Print Clipping – September 2022

Publication	The Tribune	Language	English
Edition	New Delhi	Journalist	Bureau
Date	11/09/2022	Page no	16

PM: Joint efforts must to make India research hub

Opens Centre-State Science Conclave in Ahmedabad

TRIBUNE NEWS SERVICE

NEW DELHI, SEPTEMBER 10

Prime Minister Narendra Modi on Saturday inaugurated the 'Centre-State Science Conclave' in Ahmedabad via video-conferencing and said New India was progressing on the slogans "Jai Jawan, Jai Kisan, Jai Vigyan, Jai Anusandhan".

Addressing the gathering, the Prime Minister said science was like that energy in the development of 21st century India which had the power to accelerate the development of every region and state. He said concerted efforts were needed to make India a global centre of research and innovation.

"Today, when India is moving towards leading the fourth industrial revolution, the role of India's science and people related to this field is very important. In such a situation, the responsibility of people in administration and policy making increases significantly," the PM said, emphasising that science was the basis of solutions, evolution and innovation.

PM Narendra Modi

SCIENTIFIC MODERNITY

> As governments, we have to have more and more cooperate and collaborate with our scientists. This will create an atmosphere of a scientific modernity.
>
> Narendra Modi, PM

Referring to leading scientists of the West — Einstein, Fermi, Max Planck, Niels Bohr and Tesla — PM said Indian scientists CV Raman, Jagdish Chandra Bose, Satyendranath Bose, Meghnad Saha and S Chandrashekhar also brought new discoveries to the fore.

The Prime Minister, however, said back home, due recognition had not been given to the work of scientists, something which is now being done.

"Scientists are giving ample reasons to the country to celebrate them," PM said, lauding the role of Indian scientists in developing Covid vaccines.

He said inclination towards science, technology and innovation was "in the DNA of our young generation and we need to support them with full strength".

He also asked every state to lay down modern policy regarding science, innovation and technology. "As governments, we have to have more and more cooperate and collaborate with our scientists. This will create an atmosphere of a scientific modernity," PM noted.

Publication	Hindustan Times	Language	English
Edition	Mumbai	Journalist	Bureau
Date	11/09/2022	Page no	1, 13

PM calls for efforts to turn India global innovation centre

HT Correspondent

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NEW DELHI: Prime Minister Narendra Modi on Saturday emphasised the need for concerted efforts to make India a global centre of research and innovation, urging state governments to frame modern policies in the fields of science and technology, even as he said the government was working with the thinking of "science-based development".

The Prime Minister, who inaugurated the two-day "Centre-State Science Conclave" in Ahmedabad via video conferencing, said that unlike in western countries, the work of Indian scientists was not given due recognition in the past in the country. This turned a large section of the society indifferent towards science, he added.

The first-of-its-kind conclave aims to strengthen Centre-state coordination and collaboration mechanisms to build a robust science, technology and innovation ecosystem across the country, according to the government.

PM Narendra Modi speaks during the inauguration of the Centre-State Science Conclave on Saturday. PTI

PM Modi said that since 2014, there has been a significant rise in investment in the fields of science and technology. India is going ahead with the mantra of "Jai Jawan, Jai Kisan, Jai Vigyan and Jai Anusandhan", he said. "We have to work together on various fronts to make India a global centre of research and

continued on >13

Publication	The Times of India	Language	English
Edition	Mumbai	Journalist	TNN
Date	11/09/2022	Page no	1, 13

'India up from 81 to 46 in innovation index'

PM Modi on Saturday said science should be at the centre of policy-making and governments must "cooperate and collaborate" with the scientific community. "Due to the efforts of the government, India is today ranked 46th in the Global Innovation Index, whereas it was at 81st position in 2015." **P 13**

PM: Must make India global innovation hub in next 25 yrs

TIMES NEWS NETWORK

New Delhi: Prime Minister Narendra Modi on Saturday said science should be at the centre of policy-making and stressed that the Centre and states have to "cooperate and collaborate" with the scientific community to frame modern policies that meet local needs such as affordable housing, promote climate-resilient agriculture and boost circular economy through waste processing.

"We'll have to simultaneously work on multiple fronts to make India a global centre of research and innovation during the 'Amrit Kaal' (in the next 25 years)... This is the need of the hour. Every state must emphasise on innovation to bring out specific solutions for local problems," said the PM while addressing via video-conference the first-of-its-kind Centre-State Science Conclave being held in Ahmedabad. He urged the stakeholders to take the country's scientific institutions out of the "state of silos" for their optimum utilisation.

PM Narendra Modi during the inauguration of the 'Centre-State Science Conclave' on Saturday

"The coming 25 years are the most important years for the country as it will determine the new identity and strength of India," he said. All states, except Jharkhand and Bihar, are participating in the two-day conclave which is brainstorming on different thematic areas including on a roadmap for the Science, Technology & Innovation (STI) Vision 2047 to make India a global centre of research and innovation.

He lauded the role of Indian scientists in developing the Covid-19 vaccine and contributing to the world's biggest vaccine drive. Noting that there has been a substantial increase in investment on science and technology since 2014, he said, "Due to the efforts of the government, India is today ranked 46th in the Global Innovation Index, whereas it was at 81st position in 2015. We won't stop here. We'll have to move further up." Modi acknowledged the record number of patents being registered in the country and asked states to promote research and innovation as per their local needs.

Recalling contributions of Indian scientists such as CV Raman, Jagdish Chandra Bose, Satyendranath Bose, Meghnad Saha and S Chandrashekhar at the same period when great scientists from the West were dazzling the world with their experiments, Modi lamented that unlike the western countries, India failed to adequately celebrate the work of scientists, which turned a large section indifferent towards science. "When we celebrate the achievements of our scientists, science becomes part of our society. It becomes part of the culture," he said.

'Funding plan stifling interest in research'

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Mumbai: Research project heads and institute directors say funding has been delayed for projects since the new disbursal system was introduced—some have received no funds since April 2022—and it leaves them no elbow room to tackle unbudgeted overheads, such as support staff, or maintenance expenses using interest earned on parked deposits.

Large institutes like IITs, which have hundreds of projects, would have to open as many accounts before money will start trickling in

Under the revised system, a typically large institute like an older IIT would have to open 400-500 accounts in a year, one for every research project awarded. Amitabha Bandyopadhyay, geneticist at IIT Kanpur, said: "No funds have come in so far since the new process was announced. There seems to be confusion all around about how to manage the zero-balance accounts." He added there was a lack of clarity on several issues: "I have no idea of how I will pay user charges to my institute for using its central facilities. Plus, I will not know how to pay ancillary charges in cash for transportation, say a temporary autorickshaw. We had a meeting...but unfortunately it remained limited on how to open the account."

India has various ministries and departments like the department of science and technology (DST) and department of biotechnology (DBT) that award research projects. The Union budget allocated Rs 14,217 crore for 2022-23; it was Rs 14,786 crore during FY 2021-22. Each wing has appointed a central nodal agency (CNA) as an intermediary under the new arrangement. For instance, the education ministry has Indira Gandhi National Open University (IGNOU), DST has Science and Engineering Research Board (SERB) and DBT has National Institute for Immunology as their CNA. Each CNA has an account from where funds will be disbursed. So an institute with 30 projects must open as many zero-balance accounts in the same bank where the CNA has its account.

These 30 accounts are mapped to the CNA's bank account which, in turn, will be mapped to a government portal known as the Public Fund Management System, for receipts and payments. "PFMS is under development. Institutes are opening accounts but till every institute opens and activates these accounts, funds will not be transferred by the CNA, which is going to affect projects in the long run. Since April 2022, there has been very little release of funds," said the dean (R&D) of a prominent institute.

Distinguished professor (BHU) and SERB distinguished fellow Prof SC Lakhotia said, "Universities with large numbers of funded projects will face enormous issues with logistics... I have been requesting my university to open zero-balance accounts for my projects for a month, but that has not happened yet. There may be problems if money is transferred late for a project, say in January. Since the university stops receiving bills for payment by mid-February, the principal investigator may either lose the unspent money on April 1 or 'somehow' spend the money within the financial year." He said he had raised the issue with the principal scientific adviser but was told the decision to alter the method of funding was that of the treasury.

