

CSIR in Media



A Daily News Bulletin
13th to 14th December 2017



9 Punjabi university students cleared JRF/NET

CSIR

14th December 2017

PATIALA: Punjabi University has touched another high on the horizon of academic excellence with a record number of nine students of its Physics Department having cleared the JRF/NET examinations, recently conducted by the University Grants Commission (UGC) and Council of Scientific and Industrial Research (CSIR). The CSIR is India's premier national and among the world's largest publicly funded Research and Development (R&D) organisation. Giving this information, Prof BS Sandhu, Head of the Physics Department, claimed that the number was the highest in the country among all the Indian Universities, IITs and the IISER institutes. The students, who won these laurels for the University and its Physics Department include, Navdeep Singh Dhindsa, Aminderjit Kaur, Lakhvir Kaur, Mandeep Singh, Sukhwinder Kumar, Gurpreet Kaur, Gaganpreet Kaur, Jaspreet Kaur and Rohit Kumar. Earlier, during the previous phase of UGC's Centre for Advanced Study-I, 43 students had qualified the NET/JRF from the department, which was also the highest number among the Indian universities, IITs and the IISER institutes in India. This enabled the Department to be upgraded by the UGC as Centre for Advanced Study Phase-II for which it has sanctioned a grant of Rs. 1.60 Crore, Prof Sandhu added. An elated Vice-Chancellor, Professor BS Ghuman congratulated the department for its marvellous achievement, especially its faculty and students who have done proud to the University and promised to extend all help for its further progress and march towards excellence. This will help the University in a big way in its ranking among the Indian universities at the national level, he added.

Published in:

[The Times Of India](#)

CSIR-CDRI

14th December 2017

Molecules' identification as biomarkers will help in drug discovery, disease diagnosis: Prof Roy

PNS ■ LUCKNOW

A three-day-long national workshop on Small Molecule Analysis by NMR Spectroscopy and Mass Spectrometry is being organised by the Sophisticated Analytical Instrument Facility (SAIF) at the CSIR-Central Drug Research Institute, Lucknow, from December 13 to 15. SAIF, CSIR-CDRI, has been providing analytical services over the past 40 years or so and is one of the first four such facilities set up by the Department of Science and Technology (DST), Government of India, in the mid-seventies.

At the inaugural function the chief guest, Prof Raja Roy from the Centre for Biomedical Research, SGPGI Campus, Lucknow, said, "Extensive research is being performed worldwide towards synthesis of the new small molecule-based chemical entities, identifying bioactive principles from medicinally-important plant source in the search of future medicines and drugs for various diseases. He said that Nuclear Magnetic Resonance (NMR) spectroscopy and Mass Spectrometry were two compli-

mentary analytical methods which were being extensively utilised for solving the structures, quantification and understanding of the dynamic properties of molecules.

Dr AK Sinha, Chief Scientist, CSIR-CDRI, welcomed the participants and said, "The concept of SAIF at CSIR-Central Drug Research Institute evolved around the needs of scientists and research personnel engaged in the research area of chemical and biological sciences. It provides support to researchers from various universities, government R&D institutes and industry, who don't have these expensive and sophisticated instruments."

Later in the session Dr Sanjeev K Shukla discussed the basics and application of NMR Spectroscopy and provided a brief introduction of two-dimensional NMR and their applications. Dr Sanjeev Kanojiya explained the basics and application of Mass Spectrometry to the participants and Dr HM Gauniyal talked about developments of NMR instrumentation and its hardware. The hands-on-training for specialised skill development in NMR and Mass

Spectroscopy would be continued for two more days in which they would learn the know-how of these sophisticated analytical instruments, he said and added that the certificate would be provided after the completion of training.

Meanwhile, CSIR-CDRI reached Bahraich at the district-level Science Fair to motivate the young minds. The district-level Science Fair was organised jointly by Care India, Oracle and Sarv Shiksha Abhiyan, UP, on Wednesday at the Gendghar Ground in the historic city of Bahraich, where the future scientists were present with their talent. The fair was inaugurated by the DM of Bahraich, Ajay Deep Singh.

CSIR-CDRI, Lucknow, has been playing an active role in the promotion of science and motivation of young minds. Under the aegis of the outreach programme of the Institute a delegation from CSIR-CDRI, Lucknow, led by the incharge of Science and Technology Management Unit and the Chief Scientist, Vinay Tripathi, Dr PR Mishra, Dr Ritu Trivedi and Savita Tripathi joined the fair to interact with the students of 15 KGBVs and 20 other schools.

