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Publication The Hindu English Language Edition New Delhi Jacob Koshy Journalist Date 24/08/2022 Page no

Tensions mar a mission to Tiangong

IIA scientists worried LAC stand-off will come in the way of their payload boarding China space station

JACOB KOSHY NEW DELHI

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Agency.
The project, called Spectrographic Investigation of Nebular Gas (SING), also involves collaboration with the Institute of Astronomy, Russian Academy of Sciences, and has been designed and



developed by research students at the IIA. The plan is to have it ready by the year-end so that it can be launched in the summer of 2023.

Though the plan is on schedule, scientists at the IIA are now consulting with the Indian Space Research Organisation (ISRO) and the External Affairs Ministry whether they are in the clear to go ahead with the project.

"We are cautiously hope-

ABBANGEMENT
ful that the project will progress as scheduled," said
Jayant Murthy, Senior Professor, IIA, and the coordinator
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The SING project will be

the first space collaboration involving India and China, and primarily deals with sending and positioning a spectrograph, an instrument that splits light into constituent frequencies and wavelengths, to study ultraviolet radiation. This will help analyse the make-up and sources of interstellar gas in the region that swept by the space station as it orbits around the earth.

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Opportunity at hand

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Publication The Hindu English Edition Mumbai Journalist Jacob Koshy 24/08/2022 Date Page no

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Scientists at the Indian In-stitute of Astrophysics (IIA), Bengaluru, were among nine groups selected from 42 ap-plicants in 2019 as part of a UN-led initiative that invites research teams from all over the world to compete for an opportunity to design pay-loads that will be shuttled to Tiangong aboard rockets of the Chinese Manned Space Agency.

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The main campus of the Indian Institute of Astrophysics in Bangalore, Karnataka. • SPECIAL ARRANGEMENT

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Publication Hindi Hindustan Language Edition New Delhi Journalist Bureau 24/08/2022 3 Date Page no

कुछ अलग । दिल्ली स्थित स्टार्टअप शेलिओस टेक्नोलैब्स ने बनाया, विज्ञान प्रौद्योगिकी विभाग ने की सीड फंडिंग

कितना भी प्रदूषण हो, देसी हेलमेट देगा साफ हवा

नई दिल्ली, हिन्दुस्तान ब्यूरो।अब बाहर का एयर क्वॉलिटी इंडेक्स(एक्युआई) कितना भी खराब हो तब भी इसका असर बाइक सवारों

पर कम पडेगा। उन्हें सड़क पर चलते हुए काफी हद तक साफ हवा मिलेगी। दरअसल दिल्ली स्थित एक स्टार्टअप कंपनी शेलिओस टेक्नोलैब्स ने एंटी पॉल्यूशन हेलमेट विकसित किया है। इस हेलमेट का नाम 'पुरोस' है। इस स्टार्टअप को विज्ञान और प्रौद्योगिकी विभाग से सीड फंडिंग प्राप्त है और इसे विज्ञान और प्रौद्योगिकी उद्यमी पार्क नोएडा में तैयार किया गया है। स्टार्टअप कंपनी द्वारा तैयार किया गया



यह एंटी पॉल्यूशन हेलमेट बाइक सवारों को स्वच्छ हवा में सांस लेने में मदद करेगा। इसमें ब्लूटूथ से लैस ऐप है. जो सवार को यह बताता है कि

हवा शुद्ध करने वाले लगे हैं यंत्र यह हेलमेट हवा शुद्ध करने वाले यंत्रों

के साथ तैयार किया गया है जिसमें ब्रशलेस डीसी ब्लोअर फैन, उच्च दक्षता वाले पार्टिकुलेट एयर फिल्टर, इलेक्ट्रॉनिक सर्किट तथा माइक्रोयूएसबी चार्जिंग पोर्ट शामिल है। हेलमेंट के पिछले हिस्से में लगा प्यरीफाइंग सिस्टम बाहर से आने वाले सभी धूल कणों को पकड़ लेता है और बाइकर तक पहुंचने से पहले हवा को साफ कर देता है। हेलमेट सरकार द्वारा निर्धारित सभी अनिवार्य मानकों का पालन करते हुए बनाया गया है। इसका वजह 1.5 किलोग्राम है। कंपनी का दावा है कि यह हेलमेट पदषण से पैदा जोखिम में 80 फीसदी से अधिक की कमी सुनिश्चित करता है।

