first volleyball net, borrowed from tennis, was only 6’6” high (though you need to remember that the average American was shorter in the nineteenth century).

The offensive style of setting and spiking was first demonstrated in the Philippines in 1916. Over the years that followed, it became clear that standard rules were needed for tournament play, and thus the USVBA (United States Volleyball Association) was formed in 1928.

Today, there are more than 800 million volleyball players worldwide, 46 million of them in the U.S.

Volleyball in India:

The game of Volleyball was brought to India more than 70 years ago when some Physical Education teachers who had been abroad, were trained in different games including Volleyball. Y.M.C.A., College of Physical Education, Madras took this game seriously and started training of Volleyball in The students trained here took the sport to other parts of the country. The formation of V.F.I. has been one of the main factors in the development and popularization of the game of Volleyball in India.

The Volleyball Federation of India was formed in the year 1951. Prior to the formation of the Volleyball Federation of India (VFI), the game was controlled by the Indian Olympic Association (IOA) and at that time the Interstate Volleyball Championship was held every two years from 1936 to 1950 for men only. The first Championship was held in the year 1936 at Lahore (now in Pakistan). In 1951, Volleyball Federation of India was formed and its first meeting was held in Ludhiana (Punjab).

Since the formation of the V.F.I. the Indian team started to participate in World Championships, Asian Games, Asian Championship, Commonwealth Championship and many other International Tournaments held in India and abroad. India won the Gold medal at the Invitation Asian Meet at Japan in 1955. In the third and fourth Asian Games held at Tokyo in 1958 and Djakarta in 1962, India won the bronze and silver medal respectively. India got a major set back when no player was honored with the Arjuna Award from 1963 to 1971.

The popularity of the game in India shot to better heights when India won the gold medal at the SAF (South Asian Federation) games in 1987 at Calcutta. IN the 1989 version of the game, India lost the finals to arch rivals Pakistan. The Indian team clinched the gold medal again in 1991 at Colombo. After this, the women’s game started gaining popularity. Though they put up a good show in the 1993 SAF games at Dhaka, the women’s team is yet to make an impact as big as the means team.

Many Indian players received the Arjuna award for their contribution to the game. Some of them include, Palaniswamy (1961), Nripjit Singh (1962), Balwant Singh (1972) after a 10 year gap, Malini Reddy, ShyamSundar Rao, Ellamma, Jimmy George etc. Jimmy George in particular was a very talented individual. He was the first Indian player to become a professional and was also regarded as one of the best ten players in the world in his time.



The timeline of Volleyball

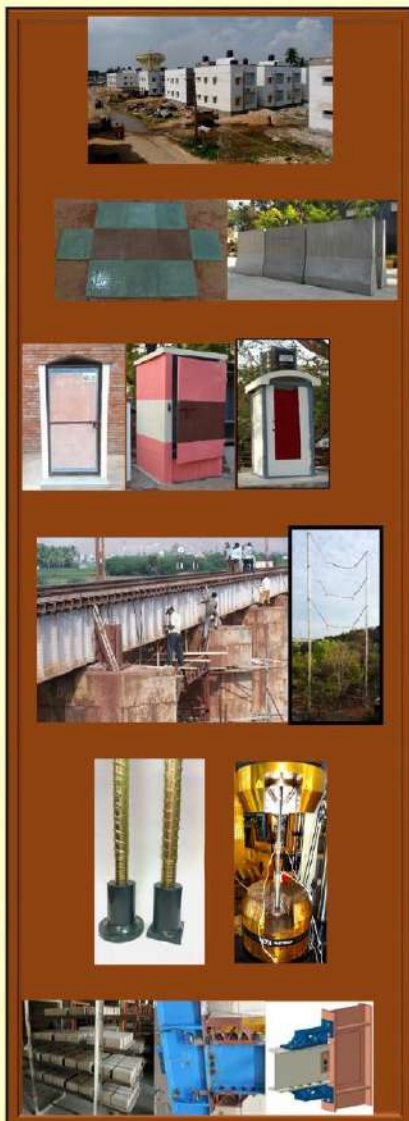
- 1895: William G. Morgan (1870-1942) created the game of volleyball.
- 1900: a special ball was designed for the sport.
- 1916: in the Philippines, an offensive style of passing the ball in a high trajectory to be struck by another player (the set and spike) was introduced.
- 1920s: there are unconfirmed whispers of men's teams playing on the beach in Hawaii, but most accounts place the sport's origin in Santa Monica, California where the first Volleyball courts are put up on the beach at the Playground. Families play 6 vs. 6.
- 1922: the first YMCA national championships were held in Brooklyn, NY. 27 teams from 11 states were represented.
- 1928: it became clear that tournaments and rules were needed; the United States Volleyball Association (USVBA, now USA Volleyball) was formed. The first U.S. Open was staged, as the field was open to non-YMCA squads.
- 1930s: the first two-man beach volleyball game is played in Santa Monica, California.
- 1934: the approval and recognition of national volleyball referees.
- 1937: at the AAU convention in Boston, action was taken to recognize the U.S. Volleyball Association as the official National Governing Body (NGB) in the U.S.
- 1947: the Federation Internationale De Volley-Ball (FIVB) was founded.
- 1948: the first two-man beach tournament was held.
- 1949: the initial World Championships were held in Prague, Czechoslovakia.
- 1964: Volleyball was introduced to the Olympic Games in Tokyo.
- 1974: the World Championships in Mexico were telecast in Japan.
- 1975: the U.S. National Women's team began a year-round training regime in Pasadena, Texas (moved to Colorado Springs in 1979, Coto de Caza and Fountain Valley, CA in 1980, and San Diego, CA in 1985).
- 1977: the U.S. National Men's team began a year-round training regime in Dayton, Ohio (moved to San Diego, CA in 1981).
- 1983: the Association of Volleyball Professionals (AVP) was formed.
- 1984: the U.S. won their first medals at the Olympics in Los Angeles. The Men won the Gold, and the Women the Silver.
- 1986: the Women's Professional Volleyball Association (WPVA) was formed.
- 1988: the U.S. Men repeated the Gold in the Olympics in Korea.
- 1989: the FIVB Sports Aid Program was created.
- 1990: the World League was created.
- 1995: the sport of Volleyball was 100 years old! This Web site - Volleyball.Com goes live!
- 1996: 2-person beach volleyball debuted as an Olympic Sport.
- 1997: Dain Blanton (with Canyon Ceman) becomes the first African-American professional beach volleyball player to win a tournament on the Miller Lite/AVP Tour.
- 1998: For the first time in the FIVB World Tour, men and women players are rewarded at the same level with \$170,000 in total prize money per Open event.
- 1999: For the first time beach volleyball was included in the Pan American Games which were held in Canada.
- 2000: Olympic Beach Volleyball Men's Gold medalists: Eric Fomoimoana & Dain Blanton (USA). The women's Beach Volleyball America (BVA) announces their inaugural season of play.