Published in:

Daily Pioneer

CSIR-CDRI

14th December 2017

बायोमार्कर के रूप में छोटे अणुओं की पहचान दवा की खोज के लिए उपयोगी : प्रो. रॉय

लखनऊ (एसएनबी)। बायोमार्कर के रूप में छोटे अणुओं की पहचान दवा की खोज और रोग निदान अनुसंधान के लिए बहुत उपयोगी है। यह बात बुधवार को केन्द्रीय औषधीय औषधि अनुसंधान संस्थान (सीडीआरआई) की सोफिस्टिकेटेड एनालिटिकल इंस्ट्रूमेंट फेसिलिटी (सैफ) द्वारा एनएमआर स्पेक्ट्रोस्कोपी और मास स्पेक्ट्रोमेट्री द्वारा लघु अणु विश्लेषण विषय पर आयोजित तीन दिवसीय राष्ट्रीय कार्यशाला का उद्घाटन करते हुए मुख्य अतिथि सेंटर फॉर बियोमेडिकल रिसर्च, एसजीपीजीआई, लखनऊ से पधारे प्रो. राजा रॉय ने कही।

प्रो. रॉय ने कहा कि नए छोटे अणु आधारित रासायनिक सत्वों (योगिकों) के संश्लेषण के लिए दुनिया भर में व्यापक शोध किया जा रहा है, जिसका उद्देश्य औषधीय महत्व के पौधों से व अन्य स्रोतों से महत्वपूर्ण बायोएक्टिव अणुओं की पहचान करना है। इससे आने वाले समय में रोगों के निदान के लिए नए बायोमार्कर व नई दवाओं की खोज में मदद मिल सके। उन्होंने कहा कि परमाणु चुंबकीय अनुदान (एनएमआर) स्पेक्ट्रोस्कोपी और मास स्पेक्ट्रोमेट्री दो महत्वपूर्ण विश्लेषणात्मक विधियां हैं, जिनका उपयोग अणुओं की संरचनाओं, उनकी मात्रा तथा उनकी क्रियाशीलता संबंधी गुणों को समझने के लिए बड़े पैमाने पर किया जा रहा है।



एनएमआर
स्पेक्ट्रोस्कोपी और
मास स्पेक्ट्रोमेट्री
द्वारा लघु अणु
विश्लेषण पर
राष्ट्रीय कार्यशाला

सीडीआरआई के मुख्य वैज्ञानिक डा. ए.के. सिन्हा ने प्रतिभागियों का स्वागत किया तथा कहा कि संस्थान में सोफिस्टिकेटेड एनालिटिकल इंस्ट्रूमेंट फेसिलिटी (सैफ) की अवधारणा रासायनिक और जीव विज्ञान के अनुसंधान क्षेत्र में कार्यरत वैज्ञानिकों तथा अनुसंधानकर्ताओं की जरूरतों के अनुरूप विकसित हुई है। यह उन विश्वविद्यालयों, सरकारी शोध संस्थानों तथा उद्योगों (जिनके पास मंहगे व परिष्कृत उपकरण नहीं हैं) के शोधकर्ताओं को अनुसंधान में सहायता प्रदान करता है।

इस दौरान डा. संजीव कुमार शुक्ल ने एनएमआर स्पेक्ट्रोस्कोपी के मूल सिद्धांतों व अनुप्रयोगों पर चर्चा की तथा दो आयामी



एनएमआर एवं उनके अनुप्रयोगों की संक्षिप्त जानकारी दी। डा. संजीव कनौजिया ने प्रतिभागियों को पास स्पेक्ट्रोमेट्री के मूल सिद्धांतों व अनुप्रयोगों की व्याख्या की तथा डा. एच.एम. गौनियल ने एनएमआर इंस्ट्रूमेंटेशन के विकास और इसके हार्डवेयर के संबंध में जानकारी प्रदान की।

Published in:
[Rastriya Sahara](#)

Published in:
Amar Ujala, Inext, Samna Activist

Bengaluru: National Aerospace Laboratories' Airboat is good to Go on Lake-Cleaning Missions