हेलमेट को कब सफाई की आवश्यकता है। शेलिओस टेक्नोलैब्स के अनुसार, हवा की गुणवत्ता खराब रहने पर बाइकर्स के सामने जो

चुनौतियां आती थी उसे देखते हुए इस समस्या का समाधान निकाला गया है। दिल्ली में सर्दियों के महीनों में वायु गुणवत्ता काफी खराब रहती है।



Hindustan Times New Delhi 19/08/2022

Language Journalist Page no English Bureau

DB-DST extends support to a startup in Maharashtra

Technology Development Board, a statutory body under the Department of Science & Technology, GOI extends financial support to TGP Bioplastics Private Limited, Satara, Maharashtra for the commercialisation of degradable plastic manufacturing.

The board has pledged to provide Rs 1.15 crore loan assistance to this startup in order to mitigate the usage of single-use plastics. Currently, very few degradable materials are available in the market as an alternative. Most of them cost more than Rs 280/kg for the raw materials.



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New Delhi Journalis
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Jharkhand startup gets TDB-DST funding

Technology Development Board has agreed to provide financial support of Rs 3.29 crore to Kritsnam Technologies Private Limited, Jharkhand for commercialisation of 'Dhaara Smart Flow Meter'. Kritsnam is a startup company, incubated at IIT Kanpur, working on projects to develop smart water management technologies. The dhaara smart flow meter is battery-operated and does not require external power and the hardware architecture is based on the internet of things (IoT) communication circuits which are patented in India.



The Indian Express Language
New Delhi Journalist
23/08/2022 Page no

English Bureau 10

SCIENTIFIC PROGRESS

More women are making a career in science. A lot more needs to be done to ease their journeys

OR EVERY INDIAN woman aspiring for a career in science, the role models were too few and far between — Tessy Thomas, Soumya Swaminathan, Gagandeep Kang, N Kalaiselvi, Annapurni Subramaniam and a handful of others notwithstanding. After all, many of these women are exceptions to the rarefied male bastions of scientific research in India.

This could be changing, going by data released by the Department of Science and Technology (DST) that has confirmed a rise in the participation of women in scientificand technological fields over the last two decades. The percentage of women researchers has increased from 13-9 in 2015 to 18.7 in 2018. While the social sciences and humanities still negister a larger presence of women researchers, numbers have increased appreciably in the sciences as well. Health sciences is now pegged at 24.5 per cent. Abone noccupy key research and leadership positions in institutions such as the Council of Scientific and Industrial Research, Defence Research & Development Organisation and Indian Space Research Defence Research & Development Organisation and Indian Space Research but the successive governments on gender diversity through grants and rewiring of infrastructure for greater inclusivity. In the wake of the pandemic that has hit women professionals harder, the pragmatic focus of the Science, Technology, and Innovation Policy 2020 is on meeting its target of 30 per cent women at a post-doctoral level by 2030. To this end, DST is set to incorporate GATI, a grading system for institutes based on the enrollment of and impetus to the careers of women in its ranks.

Yet, a lot more remains to be done. According to the 2018 Global Gender Gap report, India is ranked 108 out of 149 countries. The 2019 All India Survey on Higher Education shows a significant lag in female participation at doctoral levels, partly owing to the pressures of marriage and family planning. Those who overcome these are often faced with the loneliness of being an outlier in a male domain, where biases are rampant and getting oneself heard, a constant struggle. As elsewhere, women scientists often have to shoulder a disproportionate burden of academic housekeeping in comparison to their male counterparts. While policies and leadership roles are excellent incentive models, further benefit could come from a system of mentoring and an availability of funds, especially for those who want to get back into the workforce after a history.



