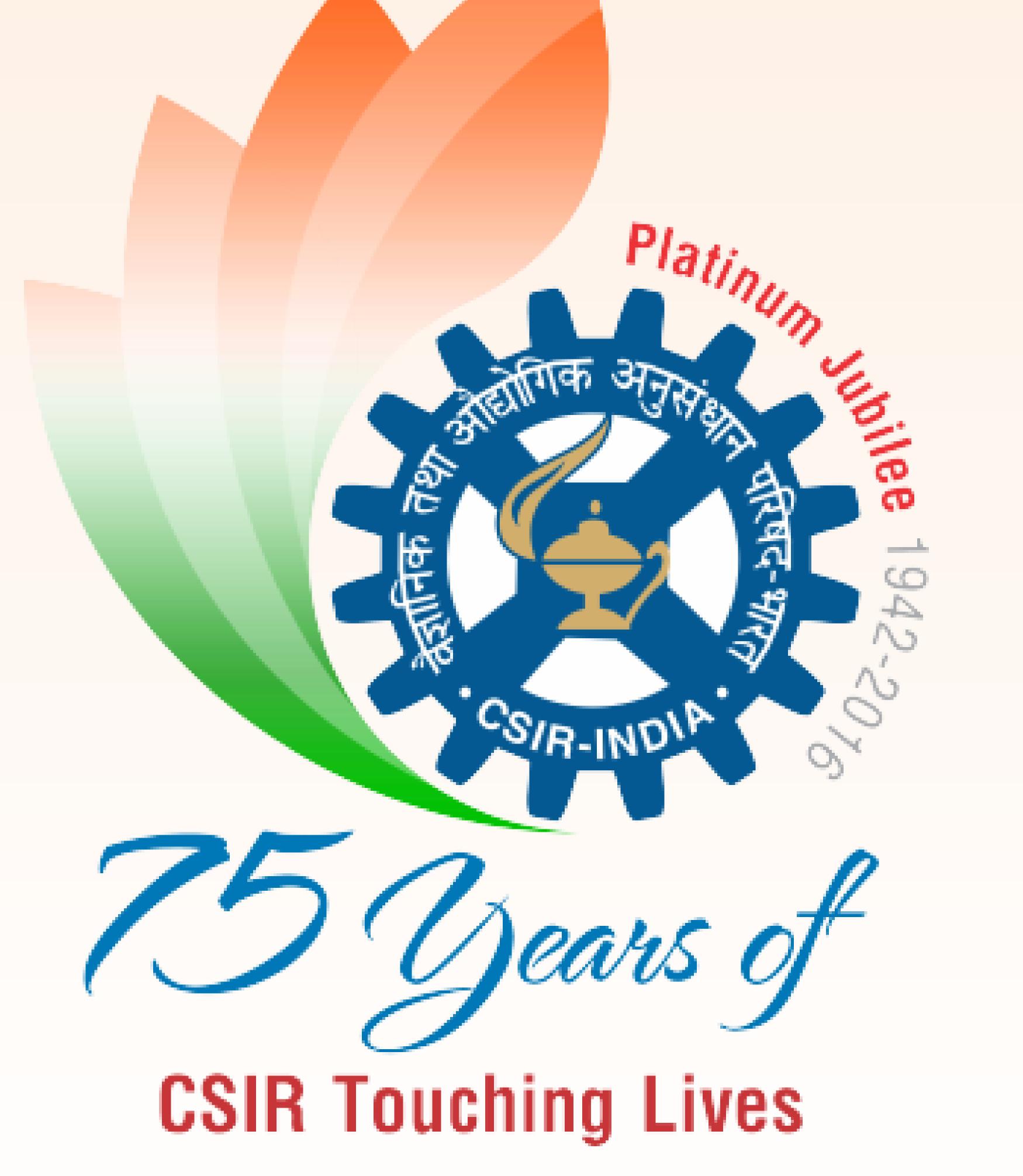
CSIR in Media



News Bulletin

21st to 25th January 2020









New Graphene supercapacitor will boost energy in defence applications





Efforts are being made to look for economical and more effective options for storing electrical energy. Indian researchers are now developing an cost effective Graphene-based supercapacitor that can be used to provide energy to various applications, including stateof-the-art defence applications, mobile devices and smart vehicles.

