



51st Shanti Swarup Bhatnagar Memorial Tournament-2022



Zonal-IV (Outdoor Games)

November 30 - December 02, 2022



Souvenir



सीएसआईआर-केंद्रीय औषधीय एवं सगंध पौधा संस्थान, लखनऊ
CSIR-Central Institute of Medicinal and Aromatic Plants, Lucknow



PLEDGE

'We, the participants of the SSBMT, swear that we will take part in the games in the loyal competition, respecting all regulations which govern them and in the true spirit of sportsmanship for the honour of our organization and glory of sports'.

Sir Shanti Swarup Bhatnagar: an outstanding scientist, an institution builder and an explicit writer



Sir Shanti Swarup Bhatnagar (21st February 1894 to 1st January 1955) is one among the legends India has ever produced in the realm of science, engineering and technology who created history with the ground breaking invention (jointly with Dr. K N Mathur) of an instrument called the Bhatnagar-Mathur Magnetic Interference Balance. He also wrote '*Physical Principles and Applications of Magnetochemistry*' with Dr. Mathur which is believed to be a masterpiece on the subject. Sir Bhatnagar is revered as the "*Father of Research Laboratories*" in India.

Born in Bhera, Shahpur, Punjab Province (now in Pakistan) on 21st February 1894, Sir Bhatnagar developed his taste for engineering and science, algebra and geometry, and Urdu and Hindi poetry since childhood. Following his initial schooling via a private '*Maktab*', matriculation (first division with University Scholarship) from Anglo-Vernacular High School (Sikandrabad, Uttar Pradesh), graduation from Forman Christian College, post-graduation (in chemistry) and doctorate degree from London University (under Professor Frederick G. Donnan), he joined Banaras Hindu University as a Professor in 1921 and later moved to Panjab University to take up research on industrial problems (1924-40). He developed a technique for converting bagasse (peelings of sugarcane) into food-cake for cattle. He also solved problems for industries namely Delhi Cloth & General Mills, Ganesh Flour Mills Ltd., Layallapur, JK Mills Ltd., Kanpur, and Tata Oil Mills Ltd., Bombay. Sir Bhatnagar innovated the process of drilling crude oil by adding Indian gum for the Attock Oil Company, Rawalpindi (M/s Steel Brothers & Co London). The grant received from the Company helped Sir Bhatnagar in establishing the Department of Petroleum Research.

Dr Bhatnagar concurrently held number of important position in the Government and played an instrument role in the establishment of many organizations in India and played a noteworthy role in building of Science & Technology (S & T) infrastructure and in the formulation of post-independent S & T policies in India. He was the Founder Director (and first Director-General) of Council of Scientific & Industrial Research (CSIR). An avid believer in the relevance of science for practical purposes, Sir Bhatnagar planned and set up a chain of national laboratories all over the country for harnessing of science for promotion of national welfare. He has been credited with the establishment of twelve national laboratories including Central Food Processing Technological Institute, Mysore, Central Fuel Institute, Dhanbad, National Chemical Laboratory, Pune, National Metallurgical Laboratory, Jamshedpur, National Physical Laboratory, New Delhi, His contribution to research and S & T has been extensively acknowledged. He was Knighted by British Government in 1941 and awarded Padma Bhushan in 1954.

Sir Bhatnagar also had a flair for writing Urdu poetry known mostly amongst the close acquaintance. As a tribute to his wife, he wrote 'Lajwanti', the name chosen because of poem, 'Biwi aur Kitab' which says "Meri biwi ne kaha ek din jo main hoti kitaab, Tere diid-e-shauq se har waqt rehti faizyaab" This depicts creative, nationalistic, romantic and social side of a great scientist. The 'Kulgeet' (University Anthem) of Banaras Hindu University was also written by Sir Bhatnagar. He wrote poetry under the pen name 'Seemab' meaning mercury.

On 1st January 1955, we lost this illustrious architect of CSIR. In 1958, CSIR instituted the prestigious Shanti Swarup Bhatnagar Prize for Science and Technology for outstanding and notable research (applied or fundamental) in various disciplines. In his fond memory CSIR Sports Promotion Board created a platform to organize Shanti Swarup Bhatnagar Memorial Tournament (SSBMT) to fetch together the involvement of different CSIR institutes and foster a committed CSIR family to generate team spirit, leadership and zeal. Since then SSBMT has become a customary and key activity of CSIR to pay tribute to an exceptionally brilliant scientist, a great polymath, an explicit writer and an Institution builder.

Courtesy : Dr. Suaib Luqman



Sport Promotion Board of Council of Scientific and Industrial Research (CSIR-SPB)

Sports activities teach us how to appraise circumstances, entrust and craft the right decision. Sports activities are a collective form of leisure and one of the great expressions of a person's aspirations to do exceptionally well. They understand the impact of employee amusement on developing leadership qualities, interaction and communication skills necessary for effective service delivery, organizing sports events and creating a frivolous environment have become an integral part of the CSIR policy.

To achieve this aim, the initial inventiveness taken by a few of the CSIR Laboratories / Institutes, particularly those located in secluded places like Bhavnagar, Dhanbad, Jorhat, Karaikudi, Pilani, etc., to form staff clubs are highly praiseworthy. These CSIR Laboratories / Institutes established their staff clubs as soon as they were set up. However, organizing the sports events at the Laboratory / Institute level in CSIR commenced in 1953 with the initiative of the CSIR Headquarters when it hosted a tournament with limited sports activity for the staff of Delhi-based CSIR Laboratories / Institutes, which was continued for three years. Further, the little sports activity of CSIR was elevated to an All India level in 1955, after the sudden demise of Dr. Shanti Swarup Bhatnagar, the founder Director of CSIR (now redesignated as Director General).

In memory of the founder Director General, the Tournament was named 'Shanti Swarup Bhatnagar Memorial Tournament' (SSBMT), which enlarged the participation of all CSIR employees spread across the country. Initially, the tournaments were organized biannually, having games such as Badminton, Basketball, Bridge, Carrom, Chess, Cricket, Table Tennis, Tennis, and Volleyball. The responsibility for organizing the sports activity was then shouldered by the CSIR Headquarters Staff Club, which used to manage the Tournament in CSIR laboratories for 7 to 8 days every alternate year. The SSBMT held at the CSIR-National Physical Laboratory (CSIR-NPL), New Delhi, in 1956 could be termed the First All India CSIR Tournament, which continued to be maintained regularly till 1980, with a little hiatus during the China War in 1965.

Since sports activities are a big stress buster for employees, CSIR considered providing greater impetus to sports within the system. An official platform was consequently provided by forming the CSIR-Sports Control Board (CSIR-SCB) on the lines of those in the government department like Railways, P&T, etc. The CSIR-SCB was formalised in March 1980 with its registration as a Society under the Societies Registration Act XXI of 1860. Given the objectives/role of CSIR-SCB, its nomenclature was changed to the CSIR-Sports Promotion Board (CSIR-SPB), and efforts are underway to renew/register the present CSIR-SPB with its new name.

With the notion that sports activities facilitate employees to contribute to superior productivity at the workplace, CSIR-SPB encourages employees to take up sports activities together, which would foster a sense of team spirit that could be reflected in how they get on during working hours. It allows your team to get to know each other better and teaches us how to be positively competitive and keep one healthy. The SSBMT sports activities initially received an overwhelming response with massive participation of players and officials at one time. Still, small CSIR Laboratories / Institutes with limited infrastructure experienced significant difficulties hosting such mega-events. It was therefore unanimously resolved to separately organize Zonals and Finals involving a relatively lesser number of players/participants. All the staff clubs (40 in number) were then clubbed to form four zones, with the participation of

around 200 players and officials at each venue. The top two victorious teams in individual and group events of each game from these four zones then met at the Finals. After some experiments involving various permutations and combinations over a while, the SSBMT came into being in its present form, i.e. being organized alternately for indoor and outdoor games every year. The current practice thus provides greater incentive to the best eight players/teams annually as they can play twice (at two venues for zonal and for finals) during the same year. This year (2022), CSIR-SPB is organizing the outdoor Tournament in five zones, comprising eight teams, of which two winning teams of each zone will qualify for the finals to be held in 2023.

The CSIR-SPB, in addition to the indoor and outdoor tournaments, also organizes some specialized events, such as

- Anusandhan Basket Ball Tournament
- A.P. Mitra Memorial Badminton Tournament
- Atma Ram Memorial Volleyball Tournament
- Hussain Zaheer Bridge Tournament
- Nayuydamma Memorial Cricket Tournament
- Sidhu Memorial Table Tennis Tournament
- Thacker Memorial Lawn Tennis Tournament

Sporadically, the CSIR-SPB has also been organizing Athletic Meet and Mountaineering Trekking, though, for specific reasons, these activities could not be undertaken for some time now. The CSIR-SPB did organize coaching camps for its all-India CSIR teams as well in the past. However, these are now proposed to be resumed shortly.

The CSIR-SPB, apart from organizing the SSBMTs and unique tournaments, also initiated specific other very positive steps to encourage sports activities and to offer incentives to the outstanding sports persons like

- (i) A stipend of Rs. 10,000/- to the wards of employees for excelling in a National event / representing the Nation in an International event
- (ii) A stipend of Rs. 5,000/- to the wards of employees for excelling at National / State / District levels in an official game; providing support to laboratories to build/improve the infrastructure for sports and recreational activities (Prizes for all the above categories are given at their respective CSIR Laboratories / Institutes on the eve of CSIR Foundation Day) and
- (iii) Honouring the players who would be retiring/superannuating in that year during the conduct of the Zonals / Finals or any other tournament hosted on behalf of the CSIR-SPB in a befitting manner (by the host CSIR Laboratory / Institute) in recognition of their achievements in any of the sports events during their service in the CSIR Laboratories / Institutes.

CSIR-SPB is trying to nurture sports activities at CSIR, which not only improve the health and well-being of the employees and enable integration into CSIR but also strengthen the team spirit. It also contributes to managing stress in a better way and develops a sense of truly feeling part of ONE CSIR Family.