PublicationMillennium PostLanguageEnglishEditionNew DelhiJournalistBureauDate17/08/2022Page no10

Govt approves startup loan to firm for commercialising 'compostable' plastic

MPOST BUREAU

NEW DELHI: The government Tuesday approved a startup loan of Rs 1.15 crore to a bioplastics firm for commercialising "compostable" plastic and mitigating the usage of Single Use Plastics (SUP).

In a statement, the Science and Technology ministry said an MoU was signed between the Technology Development Board, a statutory body under Department of Science & Technology, and TGP Bioplastics Private Limited, Satara, Maharashtra, for manufacturing and commercialisation of compostable plastic.



Science and Technology Minister Jitendra Singh was apprised that the StartUp has come up with an alternative solution of Single Use Plastic (SUP) with the prototype of a compostable plastic material which breaks down as a compost in soil without affecting the environment.



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 Mint
 Language
 English

 Edition
 New Delhi
 Journalist
 PTI

 Date
 17/08/2022
 Page no
 2

Government approves loan for popularizing 'compostable' plastic

New Delhi: The government Tuesday approved a startup loan of ₹1.15 crore to a bioplastics firm for commercializing "compostable" plastic and mitigating the usage of Single Use Plastics (SUP). In a statement, the science and technology ministry said an MoU was signed between the Technology Development Board, a statutory body under Department of Science & Technology, and TGP Bioplastics Private Limited, Satara, Maharashtra, for manufacturing and commercialization of compostable plastic.



Publication The Morning Standard English New Delhi Edition **Journalist** Richa Sharma 23/08/2022 Date Page no

Now, a helmet that safeguards against pollution

RICHA SHARMA @ New Delhi

HERE is a helmet that can pro-tect your head – and your lungs. An anti-pollution helmet devel-oped by a startup can help two-wheeler riders breathe clean air. The helmet has a system set at the back that picks up all parat the back that picks up all par-ticulate matter coming from outside and cleans the air be-fore it reaches the biker. The product, titled Puros, has been developed by Shellios Technolabs, which received

seed funding from the Department of Science and Technology (DST), and was incubated at Science and Technology Entrepreneur Park (JSSATE-STEP) Noida. It has partnered with Royal Enfleid Motorcycles to commercials the helmet. The headgear has air purifying accessories, air purifying accessories, air purifying accessories, and including the patented innovations, like a brushless Dc blowver at an, particulate air filter membrane, electronic circult, and microUSB charging port

ing. The venture was launched when the startup founders real-ised the challenges faced by bikers during the air quality crisis in Delhi in winter.

"We were disturbed by the health impacts of the air quality situation on the people on the roads, especially the two-wheeler riders who have pronozed daily excessures and that longed daily exposures and that too, to particulate matter and vehicular emissions that they breathe," said Amit Pathak, one of the founders.



Publication The Pioneer English Language Edition New Delhi **Journalist** PTI Date 17/08/2022 Page no 10

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Indian scientists develop smart biopolymer than can detect food freshness

PIONEER NEWS SERVICE

A team of Indian scientists has developed a smart biodegradable biopolymer nano-composite film which can detect relative humidity in the packaged foods to know the level of food freshness.

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The research conducted by the scientists from the Institute of Advanced Study in Science and Technology (IASST), an autonomous institute of the Department of Science and Technology has been published in the International Journal of Biological Macromolecules.

Biological Macromolecules.

A team of scientists from the Institute of Advanced Study in Science and Technology (IASST), an autonomous institute of the Department of Science and Technology has developed a smart biodegradale biopolymer nanocomposite which can detect relative

humidity in the packaged foods. This can help monitor packed food freshness.