- 2001: Christopher "Sinjin" Smith plays the final match of his impressive career, a 21-19 and 24-22 loss with George Roumain to Dax Holdren and Todd Rogers in the 4th round of the contender's bracket at the AVP Manhattan Beach Open. Sinjin retires as the leader in tournaments played with 416, 2nd in all-time victories with 139, and 4th in all-time winnings with over US\$1.6 million earned.
- 2002: Beach volleyball court dimensions reduced to 8m x 8m per side.
- 2003: Karch Kiraly becomes the first player to earn US\$3M in prize money and oldest player to win an AVP tournament at age 42 years, 9 months and 14 days. (You're never too old for volleyball!)
- 2004: Kerri Walsh and Misty May Win the Women's Olympic Beach Volleyball Title
- 2005: Olympic gold medalists Kerri Walsh and Misty May-Treanor win their second Association of Volleyball Professionals (AVP) Open women's title and the 2005 overall women's championship.
- 2006: Elaine Youngs' second place finish (with Rachel Wacholder) in Seaside Heights pushes her career earnings past \$1 million. She becomes the third American woman to achieve that mark.
- 2006: Kerri Walsh and Misty May-Treanor win in Chicago as Walsh joins the millionaire club. She is the 18th person worldwide to win over \$1 million in her career, and did so in fewer events (90th tournament) as well as being one of just four to reach the mark before turning 28 years old.
- 2007: Misty May-Treanor passes Brazilians Adriana Behar and Shelda Bede as the winningest player since the women's competition on the international beach volleyball circuit began in 1992.
- 2007: Misty May-Treanor becomes the women's all-time wins leader by capturing her 73rd victory, surpassing Holly McPeak's record by winning with Kerri Walsh in Hermosa Beach. She reached this total in just 123 tournaments -- winning 57.5% of her events.
- 2007: In a championship match that lasted 1:41, Nicole Branagh and Elaine Youngs defeat Jennifer Boss and April Ross 21-19, 18-21, 16-14 in Seaside Heights. The marathon set the record for the longest match in rally scoring, men or women, in domestic or international play.
- 2007: Karch Kiraly retires to close an impressive career on the beach, leaving as the all-time wins leader and money earner. His longevity was marked by the fact he won a tournament in 24 different years, and he advanced to the semifinals in over 75% of all the events he ever played and was named as the AVP's MVP a record-most six times.
- 2008: Hot Winter Nights, a series of 19 events in January and February, kicks off in Oklahoma City, Oklahoma marking the first ever indoor beach volleyball tour. Mark Williams and Nancy Mason are the first winners in the "King of the Beach format" events.

- **Sonali Barnwal**

Compiled from: volleyballadvisors.com, athleticsscholarship.net, iloveIndia.com,
wikipedia.org, sankalpindia.net

CSIR-Structural Engineering Research Centre (CSIR-SERC), Chennai, is one of the national laboratories under the Council of Scientific & Industrial Research (CSIR), India. The vision of CSIR-SERC is to be a global leader in structural engineering by excelling in research in frontier and cutting edge areas, and by developing competitive technologies by embracing innovative inter- and trans- disciplinary approaches for the benefit of society and industry. The thrust areas of research are Structural Health Monitoring & Life Extension, Disaster Mitigation, Advanced Materials for Sustainable Structures and Special- & Multi-Functional Structures. Notable technologies developed include:



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Games That the Internet Generation Kids Don't Know About

In a time of Play Stations, video games and gadgets, we all have almost forgotten the traditional games of India. Remember the times we couldn't wait to come back from school so that we could go and play a couple of rounds of kith-kith (Hopscotch) with our friends? Sports and games have always been an integral part of India's rich culture and history. The internet generation strongly feels that being hooked on Smartphones is an interesting way to engage themselves, what they don't know is how addictive the spirit of adventure is. Sadly, today's kids are so engrossed in playing video games that traditional games like Pallanguzi, Lippa, Kabaddi, Gilli-danda have been completely forgotten. Gone are the days when kids simply couldn't wait to go out and play a few rounds of Pithoo or Kith-Kith (Hopscotch) with their friends. The reduction in physical activity has given rise to a host of health issues in kids. Therefore, reviving traditional games will provide a host of health benefits.

Well, sad but true- the coming generation will read about these traditional games in the pages of history books as they are on the verge of extinction but you got to know about these games that can help you to enjoy and experience life at its best!

So why not recall and replay all these traditional Indian games this summer? Here is the list of such games and sports-

1. Pithoo/Lagori/ Satoliya



This is a team game and is also known as Pithoo, Ezhu Kallu, Saat Patha, Lingocha, Sitoliya, Dabba Kal, etc. There are two teams- the seeker and the hitter. Each team has at least 3 players. In the center of a small circle, the stones are arranged in ascending order, the smallest being on the top. Both the teams are given 3 chances to dislodge the stone piles with a softball. **Benefits:** The game develops


bonding through interaction among children. Further, it teaches aiming skills and building strategies. They learn to compete as well as cooperate in a completely healthy environment.


2. Goti or Kanche (Marbles)

The charm of the game appeals to people of all ages. The rule of the game says a circle measuring 2-3 feet in diameter is to be drawn with a stone or stick in the ground. Each player has 2 marbles and these are collected at the center of the circle. From 3 feet away, the players try to throw their marbles in the hole.


Benefits: From motor skills to mathematical skills, this game can benefit a child in numerous ways. It further improves concentration also helps them to socialize.



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3. Kho-Kho



This game has originated in the state of Maharashtra. During ancient time, this game was played on 'raths' or chariots and was known as RATHERA. With chasing and running turns of 7 minutes each, this game has 2 innings.

Benefits: This game helps one to develop important qualities such as discipline and loyalty. Further, due to body movements, it contributes to the physical well-being as well.