Apart from operational hassles and more paperwork, faculty at most institutes said the new process was dampening the overall enthusiasm for research by "making life difficult". Most institute heads said this order was an "imposition...without any consultation". "The research ecosystem at our public academic institutes is now unsustainable because the government does not pay us for overheads in projects," said a senior researcher. "Earlier, when grants came in at the start of the year, the parked money would earn some interest and that would partially offset overhead charges."

When a trial run was conducted at IIT Delhi before the new system was rolled out, "it created a huge crisis", said another researcher.

"On any project, the institute was spending close to 11% for carrying out work: the administrative cost, water charges, increased use of electricity, creation of facilities. Indian government agencies pay only 5% as overheads; in contrast, universities around the world keep 40%-60% of the grant as overheads for running labs and facilities, and the researcher gets the rest."

"So, the scenario in public Indian institutes now is that the more research projects they take on, the more they suffer financially," said yet another researcher.

Publication	The Times of India	Language	English
Edition	New Delhi	Journalist	TNN
Date	11/09/2022	Page no	1, 11

'India up from 81 to 46 in innovation index'

PM Modi on Saturday said science should be at the centre of policy-making and governments must "cooperate and collaborate" with the scientific community. "Due to the efforts of the government, India is today ranked 46th in the Global Innovation Index, whereas it was at 81st position in 2015." **P 11**

New system of R&D allocation chokes flow of research funds

Under Rules, Key Institutes Like IITs Will Have To Open 400-500 A/Cs A Year

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Mumbai: Flow of funds for research appears to be slowing down at government-run scientific institutions. A new set of central rules has been put in place to prevent money from lying unspent in research kitties, but they come with layers of regulation and compliance which have delayed disbursements this year, according to several members of the academic community.

Earlier, allocations approved for a financial year would be transferred in advance into an institute's account and spent as needed. Now every project needs a separate "zero-balance" account from which money is transferred to a vendor when an invoice is raised. Project heads and institute directors at IITs, IISERs, IISc, etc have complained that the system delays funding – some have received no funds since April 2022 – and leaves them no elbow room to tackle unbudgeted overheads like support staff or maintenance expenses using interest earned on parked deposits.

Under the revised system, a typically large institute like an older IIT would have to open 400-500 accounts in a year, one for every research project awarded. Amitabha Bandyopadhyay, geneticist at IIT Kanpur, said, "No funds have come in so far since the new process was announced. There seems to be confusion all around about how to manage the zero-balance accounts." He added there was lack of clarity on several issues: "I have no idea of how I will pay user charges to my institute for using its central facilities. Plus, I will not know how to pay ancillary charges in cash like paying for transportation, say a tempo or auto rickshaw. We had a meeting...but unfortunately it remained limited on how to open the zero-balance account."

MONEY MATTERS

India has various ministries and departments like the department of science and technology (DST) and department of biotechnology (DBT) that award research projects to institutes. Each wing has appointed a central nodal agency (CNA) as an intermediary under the new arrangement. For instance, the education ministry has Indira Gandhi National Open University (IGNOU), DST has Science and Engineering Research Board (SERB) and DBT has National Institute for Immunology as their CNA or implementing agency. Each CNA has an account from where funds will be disbursed. So an institute with 50 projects must open 50 zero balance accounts in the same bank where the CNA has its account.

These 50 accounts are mapped to the CNA's bank account which, in turn, will be mapped to a government portal known as the Public Fund Management System, for receipts and payments. "PFMS is under development. Institutes are opening accounts but till every institute opens and activates these accounts, funds will not be transferred by the CNA. Since April 2022, there has been very little release of funds," said the dean (R&D) of a prominent institute.

Distinguished professor, (BHU) and SERB distinguished fellow Professor SC Lakhotia said, "Universities with large numbers of funded projects will face enormous issues with logistics for opening and maintaining so many individual accounts. I have been requesting my university to open zero-balance accounts for my projects for a month, but that has not happened yet. There may be problems if money is transferred late for a project, say in January. Since the university stops receiving bills for payment by mid-February, the principal investigator may either lose the unspent money on April 1 because of the nature of the account or 'somehow' spend the money within the financial year." The professor suggested that the tendering process for certain projects may get compromised because of the constraints. He said he'd raised the issue with the principal scientific advisor but was told the decision to alter the method of funding was that of the treasury.

Apart from operational hassles and more paperwork, faculty at most institutes said the new process was dampening the overall enthusiasm for research by "making life difficult". Most institute heads said this order was an "imposition...without any consultation".

"The research ecosystem at our public academic institutes is now unsustainable because the government does not pay us for overheads in projects," said a senior researcher. "Which means, the institute ends up paying for that," he said.

When a trial run was conducted at IIT Delhi before the new system was rolled out "it created a huge crisis," said another researcher. "On any project, the institute was spending close to 11% for carrying out work: the administrative cost, water charges, increased use of electricity, creation of facilities. Indian government agencies pay only 5% as overheads when they award a research project; in contrast, universities around the world keep 40%-60% of the grant as overheads for running labs and facilities, and the researcher gets the rest."

"So, the scenario in public Indian institutes now is that the more research projects they take on, the more they suffer financially," said yet another researcher.

Publication The Times of India | Language English
Edition New Delhi | Journalist Hemali Chhapia
Date 11/09/2022 | Page no 1, 19

New system of R&D allocation stalls funds flow

Flow of funds for research appears to be slowing down at government-run scientific institutions, **reports Hemali Chhapia.** A new set of central rules has been put in place to prevent money from lying unspent in research kitties, but they come with layers of regulation and compliance, which have delayed disbursements this year, according to several members of the academic community. Earlier, allocations approved for a financial year would be transferred in advance into an institute's account and spent as needed. **P 19**

Publication	The Times of India	Language	English
Edition	New Delhi	Journalist	Surendra Singh
Date	09/09/2022	Page no	20

India to get its first 'night sky sanctuary' soon

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New Delhi: The country's first-ever 'night sky sanctuary' will come up in Ladakh soon. The department of science and technology has undertaken this first-of-its-kind project where a dark sky reserve will be set up in Ladakh's Hanle as part of Changthang wildlife sanctuary in the next three months. It will boost astro tourism (travel to remote locations for unpolluted views of the cosmos) in India and will be one of the world's highest-located sites for optical, infra-red, and gamma-ray telescopes.

Science and technology minister Jitendra Singh made the announcement for the night sky sanctuary recently after meeting Ladakh Lt Governor R K Mathur, who called on him in Delhi last Saturday.

At a height of 4,500 m, Hanle is home to an optical, a gamma ray and an infrared telescope at the Indian Astronomical Observatory complex operated by the IIA. These telescopes have been used to study stars, galaxies, and the evolution of our universe.

Publication Rashtriya Sahara Language Hindi
Edition New Delhi Journalist Bureau
Date 12/09/2022 Page no 8

चौथी औद्योगिक क्रांति

प्रधानमंत्री नरेन्द्र मोदी ने कहा है कि भारत चौथी औद्योगिक क्रांति का नेतृत्व करने की ओर बढ़ रहा है। प्रधामंत्री ने वीडियो कॉन्फ्रेंस के माध्यम से अहमदाबाद में साइंस सिटी में आयोजित दो दिवसीय केंद्र-राज्य विज्ञान सम्मेलन का शनिवार को उद्घाटन करते हुए यह बात कही। 'जय जवान, जय किसान, जय विज्ञान' के साथ ही जय अनुसंधान का आह्वान करते हुए उन्होंने कहा कि हम पिछली शताब्दी के शुरुआती दिनों को याद करें तो पाते हैं कि उस दौर, जब दुनिया तबाही और त्रासदी का सामना कर रही थी, में चाहे ईस्ट हो वेस्ट कहना यह कि हर जगह के वैज्ञानिक महान खोज में जुटे हुए थे। पश्चिम में आइंस्टाइन, फर्मी, मैक्स प्लांक, नील्स बोर, टेस्ला जैसे वैज्ञानिक