According to the team head Prof. Devasish Chowdhury, Professor in the Physical Sciences Division, and his INSPIRE Senior Research Fellow (SRF) student Sazzadur Rahman, two biopolymers, Guar Gum (a variety of beans obtained from brown algae), were blended with carbon dots (nanomaterial) to make a nanocomposite film that was successfully used to detect relative humidity.

"The fabricated nanocomposite film was an excellent smart sensor based on the fluorescence 'on-off' mechanisms against humidity," the scientists said.

The nanocomposite film shows change in fluorescence in presence of high humidity. Hence, the fabricated



nanocomposite film can monitor the packed food freshness using just a UV light source. "Smart and active packaging can help consumers select a fresh product without breaking the pack. Such innovative packaging boosts sales and reduces consumers' time to identify fresh food products," said Prof. Chowdbury.

said Prof. Chowdhury.

The innovation can be utilised in the food industry that has an increasing need for

non-toxic, biodegradable, lowcost, and environmentally friendly material for use as packaging material to replace petroleum-based material like plastics. Besides, it also needs smart

Besides, it also needs smart and active packaging materials to detect and report food quality in a real-time fashion. Such smart and active packaging systems respond to signals while interacting with the food packaging environment.



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New Delhi Journalist
09/08/2022 Page no

English Bureau 12

TDB supports startup for better internet connectivity

Keeping the principle of 'Antyodaya' as its core guiding force, and the vision of the Prime Minister, the government aims to provide internet connectivity to the last person in the society. Department of Telecommunication, through 'USOF' is already implementing world's largest rural connecting programme 'BharatNet' to connect 2.5 lakh Gram Panchayats with optical fibre.



through its SPV BBNL'. To further enable this, Technology Development Board, a statutory body of Department of Science & Technology is supporting M/s Astrome Technologies Pvt Ltd, Bengaluru, for productization and commercialization of GigaMesh Solution for delivery of 4G/5G telecom and Internet services for Defence and Rural Sectors'. The board has been instrumental in development of a conducive start-up ecosystem by promoting innovation and entrepreneurship in India. Now, to solve internet woes of rural India, TDB will

provide financial assistance of Rs 2.97 crores, out of the total project cost of Rs 19.79 crores, to M/s Astrome Technologies.



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 The Times of India
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 New Delhi
 Journalist
 TNN

 Date
 12/08/2022
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IIT workshop for greater synergy with US on AI

TIMES NEWS NETWORK

New Delhi: In a bid to encourage and expand collaborations on critical technologies like artificial intelligence and increase student and research exchange programmes between India and the US, a workshop was recently held at Indian Institute of Technology (IIT) Delhi where experts deliberated on how to implement joint research projects.

The workshop, which was organised in association with the Centre's department of science and technology (DST) and National Science Foundation (NSF), discussed how the joint research projects will be implemented through six technology innovation hubs, including the one at IIT Delhi.

Dr. Akhilesh Gupta, senior advisor, DST said that a total of 35 joint projects have been identified which will be implemented by the innovation hubs and research institutions from the USA. "This endeavor will further help us to achieve collaborative research and development between the two countries in the area of cyber-physical systems," Gupta explained.

According to senior IIT officials, the projects are aimed at adding the component of international collaboration to existing research projects in both countries.

Professor Rangan Banerjee, IIT Delhi director, said: "This workshop will enable linkages and build up technology innovation hubs to solve problems of society."



The Times of India New Delhi 24/08/2022

Language Journalist Page no English Surendra Singh

75 science hubs for SCs, STs to be set up across India

New Delhi: The Department of Science and Technology (DST) will set up 75 science technology and innovation hubs in different parts of the country, exclusively for scheduled castes and scheduled tribes, to promote scientific talent and uplift the socio-economic status of these communities, reports Surendra Singh.

Addressing the inaugural session of an international conference on 'Significance of Technology in Empowering Tribal Community of India' at JNU, Union S&T minister Jitendra Singh informed that 33 such STI hubs have already been established and seven are going to be operational soon.