4. Gilli Danda (Tipcat)



This game is popular in rural India and usually played by children aged 4-8 years and above. The scoring method is quite simple. This is more like a cricket, except instead of ball and bat, there is 'Gilli' and 'danda'. 'Gilli' is a small oval-shaped piece of wood and 'danda' means a long wooden stick.

Benefits: This game helps the child to develop cognitive behavior and helps in building concentration power.

5. Kith Kith / Stapoo (Hopscotch)



This game usually involves children from the age group of 6 -12. Usually, 3-5 players are involved and the game is known by numerous names like *Tikkar Billa*, *Chhipri*, *Kith Kith*, etc. A flat ground and a small flat stone are all you need to play this game. The grid is drawn on the ground with chalk and on the sand, it is drawn with a stick. Within the grid, squares are drawn and are numbered. The players have to hop as per the sequence.

Benefits: Children learn and develop coordination and a sense of balance and introduce one to necessary social skills needed to handle argument or dispute through negotiation.

6. Aankh Micholi (Hide and Seek)

This group game is usually enjoyed by children aged 5-12 years. One of the players is blindfolded with a piece of cloth. The players scatter around in the open space so that they do not get caught by the 'denner'. To give hints for the direction, the players make sounds as well.

Benefits: It helps children to hone their sensory skills. Also, it prepares a child to be alert in unusual circumstances and also helps them develop tactical sense.

7. Saakli or Vish Amrit (Lock and Key)

One of the popular traditional games in which the 'denner' has to catch other players and infect him with 'vish' or poison (verbally). As the rule demands, the infected person cannot move until one of the other players touches him and gives him 'amrut'.

Benefits: This game, too, helps children to be alert and aware of the situation he/she is in. Further, it helps one to socialize in a healthy environment.



8. Kokla Chapaki

Usually practiced in the streets of Punjab, this game is usually played by kids aged 4-8 years. Keep a small piece of cloth handy and it will be enough to play this game. While the players sit in the ground, the 'seeker' moves or runs around the circle singing a phrase "Kokla Chapaki Jumeraat aayi aye jera agge pichey wekhey ohdi shamat aayi aye." It is on the other players' part to stay alert and check whether the seeker had dropped the piece of cloth behind anyone of them. The player then chases the seeker to secure her place and not get tagged.



Benefits: This game helps to improve the child's fitness levels and observation power. This is also a great way to socialize and have fun.

-Kundan Kumar



सीएसआइआर-भारतीय पेट्रोलियम संस्थान CSIR-Indian Institute of Petroleum



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युगल प्रेम; बना है गेम

युगल प्रेम नहीं रहा यारों, अब जन्मो-जन्म का मेल;
मेरी मानो तो बन चुका, मात्र दो दिलों का खेला

मैच सा युगल प्रेम के लिए भी डेट फिक्स होने लगे हैं;
इस गेम के पेशेवर खिलाड़ी के रेट फिक्स होने लगे हैं।

प्रेमी प्रेमिका का युगल बंदी नहीं, अब एक गुटबंदी होता है;
हव्सैप्प से प्रेम पास में बांधना, प्रेमी की अक्लमंदी होता है।

फेसबुक की बिसात पर, प्रेमिका अदाओं की नुमाइश करती है;
फिर फोन कॉल से अपने प्रेम की कीमत की फरमाइश करती है।

निम्न लागत पर मिल गया प्रेम, तो प्रेमी की जय कहो;
अगली किस्त भी प्रेमिका ले बैठी तो, प्रेमिका की विजय कहो।

"बिग बॉस" के रियल्टी सो में, प्रेम पैतरे की आजमाइश देखो;
"अनूप" अश्वेढ गायक की प्रेम पूजारी की ख्वाइश देखो। "लीन-यश"

"बिग बॉस" तो पहचान दिया, जिस्म की एक फेमस खिलारी की भी;
और बॉलीवुड ने यश फैलाया, उसकी अश्लील अदाकारी की भी।

अपने प्रेम के जलवों से जो पहले कभी अश्लील खेलों की स्टार बनी;
अब रूपहले पर्दों पर "रागिनी एमएमएस" की मुख्य अदाकार बनी।

कई जगह शादी भी मुहब्बत का एक ऐसा खेल नापाक हुआ है;
इंटरनेट पर सेट हुई है और नेट पर ही कई तलाक हुआ है।

इस प्रेम के फलस्वरूप खुदा जब स्मृति चिह्न प्रेजेंट कर देते हैं;
उनके इस अनमोल उपहार को भी झाड़ी या अनाथालय को भेंट कर देते हैं।

मुहब्बत यूं दिल का खेल हुआ, तो यूं सामाजिक अपराध बढ़े हैं।
जब खेल में परस्पर मुहब्बत रहा तो, दो गुटों में सौहार्द बढ़े हैं;

खेल के भाव खेल में रहे तो, सबका आपसी मेल बढ़ जाता है;
दिल के रिस्ते यदि खेल बने तो, अनचाहे झमेले बढ़ जाते हैं।

- संजय कुमार मिश्र



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YOGA: The Balanced journey as Part of Education Curriculum

Yoga is basically the most important ancient art that aims towards the building up of a healthy mind within a healthy body. For that reason, it is considered to be the harmonizing system which rejuvenates the body, mind as well as the soul. The great saints, therefore, have mentioned yoga to be a universal attribute of mind which enhances the physical, spiritual and mental status of the human body.

Yoga is that tool that sharpens the mind to reason but hardens the heart. It lays emphasis on the basic human values such as truth, love, humility, compassion, forbearance, honesty and justice. It makes one conscious about one's rights and responsibilities.

It is believed that the education system in most parts of the world is filling up students' brains and minds with information without creating any support group outside the classroom environment where they can continue to grab the education. To deal with such situation both yoga and physical education can contribute to the physical development of the child with it's a positive impact on psychosocial and mental development as well.

Yoga practice contributes to the overall development of the child and various studies have shown that it contributes to flexibility and muscular fitness and also corrects postural defects among school children.

The distinctive features of yoga which will help in establishing a positive impact and benefits on children during education are:

1) Reduces Stress and Anxiety

Yoga's innate ability to cease the mental chatter and live in the moment reduces stress and anxiety, showing profound benefits in every sphere of life. Students are very stressed individuals, keen to outperform themselves and prove their worth every chance they get.