Courtesy : Dr. Suaib Luqman



आनंदीबेन पटेल

राज्यपाल, उत्तर प्रदेश



राज भवन,
लखनऊ - 226 027

17 नवम्बर, 2022

संदेश

मुझे यह जानकर अत्यन्त प्रसन्नता हो रही है कि सी.एस.आई.आर.-केन्द्रीय औषधीय एवं सगंध पौधा संस्थान (सी.एस.आई.आर.-सीमैप) लखनऊ के तत्वावधान में क्षेत्रीय आउटडोर 51वें शांति स्वरूप भटनागर मेमोरियल टूर्नामेंट के अन्तर्गत 30 नवम्बर से 02 दिसम्बर, 2022 के मध्य क्रिकेट व वॉलीबॉल खेलों का आयोजन किया जा रहा है, जिससे सी.एस.आई.आर. के वैज्ञानिकों एवं कर्मचारियों में खेल भावना का संचार होता रहे।

खेल हमारे जीवन का अहम हिस्सा है तथा इससे मानसिक, शरीरिक स्वास्थ्य के साथ-साथ टीम भावना, एकाग्रता, नेतृत्व व प्रबंधन कौशल का भी विकास होता है। आशा है कि टूर्नामेंट में प्रतिभाग करने वाले सभी खिलाड़ियों को अपनी-अपनी प्रतिभा प्रदर्शित करने का अवसर मिलेगा।

प्रतियोगिता के आयोजकों और इसमें भाग ले रहे सभी खिलाड़ियों को मैं अपनी हार्दिक शुभकामनाएं प्रेषित करती हूँ।

आनंदीबेन
(आनंदीबेन पटेल)



मुख्य मंत्री
उत्तर प्रदेश



आज़ादी का
अमृत महोत्सव

लोक भवन,
लखनऊ - 226001

योगी आदित्यनाथ

14 नवम्बर, 2022

संदेश

मुझे यह जानकर अत्यन्त प्रसन्नता की अनुभूति हो रही है कि सी.एस.आई.आर. केन्द्रीय औषधीय एवं संगंध पौधा संस्थान, लखनऊ द्वारा क्षेत्रीय आउटडोर 51वें शांति स्वरूप भटनागर मेमोरियल टूर्नामेंट के अंतर्गत दिनांक 30 नवम्बर से 02 दिसम्बर, 2022 तक क्रिकेट व वॉलीबॉल खेल प्रतियोगिताओं का आयोजन किया जा रहा है। इस अवसर पर एक स्मारिका भी प्रकाशित की जाएगी।

खेलों से टीम भावना, अनुशासन तथा नेतृत्व का विकास होता है। खेल स्वस्थ रहने का सहज तरीका है। संस्थान में खेल संस्कृति को बढ़ावा देने का प्रयास सराहनीय है। मुझे विश्वास है कि संस्थान द्वारा प्रतियोगिता का आयोजन प्रतिभागी वैज्ञानिकों, कर्मचारियों एवं अन्य पदाधिकारियों की प्रतिभा को उभारने में सहायक होगा।

आयोजन की सफलता एवं स्मारिका के उद्देश्यपरक प्रकाशन हेतु मेरी हार्दिक शुभकामनाएं।

(योगी आदित्यनाथ)



92-मुख्य भवन,
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9455074182

गिरीश चन्द्र यादव

दिनांक : १८ नवम्बर, २०२२

संदेश

यह हर्ष का विषय है कि सीएसआईआर-केंद्रीय औषधीय एवं सगंध पौधा संस्थान (सीएसआईआर-सीमैप), लखनऊ, उत्तर प्रदेश के तत्वाधान में क्षेत्रीय आउटडोर 51वें शांति स्वरूप भटनागर मेमोरियल टूर्नामेंट (एसएसबीएमटी) के अंतर्गत 30 नवम्बर से 02 दिसम्बर, 2022 के मध्य क्रिकेट व वॉलीबॉल खेलों का आयोजन किया जा रहा है।

मानव शरीर को स्वस्थ रखने के साथ-साथ समाज को एकजुट करने में खेलों की बहुत महत्वपूर्ण भूमिका है तथा इसके लिए खेल स्पर्धाओं में भाग लेते रहना चाहिए। आशा है कि इस कड़ी में 51वें शांति स्वरूप भटनागर मेमोरियल टूर्नामेंट टीम भावना, प्रतिस्पर्धा और उत्साह के साथ-साथ उत्कृष्टता प्राप्त करने को भी बढ़ावा देगा।

मैं प्रतियोगिता में भाग ले रहे सभी खिलाड़ियों को हार्दिक शुभकामनाएँ देता हूँ।

भवदीय,

(गिरीश चन्द्र यादव)



संजीव खोसला, पीएचडी.
Sanjeev Khosla, Ph.D.
Director

सीएसआईआर-सूक्ष्मजीव प्रौद्योगिकी संस्थान

(विज्ञान एवं प्रौद्योगिकी मंत्रालय, भारत सरकार)
सेक्टर ३९-ए, चंडीगढ़ - ११६००३६ (भारत)

CSIR-INSTITUTE OF MICROBIAL TECHNOLOGY

(Ministry of Science & Technology, Govt. of India)
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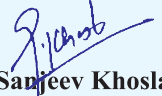


Message

I am extremely glad to learn that the 51st Shanti Swarup Bhatnagar Memorial Tournament (SSBMT) -2022 Zonal (outdoor) is scheduled to be held at CSIR-CIMAP, Lucknow during 30th November to 2nd December 2022. For this, I congratulate CSIR Sports Promotion Board (SPB) and CSIR-CIMAP Lucknow for organizing this sports event.

Various games not only keep all humans mentally and physically fit but also develop leadership qualities and team spirit. The CSIR SPB through its different activities keeps on inducing the great values of CSIR among scientists, students and other staffs. I welcome all the participants to take part in the upcoming tournament with enthusiasm and wish you all for great performances. I hope along with participating in different sports, you will not forget to enjoy essence of the cultural heritages of Lucknow city.

I wish for good luck to all the teams for a healthy competition and also wish huge success to his tournament.


(Sanjeev Khosla)
President SPB



CSIR SPORTS PROMOTION BOARD

वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्
अनुसंधान भवन, 2, रफी मार्ग, नई दिल्ली-110001
Council of Scientific & Industrial Research
2, Rafi Marg, New Delhi-110001



Patron

Dr. N Kalaiselvi
DG, CSIR

President

Dr Sanjeev Khosla
Director, CSIR-IMTECH
Chandigarh

Vice-President, (Ex-officio)

Mr. Mahendra K Gupta
Joint Secretary (Admin.)

Member (Ex-officio)

Mr. Chetan P Jain
JS&FA, CSIR

Secretary

Dr. R.K. Sinha
Head, CSIR-HRDC

Treasurer

Mr. Dipanjan Moitra
F&AO, CSIR Hqs.

Members

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Sr. Pr. Scientist, CSIR-IMMT
Dr. Ranjit Ray
Sr. Pr. Scientist, CSIR-CMERI
Dr. Sanjay D Patil
Pr. Scientist, CSIR-CSMCRI
Dr. Niraj Kumar
Pr. Scientist, CSIR-CEERI
Dr. Devendra J Haware
Pr. Scientist, CSIR-CFTRI
Dr. Niti Kumar
Sr. Scientist, CSIR-CDRI
Dr. Shuchismita Benjwal
Lady Medical Officer, CSIR-NGRI
Dr. Rashmi Sharma
Scientist, CSIR-IIIM
Mr. P Manish Theodore
Under Secretary, CSIR Hqs



Message

From the Desk of Secretary, CSIR-Sports Promotion Board

I am not able to find words in expressing my happiness for organizing fourth zonal tournament of 51st Shanti Swarup Bhatnagar Memorial Tournament (Outdoors: Cricket and Volleyball) at CSIR-Central Institute of Medicinal and Aromatic Plants, Lucknow during 30th November and 2nd December, 2022.

Past two years were very unkind for entire human race due to onset of pandemic COVID-19 which not only affected our physical health but also mental health. Lots of uncertainty and negative feelings were set in. However the inner strength of human race managed to face the havoc created by the pandemic more or less successfully.

There is no doubt that one of the sources of inner strength is our physical fitness. Healthy mind and soul reside in healthy body. Engaging ourselves in sports activities serve the purpose of mental and physical fitness, mental alertness, inculcating team spirit and much more.

CSIR-Sports Promotion Board (CSIR-SPB) always strives to provide appropriate platform to practice the rituals for both mental and physical fitness through organizing various sports activities. Shanti Swarup Bhatnagar Memorial Tournament (SSBMT) is one such activity. CSIR-SPB is organizing 51st SSBMT (Outdoors) this year wherein Cricket, Volleyball and Football are being played.

We have already completed all four Zonal Tournaments for Football and are in the process of finalizing the Finals for the same. With Zonal 1 at CSIR-IIP we are starting Cricket and Volleyball Tournaments.

Kudos to Team CSIR-CIMAP, Lucknow, under dynamic leadership of Dr. Prabodh Trivedi who have agreed to host fourth Zonal Tournament of SSBMT (Cricket and Volleyball). I wish CSIR-CIMAP for successful organization of the tournament and best of luck for the participating teams.

(Dr. Rakesh Kumar Sinha)



सीएसआईआर-केन्द्रीय औषधीय एवं सगंध पौधा संस्थान

(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्)

कुकुरैल पिकनिक स्पॉट रोड, पी.ओ.-सीमैप, लखनऊ-226 015, उ.प्र., भारत

CSIR-Central Institute of Medicinal and Aromatic Plants

(Council of Scientific & Industrial Research)

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डॉ. प्रबोध कुमार त्रिवेदी, एफएनए, एफएनएससी, एफएनएसएस

जे.सी. बोस नेशनल फेलो

निदेशक

Dr. Prabodh Kumar Trivedi, FNA, FNASc, FNAASS

JC Bose National Fellow

Director



Message

It is a great honor and utmost pleasure for us to host the 51st Shanti Swarup Bhatnagar Memorial Tournament (SSBMT) Zonal (Outdoor) between 30th November to 2nd December, 2022. SSSBMT is an eagerly awaited event to peek out of daily jobs and scientific commitments and at the same time is a mighty tool to strengthen our physique and sharpen our minds. The tournament infuses in us the spirit of sportsmanship, teamwork, competitiveness, attaining excellence and development of a sense of appreciation which ultimately contribute to the growth of whole CSIR family.

