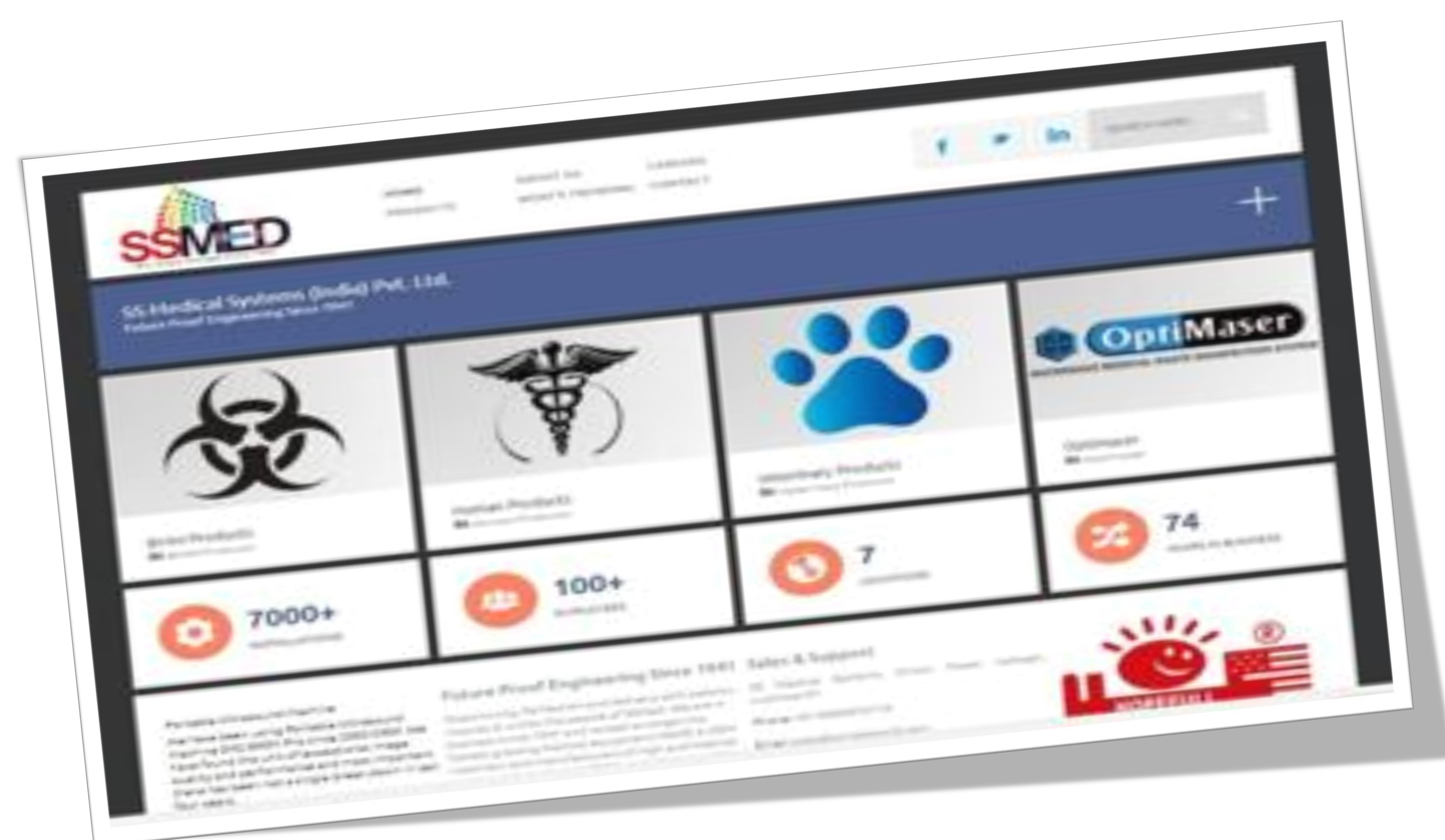


CSIR in Media



75 Years of
CSIR Touching Lives

A Daily News Bulletin
30th June 2017



उपयोगी पर हठीली है हल्दी

रूमा सिन्हा, लखनऊ : वैदिक काल से ही हल्दी के गुणों से हम सब परिचित हैं। इसी के चलते भारत में इसे भोजन का अहम हिस्सा बनाया गया है। यही नहीं, इसमें मौजूद औषधीय गुणों के कारण आयुर्वेद तो इसे औषधि का दर्जा देता है, लेकिन हल्दी की फितरत थोड़ी हठीली है। यानी इसमें पाया जाने वाला चमत्कारिक करक्वूमिन एक तो बहुत थोड़ी मात्रा में होता है, वहीं भोजन के साथ शरीर में पहुंचने पर इसका बहुत थोड़ा सा अंश ही शरीर द्वारा एब्जार्ब किया जाता है।

हल्दी के इस हठीले गुण का तोड़ केंद्रीय औषधि अनुसंधान संस्थान के वैज्ञानिकों ने खोज लिया है। इसमें पाए जाने वाले करक्वूमिन में कुछ बदलाव कर ऐसा मॉलीक्यूल तैयार किया है, जो न केवल शरीर में अच्छी तरह एब्जार्ब होगा बल्कि कोलेस्ट्रॉल को भी नियंत्रित करेगा। वैज्ञानिकों के अनुसार इससे शरीर में पाए जाने वाली वसा कोशिकाओं की न केवल बढ़ती संख्या पर रोक लग सकेगी, बल्कि उनका साइज भी कम होगा। सीडीआरआई वैज्ञानिकों का यह शोध प्रसिद्ध इंटरनेशनल जर्नल मेटाबॉलिज्म में हाल में प्रकाशित हुआ है।

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Dainik Jagran, Page no. 14

Govt-patented microwave waste disposal system struggling to find place in its gem

CSIR-IITR

30th June 2017



The indigenous technology was developed by the Society for Applied Microwave Electronic Engineering and Research that transferred the technology to S. S. Medical Systems in 2014 for manufacturing OptiMaser™.

New Delhi: A government-patented technology providing an eco-friendly microwave waste disposal system to major government hospitals is struggling to find a place in Centre's ambitious Government eMarketplace (GeM) platform. S. S. Medical Systems (I) Pvt Ltd, manufacturing the mobile microwave medical waste disinfection system, commercialized as OptiMaser™, has written to the ministry of health and family welfare and ministry of