Yoga helps them to deal with their stress and bring back some peace of mind. Those who regularly practice yoga not only report lower levels of stress and anxiety and subsequently improved academic performance.

2) Improves Memory and Attention Span

Yoga helps to improve the memory function in both adults and children, a direct benefit of which would be a better academic performance in children. It also helps to improve children's attention span and focus. In fact, yoga aids children suffering from ADHD (Attention Deficit Hyperactivity Disorder) as well by reducing its core symptoms such as inattentiveness, hyperactivity and impulsivity.

3) Helps to Manage Weight

Children spend long hours in sedentary poses and tend to consume a lot of junk food as well, both of which are a by-product of the new age lifestyle. Yoga helps to counterbalance this lifestyle. Through regular practice of asanas, children (especially those who are not fond of playing sports) can manage a healthy weight. This helps to curb the problem of childhood obesity at a young age in a salubrious way.

4) Improves Flexibility, Balance and Posture

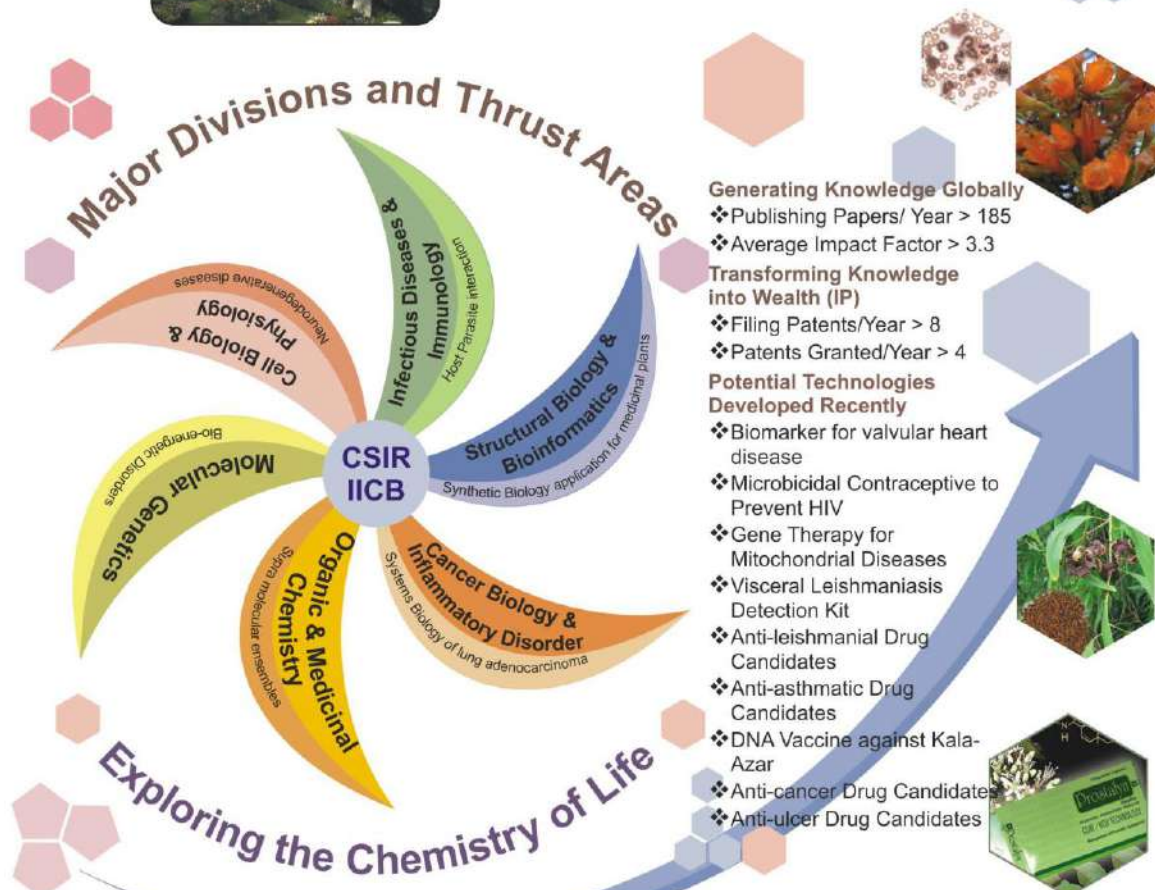
Sitting down to study for long hours at a time and too much screen time can lead to incorrect posture. This poor posture in childhood can develop into major anatomy complication in adult



CSIR-INDIAN INSTITUTE OF CHEMICAL BIOLOGY



The Institute was established in 1935 as the Indian Institute of Medical Research and became a unit of CSIR in 1956. It owed its origin to the inspiration of prominent personalities like Gurudev Rabindranath Tagore, Acharya Prafulla Chandra Roy, Pandit Jawaharlal Nehru and many others. Today, by its mandate CSIR-IICB is engaged in research on diseases and certain biological problems of global interest.



A symbiosis between chemistry and biology that translates to a commitment to higher standards of health for all. Institute-Industry tie up recently rolled out **PROSTALYN** - a herbal composition for Prostate diseases. Other products or processes accepted by industries for marketing: a herbal composition against chronic myeloid leukemia (CML), a potent DNA vaccine against Kala-azar, a diagnostic technology to detect a protein associated with pregnancy and embryo, a herbal extract & composition for peptic ulcer diseases.

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life. The practice of various asanas on a regular basis leads to correction of posture, enhances flexibility and improves balance as it brings equilibrium to the whole body.

5) Teaches Correct Breathing Techniques

Breathing is fundamental to life and how we breathe is directly related to our overall well-being. Good breathing affects our movement, our posture, and our ability to handle stress in a positive way. Through pranayama and other breathing exercises in yoga, students can learn at a young age how to master the technique of breathing correctly and improve the quality of their life.

6) Promotes Mindfulness

Mindfulness is simply learning to be in the present. Focusing on your breath or directing your attention to the furthest sounds you can perceive is mindfulness; this can be done at any time of the day – even for a few seconds. Mindfulness enables people to become less anxious and more relaxed. Children can become more mindful using creative and entertaining visualization techniques.

7) Encourages Self-Love and Self-Care

Yoga promotes healing from the inside rather than looking good on the outside. It teaches people how to respect and love their own bodies – an essential message for young children who are constantly advertised with warped body image ideas on social media.

With self-love, comes self-care and yoga can teach these values at a very young age. The children learn to be comfortable in their own skin and nurture it well.