Supercapacitors, also known as ultra-capacitors are electrochemical devices used for the storage of electrical energy, whose popularity is growing rapidly. The activated carbon is an expensive material commonly used to produce such ultra-capacitors. Newly developed

graphene oxide found to be a cost alternative material for producing ultra-capacitors, which has reduced its weight as well as its cost by ten times, say researchers.

Cost of activated carbon used in other supercapacitors available in the market is up to Rs 1 lakh per kg. Scientists at the Central Mechanical Engineering Research Institute (CMERI), Durgapur, have developed a new technique for making graphene oxide, which is now being used to produce new ultra-capacitors.

"Scientists have developed a technique for producing graphene oxide at CMERI. The

production cost of one kilogram of graphene oxide using this technique comes to around ten thousand rupees, which is much lesser than the cost of activated carbon used in supercapacitors. We have modified the surface of graphene oxide in our research, due to which it has also succeeded in reducing its weight. We have now reached at the advanced stage of making ultra-capacitors by using this graphene oxide which can be useful in various sectors", said Dr Naresh Chandra Murmu, a scientist at CMERI.





Former Defense Research and Development Organization (DRDO) official M.H. Rahman said that "such devices not only cater civilian applications but can be applicable in strategic and defence applications as well." Mr. Rahaman also explained that the Graphene-based Ultra-capacitor which is at the advance stage of development at CSIR-CMERI has the

potential to solve the energy and power requirement in various sectors. He was speaking during an event held recently at CMERI.









CFTRI To Conduct Skill Development Workshop For ITI Students

CSIR-CFTRI

25th January, 2020

CSIR-Central Food Technological Research Institute (CFTRI), Mysuru, is conducting a workshop on operation and maintenance of select food processing machineries on Feb. 19 and 20 for the benefit of students undergoing training in various industrial trade courses. The workshop is taken up under CSIR Integrated Skill Initiatives aligning with Skill India Campaign. The programme will introduce participants to the diverse operations and maintenance of food processing machineries. Further, safety issues, regulatory requirements, hygiene, sanitation and SOPs for quality management are also included. CFTRI with its vast expertise in food processing and large number of scale-up facilities will be enabling an ideal platform for skill enhancement for those who aspire to be a part of the sunrise Industry. Students pursuing ITI and those who have completed ITI in the last two years can participate. There are 20 seats available for registration. All participants will be provided with a proficiency certificate. Those who would like to enroll for the programme may visit at: http://www.cftri.com/sdp or contact Dr. H. Umesh Hebbar, Sr. Principal Scientist, Food Engineering Department or email: hebbar@cftri.res.in; Ph: 0821-2512520. The last date for registration is Feb. 7, according to a press release from A.S.K.V.S.Sharma, Coordinator, Information and Publicity.







CSIR-CIMAP signs MoU with SMVD Shrine Board for making Agarbattis from flower waste







Administration, CSIR-CIMAP, Lucknow. Dr Alok Kalra, former Director, CSIR-CIMAP, Lucknow; R K Srivastava, Senior Scientist and Head, Rural Development, CSIR-CIMAP; Dr Sunil Sharma and Deepak Dubey, Dy Chief Executive Officers of the Shrine Board; Manu Hansa, Assistant CEO; Vinay Khajuria, ACF The Council of Scientific and Industrial and Priya Khajuria, Assistant Manager were Research (CSIR) – Central Institute of present on the occasion. The CEO said that Medicinal and Aromatic Plants (CIMAP), signing of the MoU between CSIR-CIMAP Lucknow, signed a Memoranda of and the Shrine Board is a significant step Understanding (MoU) with Shri Mata towards productive and environment friendly Vaishno Devi Shrine Board at Katra today utilisation of flower waste. He suggested the under which the CSIR-CIMAP will provide visiting team of scientists of CSIR-CIMAP free consultancy, technical support and to suggest the species of aromatic, guidance to the Board for making Agarbattis ornamental and flower plants as well as from flower waste. Under the project, a small creepers which could be planted on the track infrastructure facility will be created for leading to the holy Cave Shrine of Shri Mata making the incense sticks. The used flowers Vaishno Devi Ji to further enhance the will be collected from the temples, petals ambience for the pilgrims moving on the segregated from stems, washed, dried, track. The visiting scientists readily agreed to grinded and rolled to make the incense sticks. the suggestion of the CEO of the Shrine The MoU was signed by Ramesh Kumar, Board to support the Board in the selection of Chief Executive Officer of the Shrine Board such species. and Bhaskar Jyoti Deuri, Controller of