We are thankful to the CSIR Sport Promotion Board (SPB) for providing us the opportunity to organize the event in Lucknow this year. On behalf of CSIR-CIMAP, I heartily welcome all the participants from various sister laboratories of CSIR. With the support of CSIR SPB, the SSBMT has developed its own fragrance and this year it will be no different at CSIR-CIMAP. I acknowledge the efforts put forth by the organizing team for successfully conducting this event and I am sure that all the participants will move on from here with some wonderful experiences which they will cherish for long during the years to come.

I believe that all players will participate in the upcoming matches with great enthusiasm while maintaining a high game spirit, keeping in mind the vision of Dr. Shanti Swarup Bhatnagar. I am sure that the participants in this event will enjoy Lucknow hospitality and food and will remember this for long. I wish the 51st SSBMT-2022 zonal (Outdoor) event a great success.

(Prabodh K. Trivedi)



CSIR-Sports Promotion Board



Dr. N Kalaiselvi
Director General - CSIR
Patron CSIR-Sports Promotion Board



Dr Sanjeev Khosla
President Director,
CSIR-IMTECH



Sh Mahendra Kr. Gupta
JS (Admin)
Vice President (Ex-Off)



Sh Chetan Prakash Jain
JS & FA
Member (Ex-Off)



Dr R K Sinha
Secretary
Head, CSIR-HRDC



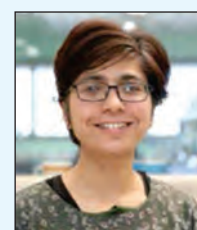
Sh Dipanjan Moitra
Treasurer, CSIR-Hqrs



Dr Ranjit Ray Member,
CSIR-CMERI



Dr Bama Prasad Bag
Member, CSIR-IMMT



Dr Niti Kumar
Member, CSIR-CDRI



Dr Niraj Kumar
Member, CSIR-CEERI



Dr Sanjay D Patil
Member, CSIR-CSMCRI



Dr Devendra J Haware
Member, CSIR-CFTRI



Dr Rashmi Sharma
Member, CSIR-IIIM



Dr Shuchismita Benjwal
Member, CSIR-NGRI



Sh P Manish Theodore
Member, CSIR-Hq



Sh Sandeep Mavi
Supporting Staff, CSIR-Hq

CSIR-CIMAP Staff Club 'MAHAK'



Director CSIR CIMAP
President



Dr. Anirban Pal
Vice President



Mr. Naresh Kumar, CoA/AO
Vice President(Ex-Officio)



Dr. Anil Kumar Maurya
General Secretary



Dr. Prema G Vasudev
Joint Secretary



Sh. Pankaj Kumar Shukla
Sport Secretary



Dr. Puja Khare
Member



Dr. Rushikesh Bhise
Member



Sh. Manish Arya
Member



Sh. Sanjay Singh
Member



Dr. Pooja Singh
Member



Sh. Rahul Singh
Member



Sh. Rizwan Khan
Member



Sh. Ayush Singhal
Treasurer

F&AO or his Representative
Auditor



51st SSBMT Outdoor Zonal-IV Tournament at CSIR-CIMAP, Lucknow 30th November to 2nd December 2022

CHAIRMAN ORGANIZING COMMITTEE : Dr Prabodh Kumar Trivedi
ORGANIZING SECRETARY : Dr. Anirban Pal
CO-ORGANIZING SECRETARY : Dr. Anil Kumar Maurya

ADVISORY COMMITTEE

Dr. Prabodh K Trivedi
Dr. R.K. Sinha (Secretary, SPB, CSIR)
Dr. Saudan Singh
Dr. A.K.Gupta
Dr. K.C. Khulbe (CSIR-IITR)
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Dr. Laiq Ur Rahman
Administrative Officer

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Staff Club of Local CSIR Labs

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Dr. CS Chanotiya (G1)
Mr. Pankaj Shukla (G1)
Dr. Suaib Luqman (G2)
Mr. Manish Arya (G2)
Dr. Sumit Ghosh (G3)
Mohd. Rizwan (G3)
Dr. Rakesh Shukla (G4)
Mr. Amit Mohan (G4)
G1- Colony grounds
G2- Sahara Estates
G3- Creator's Cricket Club
G4- Microlit Ground

Acknowledgements

CSIR-CIMAP Staff Club "Mahak" has been entrusted with the responsibility of organising the 51st Shanti Swaroop Bhatnagar Memorial Tournament outdoor zonal from November 30 to 02 December 2022 at CSIR-CIMAP, Lucknow. Eight teams from different CSIR laboratories viz., CSIR-CCMB, CSIR-CBRI, CSIR-IHBT, CSIR-NEIST, CSIR-CECRI, CSIR-NGRI, CSIR-CLRI and CSIR-IIIM would be competing in the tournament to qualify themselves for the finals in Cricket and Volleyball. CSIR-CIMAP wishes all the best to all the participants and truly acknowledges the support extended by the Directors' of the participating laboratories for the successful organisation of this tournament. We also thank the Directors of other CSIR laboratories who have been a constant source of support in organising this event.

CSIR-CIMAP Staff Club "MahaK" extends its sincere gratitude to our Director, Dr. Prabodh Kumar Trivedi, Director CSIR-CIMAP and President of CSIR-CIMAP Staff Club "Mahak" for his constant support and encouragement for hosting this outdoor tournament during this year.

Special thanks to CSIR Sports Promotion Board (SPB) for allowing us to host SSBMT outdoor zonal at CSIR-CIMAP, Lucknow. Words of gratitude will fall short for the executive members from various sports organisations for their help in conducting all the games. Acknowledgements and appreciation will always be due to the Organizing Committee and the volunteers for their untiring efforts for the success of this event.

CSIR-CIMAP Staff Club "Mahak"
51st SSBMT Outdoor Zonal
CSIR-CIMAP, Lucknow



Teams and Participants

CSIR-Central Building Research Institute, Roorkee



Cricket Players

Sh. Vineet Kumar Saini, Sh. A. Aravind Kumar, Sh. Srinivasarao Naik B (Manager), Sh. Soju J. Alexander, Sh. Banti A. Gedam, Sh. Vinoth M., Sh. Anit Kumar Pal, Sh. M.D. Khan, Sh. Ajay Dwivedi, Sh. Anujay Kumar, Sh. Govind Gaurav, Sh. Amit Kumar, Sh. Raj Kumar, Sh. Shubham Chaudhary

Reserve Players

Sh. Anindya Pain, Sh. Kishore Kulkarni, Sh. Tarun Moka

Volleyball Players

Sh. Mehar Singh, Sh. D. S. Negi, Sh. Virendra Singh, Sh. Vivek Sood, Sh. Siddharth Singh, Sh. K. S. Chauhan, Sh. Sushil Kumar, Sh. Mukesh Kumar

Reserve Players

Sh. Harish Kumar, Sh. Nagesh Babu Balam

CSIR-Centre for Cellular and Molecular Biology, Hyderabad



Cricket Team

A Syam Kumar, Abdul Raheem Qureshi, L Kumar, K Nagabhushanam, Dr Shiv Pratap Yadav, M Sureshbabu, Suman Bandari, G C Wilson, Karthik Bharadwaj, Ramachary, Nitech Kumar Singh, Manash Kumar Behra, Vishal Sha, Sai Uday Kiran

Volley Ball Team

V Bharathi, Mohammed Idris, Ram Gopal, Dr Avtar Singh Meena, M Vishnu Yadav, Mallikanti Srinu, Sudhanshu Kumar, Vinay Tej

CSIR - Central Electrochemical Research Institute, Karaikudi



Cricket

Dr. Deepak Pattanayak (Manager), Mr. T. Ashok Balamurugan (C) [WK], Mr. M. Pradeeban, Dr. V. Ganesh, Mr. T. Muruganandan, Mr. G. Karthikeyan, Dr. M. Pandiaraj, Dr. Subrata Kundu, Mr. S.T. James, Mr. T. Suresh, Dr. M. Ashok, Mr. R. Sugumar, Mr. M. Siva Ananth, Mr. S. Michelraj

Volleyball

Dr. V. Murugan (C), Mr. T. Mathan Kumar, Dr. K. Giribabu, Mr. V. Prabu, Mr. K. Vasantha Raj, Mr. B. Pazhanivel, Mr. V. Gopalakrishnan, Mr. Nandigana Pardhasaradhi

CSIR-Central Leather Research Institute, Chennai



Cricket Players

Mr. Jagannathan (Captain), Mr. Mohammed Abu Javid (Vice-Captain), Dr. N. Ayyadurai, Dr. G. Sathyaraj, Dr. Thillai Sivakumar, Dr. Maheshkumar J, Mr. V. Rajesh, Mr. G.T. Naik, Mr. L. Edwin Paul, Mr. R. Sathiyaraj, Mr. N. Gopal, Mr. Maharaja Mr. N.L. Abishek, Mr. Athithyan



Volleyball Players :

Mr. KC Velappan (Captain & Manager), Dr. Jaimohan (Vice-Captain), Mr. Renganath Rao, Mr. Kesavan, Mr. Arun Raj, Mr. Purushothaman, Mr. Hari Krishnan, Mr. D Dinesh Kumar



Institute of Himalayan Bioresource Technology, Palampur



Cricket

Dr. Vikram Patial (Captain), Er. Mohit Sharma, Sh. Oman Singh, Dr. Upendra Sharma (Vice-captain), Dr. Vishal Acharya, Dr. Ashish Warghat, Sh. Pabitra Gain, Sh. Mukul Sharma, Dr. Dinesh Kumar, Dr. Vivek Dogra, Dr. Rajesh Singh, Sh. Mahabir Singh, Dr. Vikas Thakur, Sh. Anil Kumar