CSIR-NAL

13th December 2017



The once-ubiquitous Maruti 800 may have lived out its life, but its engine has found a new host and is doing pretty well. The first-of-its-kind airboat, developed in India by National Aerospace Laboratories (NAL), which was built to clear out weeds from Ulsoor Lake, has successfully undergone trials. Scientists at the civilian aerospace R&D laboratory have been carrying out trials for over two months and the airboat, powered by a modified engine of the Maruti 800, could successfully cut weed and scoop away the floating waste. S Selvarajan, chief scientist and principal investigator, pointed out that field trials of the airboat with automotive engine and

flat-bottom hull has successfully demonstrated all functionalities of the system. “We moved the boat to Ulsoor Lake on September 15. During the daily trials being done for the last two months, the boat met all the parameters. It could generate up to 40 hp and push 100 kgs of weed each time. Our aim is to go for a powerful and sturdy engine in the future; as technology evolves, may be we’ll need an engine that can generate up to 150 hp [and could be used] to clear lakes that are heavily infested with weeds,” Selvarajan told Bangalore Mirror. Even during the heavy rains that the city saw in the months of September and October, the trials were on and it did not hamper the performance of the boat. Karthikeyan, senior scientist and co-Investigator, CSIR-NAL, who operated the airboat, said the boat also had a hydraulic system-based scoop and saw-toothed, sliding weed-cutters at the front. NAL, which has been involved in developing airboats for inland waterways applications, will soon be demonstrating the technology to

the Madras Engineer Group and Centre and government officials. NAL Director Jitendra J Jadhav said the boat will cater to the current needs of lake maintenance. “Weed clearing is not a one-time job. The lakes have to be periodically de-weeded as part of maintenance activity. Thus, government agencies concerned should own them and carry out de-weeding regularly,” Jadhav said. The airboat, he said, could also be used during flood disasters, mass transport in marshy-lands, and for tourism. “We plan to network with CSIR Labs, and feel that versions of airboats have potential to evolve as one of the lead products of CSIR, serving Centre’s initiatives such as Swachh Bharath, Namami Ganga, etc,” he added.

THE COST FACTOR:

Scientists said each boat will cost about Rs20 lakh and the production will have to be taken up by the industry.

They added that a key aspect here is to ensure that the cost of the indigenous airboat is lower than the imported ones.

“As the proof of concept is successful, versions of high-powered airboats would also be made to cater to the end-user needs, if required,” said scientists.

Published in:
[Bengalore Mirror](#)

CSIR-NBRI

11th December 2017

चेहरों पर दिखी फूलों की रंगत

प्रदर्शनी में 'डारिज व्हाइट' बनी रानी, 'सिंगल कोरियन' राजा और 'रायल स्पाइडर' राजकुमार चुने गए

जागरण संवाददाता, लखनऊ : कोई फूलों की रानी तो कोई राजा के साथ सेल्फी ले रहा था तो कोई फूलों के जखीरे को अपनी बांहों में समेटने के प्रयास में जुटा था। युवतियों का समूह खुद को फूलों के रंग में रंगने में मशगूल था तो कोई उड़ते पानी के बुलबुले के बीच फूलों की किस्मों के साथ खुद को कैमरे में कैद कर रहा था। कुछ ऐसा ही माहौल रण्णा प्रताप मार्ग स्थित राष्ट्रीय वनस्पति अनुसंधान संस्थान (एनबीआरआई) में लगी दो दिवसीय गुलदाउदी और कोलियस प्रदर्शनी के अंतिम दिन नजर आया।

अवकाश का दिन होने की वजह से सुबह से ही दर्शकों के आने का क्रम शुरू हुआ तो देर शाम तक चलता रहा। एनबीआरआई परिसर के गुलशन में फूलों को देखा तो दर्शकों के चेहरे खिल उठे। अपने घर वालों और साथियों के साथ आए प्रतिभागियों में अपने फूलों को दिखाने की उत्सुकता नजर आई तो पुरस्कार पाने के बाद खिले प्रतिभागियों के चेहरे देखते ही बन रहे थे। प्रतियोगिता में 'डारिज व्हाइट' रानी बनी, 'सिंगल कोरियन' राजा और राजकुमार बने 'रायल स्पाइडर' के साथ दर्शकों ने खूब सेल्फी ली।

प्रदर्शनी में 109 संस्थाओं की ओर से 996 किस्मों के फूलों और कोलियस को सजाया गया था। एनबीआरआई की ओर से गुलदाउदी की जारी की गई नई किस्म 'हिम ज्योति' की ओर भी दर्शक खिंचे चले आए। संस्थान के निदेशक प्रो. एसके बारिक और वरिष्ठ वैज्ञानिक डॉ. आरएस कटियार की मौजूदगी में सीएसआईआर-सीमैप के निदेशक प्रो. एके त्रिपाठी ने विविध श्रेणियों में 382 पुरस्कार वितरित किए।



फूलों के जखीरे को अपनी बांहों में समेटने का प्रयास करती युवती • पंकज ओझा



राष्ट्रीय वनस्पति अनुसंधान संस्थान (एनबीआरआई) में लगी दो दिवसीय गुलदाउदी और कोलियस प्रदर्शनी के अंतिम दिन ट्रॉफी के साथ विजयी प्रतिभागी