A day-long "Training-cum-Workshop on Agarbatti making from used flowers" was also organised at the Spiritual Growth Centre at Katra today in which 20 female employees of the Board participated. The workshop was organised by the Shrine Board in collaboration with CSIR-CIMAP, Lucknow. The objective of the workshop was to impart skill and building capacities to prudently utilise the flower waste in the Shrine area to obtain useful products like incense sticks.









CSIR-IMTECH

24th January, 2020

CSIR-IMTECH celebrates its 36th foundation day

Chandigarh, Jan 24 (UNI) CSIR-Institute of Microbial Technology (IMTECH), Chandigarh on Friday celebrated its 36th Foundation Day by organizing several events including the much anticipated Foundation Day Lecture.

According to a statement released here on Friday, Prof J Gowrishankar, Director, Indian Institute of Science Education and Research (IISER), Mohali delivered this year's Foundation day lecture on progress of genetics in bacterial ribonuclease.

E Prof Gowrishankar who is a Padma Shri and Shanti Swarup Bhatnagar awardee obtained his PhD from the University of Melbourne, Australia, Prof Sarit K Das, Director, Indian Institute of Technology (IIT), Ropar also presided over the function.

During his lecture, Prof Gowrishankar highlighted that the absence of RNase E is lethal to the growth of bacterial cell. The lecture focused on understanding the mechanism of RNase E which is one of the crucial enzyme having RNA degradation activity. He also discussed the potential implications of recessive resurrection on genetic studies in other model organisms and in humans.

Dr Manoj Raje, Officiating Director, CSIR-IMTECH while welcoming the guests and faculty to IMTECH's foundation day gave a brief background of CSIR-IMTECH and apprised the audience with institute's achievements during the last year. He highlighted the inauguration of Merck High End Skill Development Centre and approval of grant from BIRAC to set up a new cGMP facility for microbial cell bank as steps toward creating world class facilities in the institute. Speaking at the occasion, Dr Raje said, IMTECH has held on to the philosophy that Science drives Technology and Technology Drives Science which has been the driver of all major research and development happening in the institute. He further added that since India is a country today with 65 per cent of its youth in the working age group (15-59 years), Merck High End Skill Development Centrewill help in increasing the employment opportunities of the students through this initiative of IMTECH.

On this occasion, the institute also felicitated its students for best PhD thesis and best PhD presentation award 2019 with a certificate and cash award for their outstanding performances.

CSIR-IMTECH is a national center for excellence in microbial sciences and was established in 1984. IMTECH's vision is to discover and develop transitional products and new drugs to address key unmet medical needs. UNI JS ASN 1936