Waiting List

Sh. Om Parkash, Sh. J.S. Bisht, Sh. Ashish Kumar

Volleyball

Sh. Didar Singh (Captain), Sh. Boni Kumar, Sh. Sandeep Kumar, Sh. Vikas Kumar, Sh. Balak Ram, Sh. Vivesh Sood, Sh. Aman Kumar, Sh. Sanjeet Kumar

Waiting List

Dr. Arun Kumar, Sh. Parveen Singh

CSIR-Indian Institute of Integrative Medicine, Jammu



Cricket

Mr. Sumit Roy (Captain), Mr. Praveen Kumar (Vice Captain), Mr. Zubair Ahmad, Mr. Krishan Kumar, Dr. Sanket Shukla, Mr. Asrar Mir, Mr. Manas (Asso. Member), Mr. Ubair wani, Mr. Asif (Asso. Member), Mr. Ayub Bhatt, Mr. Ashok Kumar Sharma, Mr. Vinod Kumar, Mr. Anil Katare, Dr. Ramajayan

Waiting List

Mr. Dilip Kumar Gehlot, Mr. Satish Sambyal, Mr. Sahil Sharma, Mr. Sanchit Sharma, Dr. Shahid Rasool, Dr. Firdous, Mr. I. B. Dixit

Volleyball

Dr. Siya Ram Meena (Captain and Manger), Dr. Rajendra Bhanwaria (Vice Captain), Dr. Khalid Yousuf, Dr. Kanhaiya, Mr. Rajendra Gochar, Mr. Fayaz (Asso. Member), Mr. Tarun Kashyap, Mr. Bhuguna

Waiting List

Mr. Karan Pal, Mr. Krishan Kumar, Mr. Manzoor

CSIR – North East Institute of Science and Technology, Jorhat



Cricket

Dr. Tonkeswar Das, Mr. Sausthov Maunash Bhattacharyya, Mr. Himangshu Lekhok, Mr. Priyam Jyoti Bora, Dr. Jugal Bori, Mr. Deepjyoti Das, Mr. Rajiv Goswami, Mr. Hrishikesh Sarmah, Mr. Lachit Phukan, Mr. Rajib Deka (Team Manager), Mr. Preetam Kishore Nath, Mr. Abhay Sakhare, Mr. Manash Hazarika, Mr. Krishna Kamal Hazarika

Volleyball

Dr. Himanshu Kaushik Bora, Dr. Dipul Kalita, Dr. Rituraj Konwar, Dr. Rinku Baishya, Mr. Rishiraj Phukan, Mr. Hiren Brahma, Mr. Jintu Bora, Mr. Goutam Koch

CSIR – National Geophysical Research Institute, Hyderabad



Cricket

Abdul Azeez, Ravishankar, Joy Choudhury, Nihar Ranjan Kar, Lohit Kumar (Captain) M. Demudu Babu, Om Prakash, B. Kiran Kumar (Vice Captain), K. Laxman Rao, Ashish Kumar, Chetan Tekade, Allu Raju Babu, K. Bhima Raju, A. V. Satya Kumar



Volleyball

Sateesh Chandrapuri (Manager), N. Ramesh Babu, G. Balu, S. Dinesh Kumar, I. Suresh (Captain), C. Srikant, V. Rajeshwar Rao, K. Laxminarayana

CSIR AROMA MISSION PHASE-II

Atma Nirbhar Bharat through CSIR-Aroma Mission



Catalyzing Rural Empowerment through Cultivation, Processing, Value Addition and Marketing of Aromatic Plants



AROMA MISSION PHASE-II PROGRESS SUMMARY

Expansion of Area Under Cultivation

- Crops: 11
[Mint, Lemongrass, Vetiver, Palmarosa, Basil, Citronella, Geranium, Scented Rose, Rosemary, Patchouli, Turmeric]
- Area covered: **9526 ha**
- States : 22
- Districts: 163
- Villages: 495
- Farmers: 4157

Varieties Developed: 06

Agro-technologies Developed : 07

Distillation units Installed: 23

Skill Development Programmes: 183

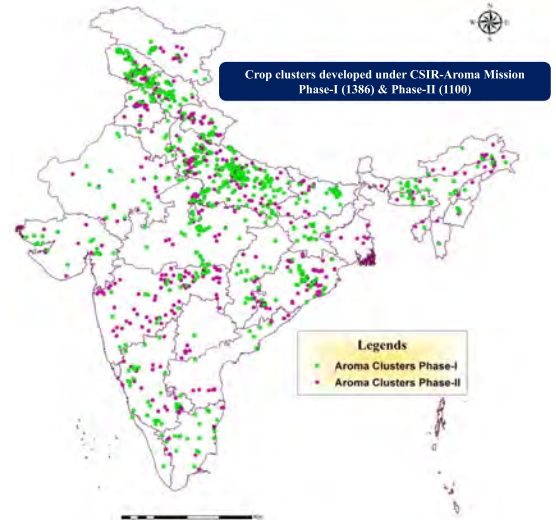
[Districts covered: 30; Beneficiaries: 18,874]

Tools and Technologies: 01

MoU signed: 15

Women entrepreneurs: 31

Tribal clusters: 20



Atmanirbhar in Lemongrass

India becomes one of the 'largest exporters' of lemongrass

As the world's largest exporter of lemongrass, India has now become one of the largest exporters of lemongrass in the world, courtesy of 'CSIR Aroma Mission'.

CSIR Aroma Mission, a collaborative project under CSIR Aroma Mission in collaboration with Jharkhand Livelihood Promotion Society (JSLPS) initiated in 2017.



OVER 30 GROUPS IN JHARKHAND'S BISHUNPUR ARE GROWING LEMONGRASS THESE DAYS



- From being one of the importers of Lemongrass oil a few years back, India has now become one of the largest exporters in the world, courtesy, 'CSIR Aroma Mission'.
- High-yielding varieties developed by CIMAP, such as Krishna and CIM-Shikhar, produces more essential oil and increases the crop yield by two folds.
- Under CSIR Aroma Mission, more than 3500 hectares have been brought under cultivation which has contributed about 350 tonnes of essential oil worth Rs 50 crore to the Indian Aroma industry. This has not only reduced the import burden of the country but also has helped in enhancing exports.

Year	Quantity (Tonnes)
2017-18	388.33
2018-19	462.71
2019-20	410.64
2020-21	596.52
2021-22	610.12

Export data of Lemongrass oil from India

Aroma Clusters Developed in Tribal Areas under Aroma Mission



1 Dudhwa Tiger Reserve Aroma Cluster (Dist. Lucknow) • Crop grown: Mentha mint • Area Covered: 2250 Acres	6 Chandaklyari Aroma Cluster (Dist. Bokaro) • Crop grown: Lemongrass, Palmarosa & Basil • Area Covered: 30 Acres (Lemongrass)	12 Marayoor Aroma Cluster (Dist. Idukki) • Crop grown: Lemongrass • Area Covered: 1000 Acres
2 Rangpur Aroma Cluster (Dist. Sonbhadra) • Crops grown: Lemongrass, Palmarosa, Vetiver • Area Covered: 35, 18, 10 Acres respectively	7 Bojhadi, Bunda Aroma Cluster (Dist. Ranchi) • Crop grown: Lemongrass, Palmarosa & Basil • Area Covered: 35 Acres (Lemongrass)	13 Byrva Aroma Cluster (Dist. Ri-Bhoj) • Crop grown: Lemongrass & Citronella
3 Shodag Aroma Cluster (Dist. Sonbhadra) • Crops grown: Lemongrass, Palmarosa, Vetiver • Area Covered: 35, 18, 10 Acres respectively	8 Tunju, Nankum Aroma Cluster (Dist. Ranchi) • Crop grown: Lemongrass, Palmarosa & Basil • Area Covered: 45 Acres	14 Tamulpur Aroma Cluster (Dist. Tamulpur) • Crop grown: Lemongrass • Area Covered: 25 Acres
4 Jhadol Aroma Cluster (Dist. Udaipur) • Crop grown: Lemongrass & Palmarosa • Area Covered: 10 Acres	9 Malgoun Aroma Cluster (Dist. Kondagoun) • Crop grown: Lemongrass, Palmarosa, Mentha • Area Covered: >200 Acres	15 Umbram Aroma Cluster (Dist. West Khasi Hills) • Area Covered: >60 Acres
5 Bishunpur Aroma Cluster (Dist. Gumla) • Crops grown: Lemongrass, Palmarosa, Vetiver, Basil, Geranium • Area Covered: 40 Acres (Lemongrass)	10 Nabarangpur Aroma Cluster (Dist. Nabarangpur) • Crop grown: Lemongrass, Mentha, Basil • Area Covered: 300 Acres (Lemongrass)	16 Boha Aroma Cluster (Dist. West Kameng) • Area Covered: >60 Acres
	11 Anamalai Tiger Reserve Aroma Cluster (Dist. Coimbatore) • Crop grown: Lemongrass • Area Covered: 30 Acres	17 Ralema Aroma Cluster (Dist. West Kameng) • Crop grown: Lemongrass & Citronella • Area Covered: >60 Acres
		18 Lothavi Aroma Cluster (Dist. Dimapur) • Crop grown: Lemongrass & Citronella • Area Covered: >60 Acres
		19 Araku valley Aroma Cluster (Dist. Vishakhapatnam) • Crop grown: Lemongrass & Citronella • Area Covered: >40 Acres
		20 Peddemandadi Aroma Cluster (Dist. Wanaparthy) • Crop grown: Lemongrass & Citronella • Area Covered: >70 Acres

Aroma Expedition of IFRA & ULTRA International Ltd. to Anamalai Tiger Reserve





Lucknow : The city of Nawabs

Lucknow is the capital and largest city of the Indian state of Uttar Pradesh. It is India's tenth most populous urban agglomeration and the eleventh most populated city overall. As the center of North Indian culture and the arts and the seat of the Nawabs in the 18th and 19th centuries, Lucknow has long been seen as a cosmopolitan metropolis. It is still a crucial hub for politics, administration, business, education, pharmaceuticals, aerospace, finance, technology, design, tourism, music, chikan art and poetry. This bustling city, famed for its Nawabi era finesse and amazing food, is a unique mix of the ancient and the modern. It is home to extraordinary monuments depicting a fascinating blend of ancient, colonial and oriental architecture. Famous Monuments of Lucknow city are BhulBhulayyan (Bada Imam Bara), Chhota Imam Bara, GhantaGhar, ShahiBowli, Residency, Rumi Gate, Picture Gallery and many more.