अपने प्रयोगों से दुनिया को चौंका रहे थे। उसी दौर में सीवी रमन, जगदीश चंद्र बोस, सत्येंद्रनाथ बोस, मेघनाद साहा, एस. चंद्रशेखर समेत कई वैज्ञानिक अपनी नई-नई खोज सामने ला रहे थे। बेशक, पश्चिमी देशों में विज्ञान के क्षेत्र में हो रहीं नई-नई खोजों की खासी सराहना हुई लेकिन भारत इस मामले में नाकाम रहा। सच तो यह है कि हमारे समाज का बड़ा हिस्सा आज भी विज्ञान या किसी भी प्रकार के नवाचार के प्रति उदासीन दिखलाई पड़ता है। लेकिन इस तथ्य को अनदेखा नहीं किया जाना चाहिए कि 21वीं सदी के भारत के विकास विज्ञान की बड़ी भूमिका रहने वाली है। ऐसा नहीं है कि भारत में यह सब करने की सामर्थ्य नहीं हो, लेकिन बात वहीं नजरिए पर आकर ठहर जाती है। हमें अपनी सोच को वैज्ञानिक पुट देना होगा। हम समय की इस आवश्यकता को समझें कि स्थानीय समस्याओं के लिए स्थानीय समाधान खोजने के लिए नवाचार का कोई विकल्प नहीं है। वहनीय आवास, जलवायु अनुकूल फसलें और कचरा पुनर्चक्रण जैसे मुद्दों का स्थानीय स्तर पर समाधान तलाशन की जरूरत है। देश में वैज्ञानिकता का माहौल बनाकर ही ऐसा किया जा सकता है। इस कड़ी में सरकार की महत्त्वाकांक्षी योजना स्टार्टअप से मदद मिल सकती है। इस योजना को भी वैज्ञानिक सोच से दुरुहर किया जा सकता है। अच्छी बात यह है कि वैश्विक नवचार सूचकांक में भारत की रैंकिंग में बेहतर हुई है। आज भारत इस मामले में 46वें स्थान पर है, जबकि 2015 से पहले 81वें स्थान पर था। अच्छी बात यह भी है कि 2014 के बाद से विज्ञान एवं प्रौद्योगिकी के क्षेत्र में भारत में निवेश काफी बढ़ा है। ऐसे में आजादी के अमृतकाल में इन क्षेत्रों से जुड़े लोगों की भूमिका काफी महत्त्वपूर्ण हो जाती है।

Publication Rashtriya Sahara Language Hindi
Edition New Delhi Journalist Bureau
Date 11/09/2022 Page no 11

भारत चौथी औद्योगिक क्रांति का नेतृत्व करने को अग्रसर : मोदी

■ सहारा न्यूज ब्यूरो

नई दिल्ली।

प्रधानमंत्री नरेन्द्र मोदी का कहना है कि भारत चौथी औद्योगिक क्रांति का नेतृत्व करने की तरफ बढ़ रहा है। उसमें भारत की साइंस और इस क्षेत्र से जुड़े लोगों की भूमिका बहुत अहम है। समाधान का, सॉल्यूशन का, इवोल्यूशन का और इनोवेशन का आधार विज्ञान ही है। उन्होंने साइंस से जुड़े संस्थानों को मुश्किल की स्थिति से भी बाहर निकालने का आह्वान किया है।

वीडियो कॉन्फ्रेंस के माध्यम से अहमदाबाद में साइंस सिटी में आयोजित दो दिवसीय केंद्र-राज्य विज्ञान सम्मेलन का उद्घाटन प्रधानमंत्री मोदी ने कहा नया भारत 'जय जवान, जय किसान, जय विज्ञान' के साथ ही जय अनुसंधान का आह्वान करते हुए आगे बढ़ रहा है।

उन्होंने कहा, अगर हम पिछली शताब्दी के शुरुआती दशकों को याद करें तो पाते हैं कि दुनिया में किस तरह तबाही और त्रासदी का दौर चल रहा था। उस दौर में भी चाहे ईस्ट की हो या वेस्ट की हर जगह के साइंटिस्ट अपनी महान खोज में लगे हुए थे। पश्चिम में आइन्स्टाइन, फर्मी, मैक्स

■ कहा- समाधान का, सॉल्यूशन का, इवोलूशन का और इनोवेशन का आधार विज्ञान

■ साइंस से जुड़े संस्थानों को मुश्किल की स्थिति से बाहर निकालने का किया आह्वान

प्लांक, नील्स बोर, टेस्ला जैसे साइंटिस्ट अपने प्रयोगों से दुनिया को चौंका रहे थे। उसी दौर में सीवी रमन, जगदीश चंद्र बोस, सत्येंद्रनाथ बोस, मेघनाद साहा, एस. चंद्रशेखर समेत कई वैज्ञानिक अपनी नई-नई खोज सामने ला रहे थे।

प्रधानमंत्री ने कहा, जब हम अपने वैज्ञानिकों की उपलब्धियों को सेलिब्रेट करते हैं तो साइंस हमारे समाज का हिस्सा बन जाती है। वो 'पार्ट ऑफ कल्चर' बन जाती है। इसलिए आज सबसे पहला आग्रह मेरा यही है कि हम अपने देश के वैज्ञानिकों की उपलब्धियों को जमकर सेलिब्रेट करें। हमारी सरकार साइंस बेस्ड डेवलपमेंट की सोच के साथ काम कर रही है। 2014 के बाद से साइंस और टेक्नोलॉजी के क्षेत्र में इन्वेस्टमेंट में काफी वृद्धि की गई है। सरकार के प्रयासों से आज भारत ग्लोबल इनोवेशन इंडेक्स में 46वें स्थान पर है जबकि 2015 में भारत 81 नंबर पर था।

उन्होंने कहा, इस अमृतकाल में भारत को रिसर्च और इनोवेशन का ग्लोबल सेंटर बनाने के लिए हमें एक साथ अनेक मोर्चों पर काम करना है। अपनी स्टार्टअप और टेक्नोलॉजी से जुड़ी रिसर्च को हमें लोकल स्तर पर लेकर जाना है। इनोवेशन को प्रोत्साहित करने के लिए राज्य सरकारों को ज्यादा से ज्यादा वैज्ञानिक संस्थानों के निर्माण पर और प्रक्रियाओं को सरल करने पर बल देना चाहिए। राज्यों में जो उच्च शिक्षा के संस्थान हैं उनमें इनोवेशन लैब्स की संख्या भी बढ़ाई जानी चाहिए। राज्यों में राष्ट्रीय स्तर के अनेक वैज्ञानिक संस्थान होते हैं, नेशनल लेबोरेटरीज भी होती हैं। इनके सामर्थ्य का लाभ, इनकी एक्सपर्टाइज का पूरा लाभ भी राज्यों को उठाना चाहिए।

Publication	Rashtriya Sahara	Language	Hindi
Edition	New Delhi	Journalist	Bureau
Date	10/09/2022	Page no	9

पीएम मोदी आज करेंगे केन्द्र-राज्य विज्ञान सम्मेलन का उद्घाटन

नई दिल्ली (एसएनबी)। प्रधानमंत्री नरेन्द्र मोदी शनिवार को ऑनलाइन केंद्र-राज्य विज्ञान सम्मेलन का उद्घाटन करेंगे। पीएमओ के अनुसार देश में नवाचार और उद्यमिता को सुगम बनाने के लिए प्रधानमंत्री के प्रयासों के अनुरूप इस सम्मेलन का उद्देश्य सहकारी संघवाद के जरिये केंद्र और राज्य के बीच समन्वय तथा सहयोग तंत्र को मजबूत बनाना और पूरे देश में विज्ञान, प्रौद्योगिकी व नवाचार के लिए एक सशक्त पारिस्थितिकी तंत्र का निर्माण करना है। सम्मेलन 10-11 सितंबर, 2022 को साइंस सिटी, अहमदाबाद में किया जाएगा।

सम्मेलन में एसटीआई दृष्टिकोण 2047; राज्यों में एसटीआई के लिए भविष्य के विकास के रास्ते और नजरिया; स्वास्थ्य - सभी के लिए डिजिटल स्वास्थ्य देखभाल; 2030 तक अनुसंधान एवं विकास में निजी क्षेत्र के निवेश को दोगुना करना; कृषि-किसानों की आय में सुधार के लिए तकनीकी हस्तक्षेप जैसे विभिन्न विषयों पर सत्र शामिल होंगे। कार्यालय ने बताया कि इनके अलावा जल - पीने योग्य पेयजल के लिए नवाचार; ऊर्जा- हाइड्रोजन मिशन में विज्ञान एवं प्रौद्योगिकी की भूमिका आदि के साथ-साथ सभी के लिए स्वच्छ ऊर्जा और तटीय राज्यों/केंद्रशासित प्रदेशों तथा देश की भविष्य की अर्थव्यवस्था के लिए इसकी प्रासंगिकता जैसे विभिन्न विषयों पर भी सत्र आयोजित होंगे।