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UNI





CFTRI To Host Seminar On Information Services In Digital Era On Feb.4







enabling futuristic learning environments, new ideas and producing creative outcomes. Experts from IISc., DRTC, NAL, NISCAIR and NIT will deliberate on various topics related to this issue. The focus will be on Open Source Information Systems and stateof-art Information Services for R&D CSIR-Central Food Technological Research Professionals. The seminar is open to Library Institute (CFTRI), Mysuru, is hosting a one-Professionals, Academicians, Graduate and day seminar on "Innovation and Sustainable PG students and Researchers of Library and Information Services in Digital Era" on Feb. Information Science. Those interested in 4 in association with ICSSR, New Delhi, participating and submitting abstracts related AFST(I), Mysuru, American Chemical to technical themes may call Ph: 0821-Society and Springer Nature. The aim of this 2515850 or visit: seminar is to bring together Library and Information Professionals associated with www.cftri.comor reputed institutions in and around Mysuru to https://sites.google.com/view/libsem, exchange ideas, new initiatives, experiences according to a press release. and viewpoints about innovative library services in the digital era. The digital Published in: Star of Mysore revolution including the growth of virtual world and web applications have impacted libraries and information services. Libraries can remain relevant in this virtual world by searching for and shaping opportunities,







CSIR-IICT

23rd January, 2020

Geneticist Virginijus Syksnys of Vilnius University, Lithuania, who has made made seminal contributions and demonstrated the ability of CRISPR-Cas system, a DNA editing tool, to cut the genome at any desired site opening the possibility of genome editing, will deliver this year's 'Dr. Manohar V.N. Shirodkar Endowment' lecture of the Telangana Academy of Sciences on January 24 at 4 p.m at CSIR-IICT.

Mr. Sisknys is the recipient of the 'Warren Alpert' prize and Kavli Prize with the latter given for 'invention of CRISPR-Cas9', a precise nanotool for genome editing, causing a revolution in biology, agriculture and medicine. The award was shared with Emmanuelle Charpentier and Jennifer Doudna.

K. Narasimha Reddy, president of academy and IICT director S. Chandrasekhar, who is the honorary secretary of the academy, would also address the gathering. Ch. Mohan Rao, former president of the academy, would brief the audience on the endowment and introduce the speaker.





CSIR-IMMT

Seminar focuses on control of corrosion







Dignitaries at the seminar organised in Bhubaneswar, Monday OP PHOTO

POST NEWS NETWORK

Bhubaneswar, Jan 20: The Council of Scientific and Industrial **Research Institute and Minerals** and Materials Technology, (CSIR-IMMT) Bhubaneswar in association with South Eastern Region Pipelines, Indian Oil Corporation Ltd organised a seminar on "Protection of On-Shore and Off-Shore Facilities against Corrosion in the Coastal Region" in Bhubaneswar, Monday. Corrosion is a natural process that converts a refined metal into a more chemically-stable form such as oxide, hydroxide, or sulfide. It is the gradual destruc-CSIR-IMMT tion of materials by organised a chemical and/or electrochemical reaction course to with their environestablish a ment.

properties of materials and structures including strength, appearance and permeability to liquids and gases.

Hence proper selection of materials and design, control of environment, application of coatings, and addition of inhibitors are most effective in cutting the cost of corrosion and achieving low cost reliability as corrosion can be designed out of the system. Corrosion testing and evaluation is the backbone of this methodology. Hence proper knowledge and approach to analyze and achieve are inevitable. For this the CSIR IMMT organised a short term course on 'Protection of On-Shore and Off-Shore Facilities against Corrosion in the Coastal Region' from 20-24th January solid foundation 2020 at CSIR-IMMT,

Suddhasatwa Basu, Director, CSIR-Institute of Minerals & Materials

Technology said, "Globally, corrosion costs around USD 2.5 trillion annually. An average of 3 to 4 per cent of GDP is estimated to be lost by all nations due to corrosion. India is losing around USD 26 billion a year-about 4 % of the size of the economy. Bhubaneswar. The course will en-

able beginners to establish a solid foundation in corrosion before moving on to advanced topics. Exercises, hands-on practical sessions and virtual experiments will help participants understand the basic concepts and fundamentals important to corrosion. It also provides an excellent avenue for corrosion practitioners, designers, technical managers, inspection and maintenance engineers, quality control personnel and those involved in failure analysis to update their appreciation of corrosion and the awareness of the emerging technologies for corrosion control and prevention. This course is intended for new graduate's trainees with chemistry/physics or engineering backgrounds, midlevel engineers and technologist who have some basic prior knowledge of oilfield corrosion.