● एनबीआरआई में दो दिवसीय पुष्प प्रदर्शनी का समापन

सीएसआईआर सीमैप के निदेशक ने
382
पुरस्कार बांटे



एनबीआरआई में लगी पुष्प प्रदर्शनी में अपनी बेटी फतिमा के साथ सेल्फी लेती डॉ. सबा



वृंदावन की मंजू शंकर को सर्वाधिक पुरस्कार
घर में ही एक हजार पुष्पों के साथ नर्सरी चलाने वाली मंजू शंकर को मुख्य श्रेणियों में सर्वाधिक पुरस्कार दिए गए। उनकी गुलदाउदी की किस्म 'डारिज क्वीन व्हाइट' को न केवल राजा का खिताब दिया गया बल्कि 'फ़्लोरिड हिस्कर' को वर्ष का सर्वश्रेष्ठ पुष्प होने की ट्राफी भी प्रदान की गई। इसके साथ ही रंजीता अग्रवाल को भी सर्वाधिक पुरस्कार दिया गया। उनके फूल 'रायल प्रिंस स्पाइडर' को राजकुमार का खिताब दिया गया। लामार्टीनियर फाइटर गार्डन के फाइ 'सिंगल कोरियन' को रानी का खिताब दिया गया। हेड क्वाटर मध्य कमान के के पुष्प को प्रदर्शनी का सर्वोत्तम कोलियस का अवार्ड दिया गया।

फूल के साथ पोज लेती समरीन फतिमा



परिवार के साथ मंजू शंकर

Published in:
[Dainik Jagran](http://DainikJagran.com)

Published in:
Jagran Inext, Amar Ujala, Hindustan,
Navbharat Times, Rastriya Sahara

CSIR-NBRI

11th December 2017

Flower show ends with prize distribution

PIONEER NEWS SERVICE ■ LUCKNOW

The two-day annual chrysanthemum and coleus show organised by the CSIR-NBRI came to the end on Sunday evening. The site of different varieties of flowers elated visitors comprising every age group. Children enjoyed the flower show along with their parents.

The closing ceremony was organised at the open air theatre of the institute amidst the vast array of chrysanthemum and splendid varieties of coleus. CIMAP director AK Tripathi was the chief guest of the show and distributed prizes to winners.

This year Manju Shanker from Vrindavan Yojna and Ranjeeta Agarwal, a resident of Madan Mohan Malviya Marg, stood first by winning a total of 5 trophies each while Tata Motors, Dewa Road, Headquarters, Central Command, Achal Green from Eldeco Colony and Hindustan Aeronautics Limited (HAL), Faizabad Road, secured the second position by winning two trophies each.



Winners of NBRI flower show with CIMAP director AK Tripathi

Pioneer

Besides, La Martiniere Junior School and Sandeep Rastogi bagged the third position by winning one trophy. A total of 382 prizes (112 first, 95 second and 175 commendation) were distributed.

Ranjeeta Agrawal from Madan Mohan Malviya Marg

occupied the first position by winning a total of 23 prizes (10 first, 5 second and 8 commendation) followed by La Martiniere Junior School, Kalidas Marg, secured 19 prizes (10 first, 3 second and 6 commendation) and Tata Motors, Deva Road, with 25 prizes (7 first, 6 second and 12 commendation), Tilku Prasad Prajapati from Motijheel with 9 prizes (7 first, 1 second and 1 commendation) stood at third position. Tripathi in his address congratulated the institute for releasing a new variety of chrysanthemum named 'NBRI Him Jyoti'. He also called on for more participants to take part in the upcoming flower shows with great enthusiasm.

At the start of the prize distribution function, CSIR-NBRI director SK Barik, while welcoming the guests, said that CSIR-NBRI was working hard to popularise floriculture. He mentioned that there was need of improvement in floriculture business especially with chrysanthemum and other cut flowers. In the end, chief scientist RS Katiyar proposed a vote of thanks.

Published in:
The Pioneer

Published in:
Hindustan Times,
The Times of India

Aerospace sector: ready for take off with Saras?