Publication	Rajasthan Patrika	Language	Hindi
Edition	New Delhi	Journalist	Bureau
Date	11/09/2022	Page no	1

विज्ञान सम्मेलन : इनोवेशन का ग्लोबल सेंटर बनेगा भारत

चौथी औद्योगिक क्रांति का नेतृत्व करने की ओर बढ़ रहा भारत: मोदी

पत्रिका न्यूज नेटवर्क
patrika.com

...जय विज्ञान, जय अनुसंधान

अहमदाबाद/ नई दिल्ली. प्रधानमंत्री नरेन्द्र मोदी ने कहा कि 21वीं सदी के भारत के विकास में विज्ञान उस ऊर्जा की तरह है, जिसमें हर क्षेत्र व हर राज्य के विकास को गति देने का सामर्थ्य है। आज भारत चौथी औद्योगिक क्रांति का नेतृत्व करने की तरफ बढ़ रहा है। मोदी ने यह बात शनिवार को अहमदाबाद के गुजरात साइंस सिटी में आयोजित केन्द्र-राज्य विज्ञान सम्मेलन को वर्चुअली संबोधित करते हुए कही। प्रधानमंत्री ने कहा कि समाधान, इवोल्यूशन और इनोवेशन का आधार विज्ञान है। इसी प्रेरणा से आज का नया भारत, जय जवान, जय किसान, जय विज्ञान के साथ ही जय अनुसंधान का आह्वान करते हुए आगे बढ़ रहा है।

मोदी ने कहा कि अमृतकाल में भारत रिसर्च और इनोवेशन का ग्लोबल सेंटर बनेगा। इसके लिए हमें एक साथ अनेक मोर्चों पर काम करना है। हमें अपनी विज्ञान और तकनीक से जुड़े शोध को स्थानीय स्तर पर लेकर जाने की आवश्यकता है। पीएम ने कहा कि आने वाले 25 साल भारत के लिए सबसे महत्त्वपूर्ण हैं, क्योंकि यह आने वाले भारत की नई पहचान और ताकत का निर्धारण करेगा।

प्रधानमंत्री नरेंद्र मोदी ने शनिवार को नई दिल्ली से वीडियो कॉन्फ्रेंसिंग के जरिये अहमदाबाद में केंद्र-राज्य विज्ञान सम्मेलन का उद्घाटन किया।

बिहार-झारखंड रहे बाहर... पहली बार आयोजित विज्ञान सम्मेलन में बिहार, झारखंड को छोड़कर सभी राज्यों ने हिस्सा लिया। केंद्र ने कहा कि साइंस, इनोवेशन को लेकर दोनों राज्यों की उनकी उदासीनता झलकती है।

देश 'जय अनुसंधान' की राह पर... लेकिन मंजिल अभी दूर

अनुसंधान की स्थिति पर एकनजर

46वें नंबर पर देश नीति आयोग के भारतीय इनोवेशन इंडेक्स में। आंकड़ों के अनुसार 2015 में 81वें नंबर पर था दुनिया में।

0.7% जीडीपी का भारत आरएंडडी पर एक दशक से खर्च कर रहा। ब्राजील 1.16%, दक्षिण अफ्रीका 0.83% खर्च करता।

3425 रुपए भारत का कुल व्यय प्रति व्यक्ति अनुसंधान और विकास (आरएंडडी) है। रूस में यह आंकड़ा 22,703 रुपए, मलेशिया का 23,340 रुपए है।

51,940 पेटेंट फाइल किए गए वित्त वर्ष 2021-22 में, जबकि 2020-21 में यह आंकड़ा 58503 था।

Publication	The Pioneer	Language	English
Edition	New Delhi	Journalist	Bureau
Date	10/09/2022	Page no	4

PM TO OPEN SCIENCE CONCLAVE

New Delhi: Prime Minister Narendra Modi will inaugurate the Centre-State Science Conclave on Saturday via video conferencing. The programme is in line with the PM's relentless efforts to facilitate innovation and entrepreneurship in the country.

Publication	Millennium Post	Language	English
Edition	New Delhi	Journalist	Bureau
Date	11/09/2022	Page no	6

Bihar, Jharkhand give a miss to science conclave

The Centre-State Science Conclave was inaugurated on Saturday by Prime Minister Narendra Modi

OUR CORRESPONDENT

NEW DELHI: In a growing trend of states avoiding Centrally-organised events, Jharkhand and Bihar have decided to skip the Centre-State Science Conclave that was inaugurated on Saturday by Prime Minister Narendra Modi.

The event is being attended by all other state governments. However, both the states have not yet released their official statement for their absence in the conclave, which is the first of its kind.

The conclave, which is a two-day, is aimed at strengthening the Centre-State coordination and collaboration mechanisms to "build a robust science, technology and innovation (STI) ecosystem across the country."

Apart from the central and state governments, top industrialists, young scientists and innovators also took part in the conclave.

Both the states have not yet released their official statement for their absence in the conclave, which is the first of its kind

Organised at the Science City, Ahmedabad, the conclave will include sessions on various themes, including digital health care, technological interventions for improving farmers' income, clean energy, and innovation for producing potable drinking water to name a few.

In Jharkhand, Chief Minister Hemant Soren, who is facing disqualification of his membership, has recently won a test of strength in the Assembly. However, the official communication in this regard has not yet been released by either Jharkhand Governor or Election Commission of India (ECI).

Notably, it was the BJP that made the complaint to the Election Commission and the ruling JMM-Congress alliance has also accused the BJP of trying to split the parties and topple the government as it happened in Maharashtra and Madhya Pradesh.

Bihar, which is the other state that did not participate in the conclave, has emerged from a political storm as Chief Minister NItish Kumar severed its alliance with the BJP and formed a new government with Rashtriya Janata Dal (RJD)-led Mahagathbandhan comprising of Congress and other smaller parties.

Publication	Jansatta	Language	Hindi
Edition	New Delhi	Journalist	Bureau
Date	11/09/2022	Page no	1

केंद्र-राज्य विज्ञान सम्मेलन के उद्घाटन सत्र में प्रधानमंत्री मोदी ने कहा

चौथी औद्योगिक क्रांति का नेतृत्व करने की ओर बढ़ रहा है भारत

जनसत्ता ब्यूरो
नई दिल्ली, 10 सितंबर।

अहमदाबाद में शनिवार को आयोजित सम्मेलन को वीडियो कांफ्रेंस के माध्यम से संबोधित किया।

प्रधानमंत्री ने भारत को अनुसंधान व नवाचार का वैश्विक केंद्र बनाने के लिए समन्वित प्रयास करने का आह्वान किया।

प्रधानमंत्री ने कहा, 2014 के बाद से विज्ञान व प्रौद्योगिकी के क्षेत्र में निवेश काफी बढ़ा है, भारत 'जय जवान, जय किसान, जय विज्ञान और जय अनुसंधान' के मंत्र के साथ आगे बढ़ रहा है।

जब हम अपने वैज्ञानिकों की उपलब्धियों की सराहना करेंगे, विज्ञान हमारे समाज का एक प्राकृतिक हिस्सा बन जाएगा, वह संस्कृति का हिस्सा बन जाएगा, इसलिए आज मेरा पहला अनुरोध यह है कि हम अपने देश के वैज्ञानिकों की उपलब्धियों की पूरे उत्साह के साथ सराहना करें।
– नरेंद्र मोदी, प्रधानमंत्री

Publication	The Indian Express	Language	English
Edition	New Delhi	Journalist	Bureau
Date	11/09/2022	Page no	7

We didn't adequately celebrate work of Indian scientists: PM

EXPRESS NEWS SERVICE
AHMEDABAD, NEW DELHI, SEPTEMBER 10

ACCOMPLISHMENTS OF Indian scientists during the last century were not "celebrated" adequately, Prime Minister Narendra Modi said while virtually inaugurating a Centre-State Science Conclave at Gujarat Science City on Saturday.

Naming Indian scientists like CV Raman, Jagdish Chandra Bose, Satyendra Nath Bose and Meghnad Saha, Modi said, "We did not celebrate the work of our scientists as much as it should have been done. Due to this, a large part of our society remained indifferent to science."

Modi said that the government's investment in science and technology has risen since 2014. "Our government is moving forward with science-based development. Since 2014, investments in the science and technology sector have also increased. Due to the efforts of the government, today India is at 46th position in the global innovation index. In 2015, India was in the 81st position," he said.