Rumi Darwaza

The city is located at a height of about 123 meters (404 feet) above sea level. The area of the Lucknow district is 2,528 square kilometers (976 sq. mi). Lucknow is located on the Gomti River's northwest coast and is bounded to the east by Barabanki, to the west by Unnao, to the south by Raebareli, and to the north by Sitapur and Hardoi. The city's official language is Hindi, while Urdu is also commonly spoken. With the largest concentration of Shia Muslims in India, Lucknow is the center of Shia



Ghanta Ghar

Islam in that country. Transportation facilities in Lucknow is too good to reach anywhere in the city by Lucknow Metro. Lucknow Airport is located in Amausi, about 15 kilometers from the city center. Lucknow is serviced by Northern and North-Eastern Railway Network, Charbagh Station, 3 km from the city center. By road, Lucknow is on the intersection of National Highways 24, 25 and 28 running east, west and south. It is well connected with major cities like Agra (363 km), Allahabad (225 km), Calcutta (985 km), Delhi (497 km), Kanpur (79 km) and Varanasi (305 km).

Lucknowites have indulged in a variety of sports down the ages including traditional wrestling (kushti), kabbadi, chess, kite flying, pigeon racing and cock fighting. In the modern era they have taken to cricket, hockey, football, tennis, badminton, golf and horse racing. Lucknow today has its own Hockey India League team, the Uttar Pradesh Wizards and its own Indian Badminton League team, the Awadh Warriors. The Guru Gobind Singh Sports College and Lucknow Cricket Hostel, amongst others, nurture sporting talent in the city. Eminent sports personalities from Lucknow have contributed immensely to Indian sport. They include hockey players K.D. Singh and Mohammed Shahid, who represented India in the Olympics, tennis player Ghaus Mohammed Khan, who was the first Indian to make it to the

Wimbledon quarter finals, and cricketers Mohammed Kaif, R. P. Singh, Suresh Raina, Praveen Kumar and Bhuvaneshwar Kumar.

Some of the most popular events on the city sporting calendar today include the Sheesh Mahal Cricket Tournament, the oldest cricket tournament in India, Hockey India League and Indian Badminton League matches. Lucknow has also hosted International Tennis Federation matches in the past. A number of stadiums cater to sportspersons and sports enthusiasts in Lucknow. They include the Shree Atal Bihar Bajpayi Ekana International Cricket Stadium, K.D. Singh Babu Stadium,

Dhyan Chand Hockey Stadium, LDA Stadium, RDSO Stadium, Dr. Akhilesh Das Gupta Stadium, Chowk Stadium and mini stadiums in Gomti Nagar and Rajajipuram. Located in Hazratganj, the K.D. Singh Babu Stadium is the city's oldest stadium or sports ground in the city. Having a capacity of 25,000, it has hosted a number of cricket and hockey matches and offers facilities for cricket, hockey, badminton and swimming. Dhyan Chand Hockey Stadium, which has been refitted with an astroturf surface, is located on the city's periphery, within the Guru Gobind Singh Sports College complex on Kursi Road. LDA Stadium in Aliganj has facilities for hockey, basketball and lawn tennis.



Courtesy : Dr. Priyanka Suryavnsi, Photographs : Dr. A. Pal & Mr. Prabanshu



CSIR-CIMAP

An institution for high-end research and technology dissemination for medicinal and aromatic plants

Central Institute of Medicinal and Aromatic Plants (CSIR-CIMAP) is a premier multidisciplinary research institute of Council of Scientific and Industrial Research (CSIR), India with its major focus on exploiting the potential of medicinal and aromatic plants (MAPs) by cultivation,



bioprospection, chemical characterization, extraction, and formulation of bioactive phytochemicals. Initially set up as Central Indian Medicinal Plants Organisation (CIMPO) in the year 1957 with a mandate to work and stimulate research on medicinal plants; subsequently aromatic plants also brought under its ambit. CIMPO started functioning from 26th March 1959 and rechristened as Central Institute of Medicinal and Aromatic Plants (CIMAP) in the year 1978. The institute shifted to its present campus near Kukrail forest, Lucknow in the year 1980. With a strength of 69 scientists, 38 technical officers, 90 support staff and nearly 170 doctoral and post-doctoral scholars at its HQ in Lucknow and research centers at Bengaluru, Hyderabad, Pantnagar, and Purara.



CSIR-CIMAP has played a key role in positioning India as a global leader in production of mints, vetiver and other aromatic grasses, and in ensuring indigenous production of artemisinin - a WHO approved anti-malarial. CSIR-CIMAP houses a National Gene Bank on MAPs, which is one of the three of its kind in India. CSIR-CIMAP has played a key role in successfully commercializing an ayurvedic herbs-based anti-diabetic

formulation, which has now benefitted millions. The institute is presently accredited by ICS-UNIDO and Indian-Ocean Rim Association (IORA) as a focal point for research and training on Medicinal Plants among 21 participating member countries. CSIR-CIMAP is engaged in multi-disciplinary high-quality research in agricultural, biological and chemical sciences and extending technologies and services to the growers and entrepreneurs of MAPs with the following mandate:

- Genetic improvement, cultivation, production and chemical processing of economically important MAPs.
- Characterization and conservation of genetic resources.
- Production of planting material of the improved cultivars.
- Bioprospecting plants and their constituents for various biological activities using different in vitro and in vivo techniques.
- Metabolic pathway studies for identifying and modulating yield determinants.
- Herbal products and formulations for better life.
- Knowledge management for the enhancement and dissemination of R&D.
- Human resource development for R&D in the basic and applied areas of MAPs.





CSIR-CENTRAL BUILDING RESEARCH INSTITUTE



For further details contact:

Director

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CSIR-Central Drug Research Institute, Lucknow

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- Semiconductor Process Technology Group

Some of the Devices and Technologies Developed

- Accelerometer, Diamond Detectors, Sensor Interface Circuits, Gas Sensor Platform, Low Temperature Co-fired Ceramic Technology based Circuits, MEMS Hotplate, Silicon Carbide Schottky Diode Detectors, MEMS Ultrasonic Transducers, MEMS Acoustic Sensors, Selective Ion Sensors, Biosensors, ISFET based PH Sensor, Hybrid Microcircuits (HMCs) for SROSS and INSAT series of Satellites, Re-configurable System Design, Application Specific Instruction-set Processor Design, 16/32-bit Microprocessor Design, P-MOSFET Gamma-ray Dosimeter, Piezoresistive Pressure Sensor, Capacitive Pressure Sensor, InP-InGaAs based PIN Photo Detectors, 980nm Pump Laser Diode, C-band High-power GaAs MESFETs and Amplifiers
- 140 W Ku-band Space TWT, 2.6 MW Magnetron for LINAC, Mercury-free VUV/UV Plasma Source, Pseudospark Switches, Cathode System (MTRDC), Software Packages, Related Infrastructure & Technologies, High-power Microwave Window Technology, Long-life Dispenser Cathodes, 40 kV 3 kA Thyatron, 25 kV 1 kA Thyatron, Design and Technology Development for Gyrotron Devices, 6 MW Pulse 24 kW Average Power S-Band Klystron, 5 MW Pulsed S-band Klystron, 6 Ghz 20 W Helix TWT, 60 W Space TWT, S-band 30 W Helix TWT, Broadband 40 W Mini Helix TWT, C-band 75 kW CC-TWT, 3 MW Pulsed S-Band Magnetron, 2 MW S-band Tunable Pulsed Magnetron, S-band 1 MW Magnetron, S-band 500 kW Magnetron, S-band 400 W Carcinotron
- Ksheer Tester, Ksheer Scanner, Grid-compatible Inverters, 5 kW Solar-power Drive for Pumps, RO Water Plant Automation, Specialised Power Supplies and Pulse Power Systems for High Power Microwave Tubes, Sensor Networks, Wired and Wireless Communication Network for Underground Mines, Electronic Tongue, Electronic Nose, NIR-based Instrumentation for Chemometrics, Electronic Instrumentation for Fresh Water Aqua-culture and RO Systems, Machine Vision Systems for Bakeries and Steel Mills, Machine Vision Systems for On-line Sorting and Grading of Fruit, Monitoring and Control System for Paper and Pulp Industry, Process Control Instrumentation for Sugar Industry, Withering Controls for Tea Processing, Converters/PWM Actuators, High-power ac and dc Drives

Academic Programmes Offered

- The institute conducts post graduate and research programmes under the aegis of AcSIR in Advanced Electronic Systems, Advanced Semiconductor Electronics, and High Power Microwave Devices and Systems Engineering.
- Skill Development Programmes for Students and Working Professionals
- ME/M Tech project work and doctoral thesis work for highly motivated university students in all the above areas of electronics

For Further Details, Please Contact

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सीएसआईआर-हिमालय जैवसंपदा प्रौद्योगिकी संस्थान
CSIR - Institute of Himalayan Bioresource Technology
सीएसआईआर की एक संघटक प्रयोगशाला/A Constituent Lab of CSIR
पालमपुर (हि.प्र.) भारत/ Palampur-176061 (H.P.) INDIA



परिकल्पना: जैवआर्थिकी के उन्नयन हेतु प्रौद्योगिकीय उद्भवता एवं विकास में हिमालयी जैवसंपदा के संपोषणीय उपयोग द्वारा विश्व स्तर पर अग्रणी होना
उद्देश्य: सामाजिक, औद्योगिक, पर्यावरणीय और अकादमिक हित हेतु हिमालयी जैवसंपदा से प्रक्रमों, उत्पादों और प्रौद्योगिकियों की खोज, नवोन्मेष, विकास एवं प्रसार।