CSIR-NAL

6th December 2017

India's first indigenously built short-haul civilian aircraft Saras is ready to make its maiden test flight. The 14-seater light aircraft successfully completed low-speed and high-speed taxi trials near Bengaluru last week, according to top sources at the National Aeronautical Laboratory (NAL). Saras can be used in a variety of roles such as air ambulance, maritime patrolling and border surveillance operations. The development of the twin-turboprop engine aircraft has been so plagued by problems - its second prototype crashed in 2009, killing the three-man Indian Air Force (IAF) test crew - that the project had been all but written off. And for years, NAL was silent about its intention to give the aircraft a new lease of life. But the engineers and scientists who spent years to bring Saras off the drawing board never really gave up and worked quietly behind the scenes to resurrect the aircraft. According to NAL Director Jitendra Jadhav, the investigation into the 2009 accident had cleared NAL, a Council for Scientific and Industrial Research laboratory, of any design deficiencies and, instead, blamed "procedural deficiencies" for the crash. He said NAL had made "more than 10 modifications since the accident, and will evaluate the performance of the plane's systems during its test flights." With an endurance of five hours and service ceiling of 10 kilometres, the aircraft can cover more than 1,600 km at a maximum speed of 425 kmph. When Saras finally takes to the skies, it will carry with it the hopes of the country's aviation industry - for at stake is the very revival of India's national civil aircraft development (NCAD) programme. Started in 1996, the NCAD project, too, seemed jinxed from the word go, with its Russian designers pulling out of the effort. The pitch was further queered when the US slapped sanctions on India in the wake of the 1998 nuclear tests. The project never recovered from these twin blows and was virtually shelved, leaving India's aviation industry with no major aircraft development programme to speak of, never mind the licence production of several aircraft types in the

country under contracts with foreign companies, where no transfer of technology (ToT) was involved. The Hindustan Aeronautics Limited (HAL) manufactured planes like the HS 748 and the Dornier 228 under licence. But in the absence of any ToT worth its name, this merely meant the transfer of production lines by the foreign firms involved. In any case, it didn't help the domestic industry that HAL was more focused on the manufacture of military aircraft and had little time for its domestic civil aviation obligations. The Indian Navy (IN), for instance, has placed an order with HAL for a dozen Do-228 aircraft maritime surveillance and patrol aircraft, while the IAF has ordered 14 Do-228 aircraft, spare engines and a simulator from the state-run company. Add to this the glaring absence of private participation in India's limited civilian aircraft manufacturing sector and it is easy to see why the country has yet to take any major strides in this domain. The completion of flight trials and certification of Saras and activation of its production lines alone will not change this inertia in the system. But it will infuse new energy into India's civil/military aircraft manufacturing sector and prompt it to get off this 'hamster wheel' of always depending on licence production. Hopefully, government agencies like HAL, NAL, the DRDO and the Aeronautical Development Agency (ADA) will show some serious resource and research synergies so that a new roadmap could be chalked out. Only then would projects be realised within minimum, if realistic, time frames, instead of sinking under the weight of too many bells and whistles.

Private participation

Experts unanimously suggest a public-private partnership for these agencies to refresh their R&D capabilities and realise new technologies that would translate into the production of new aircraft. On its part, the government should provide technology development funding so that these agencies could partner with private entities to augment manufacturing. Since investment from abroad is crucial for the growth of the domestic industry, it is imperative to provide investors with the best possible business environment, including access to skilled manpower, favourable offset policies and relaxed tax norms. Opening the civil aerospace sector door wider to private players is certainly a

game-changing strategy, as Reliance Defence's JV with the Ukraine-based state corporation Antonov to build 80-seater aircraft in India with ToT proves. The manufacturing facility would be located at Reliance Aerospace Park at Mihan in Nagpur. Meant for military, para-military and commercial use, the aircraft would initially be assembled from knocked-down kits, with completely indigenous production expected by 2033. The joint venture also envisages a tie-up with HAL to manufacture low-cost passenger aircraft for connecting hundreds of small cities in the country as envisaged by the Regional Connectivity Scheme (RCS) announced last year.

The NAL, too, has completed design and feasibility studies on a Regional Transport Aircraft (RTA), which can carry more than 80 passengers. The agency is now reportedly in talks with some private entities to fund the project. The airplane's short take-off capability would be ideal for operating from smaller airports. To facilitate this, the government is expected to give the green light for rebuilding around 350 unused airstrips across the country.

Thanks to the top-notch Maintenance, Repair and Overhaul (MRO) facilities for civil and military aircraft in the country, India is an acknowledged fount of engineering and design services. The new 'Make in India' initiative provides the country an excellent opportunity to build on this by sprucing up its aerospace manufacturing capabilities. And to finally shrug off the dubious distinction of being the only country that can make and fire rockets for inter-planetary missions, but still cannot develop, build and fly its own aircraft.

Published in:
[Deccan Herald](#)