PM Modi inaugurates the Centre-State Science Conclave in Ahmedabad. PTI

The Prime Minister pointed out that a record number of patents and innovations are happening in India. "The wave of startups in the country shows how fast the change is happening," he added.

He lauded the role of Indian scientists in developing the Covid-19 vaccine and contributing to the vaccination drive. The Prime Minister pointed out that the Space Mission, National Supercomputing Mission, semiconductor mission, Mission Hydrogen and drone technology were new sectors of research, and asked states to promote research and innovation as per their local needs.

Coming up in Ladakh, India's first dark sky reserve

ANJALI MARAR
PUNE, SEPTEMBER 5

BY THE end of 2022, India will establish its first Dark Sky Reserve in the cold desert regions of Ladakh, Dr Jitendra Singh, Minister of State (Independent Charge) for Science and Technology, said on Saturday.

Free of light pollution

A 'Dark Sky Reserve' is public or private land with distinguished nocturnal environment and starry nights that has been developed responsibly to prevent light pollution.

According to the International Dark Sky Association (IDSA) website, these reserves "consist of a core area meeting minimum criteria for sky quality and natural darkness, and a peripheral area that supports dark sky preservation in the core".

These reserves, it said, are formed through a "partnership of multiple land managers who have recognized the value of the natural nighttime environment through regulations and long-term planning".

Earning the tag

Individuals or groups can nominate a site for certification to the IDSA. There are five designated categories — namely, International Dark Sky parks, communities, reserves, sanctuaries and Urban Night Sky Places.

The certification process is similar to that of a site being awarded the UNESCO World Heritage Site tag or getting recognised as a Biosphere Reserve.

Between 2001 and January 2022, 195 sites have been recognised as International Dark Sky Places globally, the IDSA says.

India is still in the process of filing the relevant documents to the IDSA.

India's efforts

The Ladakh Union Territory administration is leading the efforts in establishing the country's first Dark Sky Reserve.

To be situated at a height of 4,500 metres above sea level, the Hanle Dark Sky Reserve (HDSR) will come up within the Changthang Wildlife Sanctuary.

The Department of Science and Technology and experts from the Indian Institute of Astrophysics (IIA), Bengaluru, are providing scientific and technological support in developing this first-of-its-kind facility.

The IIA already manages the Indian Astronomical Observatory (IAO) complex at Hanle.

The formal decision to set up this reserve was made through an MoU signed between officials from the IIA, the Ladakh UT and the Ladakh Autonomous Hill Development Council in June this year.

The Indian Astronomical Observatory in Hanle.
Photo courtesy: IIA

Why Ladakh?

Ladakh is a unique cold desert with high mountainous terrains. Long and harsh winters with minimum temperatures dropping to minus 40 degrees Celsius make large parts of the UT uninhabitable.

This aridity, limited vegetation, high elevation and large areas with sparse population, all make it the perfect setting for long-term astronomical observatories and dark sky places.

But the primary objective of the proposed Dark Sky Reserve is to promote astronomy tourism.

IIA's scientists and outreach experts will identify locals and train them to use easy-to-handle telescopes. These telescopes will be installed at homestays, a popular accommodation facility in Ladakh.

The 22-km radius around the Hanle observatory, where the core Dark Sky Reserve will stand, will have restrictions imposed on outdoor lighting. All vehicles will be barred from using high-beam headlights. Houses here will be encouraged to use curtains of darker shades, install light reflecting shields and switch off all unwanted illumination.

Publication	Hindustan Times	Language	English
Edition	New Delhi	Journalist	PTI
Date	11/09/2022	Page no	1, 18

PM calls for efforts to turn India global innovation centre

HT Correspondent
letters@hindustantimes.com

NEW DELHI: Prime Minister Narendra Modi on Saturday emphasised the need for concerted efforts to make India a global centre of research and innovation, urging state governments to frame modern policies in the fields of science and technology, even as he said the government was working with the thinking of "science-based development".

The Prime Minister, who inaugurated the two-day "Centre-State Science Conclave" in Ahmedabad via video conferencing, said that unlike in western countries, the work of Indian scientists was not given due recognition in the past in the country. This turned a large section of the society indifferent towards science, he added.

The first-of-its-kind conclave aims to strengthen Centre-state coordination and collaboration mechanisms to build a robust science, technology and innovation ecosystem across the country, according to the government.

PM Modi said that since 2014, there has been a significant rise in investment in the fields of science and technology. India is going ahead with the mantra of "Jai Jawan, Jai Kisan, Jai Vigyan and Jai Anusandhan", he said. "We have to work together on various fronts to make India a global centre of research and

continued on →18

PM Narendra Modi speaks during the inauguration of the Centre-State Science Conclave on Saturday. PTI

Publication	Hindustan Times	Language	English
Edition	New Delhi	Journalist	Bureau
Date	04/09/2022	Page no	8

India's first night sky sanctuary in Ladakh in three months: Minister

NEW DELHI: India's first-"night sky sanctuary" will be set up in Ladakh within the next three months, science and technology minister Jitendra Singh said on Saturday. The proposed Dark Sky Reserve will be located at Hanle in Ladakh as a part of the Changthang Wildlife Sanctuary and will be one of the world's highest-located sites for optical, infra-red, and gamma-ray telescopes, Singh said.

He said the dark sky reserve site will have activities to help in boosting local tourism and economy through interventions of science and technology.

Publication	Hindustan	Language	Hindi
Edition	New Delhi	Journalist	Bureau
Date	11/09/2022	Page no	1

केंद्र-राज्य विज्ञान सम्मेलन में प्रधानमंत्री नरेंद्र मोदी का संकल्प

भारत चौथी औद्योगिक क्रांति का अगुवा बनेगा

अहमदाबाद, एजेंसी। प्रधानमंत्री नरेंद्र मोदी ने शनिवार को कहा कि भारत चौथी औद्योगिक क्रांति का अगुवा बनेगा। इस दिशा में देश आगे बढ़ भी रहा है। उन्होंने कहा कि ऐसे में विज्ञान और इस क्षेत्र से जुड़े लोगों की भूमिका महत्वपूर्ण हो जाती है। भारत के विकास में विज्ञान उस ऊर्जा की तरह है जिसमें हर क्षेत्र और राज्य के विकास को गति देने का सामर्थ्य है।

साझा प्रयास करने होंगे: प्रधानमंत्री ने अहमदाबाद में आयोजित केंद्र-राज्य विज्ञान सम्मेलन के उद्घाटन सत्र को नई दिल्ली से वीडियो कॉन्फ्रेंस के जरिये संबोधित किया। इस दौरान मोदी ने देश को अनुसंधान एवं नवाचार का वैश्विक केंद्र बनाने के लिए साझा प्रयास करने का आह्वान किया। साथ ही राज्य सरकारों से विज्ञान एवं प्रौद्योगिकी के क्षेत्र में आधुनिक नीतियां बनाने का आग्रह किया।

वैज्ञानिकों की सराहना जरूरी: मोदी ने कहा कि पश्चिमी देशों के उलट भारत अपने वैज्ञानिकों के कार्यों की पर्याप्त रूप से सराहना करने में नाकाम रहा। इसके चलते समाज का बड़ा हिस्सा विज्ञान के प्रति उदासीन रहा है। उन्होंने भारतीय वैज्ञानिकों की उपलब्धियों की सराहना किए जाने की जरूरत बताई। जब हम अपने वैज्ञानिकों की उपलब्धियों की सराहना करेंगे, विज्ञान हमारे समाज का एक प्राकृतिक हिस्सा बन जाएगा। वह संस्कृति का हिस्सा बन जाएगा।

नई दिल्ली से शनिवार को अहमदाबाद में आयोजित केंद्र-राज्य विज्ञान सम्मेलन के उद्घाटन सत्र को संबोधित करते प्रधानमंत्री नरेंद्र मोदी। • प्रेट्र

नवाचार में आगे बढ़ा देश

46 नंबर पर है भारत नवाचार सूची में

81 वें स्थान पर था वर्ष 2015 में

- पीएम बोले, केंद्र सरकार के प्रयासों के चलते वैश्विक नवाचार सूचकांक में भारत की रैंकिंग बेहतर होती गई
- 2014 के बाद विज्ञान-प्रौद्योगिकी क्षेत्र में निवेश में काफी वृद्धि हुई है