Published in:

Orrisa Post

At least 25 % of this annual cost can be saved by applying latest corrosion control technology. These figures clearly show the importance of the state-of-the-art corrosion control technologies to save the scarce foreign exchange of the developing country like India.

The figure is further very alarming as far as oil sector such as pipeline/offshore structure is concerned.

He said that unprotected pipelines/structures, whether buried in the ground, exposed to the atmosphere, or submerged in water, must be properly maintained and protected from corrosion. Corrosion degrades the useful



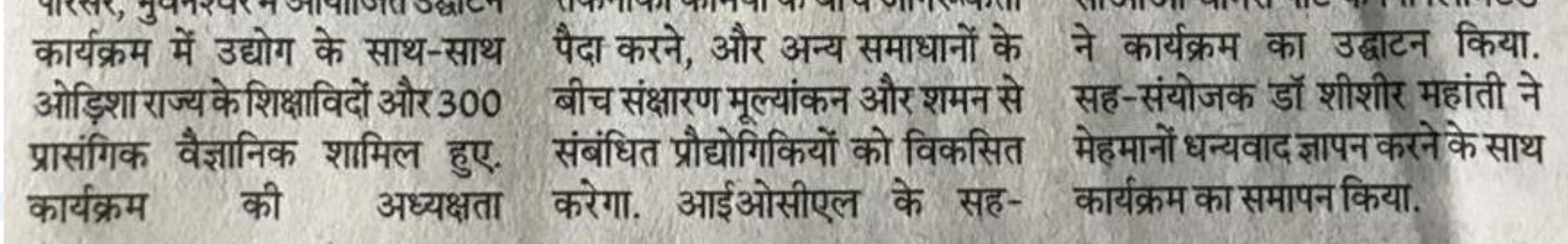


CSIR-IMMT





भुवनेश्वर. सीएसआईआर- इंस्टीट्यूट मिनरल्स एंड मैटेरियल्स टेक्नोलॉजी, भुवनेश्वर और साउथ	की, जिन्होंने प्रतिष्ठित संसाधन व्यक्तियों	आयोजक श्री पीसी चौबे, इडी एसआरपीएल आईओसीएल श्री एके तिवारी, ईडी, पाइपलाइन डिवाइन
ईस्टर्न रीजन पाइपलाइन, इंडियन ऑयल कॉपीरेशन लिमिटेड, तटीय क्षेत्र में भीतरी तथा बाहरी समुंद्र तट को हो रही क्षती को लेकर शूरक्षा और व्यवस्था	का स्वागत किया, जो लगभग 40 चिन्हित प्रतिभागियों को प्रशिक्षित करेंगे और जोर देकर कहा कि सीएसआईआर- आईएमएमटी इस	आईओसीएल और श्री जेपी सिन्हा ईडी ईआरपीएल आईओसीएल ने पाइपलाइनों में पानी, प्राकृतिक गैस और कच्चे तेल में जंग के वैज्ञानिक पहलुओं
पर 5-दिवसीय पाठ्यक्रम का आयोजन किया गया है. 24 जनवरी को सीएसआईआर- आईएमएमटी	तरह के कार्यक्रमों के माध्यम से उद्योगों के साथ साझेदारी को बढ़ाता रहेगा, वैज्ञानिक समस्याओं को दूर करने,	और राष्ट्रीय परिप्रेक्ष्य से संक्षारण शमन के अथर्शास्त्र पर जोर दिया. आयोजन



Published in:

Navbharat Times





PSU plan to enhance procurement from SC/ST entrepreneurs







The Centre, through its public sector units problem of low-procurement by Public Sector (PSUs) has plans to procure more from Units from SC-ST manufacturers. "The NSSH entrepreneurs in the SC/ST will be there to hand-hold the entrepreneurs communities. With this goal in mind, the after the training, for helping with financing, Central Food Technological Research marketing and management of enterprises," Institute, in collaboration with NSSH, has she said. The first training programme on designed a host of capacity building and Fruit and Vegetable Technologies for value training programmes on food processing not addition was held from January 6 to 13, 2020. only for existing entrepreneurs but also for The second programme on 'Spice processing: aspiring ones from the SC/ST communities. business opportunities and future prospectis' These programmes are intended to enhance will be held from January 20 to 28. A training awareness of those entrepreneurs on the programme on Wheat milling and baking possibilities to do business with PSUs, technology' is scheduled to be held from opportunities to access finance and starting a February 17 to 26 this year. "This is the first new venture. A. Kokila, Head, National SCtraining SC/ST programme for ST Hub (NSSH), Ministry of Small and Entrepreneurs through NSSH. CFTRI did Enterprises, Regional Office, Medium have meetings and workshops for SC/ST Bengaluru, was optimistic when she said that Entrepreneurs earlier but this is the first

'These programmes would help PSUs to procure the reserved 4% quota'. She also hoped that 'more entrepreneurs from these communities would earnestly participate in the programmes and make good use of the knowledge being shared'. Ms Kokila said that NSSH has been formed to address this





training program" said Dr. KSMS Raghavarao, Director, CSIR-CFTRI. Dr Raghavarao also said that the CSIR-CFTRI has designed training programme keeping in mind the budding, the aspiring as well as the existing entrepreneurs who want to expand and diversify," he said.

The training programme was offered free of cost to the candidates and is funded by NSSH. In the first programme 24 participants participated in the programme. "Essentially the hub helps by hand holding in getting started, besides providing subsidies for certain expenditures. Export promotion and PSU procurements are also helped. It is also helping to set up clusters" said A. Kokila.

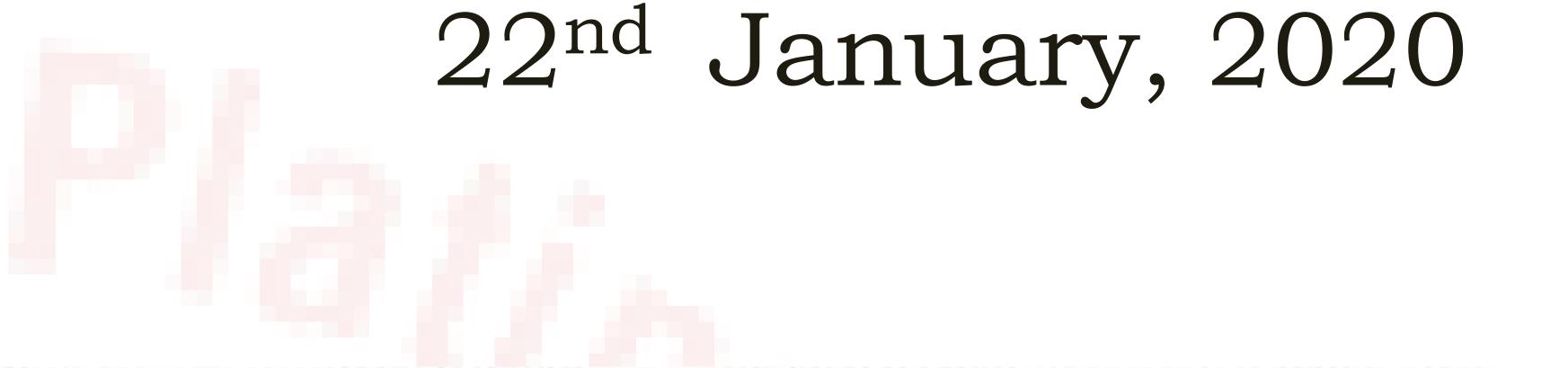








CSIR-NML



Mail News Service

Jamshedpur, Jan. 21: The Professional Training Programme on Metallurgical Failure of Engineering Components: Diagnosis & Remedy (MFEC 2020) organised by CSIR-National Metallurgical Laboratory inaugurated by was SoumitraTarafder, acting advisor director management, CSIR-NML, Jamshedpur.