commerce and industry expressing concern that there is no category on the GeM platform for listing the technology.

The indigenous technology was developed by the Society for Applied Microwave Electronic Engineering and Research (SAMEER), a scientific society of the Department of Electronics and Information Technology (DEITY) that transferred the technology to S. S. Medical Systems in 2014 for manufacturing OptiMaser™.

OptiMaser is already in use in major government hospitals and medical institutions across India. In New Delhi, reputed government hospitals such as Lok Nayak Hospital, Guru Teg Bahadur Hospital, Sushruta Trauma Centre, Guru Nanak Eye Hospital, and Chaha Nehru Bal Chikitsalaya and All India Institute of Medical Sciences (AIIMS) are using it. "We have requested the government to create a government patent or proprietary category

in GeM and till such time provide extension of DGS&D RC (Directorate General of Supplies and Disposal (DGS&D rate contract),” said Monish Bhandari, executive director, marketing & tech support, OptiMaser. In the unlikely event of this DGS&D extension not being granted, nor the GEM platform having provision for selling of patented indigenous products, it will not only kill such indigenous Indian innovation products but also defeat the ‘Make In India’ initiative and emergence of a growing Indian industry,” he said.

Interestingly, the Council of Scientific and Industrial Research’s Indian Institute of Toxicology Research (CSIR-IITR) has recently signed an MoU with the maker of OptiMaser™ in order to research and laterally replace conventional autoclave in hospitals across India.

The microwave medical waste disinfection system provides a high level of disinfection with an action of moist heat and steam generated by microwave energy through internal molecular heating. The technology is based on alternative, non-burn, green technology without discharge of harmful gases and effluents.