विज्ञान के प्रति झुकाव युवाओं के डीएनए में

प्रधानमंत्री नरेंद्र मोदी ने कहा कि हमारी सरकार विज्ञान आधारित विकास की सोच के साथ काम कर रही है। उन्होंने ध्यान दिलाया कि विज्ञान, प्रौद्योगिकी तथा नवीनता की ओर झुकाव हमारी युवा पीढ़ी के डीएनए में है। हमें इस युवा पीढ़ी को पूरी शक्ति से समर्थन देने की आवश्यकता है। प्रधानमंत्री ने कहा आने वाले 25 साल भारत के लिए सबसे महत्वपूर्ण वर्ष हैं, क्योंकि यह आने वाले भारत की नई पहचान और शक्ति का निर्धारण करेगा।

शोध को स्थानीय स्तर पर ले जाएं: प्रधानमंत्री ने कहा कि 2014 के बाद से विज्ञान एवं प्रौद्योगिकी के क्षेत्र में निवेश काफी बढ़ा है। भारत जय जवान, जय किसान, जय विज्ञान और जय अनुसंधान के मंत्र के साथ आगे बढ़ रहा है। हमें इस अमृतकाल में भारत को अनुसंधान और नवाचार का हब बनाने के लिए विभिन्न मोर्चों पर एक साथ काम करना होगा। हमें विज्ञान और प्रौद्योगिकी के क्षेत्र में शोध को स्थानीय स्तर पर ले जाना है।

वैज्ञानिक संस्थानों की स्थापना पर जोर दें: मोदी ने कहा कि नवाचार को प्रोत्साहित करने के लिए राज्य सरकारों को अधिक से अधिक वैज्ञानिक संस्थानों की स्थापना करनी चाहिए। राज्यों में उच्च शिक्षण संस्थानों में भी नवाचार लैब की संख्या बढ़ाई जानी चाहिए। कार्यक्रम में केंद्रीय मंत्री जितेंद्र सिंह भी मौजूद रहे।

Publication	Hari Bhoomi	Language	Hindi
Edition	New Delhi	Journalist	Bureau
Date	11/09/2022	Page no	7

भारत चौथी औद्योगिक क्रांति का नेतृत्व करने की ओर बढ़ रहा, वैज्ञानिकों का सम्मान करें

सेंटर-स्टेट साइंस कॉन्क्लेव का पीएम मोदी ने किया उद्घाटन

हरिभूमि न्यूज नई दिल्ली

पीएम नरेंद्र मोदी ने शनिवार को केंद्र-राज्य विज्ञान सम्मेलन का उद्घाटन किया। पीएम मोदी ने संबोधित में कहा कि भारत में आज नए-नए आविष्कार हो रहे हैं। देश के विकास में विज्ञान ऊर्जा की तरह काम कर रहा है। आज जब भारत चौथी औद्योगिक क्रांति का नेतृत्व करने की ओर बढ़ रहा है। भारत के विज्ञान और इस क्षेत्र से जुड़े लोगों की भूमिका अहम है। आज 21वीं सदी के नए भारत के विकास के लिए विज्ञान सभी क्षेत्रों के विकास को गति देने में अहम भूमिका निभाएगा। देश में नवाचार और उद्यमिता को बढ़ावा देने के लिए अपनी तरह का यह पहला कान्क्लेव केंद्र-राज्य समन्वय और सहयोग तंत्र को मजबूत करेगा।

जय जवान-जय किसान के साथ अब जय विज्ञान भी

भारत अब किसी देश से पीछे नहीं रहा

ग्लोबल इनोवेशन इंडेक्स में 46 वें पायदान पर पहुंचा इंडिया

हम रिसर्च को लोकल लेवल पर ले जाएंगे

SHOWERS PRAISE ON INDIAN SCIENTISTS

PM: Role of people connected with science has increased

FE BUREAU
Ahmedabad, September 10

PRIME MINISTER NARENDRA Modi lavished praise on Indian scientists for the indigenous development of Covid vaccines while inaugurating the first of its kind Centre-State Science conclave here on Saturday.

In his virtual address, the PM lauded India's successful Covid immunisation programme as an epitome of scientific excellence.

"At a time when India is marching towards a fourth industrial revolution, responsibility of people connected with science, administration and policymakers has increased significantly," said PM Modi.

"Science is like that energy in the development of 21st century India, which has the power to accelerate the development of every region and the development of every state," he stated, adding, "Science is the basis of solutions, evolution and innovation. And, it is with this inspiration, that today's new India is moving forward with Jai Jawan, Jai Kisan, Jai Vigyan as well as Jai Anusandhan."

History, the PM said, was replete with lessons that could help both the Centre and the states. "If we recall, the world was going through a period of devastation and tragedy in the early decades of the last century. But even in that era, whether it was in the East or the West, scientists everywhere were engaged in great discoveries," he stated.

"In the West, scientists like Einstein, Fermi, Max Planck, Niels Bohr, and Tesla were dazzling the world with their experiments. In the same period, many scientists including CV Raman, Jagdish Chandra Bose, Satyendranath Bose, Meghnad Saha and S Chandrashekhar were bringing their new discoveries to the fore in India," the PM said. The only difference between the East and West was that "we were not giving due recognition to the work of our scientists," he lamented.

"When we celebrate the achievements of our scientists, science becomes a part of our society, it becomes a part of the culture," the PM said, exhorting every Indian to celebrate the achievements of the scientists.

The PM mentioned that the central government is working on science-based development projects and added that since 2014, there has been a substantial increase in investment in the field of science and technology.

"Today, owing to the efforts of the government, India is ranked 46th in the Global Innovation Index compared to 2015 when it was ranked 81," Modi said. Stressing on giving wholehearted support to youngsters, the PM said that 'inclination for science, technology and innovation is in the DNA of our young generation and we should harness their energy in new sectors and missions" in the field of research and innovation including Space Mission, National Supercomputing Mission, semiconductor mission, Mission Hydrogen and drone technology.

Emphasising on taking science and technology-related research to the local level the PM said that states should promote research and innovation as per their local needs. He also asked every state to lay down modern policy regarding science, innovation and technology.

"The coming 25 years are the most important years for India as it will determine the new identity and strength of the nation", the PM suad. Gujarat Chief Minister Bhupendra Patel and Union Minister of State for Science and Technology, Dr Jitendra Singh remained present at the inaugural function of the conclave. The event was organised in line with the Prime Minister's vision to facilitate innovation and entrepreneurship in the country.

Prime Minister Narendra Modi during the inauguration of Centre-State Science Conclave, via video conferencing in New Delhi on Saturday PTI

SCIENCE, INNOVATION & TECH

- Prime Minister Modi lauded India's successful Covid immunisation plan as an epitome of scientific excellence
- The Prime Minister said history was replete with lessons that could help both the Centre and the states
- When we celebrate the achievements of our scientists, science becomes a part of our society, it becomes a part of the culture, Modi said

Publication	Financial Express	Language	English
Edition	New Delhi	Journalist	Bureau
Date	11/09/2022	Page no	1, 3

PM asks states to promote research

PM MODI SAID the central government is constantly working on science-based development projects, while inaugurating the first of its kind Centre-State Science conclave in Ahmedabad on Saturday, reports **fe Bureau** in **Ahmedabad**. He stressed on giving full support to youngsters.

Emphasising on taking science and technology-related research to the local level, the PM said states should promote research and innovation as per their local needs. He asked every state to lay down modern policy regarding science, innovation and technology. ■ PAGE 3

Publication	Deccan Chronicle	Language	English
Edition	Hyderabad	Journalist	PTI
Date	11/09/2022	Page no	1

Make India a hub of innovation: PM

Urges states to frame modern policies

Ahmedabad, Sept. 10: Prime Minister Narendra Modi on Saturday called for concerted efforts to make India a global centre of research and innovation, and urged state governments to frame modern policies in the fields of science and technology.

Modi lamented that unlike the western countries, India failed to adequately celebrate the works of its scientists, which turned a large section of the society indifferent towards science.

There is a need to celebrate the achievements of Indian scientists, he said.

Narendra Modi

AIDING SCIENCE

- There is a need to celebrate the achievements of Indian scientists, the Prime Minister said at the inaugural session of the Centre-State Science Conclave.
- Calls for 'hyper specialisation', says Centre ready to help states develop global-level specialised laboratories.

India has seen significant increase in investments in the field of science and technology since 2014. Record number of patents, innovations and emergence of startups a testimony to this.