Dr. Tarafder welcomed the participants and

programme. He mentioned that it's a good opportunity for the delegates to interact with the scientists and carry collaboration out programme for R&D activities in future. He went on to say that the importance of failure analysis in engineering also domain and emphasized having basic knowledge in different areas like chemistry and mechanical helps to understand the failure mechanism.

MitaTarafder, Head of



Training programme on Metallurgical Failure kicks off at NML

talked about the state of the art facilities and services, CSIR-NML is providing encouraged the and delegates to explore the laboratory.

Mainak Ghosh, Principal Scientist of MTE (Materials Engineering) division of CSIR-NML and coordinator of this training programme named various technical sessions of this programme which includes lectures and Diagnosis & Remedy hands-on sessions followed (MFEC 2020) will be by laboratory visit. The Inaugural programme was The participants will be

training program. Delegates from different organizations such as Tata Steel Ltd., Jamshedpur; Siddhartha Spectro, New Delhi; Indian Oil Corporation Ltd., Panipat BPCL. Kochi and participated the 1D programme. valedictory The programme Metallurgical Failure of Engineering Components: conducted on January 24. concluded after the given the certificates of :

appreciated delegates for	RPBD (Research Planning	importance of training	developing interactions	CSIR and different training	introduction of participants.	participation and each :
coming to CSIR-NML to	& Business Development)	programme which was not	between R & D laboratory,	programs offered by CSIR-	Each participant expressed	participant will give
attend this four-day	division of CSIR-NML was	only for enhancing	industry & academics. She	NML which are society and	their interest and	presentation, summarizing
professional training	derivering on the	knowledge but for	presented briefly about	industry oriented. She also	expectations from this	their learning.

Published in: The Avenue Mail



कारण जानना जरूरी है। फेल्योर मैकेनिज्म को समझने में केमिस्ट्री और मैकेनिकल की बेसिक जानकारी मददगार हो सकती है। यह कहना था राष्ट्रीय धातुकर्म प्रयोगशाला (एनएमएल) जमशैदपुर के कार्यवाहक निदेशक डॉ. सौमित्र तरफदार का। मंगलवार को वे मेटलर्जिकल फेल्योर ऑफ इंजीनिवरिंग कंपोनेंट्स डायग्नोसिस एंड रेमेडी (एमएफइसी) विषयक प्रोफेशनल ट्रेनिंग कार्यक्रम के उद्घाटन समारोह में संबोधित कर रहे थे। सीएसआइआर-एनएमएल के लेक्चर हॉल में मंगलवार को इस चार दिवसीय प्रशिक्षण कार्यक्रम की शुरुआत हुई। डॉ. तरफदार ने प्रतिभागियों का स्वागत करते हुए कहा कि यह उनके लिए बेहतर अवसर है कि वे वैज्ञानिकों के साथ संवाद करें और भविष्य में रिसर्च एंड डेवलपमेंट के लिए मिलकर काम करें। इस अवसर पर सीएसआइआर के रिसर्च

प्लानिंग एंड बिजनेस डेवलपमेंट हेड डॉ. मीता तरफदार ने प्रशिक्षण कार्यक्रम की उपयोगिता पर प्रकाश डालते हुए कहा कि इससे केवल जानकारी में ही बढ़ोत्तरी नहीं होगी बल्कि रिसर्च एंड डेवलपमेंट प्रयोगशाला, उद्योग व अकादमिक संस्थानों के बीच वह एक उपयोगी कड़ी भी साबित होगी। उन्होंने समाज व उद्योगों के लिए उपयोगी एनएमएल के विभिन्न कार्यक्रमों के बारे में भी जानकारी दी।

Published in:

Dainik Jagran



Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow, is organising a Gyan Vigyan Bal Mela 2020, in which students from standard IX to XII from across 17 Kendriya Vidyalayas as well as 20 private and governmentaided schools from Uttar Pradesh and Madhya Pradesh are participating. During the Mela, students are exhibiting their scientific models. As part of the event, a science quiz competition, extempore

Alok Krishna, convenor, said that about 150 students are participating and presenting about 50 scientific models.