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Steel ministry to produce electrical steels in India

CSIR-NML

30th June 2017

KOLKATA: The steel ministry is spearheading a Rs 500-crore public-private research and development project for indigenous technology to produce high value cold rolled grain oriented (CRGO), or electrical steels in India. Electrical steels, used in manufacturing static motors such as transformers, are priced at nearly Rs 1.5 lakh per tonne —five times the value of hot rolled coils (HRC) that are used to make cars and consumer durables. Globally, only a clutch of companies have the capability to produce CRGO and the technology is not easily available for assimilation. The Indian project will involve the Department of Scientific Industrial Research — National Metallurgical Laboratory (DSIR- NML), the ministry, Tata Steel and Rashtriya Ispat Nigam.

If successful, it would be a significant breakthrough since CRGO grade steels will be produced in India for the first time. Currently, all requirements are met through imports. The venture would also mark a significant leap for the steel industry's technology prowess. In the last couple of years, the country has emerged as the third-largest steel producer in the world and is in line to reach the no. 2 spot. A pilot plant will be set up at NML premises in Jamshedpur after a detailed engineering and project management report. A detailed project report has already been prepared and submitted by engineering consultancy Mecon. Depending on its success, stakeholders are likely to adopt the technology for producing CRGO. All key aspects relating to licensing and IPR have been covered under a master agreement, a source close to the initiative told ET. "Mecon has, in collaboration with a knowledge partner, developed a 'process route' for the CRGO, which is completely indigenous and does not infringe on existing technology," said a source in the government.

This was after NML conducted fundamental research to find the white spaces for developing the technology without any infringement issues. While efforts to develop CRGO were taken up by Steel Authority of India's Rourkela Steel Plant a couple of decades earlier, it proved elusive. At that time it was Armco, also the first developers of this grade of steel, which was providing the main technology. Read more at: . currently, Rourkela Steel Plant is the largest producer of cold rolled non-oriented steels in India. More recently, JSW Steel BSE -0.93 %, in cooperation with JFE Corp of Japan, was also in talks to develop CRGO steels in India.

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Economicstimes.indiatimes.com

Kendriya Vidyalaya students visit CSIO, interact with scientists

CSIR-CSIO

29th June 2017

The programme is being attended by 100 students from classes VIII to X of different KV schools and it expects to target 75,000 students and around 1,000 teachers with CSIR labs across the country and the previous camp had about 80 students.



Kendriya Vidyalaya students at CSIO in Chandigarh on Thursday. Express

ON THE second day of summer camp JIGYASA for students of Kendriya Vidyalaya schools at Central Scientific Instruments Organisation (CSIO), more than 100 students visited CSIO at Sector 30 on Thursday and interacted with senior scientists, who informed them about various scientific equipment and machines on Thursday. Ananya, a student of Class VIII, said it was a good experience to learn something new here.

Navneet Singh Aulakh, PRO of CSIR-CSIO, said the organisation wants students of rural areas and other school students to join the camp. The programme is being attended by 100 students from classes VIII to X of different KV schools and it expects to target 75,000 students and around 1,000 teachers with CSIR labs across the country and the previous camp had about 80 students.

There are two batches a day from 10 am to 1 pm and 2 pm to 5 pm. The main objective of this programme is to give schoolkids an idea of scientific temperament, inspire young minds about scientific research as well as ignite the spirit of scientific thinking at an early age. During this three-day programme, various topics on conceptual understanding of scientific concepts along with their practical demonstration would be covered. The students have been interacting with scientists and visit national facilities

of CSIR-CSIO, actively involved in technology development for agriculture, healthcare and defence sector under Make in India and Innovate in India scheme of GoI. Besides this programme, CSIO also conducts a programme to train science teachers under

Faculty Training and Motivation and Adoption of School and Colleges Scheme. CSIO has adopted several schools under this scheme and facilitating them for science infrastructure development at school level and conducting several science programmes such as Science Day, Akshay Urja Diwas, Poster Competition.