— **NARENDRA MODI,** ***Prime Minister***

Addressing via video link the inaugural session of the Centre-State Science Conclave organised here, Modi said that since 2014, there has been a significant rise in investment in the fields of science and technology.

India is going ahead with the mantra of 'Jai Jawan, Jai Kisan, Jai Vigyan and Jai Anusandhan' (Hail soldiers, farmers, science and research), he said.

"We have to work together on various fronts to make India a global centre of research and innovation in this 'amrit kaal'. We have to take our research in the fields of science and technology to the local level. It is the need of the hour for all the states to lay emphasis on innovation to find local solutions to local problems," he said.

Urging the state governments to frame modern policies related to science, innovation and technology to find solutions to local problems, he stressed the need for more cooperation and collaboration with scientists. "In order to encourage innovation, the state governments should give emphasis on creation of more and ore scientific institutions and on simplification of processes. The number of innovation labs should also be increased in the institutions of higher education in states," he said. — *PTI*

Publication	Dainik Jagran	Language	Hindi
Edition	New Delhi	Journalist	Bureau
Date	11/09/2022	Page no	1

अनुसंधान और नवाचार का वैश्विक केंद्र बनेगा भारत : प्रधानमंत्री

दो दिवसीय सम्मेलन से बिहार और झारखंड ने किया किनारा

Publication	Amar Ujala	Language	Hindi
Edition	New Delhi	Journalist	Bureau
Date	11/09/2022	Page no	1

चौथी औद्योगिक क्रांति की ओर भारत

पीएम मोदी ने कहा-देश को बनाना होगा नवाचार का गढ़, केंद्र-राज्य विज्ञान सम्मेलन का किया उद्घाटन

स्थानीय समाधान के लिए नवाचार पर दें जोर

वैज्ञानिक संस्थानों के निर्माण की प्रक्रिया करनी होगी सरल

वैज्ञानिकों की उपलब्धियों पर हो जश्न

अंतरिक्ष, समुद्र, हर क्षेत्र में बढ़ रहा भारत

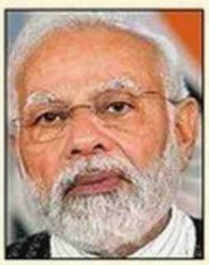
मातृभाषा में पढ़ाए जाएं विज्ञान-प्रौद्योगिकी के पाठ

बिहार-झारखंड बाहर रहे

Publication	Amar Ujala	Language	Hindi
Edition	New Delhi	Journalist	Bureau
Date	10/09/2022	Page no	13

पीएम आज केंद्र-राज्य विज्ञान सम्मेलन का करेंगे उद्घाटन

नई दिल्ली। प्रधानमंत्री नरेंद्र मोदी शनिवार सुबह 10:30 बजे वीडियो कॉन्फ्रेंस के जरिये दो दिवसीय केंद्र-राज्य विज्ञान सम्मेलन का उद्घाटन करेंगे।



पीएमओ के मुताबिक सम्मेलन का उद्देश्य सहकारी संघवाद के जरिये केंद्र-राज्य के बीच समन्वय व सहयोग तंत्र मजबूत बनाना और देश में विज्ञान, प्रौद्योगिकी और नवाचार के लिए एक सशक्त पारिस्थितिकी तंत्र का निर्माण करना है। सम्मेलन का आयोजन साइंस सिटी, अहमदाबाद में किया जाएगा। ब्यूरो

Publication	Mint	Language	English
Edition	New Delhi	Journalist	Swati Luthra
Date	12/09/2022	Page no	8

Dr Jitendra Singh, union minister of state for science and technology. HT

Ministry of science to set up dashboard

Dr Jitendra Singh, union minister of state for science and technology announced the set-up of dashboards to enable the sharing of the best technology practices among the centre and the states. Presiding over the concluding session of the two-day "Centre-State Science Conclave" in Ahmedabad, the minister said that a high-level mechanism will be developed by the department of science and technology to monitor and coordinate the follow up action of the conclave. Singh also asked the states to appoint a nodal officer each, to coordinate and cooperate with the special committee to know and share the best practices. The minister said that the states of Rajasthan, Gujarat, Punjab and Haryana were taken up for this latest heli-borne survey. He added that this will also positively contribute to Prime Minister's "Har Ghar Nal Se Jal" as well as "doubling farmer's income" goals. **SWATI LUTHRA**

Publication	Financial Express	Language	English
Edition	New Delhi	Journalist	Bureau
Date	17/09/2022	Page no	3

Science & tech dashboard to monitor projects

FE BUREAU
New Delhi, September 16

THE DEPARTMENT OF Science & Technology (DST) on Thursday launched a dashboard for countrywide monitoring and feedback to ensure effective implementation of projects, schemes, scholarships and fellowships funded by the department.

"The most important outcome of this dashboard is that the department is made aware of the outputs and outcomes of the decisions taken, projects funded or scholarship/fellowship awarded regularly and in a user-friendly manner," science and technology minister Jitendra Singh said launching the dashboard.

In the last five years, over ₹20,000 crore were disbursed by DST to 2,768 agencies in 35 states and union territories every single minute detail is available on the dashboard.

"The dashboard has helped DST in taking evidence-based decisions.

"Many special calls have been taken on programmes seeing the gaps in the outreach of the programmes and in many programmes mid-course corrections have been prompted based on the data analysis done through dashboards," Singh said.

The minister said, through the dashboard, details of each of the schemes and programmes for any group in every state can be accessed on a real-time basis and remedial measures, if any, can be taken promptly.

Impact analysis of the schemes and scholarships both age-wise and gender-wise for SC/ST/OBCs and general castes is embedded in the dashboard for suggesting reformative measures to states.

DST dashboard to track fund use in real time

OUR BUREAU
New Delhi, September 15

The Department of Science and Technology (DST) has set up a dashboard to monitor utilisation of fund and obtain feedback to ensure effective implementation of projects, schemes, scholarships and fellowships.

Minister of State (Independent Charge) Jitendra Singh unveiled the dashboard on Thursday. "It contains every single minute detail of over ₹20,000 crore disbursed by DST to 2,768 Agencies in 35 States/UTs in the last five years," he said while calling for a common dashboard for all Science Ministries and Departments.

Reformative measures

He said that through the dashboard, details of each of the schemes and programmes for any group in every State can be accessed on a real-time basis and remedial measures, if any, can be taken promptly.

Minister of State (Independent Charge) Jitendra Singh

He said, the impact analysis of the schemes and scholarships, both age-wise and gender-wise, for SC/ST/OBCs and general castes is embedded in the dashboard for suggesting reformative measures to States, if any.

Though this dashboard is in compliance with the directives of NITI Aayog issued in February 2021, the Minister pointed out that DST had established a similar set-up — Data Management Cell with the same objectives in January 2019.

JNCASR's novel molecule prevents obesity in mice

Currently, there are no reliable drugs available for obesity and its associated disorders

TAPAS K. KUNDU
ADITYA BHATTACHARYA

In spite of all the discipline of diet and exercise, are you still finding it difficult to stay in shape? The developed world suffers from numerous cases of obesity due to a more sedentary mode of life offered by the comforts of the first world. In contrast, in the developing world, due to irregular food habits and economic stress, a large number of individuals have an accumulation of visceral fat especially in the stomach area as well as in the liver.

Although obesity is more of a lifestyle-related health disorder, it can lead to several other diseases such as non-alcoholic fatty liver disease, diabetes and osteoarthritis. Surprisingly, there are no reliable drugs available for obesity and its associated disorders.

While there are several drugs undergoing clinical trials for tackling obesity, many have already fallen through due to undesirable side effects in human patients.

Over the past two decades, our laboratory has been working on how the modifications of the gene rather than the gene sequence itself can regulate gene function. This branch of molecular biology is called epigenetics. The epigenetic changes are reversible and directly correlated with habits as well as social and environmental cues.

Our genetic material DNA is wrapped around protein balls called histones to form the highly organised genome. Different chemical modifications of both DNA and histones can dictate the fate of genes in terms of them being switched on or remaining switched off. This on/off balance of gene expression is critical for health and disease.

Turning point

We have discovered that one such rarely studied chemical modification of histone – lysine butyrylation – is critical for fat cell development that underlies obesity manifestation. This finding encouraged us to search for a small molecule that could specifically inhibit this modification and thereby arrest or ameliorate obesity.