संस्थान की निम्नलिखित व्यवसायिक उत्पादन के लिए प्रौद्योगिकीयाँ

- रेडी टू ईट क्रिस्पी फ्रूट एवं परम्परागत व्यंजन
- मूल्यवर्धित बक़्कवीट
- बहु-अम्लीय (मल्टीग्रेन) उच्च प्रोटीन पेय एवं तत्काल (इन्स्टेंट) सूप
- स्फिरूलीना आधारित एनर्जी बार
- पादप वृद्धि हेतु राइजोबेक्टीरिया
- हींग
- केसर
- कैला लिली, जरबेरा, गुलदाउदी की उन्नत किस्में
- टी-वाइन
- रेडी टू सर्व चाय निर्माण
- हर्बल चाय
- मिनी डिस्टिलेशन यूनिट (हर्बोस्टिल ट्रेडमार्क)
- कम्पोस्ट बूस्टर
- आयरन युक्त फ्रूट बार और केन्डी
- टी विनेगर
- चाय कैटेकिन,
- हर्बल सोप
- हर्बल इन्सेन्स कोन
- हैंड सैनिटाइजर
- गुणवत्तायुक्त और स्वच्छ शहद हेतु उन्नत बी हाइव
- स्टीविया पाउडर और स्टीविया तरल द्रव्य (कम कैलोरीयुक्त स्वीटनर)
- अर्नेबिया यूक्रोमा से नेफथोकीन (लाल रंग) के लिए इन विट्रो उत्पादन प्रणाली
- खाद्य प्राकृतिक रंग, हर्बल लिपस्टिक
- हाइड्रोपोनिक खेती की तकनीक से लिलियम और टयूलिप के पुष्पण काल में कमी
- वेलेरियाना जटामांसी अपस्थानिक जड़ संवर्धन प्रौद्योगिकी
- विटमिन डी₂ युक्त शिटाके मशरूम
- एल-एस्परजिनेस
- हाइड्रॉक्सीमिथाइलफ्यूरल (5-एचएमएफ)
- सेल्यूलोसिक बायोमास से टेक्सटाइल फाइबर में परिवर्तित करने की पर्यावरण अनुकूलन प्रक्रिया

संपर्क करें:

निदेशक, सीएसआईआर- हिमालय जैवसंपदा प्रौद्योगिकी संस्थान
पालमपुर (हि.प्र.)- 176061, टेलीफोन- 01894.230411, फैक्स 01894.230433,
ईमेल: director@ihbt.res.in, वेबसाइट - <https://www.ihbt.res.in/en/>



CSIR-INSTITUTE OF MINERALS AND MATERIALS TECHNOLOGY

Council of Scientific and Industrial Research
Bhubaneswar-751013, INDIA

CORE AREA COMPETENCY

- ▶ Material characterization
- ▶ Mineral beneficiation, pelletisation and agglomeration
- ▶ Extraction of metals from ores, sludge and scraps
- ▶ Plasma processing of materials
- ▶ Nanomaterials, bio materials and energy materials
- ▶ Coatings, thin films, alloys, composites
- ▶ Green technology for industrial waste management
- ▶ Drinking water filtration and wastewater recycling
- ▶ Environmental impact assessment
- ▶ CFD/DEM modelling and simulation

INDUSTRY INTERFACE

- ▶ Technology development for mineral, material, metallurgical and chemical industries
- ▶ Contract research and consultancy for process optimization
- ▶ TEFR and Basic engineering packages in core area
- ▶ Testing of water quality and components in ores, rocks, soils, slags, and processed products
- ▶ Skill development

FACILITIES

- ▶ Mineral processing pilot plant
- ▶ SOPs for extraction of materials from industrial wastes
- ▶ Coal characterization
- ▶ Processing of natural gemstones for value addition
- ▶ State-of-the art analytical equipments for characterization of ores, minerals & materials
- ▶ Commercial scale production facility for fly ash and red mud building materials
- ▶ Mechanical workshop for design and fabrication
- ▶ Biomass operated cook stoves and testing lab
- ▶ Technology validation



Constructed wetland for waste water treatment



XPS



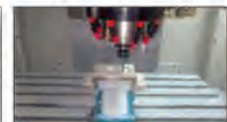
Particle Size Analyzer



High Concentration Slurry Transportation



CNC Turning & Milling Machines



Fly Ash & Red Mud Bricks



EPMA



XRD



Plasma Spray Coating



Column Flotation Unit



Hydrogen Plasma Reactor



TEM



X-ray Micro CT



Microwave Plasma Reactor



Scanning Electron Microscope



CONTACT US

Director, CSIR-Institute of Minerals & Materials Technology
Bhubaneswar – 751013
Phone: 0674-2379401; Email: dir@immt.res.in
URL: www.immt.res.in



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



CSIR-IITR, Lucknow is the only multidisciplinary research institute in the field of toxicology in India with the motto:

“Safety to environment & health and service to industry”.



R & D Areas

- Food, Drug & Chemical Toxicology
- Environmental Toxicology
- Regulatory Toxicology
- Toxicoinformatics & Industrial Research
- Systems Toxicology & Health Risk Assessment

R & D Partnership for Industries & Startup

- Centre for Innovation and Transnational Research (CITAR)

Services Offered

- GLP certified pre-clinical toxicity studies
- NABL (ISO/IEC 17025:2017) accredited
- Safety/ toxicity evaluation of NCEs
- Water quality assessment and monitoring
- Analytical services
- Environmental monitoring and impact assessment
- Information on chemicals/ products
- Computational Predictive Toxicity Assessment

Recognitions

- Scientific & Industrial Research Organizations (SIROs)
- UP Pollution Control Board (Water & Air)
- Indian Factories Act (Drinking water)
- Bureau of Indian Standards (Synthetic detergents)
- Food Safety & Standards Authority of India (FSSAI)

Technologies Developed/ Available

- Oneer- A novel solution for safe drinking water
- Portable Water Analysis Kit
- Mobile Laboratory for environment and human health
- AO Kit for rapid screening of Argemone in mustard oil
- MO Check for detection of Butter Yellow, an adulterant, in edible oils



विषविज्ञान भवन, 31, महात्मा गाँधी मार्ग
लखनऊ-226001, उ.प्र., भारत



VISHVIGYAN BHAWAN, 31, MAHATMA GANDHI MARG
LUCKNOW-226001, U.P., INDIA

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About us

CSIR- National Botanical Research Institute, Lucknow is one of the constituent research institutes of the Council of Scientific and Industrial Research (CSIR), Ministry of Science and Technology, Government of India, New Delhi.

Recent Products & Technologies

The Institute undertakes cutting-edge basic research and translational research in diverse areas of plant science. Some of the products and technologies developed by the institute are presented below:



Herbal Formulation for Diabetes Management (NBRMAP – DB)



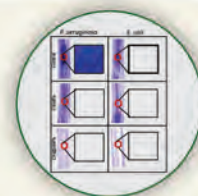
URO-05: Anti-Urolithiasis Herbal Formulation



CROMA-3: Bioavailable Curcumin Formulation



Anti Candida Gel



Chrysothanol Coated Urinary Catheter



Dentogel: Toothache Relieving Gel



Herbal Hand Sanitizers



Traditional Kadha



Mask Stress Reducer



Herbal Colors



Herbal Gulal



Certified Reference Materials



Thebaine Rich Poppy Lines



Whitefly Resistant GM Cotton



Anacardic Acid Based Growth Promoter



Microbial Bioinoculants



Low Grain Arsenic Rice Cultivar CN1794-2-CSIR-NBRI (Muktashree)



Dehydration of Flower, Foliage & Floral Crafts



Trumeric Leaf Essential Oil



New Floral Varieties



For more information please contact:
Director
CSIR-National Botanical Research Institute,
Rana Pratap Marg, Lucknow – 226001
U.P. (India)
Tel : 0522-2297802, 2297804
Fax : 0522-2205836, 2205839
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E-mail : director@nbri.res.in

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CSIR-National Geophysical Research Institute

A Premier Research Institute in Solid Earth



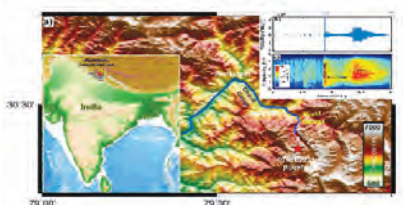
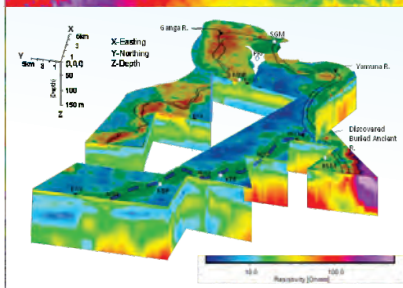
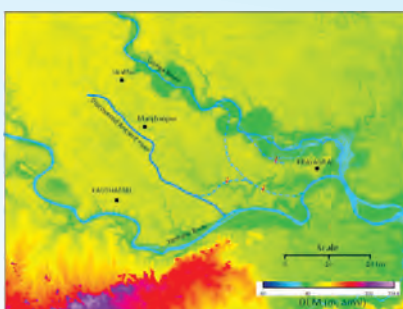
Exploring the Earth for 60 Eventful Years

CSIR-National Geophysical Research Institute (CSIR-NGRI) established in the year 1961, is a premier institute for research on solid earth sciences. It carries out innovative basic and applied research encompassing the fields of Geophysics, Geology, Geochemistry & Geochronology. The institute celebrated its Diamond Jubilee year in 2021. The highlights of which included lectures by eminent international scientists, an international conference, MoU with Denmark and seeding of the new discipline of Environmental seismology.