competitions on scientific issues and on-the-spot science film-making competitions are being held. Abdul Samad, acting director, CIMAP, said that students would be visiting labs of the institute and



Published in: Times of India



के समन्वयक डा. राकेश पाण्डेय ने कार्यक्रम की रूपरेखा पर विस्तार पूर्वक चर्चा की। इस कार्यक्रम को भारत सरकार की जैव प्रौद्योगिकी विभाग ने वित्त पोषित किया है। प्रो. एचबी सिंह जो पूर्व में काशी हिन्दू विश्वविद्यालय में प्राध्यापक थे ने

की घरेलू पद्धति पर विस्तृत जानकारी दी। सीमैप के कीट वैज्ञानिक डा. संतोष केदार ने फसलों पर तरह-तरह के कीटों के नियमण की जैविक विधि पर विस्तृत जानकारी दी। कार्यक्रम में 100 से अधिक प्रगतिशील कृषकों ने भाग लिया।

Published in: Dainik Jagran





ISRO chairman and DG, CSIR to receive HK Firodia awards



CSIR

21st January, 2020

Pune Indian Space Research Organisation (Isro) chairman K Sivan and Council of Scientific and Industrial Research (CSIR) director general Shekhar Mande will be awarded at the 24th HK Firodia Awards function to be held at Balgandharv Rangmandir on February 7. The felicitation ceremony will begin at 6 pm. For their work in the field of science and technology, Sivan will be presented 'HK Firodia Vidyan Ratna Puraskar' and 'HK Firodia Vidyan Bhushan Puraskar' will be given to Mande.

The details of the event have been shared by a selection committee for the awards comprising scientist Raghunath Mashelkar and Arun Firodia, chairman of Kinetic group. Vijay Raghavan, principal scientific adviser to the government, will be the chief guest. "Isro has earned its name globally with its work in the last few years and Sivan's contribution in the same is tremendous. Launching 104 satellites at one time, Chandrayaan 2 mission and also in the Gaganyaan mission Sivan has made significant contribution. So, it is an honour to felicitate him in this 24th HK Firodia Awards. These awards were started to boost the scientific revolution in our country," said Mashelkar.

An online quiz competition has been organised for students as part of Firodia awards. The winners of the competition will get a chance to interact with the award winning scientists, and students who get the highest marks will be felicitated at the award ceremony. Students can log on to www.quiz.hkfirodiaawards.org to participate in the online quiz competition.

Published in:

Hindustan Times





CSIR-NCL celebrates 70th Foundation Day

CSIR-NCL

21st January, 2020

CSIR-National Chemical Laboratory (CSIR-NCL), Pune celebrated its 70th Foundation Day recently. AB Pandit, Vice-Chancellor, Institute of Chemical Technology, Mumbai delivered the CSIR-NCL Foundation Day Lecture on a topic titled "Role of Chemical Engineering in Nation Building".

Pandit talked about a general impression in public and said, "Chemical industry is responsible for the environmental degradation, general reduction in the quality of life.

At the same time, they do not talk about the things which chemical industry contributes to the improvement in the quality of life." His talk included several of the case studies taken out of his research works.

Pandit highlighted the achievements of the chemical industry in the urban areas. He said that chemical sciences have contributed to the development of medicines, biomaterials, implants, food processing, 3D printing, water and wastewater treatment. Ashwini Kumar Nangia, Director, CSIR-NCL in his welcome remarks spoke on technologies developed and

Referring recent media articles regarding several scientists leaving CSIR-NCL due to less promotion avenues and focus of CSIR on lab to market translations, Nangia reaffirmed the commitment of CSIR-NCL to the Dehradun declaration and thanked the scientists for contributing towards national goals in Mission, FTT FTC projects.





He also presented data on promotions of scientists at CSIR-NCL in last four years to show that the position of scientists in different designations was better today than at the beginning of 2016. NCL Research Foundation Annual Awards were also delivered to the deserving scientists and staff of CSIR-NCL at the hands of the chief guest.



Published in: The Times of India



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