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Safety norms ignored, blow torch left behind: The mystery of NCL MAGIC lab fire deepens

CSIR-NCL

20th June 2017



A major fire on the night of March 27, which gutted the 13-month-old Indus MAGIC Lab inside the CSIR-National Chemical Laboratory (NCL), has left behind a trail of unanswered questions. After hosting an event during the weekend, CSIR-NCL was officially closed on March 27, hours before the fire. At the time of the incident, nobody was working in any of the labs, due to which there was no casualties or loss of life. According to sources, the NCL internal committee comprising senior scientists, safety officers and experts from other labs in Pune — which was appointed to look into the matter soon after the incident — could not come up with any conclusions about the cause of the fire.

But the high-level CSIR committee, which looked into the fire incident, examined CCTV footage and found that two persons had left the laboratory premises a few minutes before the fire started at 8 pm. On April 13, the committee had visited NCL, inspected the site, and questioned lab operators and other officials. However, over three months after the event, it is yet to submit a final report. According to highly-placed sources, some disturbing findings had emerged during the investigation by the CSIR committee. This includes “compromise on the quality of material used during renovation, inappropriate use of highly inflammable material and a complete absence of even basic safety devices, which are mandatory in such laboratories”. A pertinent question is whether the existing internal safety committee, involved in the day-to-day monitoring of the laboratory, was doing its job of ensuring the safety of the MAGIC lab. “No safety audit of the laboratories has been carried out for several years... NCL witnesses an incident of fire, or sometimes

even two incidents, every week,” said a highly-placed source. Some senior officials indicated that several labs continued to be extremely unsafe to work in, putting the lives of a large number of students and scientists at stake. Significantly, scientists and students at both NCL and the adjacent Indian Institute of Science, Education and Research (IISER), who witnessed the fire, told The Indian Express that most of the building was gutted within the first 50 minutes of the incident, and they heard the sound of several explosions as the blaze continued.

A second fire had broken out the same day, in the ground floor of the Pilot Plant III building, about two hours after the first incident. The CSIR committee has also noted the presence of two blow torches that seemed to have been left unattended inside the MAGIC lab on the day of the fire, said sources.

Less than two months after the incident, NCL authorities issued tenders worth Rs 7.91 crore on May 11, for undertaking repair works of the laboratory. A detailed media query by The Indian Express — seeking details about the CSIR committee’s visit and findings — sent to the NCL Director Ashwini Kumar Nangia, received no response.

History of the Indus MAGIC lab

In 2012, Vivek Ranade, then deputy director of the institute, had proposed setting up the Indus MAGIC lab in the Pilot Plant III building in the NCL. Information from certain vital documents, accessed by The Indian Express, has revealed that permission was granted for Aluminium Composite Panel or ACP cladding, glazing and polycarbonate techniques as part of the renovation of Pilot Plant III building, though MAGIC lab was only supposed to be involved in the synthesis of chemicals, including volatile and hazardous ones.

Days after the fire, when The Indian Express tried to contact Ranade over the phone, he was unavailable. NCL staff said he was no longer associated with the laboratory and was currently abroad.

Some sources said that the chemical engineers or scientists supervising MAGIC Lab were earlier employed with an industrial unit headed by a senior NCL scientist. After the unit shut down, these engineers were reinstated at NCL and entrusted with bigger responsibilities that included heading the project and managing the activities of MAGIC lab, while their core competency was in engineering rather than research. The CSIR committee, during its investigation, found that safety norms were ignored while running MAGIC lab, said sources. They added that some scientists had complained about having zero access to that lab, even for official purposes.

Another set of documents, accessed by The Indian Express, showed that some scientists operating MAGIC lab had demanded a larger area inside it to be “illegally renovated and covered with ACP cladding”. As the MAGIC lab inside the Pilot Plant III was never “completely ready” for operations, with renovation work going on for over four years, the presence of several boxes and plywood worth Rs 5 lakh inside the lab could have also added ‘fuel’ to the fire that day, said sources.

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