Significant Achievements

- ▶ Pioneer in Airborne Geophysical Research in India
- ▶ Gravity Map Series of India (GMSI)
- ▶ Developed first indigenous ground and airborne geophysical instruments
- ▶ State-of-the-Art observational and modelling infrastructure and Expertise in crustal seismic studies
- ▶ Largest Seismological Network across the country
- ▶ Borehole (1.5 km) seismological studies in Koyana
- ▶ First Geochemical Baseline Atlas of India
- ▶ Expertise of sub-Basalt imaging for oil and gas exploration
- ▶ Initiation of Heli-borne Aquifer Mapping in India
- ▶ Simulation of deep Earth processes and magnetic field



Unique Geophysical Research Institute of the country for Near Surface to Deep Earth Exploration

“The State-of-the-Art facilities of the institute are focused on research related to ground and heli-borne geophysical surveys for water & mineral exploration, deep Earth probing, geochemistry & geochronology, environmental monitoring, shallow sub-surface exploration, gas hydrates & hydrocarbon exploration, geotechnical investigations and active crustal deformation studies”

Contact:
Dr. V. M. Tiwari
Director

CSIR-NATIONAL GEOPHYSICAL RESEARCH INSTITUTE
Uppal Road, Hyderabad-500007, Telangana, India.
Email:director@ngri.res.in; Ph: 040-2343 4600; Fax: 91 40 2717 1564

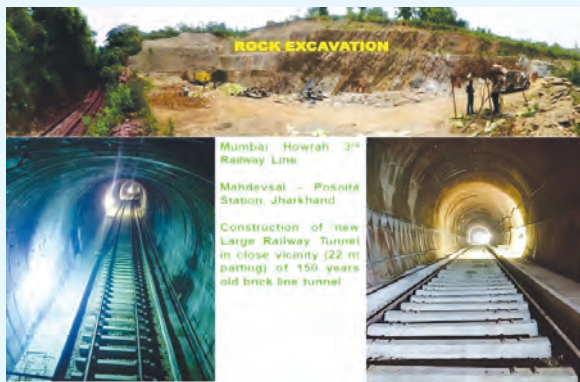


सीएसआईआर- केन्द्रीय खनन एवं ईंधन अनुसंधान संस्थान धनबाद

विज्ञान एवं प्रौद्योगिकी मंत्रालय, भारत सरकार, नई दिल्ली के अंतर्गत सीएसआईआर की एक अंगीभूत प्रयोगशाला



CSIR-CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH (CIMFR), DHANBAD, a constituent laboratory under the aegis of Council of Scientific and Industrial Research (CSIR), New Delhi aims to provide R&D inputs for the entire coal-energy chain encompassing exploration, mining and utilization with the Vision **"To be an internationally acclaimed mining and fuel research organisation"**



Major Contributions of CSIR-CIMFR are:

- Development of Safe Methods and Assessment of Stability of Mine Workings
- Design of Backfilling Systems for Stabilization of Mine Workings
- Design of Safe Blasting Patterns of Mines
- Assessment of Subsidence and Ground Movement due to Mining
- Design of Environmental Management Plan for Eco-Friendly Mining and Coal Based Industries
- Investigations on Methane Emission due to Mining and GHG Inventories

- Resource Evaluation and Reservoir Modeling of Coal bed Methane
- Evolution of Methods to Control Mine Fire
- Design of Support Systems for Mines
- Design & Development of Equipment, Instruments and Components for Safe Mining
- Coal Quality Assessment
- Basic Studies on Coal Science
- Coal Preparation
- Coal Carbonization
- Coal Liquefaction – Direct and Indirect routes
- Coal Gasification
- Coal Combustion
- Non Fuel Uses of Coal/ Value Added Chemicals
- Fly Ash Utilization



CSIR-CIMFR also extends testing, evaluation, calibration and consultancy services for explosives and accessories, mine ventilation and safety equipment, roof supports, personnel protection equipment, flameproof and intrinsically safe equipment, electrical cables, mining and allied industrial components, wire ropes, cage and suspension gear components, aerial ropeways, etc., for their safe use. All facilities for conventional & instrumental analysis of coal & coke, coal washing pilot plant, pilot coke oven by electrical heating & non-recovery type, XRF, XRD, FTIR, FETR, DTF, TGA, Surface Area Analyser, Porosimeter, coal water emulsion, GTL, PTGA-MS, HPLC, CPT, IPT, etc; EIA & monitoring of air, water, noise & soil pollution, GC, particle size analyzer, washability investigations on coals for cleaning potentialities, various laboratory tests on coal preparation, coal washing pilot plant for coarse and fine coal beneficiation.

For Further Information Please Contact:

Prof. Suddhasatwa Basu

Director

CSIR-Central Institute of Mining and Fuel Research

Barwa Road, Dhanbad – 826 015 (Jharkhand)

Phone : 91-326-2296023/ 2296006/ 2381111

Fax : 91-326-2296025/2381113

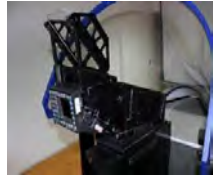
E-mail : director@cimfr.nic.in

Website:- www.cimfr.nic.in





सीएसआईआर-केंद्रीय वैज्ञानिक उपकरण संगठन



सीएसआईआर-सीएसआईओ वैज्ञानिक और औद्योगिक उपकरणों की परिकल्पना, अनुसंधान और विकास कार्य के लिए समर्पित एक राष्ट्रीय प्रयोगशाला है। यह भारत में उपकरण उद्योग के विकास को प्रोत्साहित करने के लिए देश का एक बहु-विषयी एवं बहु-आयामी शीर्ष औद्योगिक अनुसंधान एवं विकास संगठन है।



अनुसंधान क्षेत्र

- प्रतिबिंबन, वैमानिकी एवं प्रदर्श प्रणालियाँ (आईएडीएस)
- जैव-चिकित्सा अनुप्रयोग (बीएमए)
- निर्माण विज्ञान एवं उपकरण-विन्यास (एमएसआई)
- पदार्थ विज्ञान एवं संवेदी संप्रयोग (एमएसएसए)
- प्रज्ञ मशीनें एवं संप्रेषण प्रणालियाँ (आईएमसीएस)
- ऊर्जा प्रबंधन प्रौद्योगिकियाँ (चेन्नै केन्द्र)

उत्कृष्टता केन्द्र

- प्रज्ञ संवेदियों एवं प्रणालियों हेतु उत्कृष्टता केन्द्र (आईएसईएनएस)
- सूक्ष्म एवं नैनो प्रकाशिकी केन्द्र (m-एनओसी)

केंद्रीय सुविधाएं

- यांत्रिक
- इलेक्ट्रॉनिकी
- विश्लेषणात्मक
- थिन फिल्म

भविष्य के क्षेत्र

- हेल्मेट मांडडिट डिस्प्ले एवं क्यूइंग प्रणालियाँ
- नवीन माइक्रो-डिफ्रेक्टिव ऑप्टिक्स एवं नैनो फोटोनिक/ऑप्टिकल मैटामेटेरियल के लिए सूक्ष्म एवं नैनो निर्माण कार्य
- यूएवी के लिए नई पीढ़ी के कैमरे, इन्फ्रारेड एवं मल्टी-स्पैक्ट्रल संवेदी प्रणालियाँ
- संचार एवं जीपीएस जैमिंग प्रणालियाँ एवं उनकी रोकथाम के उपाय
- डीआरडीओ के साथ एरिया ऑटोनोमस ऑल-एंगल म्यूनीशन्स (एएएम)

वर्तमान उपलब्धियाँ

- एलसीए तेजस एमके 1 विमान के लिए हैड-अप डिस्प्ले : तेजस का नौसेना संस्करण, आईजेटी, हॉक
- एयरक्राफ्ट लाईटें : एलसीए तेजस एवं ड्रोग प्रोब लाईटें, जलयानों पर विमानों के लिए लैंडिंग एंड नैविगेशन लाईटें
- गनसाईट एवं बीयरिंग साईट्स : डॉर्नियर 228 विमान के लिए ऑप्टिकल गनसाईट, मैरीन बियरिंग साईट्स
- भूकंपीय : दिल्ली मेट्रो के लिए भूकंप चेतावनी प्रणाली, हाथियों और ट्रेन के हादसों को रोकने के लिए चेतावनी प्रणाली
- सामरिक : आईनेत्र – मल्टी लेयर्ड पेरिमीटर सुरक्षा प्रणाली, छोटे सुतर के विस्फोटकों के लिए हाई स्पीड शिल्लिरेन इमेजिंग
- नॉन डिस्ट्रक्टिव टैस्टिंग : एयरक्राफ्ट कैनोपी के लिए क्रेजीमीटर, डिजिटल होलोग्राफिक कैमरा
- कृषि एवं खाद्य : कृषि, प्रदूषण नियंत्रण एवं सैनटाइजेशन अनुप्रयोगों के लिए इलेक्ट्रोस्टैटिक स्प्रे मशीन, खाद्य तेलों की गुणवत्ता की निगरानी के लिए आयोडीन वैल्यू मीटर (एफएसएसएसएआई द्वारा अनुमोदित)
- चिकित्सा : दिव्यनयन – दृष्टिहीनों के लिए रीडिंग उपसकर, 3 डी लेजर प्रिंटिंग द्वारा रोगी विशिष्ट प्रत्यारोपण, लेजर लीथोट्रिप्सी
- पर्यावरण : अपशिष्ट Hg निपटान प्रक्रिया – बलब एवं ट्यूब, पानी में फ्लोराइड, नाइट्रेट, आर्सेनिक एवं सेलेनियम की पहचान के लिए संवेदक प्रणालियाँ, रोगाणुओं की रोकथाम के लिए यूवीसी आधारित वायु शुद्धता प्रणालियाँ

संपर्क

निदेशक

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सीएसआईआर-केंद्रीय विद्युतरसायन अनुसंधान संस्थान

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Founded in 1948, CSIR-Central Electrochemical Research Institute (CSIR-CECRI), a constituent laboratory of CSIR, is one of the world's largest research establishments carrying out R&D work covering all aspects of electrochemical science and technology in order to cater to the needs of the society.