8) Helps to Bring Peace of Mind

The vastness of academic curriculum alone can baffle students and yet, they deal with many other extra-curricular activities and social life as well. By practising pranayama and mindfulness, students really learn how to handle the anxiety and manage the different aspects of life effectively. The peace of mind stimulates the release of good hormones that have a snowball effect and uplifts the disposition of the child in general.

9) Improves Self-Control

Through controlled breathing and controlled movement, yoga teaches people self-control. As a result, they do not react impulsively or make hasty decisions even in an emotional state. With self-mastery, a person can keep his or her anger in check and make rational decisions when required. If a young yogi can learn self-control at a young age, indeed, no door can ever be closed for him or her.

10) Reduces Absences and Violence in School

Because of good health and balanced temperament, children are less likely to remain absent from school or pick fights with each other over small issues. Instead, they tend to engage more positively in school and develop healthy relationships with their teachers and peers.

11) Boosts Immunity and Improves Physical Appearance

Alongside its myriad health benefits, yoga also boosts immunity and prevents attacks from different viruses and bacteria by increasing the levels of antibodies. Yoga promotes blood circulation which can work wonders for the skin, hair and nails. A healthy body feels and looks happy.

12) Improves the Quality of Sleep

Children should sleep for up to 7-8 hours each night. A good night's sleep allows the body to be healthy, ready, and energetic for the next day. As yoga allows the body and the mind to



relax, practitioners notice a better quality in their sleep. With better sleep, children can focus better in class, play more actively, and perform better at examinations.

13) Increases Self-Confidence and Self-Esteem

Yoga is tangible. Through asanas, children build strength, endurance, confidence as well as the mind-body connection. You can self-assess the changes and positivity you feel after having engaged in this for some time. This confidence attained on the yoga mat is then carried into the real world as well along with strength, compassion and acceptance.

Government of India initiatives: Yoga in School Curriculum

Yoga has been an integral part of Health and Physical Education that has been a compulsory subject up to the secondary school stage since 1988. The NCF 2005 adopted a holistic definition of health in which yoga is an integral part of it.

The Government of India has formulated the programmes and operational measures for promotion of Yoga through Centrally Sponsored Scheme of National AYUSH Mission (NAM) and various Central Sector Schemes.

The Ministry of Human Resource Development (HRD) has informed that the National Curriculum Framework (NCF) 2005 which is a policy document for the country, recommended Yoga as an integral part of Health and Physical Education.

The Ministry of Human Resource Development ordered Central Board of Secondary Education (CBSE), to provide compulsory 40-45 minutes of Physical Activities or games to the students of classes I- X every day and that students of classes XI- XII should participate in physical activity/ games/ mass physical training/ yoga for at least 2 periods per week (90-120 minutes/ week). The Board offers Physical and Health Education for classes XI and XII and Yoga is compulsory part of its curriculum.

Yoga Education has been made a compulsory part of study and practice by National Council for Teacher Education (NCTE), through its Teacher Education Programmes, viz., Pre-School Education to Elementary Education; Secondary; Senior Secondary; Physical Education; Distance Learning etc...

In the age of immense competition, yoga certainly holds the power to calm a racing mind. With the help of yoga, students can understand their capabilities and can widen their mental horizon.

In the end, we leave you with an inspiring quote from the **Bhagvad Gita**,

“Yoga is the journey of the self, through the self, to the self.”

- Aseema Rani Biswal

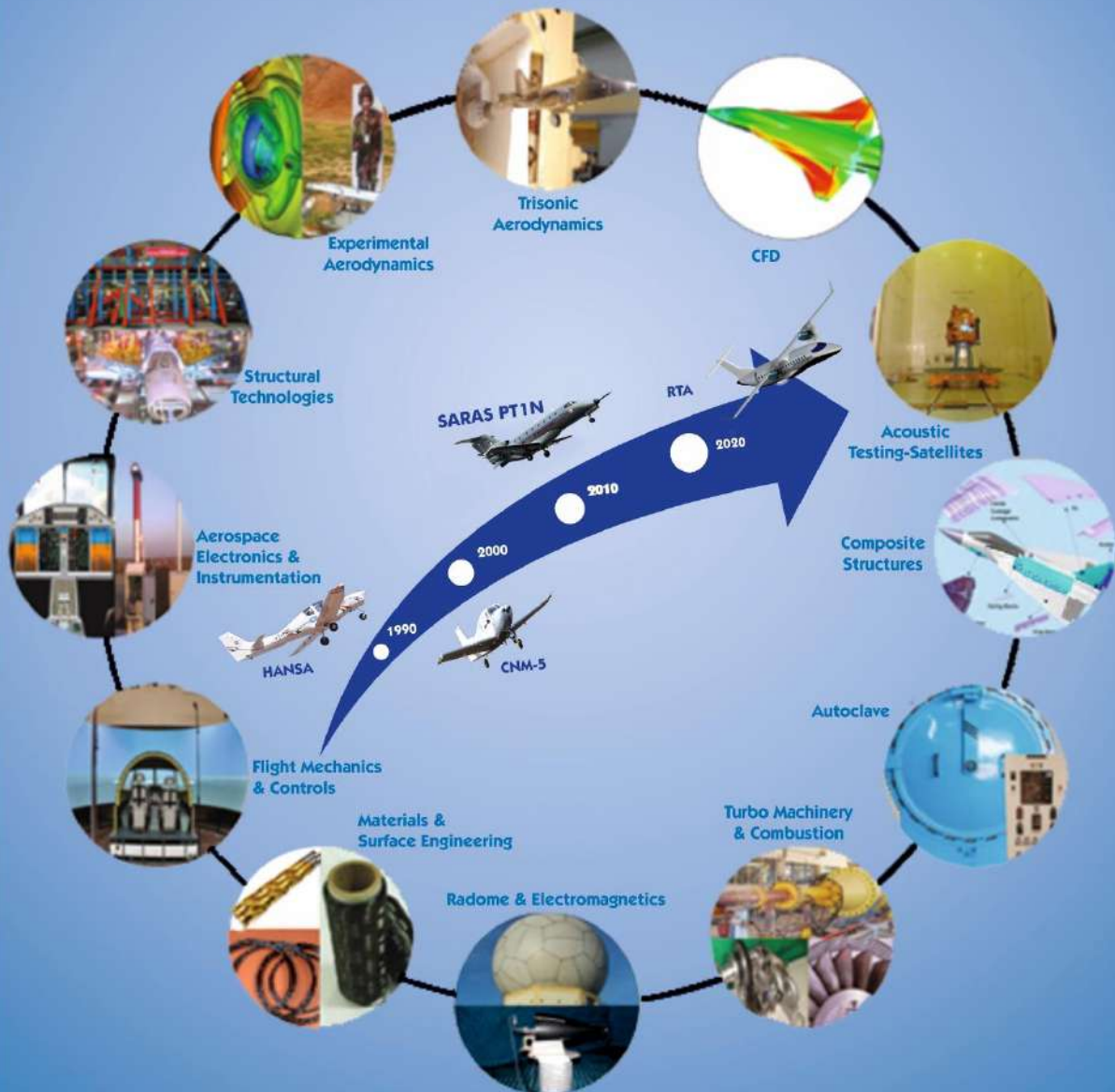
Sources: AYUSH, ICBSE, PIB-Gol, NCTE, NCF, HRD-Gol & others