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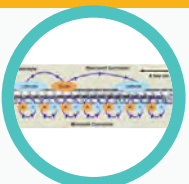
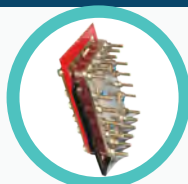
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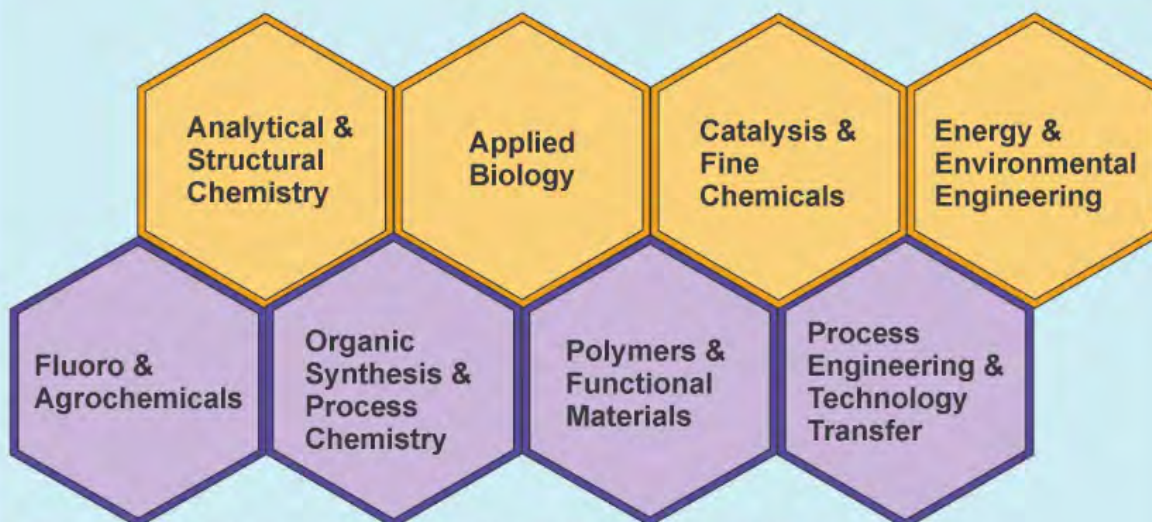
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जीवन में खेलों का महत्व

मनुष्य के लिए अच्छे स्वास्थ्य का होना अत्यंत आवश्यक है। एक स्वस्थ शरीर में ही स्वस्थ मस्तिष्क होता है। दूसरे शब्दों में, स्वस्थ मस्तिष्क के लिए स्वस्थ शरीर का होना अनिवार्य है। रुग्ण शरीर, रुग्ण मानसिकता को जन्म देता है। वैदिक काल से ही हमारे पूर्वजों ने 'निरोगी काया' अर्थात् स्वस्थ शरीर को प्रमुख सुख माना है। खेल अथवा व्यायाम स्वस्थ शरीर के लिए अति आवश्यक हैं, अर्थात् शरीर को स्वस्थ रखने के लिए खेल अथवा व्यायाम की उतनी ही आवश्यकता है जितनी कि जीवन को जीने के लिए भोजन व पानी की, खेल हमारे जीवन का आवश्यक हिस्सा है। स्वस्थ शरीर और दिमाग विकसित करने के लिए खेल महत्वपूर्ण भूमिका निभाते हैं। खेल कई प्रकार के होते हैं, जो हमारे शारीरिक के साथ मानसिक विकास में मदद करते हैं।

खेल-कूद का महत्व

खेलकूद मनुष्य के जीवन का एक अभिन्न अंग है। स्वस्थ मन स्वस्थ शरीर में ही होता है यानी अगर आप शारीरिक परिश्रम और खेल-कूद में भाग लेंगे तो आप स्वस्थ रहेंगे और साथ ही आप अपने रोज के सभी कार्य सक्रिय रूप से कर पाएंगे। हम मनुष्य को मानसिक और शारीरिक दोनों प्रकार से स्वस्थ रहना बहुत ही आवश्यक होता है जिसमें खेल-कूद बहुत अहम भूमिका निभाते हैं। खेल-कूद से हमारे मन का तनाव दूर होता है और इससे मन और शरीर को शांति मिलती है। कभी-कभी यही खेल-कूद जीवन के मुश्किल समय में शरीर को शक्ति देता है। खेल-कूद शरीर में रक्त संचरण को सही रखता है। बढ़ते बच्चों के लिए खेल में भाग लेना बहुत अच्छा होता है क्योंकि इससे उनका मानसिक और शारीरिक विकास और बेहतर तरीके से होता है।

खेल-कूद प्रतियोगिता

खेलों को खासकर दो टीमों या दो व्यक्तियों के बीच प्रतियोगिता के रूप में खेला जाता है। दुनिया भर में कई प्रकार के खेल खेले जाते हैं। खेलों को खासकर दो प्रकार में विभाजित किया गया है इनडोर गेम्स और आउटडोर गेम्स। एक खेल एक गतिविधि या खेल है जिसमें आमतौर पर कौशल, ज्ञान या मौका शामिल होता है, जिसमें आप निश्चित नियमों का पालन करते हैं और प्रतिद्वंद्वी के खिलाफ जीतने या पहेली को हल करने का प्रयास करते हैं।

क्रिकेट

क्रिकेट विश्व का बहुत ही प्रसिद्ध खेल है जिसकी शुरुआत इंग्लैंड से हुई। सन् 1877 में ऑस्ट्रेलिया और इंग्लैंड के बीच पहला टेस्ट मैच हुआ। क्रिकेट में 11-11 खिलाड़ियों की दो टीमों के बीच खेला जाता है, प्रत्येक टीम में 1 खिलाड़ी कप्तान होता है। क्रिकेट से बाउंड्री की दूरी लगभग 75 से 85 गज की होती है। क्रिकेट में अधिक रन बनाने वाली टीम की जीत होती है, तथा उसे पुरस्कार दिया जाता है। क्रिकेट की दुनिया में सचिन तेंदुलकर को एक अच्छा खिलाड़ी माना जाता है। जिन्होंने 100 शतक पूरे किये हैं।

क्रिकेट की गेंद का वजन लगभग 156 ग्रा. होता है। दिन में लाल व रात में सफेद रंग की गेंद का इस्तेमाल किया जाता है। क्रिकेट बैट की लम्बाई 38 इंच होती है। भारत ने अपना पहला मैच इंग्लैंड के साथ 1974 में खेला था। क्रिकेट मैच टी-20, एक दिवसीय तथा टेस्ट मैच तीन फॉरमेट में खेला जाता है। क्रिकेट मैच में 6 बार गेंद फेंकने पर एक ओवर बनता है। क्रिकेट एक बेहतर कार्डियो एक्टिविटी है और ये कैलोरी बर्न करने वाला एक बढ़िया खेल है। जिसमें मांसपेशियां मजबूत बनती हैं- क्रिकेट के मैदान पर आपको बोलिंग, हिटिंग, थ्रोविंग और कैचिंग आदि काम करने पड़ते हैं।

वॉलीबॉल

भारत में बहुत से खेल खेले जाते हैं जिसमें से वॉलीबॉल भी एक है। यह व्यक्ति को शारीरिक रूप से स्वस्थ रखना वॉलीबॉल का खेल दो टीमों के बीच खेला जाता है, जिसमें प्रत्येक टीम में 6 खिलाड़ी होते हैं। वॉलीबॉल का मैदान 18 मीटर लम्बा और 9 मीटर चौड़ा होता है। जिसे लम्बाई से बीचोबीच दो भागों में विभाजित किया जाता है यहाँ पर साइडों में दो खम्भे लगाए जाते हैं जिनपर 9.5 मीटर लम्बा और 9 मीटर चौड़ा 10 सेंटीमीटर वर्गाकार छोटे-छोटे जाले वाला नेट 2 मीटर 43 सेंटीमीटर की ऊंचाई पर लगाया जाता है। वॉलीबॉल का खेल एक मुलायम गेंद द्वारा खेला जाता है। जो कि चमड़े के 12 छोटे टुकड़ों से बनायी जाती है। बॉल के अंदर रबड़ का एक ब्लैंडर अलग से रखा हुआ होता है। गेंद का व्यास लगभग 65 सेंटीमीटर होता है। वॉलीबॉल की प्रतियोगिता को तीन पाली में खेला जाता है और प्रत्येक पाली के बाद हर टीम का क्रीडा क्षेत्र बदला जाता है।

फाइनल मैच में पाँच पाली होती हैं यदि प्रत्येक टीम में दो-दो पाली जीत जाए तो अंतिम पाली में 6 अंकों के बाद क्रीडा क्षेत्र को बदल दिया जाता है। इस खेल में हाथ से मारकर गेंद को दूसरी टीम के पाले में गिराना होता है जिससे एक अंक बचाने वाली टीम जीत जाती है। वॉलीबॉल का खेल चुस्ती और ताकत से भरपूर है। इसे खेलते समय व्यक्ति को फाउल से सावधान रहना चाहिए और दो लोगों को एक साथ गेंद नहीं मारनी चाहिए। व लीब ल खेलने से आपके जोड़ भी मजबूत होते हैं क्योंकि उन्हें लगातार चलाने के लिए प्रशिक्षित किया जाता है। कूदो, और मारो। व्यायाम और दैनिक गतिविधियों के दौरान मजबूत जोड़ आपको चोट के विभिन्न जोखिमों से बचाएंगे। वॉलीबॉल में वजन प्रशिक्षण शामिल है जो हड्डियों को मजबूत कर सकता है।

निष्कर्ष

प्रत्येक व्यक्ति के जीवन में खेल बड़ी भूमिका निभाते हैं। व्यक्ति के संतुलित विकास मानसिक, शारीरिक एवं भावनात्मक संतुलन में खेल मजबूती प्रदान करने वाले होते हैं। यह हमें बहुत ऊर्जा और मजबूती प्रदान करने के साथ ही पूरे शरीर में रक्त संचरण में सुधार करके सभी तरह की थकान और सुस्ती को सुधारता है और शारीरिक और मानसिक अच्छाई को बढ़ावा देता है। यह एक व्यक्ति की कुशलता, कार्य क्षमता को सुधारता है और मानसिक और शारीरिक रूप से थकान होने से बचाव करता है। यह छात्रों के बीच शिक्षा की गुणवत्ता में सुधार लाने का अभिन्न हिस्सा है। खेल और शिक्षा दोनों को अपने जीवन में एक साथ अपनाकर हम महत्वपूर्ण सफलता प्राप्त कर सकते हैं।

शिव प्रकाश

सीएसआईआर-केंद्रीय औषधीय एवं सगंध पौधा संस्थान (सीमैप),
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