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Established in 1959, CSIR-NAL is a high-technology R&D institution focusing on advanced disciplines in aerospace and has a mandate to develop aerospace technologies with strong science content, design and build small and medium size civil aircraft and support all national aerospace programmes.



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Tel: 91-080-25270584, 25265579

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खेल गीत : खेल! खेल! में जिंदगी

खेल! खेल! खेल! ये है, खेल! खेल! खेल!
किसी की हार है, किसी की जीत है!
किसी की हार से , कुछ सीख जाना है!
किसी की जीत पे, उसे थपथपाना है!
खेल ! खेल! खेल! ये है खेल! खेल! खेल!

जीवन भी इक खेल है!
जीवन के इस खेल में,
हम सब इक खिलाड़ी हैं!
जिसने जिया हंसते-हंसते,
उसके कट गये सारे रस्ते,
उसने पा लिया हर जीत को, हर मोकाम को,
क्योंकि खेल! खेल! खेल! ये है खेल! खेल! खेल!

जी लो जिंदगी इस खेल में,
ये समय ना फिर आयेंगे!
मुस्कुरा लो तुम, गुनगुना लो तुम,
समय ये बीत जाएंगे!
पछताओगे, रोओगे, पर समय ना फिर आयेंगे,
क्योंकि खेल! खेल! खेल! ये है खेल! खेल! खेल!

आओ हम सब, ले ये कसम,
खेल से जिंदगी को हम,
खूबसूरत बनायेंगे!
जिंदगी भी इक जंग है,
इस जंग को जीत जायेंगे!
चाहे कितनी भी हार हो, उस हार को जीत
बनायेंगे,
क्योंकि खेल! खेल! खेल! ये है खेल! खेल! खेल!

-ओजस राज



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- Sensor & Actuator
- Sol-gel processing
- Whiteware & Rural Pottery
- Engineering Ceramics
- Bioceramics & Coating
- Solid Oxide Fuel Cell & Li-ion Battery
- Ceramic Membrane Filters
- Refractory & Tiles from Industrial Waste
- Nano-structured Coatings
- Nano-structured Materials

Recently Transferred Technologies

- Ceramic membrane based water purification systems
- Glass nodules for nuclear waste immobilization
- Coated medical implants
- Bioceramics hip & orbital implants
- Optical amplifier for cable TV network
- Glass lining material for reactor

PRODUCTS DEVELOPED BY CSIR-CGCRI



Refractory Products



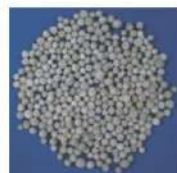
Orbital Implant



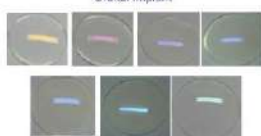
Demonstration of Melting of Frits



Sensors for Various Applications



Special Glass Beads



Wavelength Selective AR Coating



500W Class Working SOFC Stack
(Inset: SOFC single cells & illumination by SOFC power)



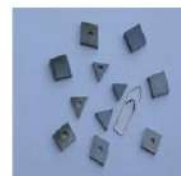
Glass Blocks



Supercontinuum Light Source



Pilot Plant for Arsenic Removal



SIAON Cutting Inserts

CSIR-CGCRI is devoted to achieve excellence and providing leadership in the niche areas of specialty glass, optical fibres, advanced ceramics and nano-structured materials covering frontier science, viable technology and societal empowerment.

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Internet of Thing (IoT) for Sports: A Prospective and Applications

1. Introduction

Now-a-days, an increasingly digital world is forcing the sports industry to adapt, and Internet of thing (IoT) can bridge the gap between the physical world and the digital space. IoT plays a role in sports today through player development, player safety, and fan engagement. Coaches, players, and fans are able to shape game strategy, analyze potential injuries, and customize experience by analyzing data collected via multiple devices. IoT is shaping the way that sports physicians, physical therapists, and team doctors are reducing injuries and helping players heal faster. Embedded devices such as smart insoles and built-in-chips give teams an abundance of data that helps keep players healthy and fit. Combining advanced analytics with sensors and game video, coaches can easily process vast amounts of data to obtain metrics on player efficiency, player performance, and opponent weaknesses to better develop in-game strategy. Combining multiple data sources with advanced analytics allows coaches to easily process vast amounts of data and act in real-time.

2. Today's IoT Presence

Many sport organizations are utilizing IoT to improve their operations, better serve their players, and enhance the fan experience in the following ways:

- Player Development: IoT is shaping the way sports physicians, physical therapists, and doctors reduce injuries and help players heal faster.
- Player Safety
- Fan Engagement
- Training Set development
- Wearable smart devices like clothes, shoes, watches etc.



[Curtsey: IOThrought.com]

Several business experts have predicted that the introduction of technology is changing the landscape of our businesses. Plus, modern technologies are transforming our workplaces into increasingly efficient spaces that deliver better services and products. Similarly, advanced technologies are making their way into the sports sector. Microsoft is building smart cricket bats for Anil Kumble's sports technology company, Spektacom in India. Anil Kumble is officially calling the IoT-powered bat as a power bat which includes a 5-gram sticker that will be attached to the bat to deliver analytics for insights into a cricketer's batting style. The sensors will measure parameters such as impact, angle, distance, thrust, and swing speed.

3. Brief History of IOT in Sports

The history of IoT in sports dates from the 1950s when Charles Reep, accountant and a Royal Air Force officer, pioneered the idea of data capture in the sport of soccer. While watching soccer matches, he created a system of paper notation to record players' moves.

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It took him three months to wade through the data produced by the 1958 World Cup final. Reep had the most basic tools available to study a match: his eyes, a notepad and a pencil. The system of notational analysis he patented has changed the way teams play sports and how fans now watch them. In Reep's day, sports analysts had no choice but to go through their notes after the game. With the first-generation of cameras enabling match-play-monitoring, coaches used back-room staff to watch hours of footage to pick out the key parts of the game to show players.

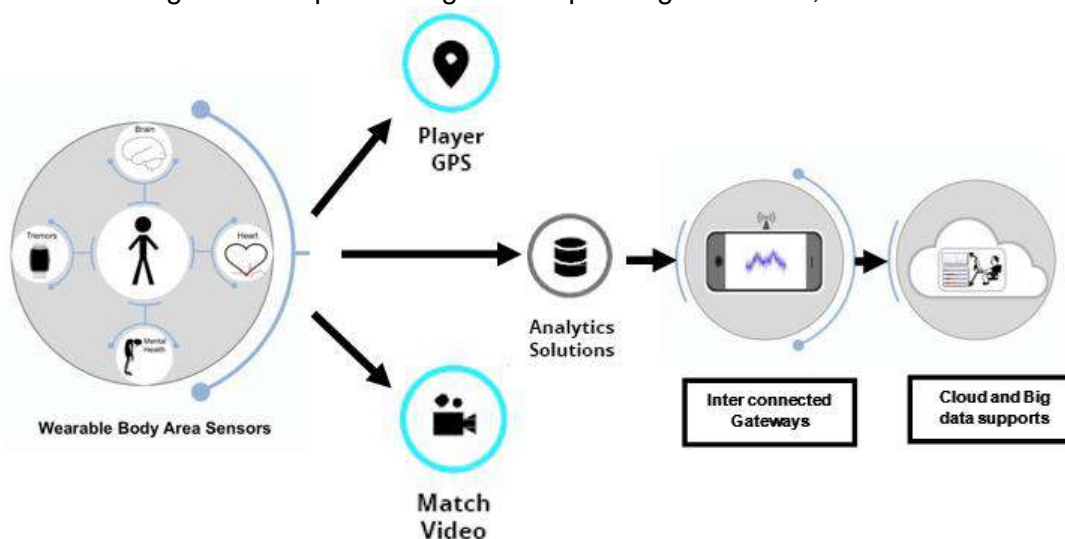
Over the last few years, clubs have started to marry up information from their cameras and video screens with other sources of data, especially information from GPS (global positioning system) satellites and accelerometers worn by players like you can wear a sensor in your shirt, on your wrist, shoe or racquet to monitor players. The way sports are layering these different technologies together is changing coaching, the way fans view sports and even how sports clubs are run. Now, because of digital technology, access to all this information is as good as instant. Now fans, with a variety of applications, can see not just how their team performed but which players were most influential in the game. Any fan with a WiFi connection and a tablet device now has, in effect, a coach's eye view of the game. In addition to monitoring games, now sensors are used to improve some of the player's skills like the quarterback in football, or different positions in basketball etc.

4. Implementation of a Smart Sporting Experience

After realizing the potential of IoT in sports, numerous businesses are investing in advanced stadiums and sports goods. But, the market for IoT in sports is still fairly new. Hence, sports organizations need to prepare themselves for the imminent takeover of IoT technology. For this purpose, sport organizations can create their own strategies and build infrastructure accordingly such as

- Social media integration for quick postings
- Thousands of Wi-Fi access points to keep fans connected
- Selfies captured through connected cameras for simplified sharing
- Smart eyewear that displays real-time statistics
- Fingerprint, smart phone, or retina access for seamless entry
- Faster store check-out with beacons that sense items customer carries out

The basic flow diagram for implementing IOT in sport is given below;



The sport organizations can follow the roadmap for developing IOT environment in sports as given below;

- Hire experienced teams specializing in modern technologies such as IoT to create strategies for IoT adoption.
- Update the existing systems to integrate advanced technologies.
- Educate employees about the benefits and effects of IoT in the workplace.
- Build smarter applications for fans and athletes to enhance their experience on-and-off stadiums.
- Install IoT sensors for maintenance of washrooms, concessions, and various other services.
- Develop innovative use cases like apps to increase revenue inflow and to offer better services.

5. Future of IOT in Sports

In future, IoT can be transformed industries as it enables breakthrough results by bridging the physical and digital world in innovative ways, and drives value by integrating data sources and connecting with fans through many technologies. Integrating the data gathered by different IoT sources and improving the connectivity of systems can increase venue efficiency, enhance fan experience, create additional revenue streams, and provide real-time personalization. IoT can also provide teams with immense amounts of raw data about their fans, players, and stadium. When these data sources are integrated and used together, teams can make effective insight-driven IoT can give teams the ability to connect with fans through many mediums, including reward programs, digital and mobile technology, identification and interaction technology, and more. Teams can leverage these, as well as connected visual/display hardware, venue-wide ERPs, and point-of-sale (POS) systems to create a holistic IoT strategy decisions for enhancing human life.

- Dr. R.K. Jain



सीएसआईआर- हिमालय जैवसंपदा प्रौद्योगिकी संस्थान, पालमपुर, हिमाचल प्रदेश 176061 -



परिकल्पना

जैवआर्थिकी के उन्नयन हेतु प्रौद्योगिकीय उद्भवता एवं विकास में हिमालयी जैवसंपदा के संपोषणीय उपयोग द्वारा विश्व स्तर पर अग्रणी होना

उद्देश्य

सर्वोत्कृष्ट विज्ञान एवं प्रौद्योगिकी द्वारा हिमालयी जैवसंपदा से प्रक्रमों और उत्पादों की खोज, विकास एवं व्यवसायीकरण

सीएसआईआर-अरोमा मिशन- जंगली गेंदा, दमस्क गुलाब, मुस्कबाला, लेमनग्रास की खेती तथा गैरउत्पादकअनुपयोगी भूमि में अन्य संभावित / फसलों की खेती के लिए किसानों को सहयोग

सीएसआईआर-फाइटोफार्मास्यूटिकल मिशन - दुर्लभ एवं लुप्तप्राय औषधीय पौधों की प्रजातियों का संरक्षण और पुनर्वास तथा किसानों की आय बढ़ाने के लिए इन प्रजातियों की खेती को बढ़ावा देना

सीएसआईआर-न्यूट्रास्यूटिकल मिशन - स्वास्थ्य हेतु स्वदेशी स्रोतों पर आधारित न्यूट्रास्यूटिकल्स का विकास एवं समग्र पोषण संकेन्द्रण

पादप किस्में, पुष्पखेती और कृषिप्रौद्योगिकी- गुलाब, कैला लिलि, जरबेरा, लिलियम, बर्ड ऑफ पेराडाइज, एल्स्ट्रोमेरिया, स्टीविया, दमस्क गुलाब, जंगली गेंदा, चाय, कपूरकचरी, मुस्कबाला और जंगली हल्दी

प्रौद्योगिकियां- प्राकृतिक शून्य केलोरी स्वीटनर, केटेकिन, टी वाइन, हर्बल चाय, क्रिस्पी फ्रूट, प्रिज़रवेटिव रहित रेडी टु ईट खाद्य प्रौद्योगिकियां, कुपोषण निवारण हेतु आयरन व कैल्शियम युक्त मेंगोबार व न्यूत्रीबार, थर्मोस्टेबल एन्जाइमसॉड - , आरएनए आइसोलेशन सोल्युशन तथा एसिन

कौशल विकास- प्रयोगशाला पशु विज्ञान में डिप्लोमा, प्रयोगशाला परीक्षण और विश्लेषणात्मक व्यावहारिक ज्ञान में डिप्लोमा, बागवानी और पुष्पोत्पादन, संरक्षित खेती में कौशल विकास तथा महिला एवं युवा सशक्तिकरण

इन्क्यूबेशन सुविधाएं- खाद्य प्रौद्योगिकी, हर्बल प्रसंस्करण, मूल्यवर्धित चाय उत्पाद और पादप उत्तक संवर्धन

सेवाएं- विश्लेषणात्मक सेवाएं गुणात्मक एवं मात्रात्मक विश्लेषण), सामग्रीउत्पादों का रसायनिक / रूपरेखा और मानकीकरण (प्रोफाइलिंग), पैकबायो लाइब्रेरी बनाना एवं सिकेंसिंग; मृदा, पादप और नैनो सामग्री विश्लेषण; विनियामक सेवाएं विषाक्तता अध्ययन), जेबराफिश, चूहों व मूशकों में मुखीय एवं त्वचीय विषाक्तता(, हेमटोलॉजिकल एवं हिस्टोपैथोलॉजिकल विश्लेषण, विभिन्न मानवीय कैंसर कोशिकाओं पर साइटो-टॉक्सिसिटी अध्ययन

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Courage, strength and stamina are the recipies,
teaches *fight* and *struggle* also!!

-Swara Patkar

Let me play...

Let me play
the I play
Speed skating, Speed skating
rolling with skates
on the ice plates.....

I have fear, I can fall
because the wheels are
very small !!

Representing our nation
with my passion,
Winter Olympics,
Winter Olympics !!

Playing for the first time,
but when I win,
I will be fine!

-Riddhee Patkar

France

When I was climbing the Eiffel tower,
I heard city's roar.

I saw my friend waving his hands,
On the hexagonal land (as France is also called hexagon).

I saw the city of lights (Paris),
looking beautiful and bright.

France had 300 types of cheese,
But I couldn't eat all the piece.

There were lots of French wine,
But Alas! I still drink milk and am fine.

-Ojas Raj



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Volleyball me hawa bhara ke
Aa jao sare mood bana ke

Net ko thoda tight band ke
Hero jaisa jersey pehen ke
Volleyball me hawa bhara ke
Aa jao sare mood bana ke

All the volley fans
Don't miss the chance

All the volley fans
Don't miss the chance

Volley dance, volley dance
Volley dance, volley dance
Volley dance, volley dance
Volley dance, volley dance
Volley dance, volley dance
Volley dance, volley dance
Volley dance, volley dance

Note: This song is based on the track of "Lungi dance" from the film Chennai express

- S.Y.Pujar

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ACKNOWLEDGEMENT

We, on behalf of the Organising Committee, Atma Ram Memorial Volleyball Tournament 2020, sincerely acknowledge the valuable and timely supports by all the participating organizations, sports persons, advertisers and all our colleagues involved during composition and publication of this souvenir as a memorandum of this national event. We wish all the participants a grand success.

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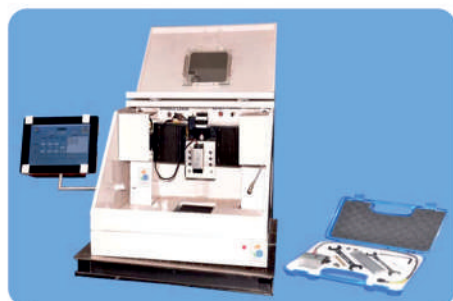
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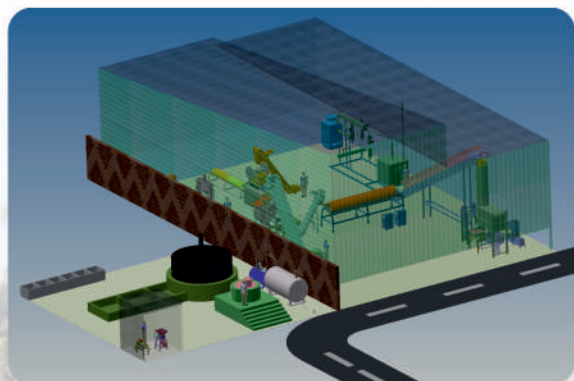


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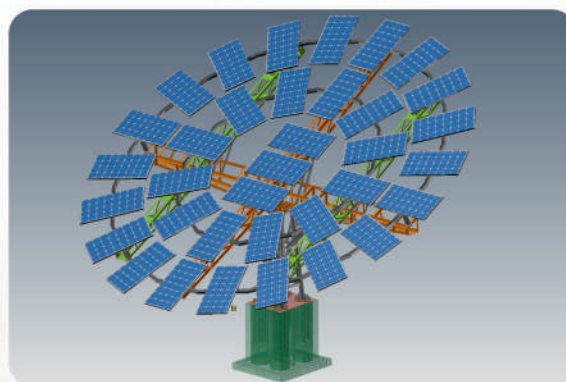
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