Safe: Pre-clinical studies indicate that the molecule is almost non-toxic in nature, say Tapas Kundu (right) and Aditya Bhattacharya. •SPECIAL ARRANGEMENT

After many years of effort, we could finally demonstrate that a semi-synthetic derivative of garcinol, a molecule naturally found in *Garcinia indica* (kokum) fruit rind, could selectively reduce the levels of this modification by inhibiting the catalytic activity of the enzyme responsible for it – the master epigenetic enzyme p300.

Since this molecule (LTK-14A) is very specific for only one enzymatic activity of the multi-functional enzyme p300, we expected minimal toxicity from this compound for biological applications.

Protective effect

As per traditional knowledge, kokum (*Garcinia indica*) extracts have been known to have a protective effect against obesity. However, its exact molecular targets were not known. Furthermore, its major chemical constituent garcinol was found to be toxic as it targets many enzymes non-specifically.

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Publication	The Hindu	Language	English
Edition	Mumbai	Journalist	Tapas K Kundu, Aditya Bhattacharya
Date	11/09/2022	Page no	11

JNCASR's novel molecule prevents obesity in mice

Currently, there are no reliable drugs available for obesity and its associated disorders

TAPAS K. KUNDU
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In spite of all the discipline of diet and exercise, are you still finding it difficult to stay in shape? The developed world suffers from numerous cases of obesity due to a more sedentary mode of life offered by the comforts of the first world. In contrast, in the developing world, due to irregular food habits and economic stress, a large number of individuals have an accumulation of visceral fat especially in the stomach area as well as in the liver.

Although obesity is more of a lifestyle-related health disorder, it can lead to several other diseases such as non-alcoholic fatty liver disease, diabetes and osteoarthritis. Surprisingly, there are no reliable drugs available for obesity and its associated disorders.

While there are several drugs undergoing clinical trials for tackling obesity, many have already fallen through due to undesirable side effects in human patients.

Over the past two decades, our laboratory has been working on how the modifications of the gene rather than the gene sequence itself can regulate gene function. This branch of molecular biology is called epigenetics. The epigenetic changes are reversible and directly correlated with habits as well as social and environmental cues.

Our genetic material DNA is wrapped around protein balls called histones to form the highly organised genome. Different chemical modifications of both DNA and histones can dictate the fate of genes in terms of them being switched on or remaining switched off. This on/off balance of gene expression is critical for health and disease.

Turning point

We have discovered that one such rarely studied chemical modification of histone – lysine butyrylation – is critical for fat cell development that underlies obesity manifestation. This finding encouraged us to search for a small molecule that could specifically inhibit this modification and thereby arrest or ameliorate obesity.

Safe: Pre-clinical studies indicate that the molecule is almost non-toxic in nature, say Tapas Kundu (right) and Aditya Bhattacharya. •SPECIAL ARRANGEMENT

After many years of effort, we could finally demonstrate that a semi-synthetic derivative of garcinol, a molecule naturally found in *Garcinia indica* (kokum) fruit rind, could selectively reduce the levels of this modification by inhibiting the catalytic activity of the enzyme responsible for it – the master epigenetic enzyme p300.

Since this molecule (LTK-14A) is very specific for only one enzymatic activity of the multi-functional enzyme p300, we expected minimal toxicity from this compound for biological applications.

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Edition	Kochi	Journalist	Tapas K Kundu, Aditya Bhattacharya
Date	11/09/2022	Page no	11

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Publication	The Hindu	Language	English
Edition	Chennai	Journalist	Tapas K Kundu, Aditya Bhattacharya
Date	11/09/2022	Page no	17

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Publication	Hindustan Times	Language	English
Edition	New Delhi	Journalist	Bureau
Date	17/09/2022	Page no	8

TDB-DST supports indigenous manufacturing

Technology Development Board, a statutory body under Department of Science and Technology, GoI supports M/s Ghaziabad Precision Products Private Limited for encouraging manufacturing of indigenous components critical to SU-30MK1 aircraft & 1500 HP battle tank engine. TDB has approved financial assistance of Rs 5.5 crores for the project. Rajesh Kumar Pathak, Secretary, TDB shared, "To help in the development of indigenous manufacturing ecosystem under 'Make in India' initiative, TDB has been supporting many imported technologies for wider domestic applications to enhance the local capacity building for such critical machine components. This project is one such initiative for Defence sector."

Gangotri glacier retreated by 1,700m since '35: Study

Neeraj Santoshi

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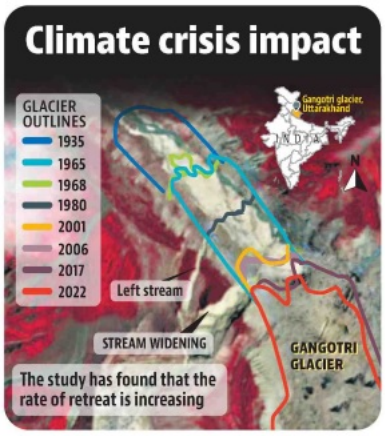

DEHRADUN: The Gangotri glacier in the Uttarakhand Himalayas, from where the Ganga river originates, retreated by 1,700 metres between 1935 and 2022, a study by Wadia Institute of Himalayan Geology, Dehradun, has found, attributing it to reduced snowfall and more rain, apart from rising temperature in the upper reaches of the Himalayas. Worryingly, the study has also found that the rate of retreat is increasing.

According to various studies, the mean glacial retreat rate between 1935 and 1996 was 20 metres per year which has increased to up to 38 metres per year after that. The studies show that the retreat has further gained steam, with Gangotri retreating by about 300 metres in the past decade or so.

Rakesh Bhambri, a scientist at the central government-run institute and lead author of the yet-to-be-published study said their fresh estimation of the retreat is based on the comparison of the 1935 map of the Geological Survey of India (GSI) with the current situation in the region. "Our fresh estimation shows that the glacier has retreated by 1700 metres, and its retreat rate is increasing," he said. He added that the retreat rate has been increasing with every passing decade and if the present retreat rate continues, it will take about 1,500 years for the entire Gangotri glacier to melt. "But this can't be accurate as we don't know how contributing factors like temperature and rainfall and snowfall will change in the coming years. The decline in the glacial mass, which we are studying currently, will give us a more accurate estimation in the coming time."

Gangotri is the largest glacier in Uttarakhand Himalayas, with a length of around 30 kms, width of 0.5 to 2.5 km and an area of around 143 sq km. The melt water from glacier, that emerges at its snout at Gaumukh at a height of 3,950 metres, is source of Bhagirathi River, which later meets Alaknanda River to form Ganga at Devprayag.

In March , Centre informed Rajya Sabha that the Gangotri glacier had lost nearly 0.23 square kilometre area in 15-year period (2001-2016).

Kireet Kumar, scientist at Almora-based G.B. Pant Institute of Himalayan Environment and Development, who has also studied the Gangotri glacier area said that over the last decade , the average rate of retreat of the Gangotri glacier has been around 12 to 13 metres a year.

"The average temperature change in higher reaches of the Himalayas is more compared to the global average. This coupled with changes in rainfall and snowfall pattern is contributing to the glacial retreat and decline in the overall mass of the Gangotri glacier".

Publication	The Pioneer	Language	English
Edition	New Delhi	Journalist	Bureau
Date	25/09/2022	Page no	10

SUGAR-COATED POUCHES IN BODY FLUIDS TO DETECT CANCER

Detection of the cancer microenvironment may soon become much easier with the help of a new molecular biosensor recently developed by a team of India scientists. Cancer cells secrete small pouches, namely extracellular vesicles (EV) covered with sugar molecules, Hyaluronan (HA), which has a direct link to tumour malignancy and is considered a potential biomarker for early diagnosis of colon cancer.

These EVs are abundant in body fluids (blood, faeces, etc.), and all types of cells secrete these EVs into the extracellular matrix. Cancer cells secrete at least two times more EVs into the body fluids than normal cells). Therefore, these EVs could be isolated non-invasively from a patient's body for early cancer diagnosis.

Dr. Tatini Rakshit laboratory, supported by Inspire faculty grant of the Department of Science and Technology (DST), at Shiv Nadar Institute of Eminence, Delhi, in collaboration with S. N. Bose National Centre for Basic Sciences (SNBNCBS), Kolkata, Saha Institute of Nuclear Physics, Kolkata and IIT Bhilai, Chhatisgarh has unravelled the contour lengths of HA on a single cancer cell-derived EV surface.

Their study showed that a single cancer cell-derived EV is coated with very short chain HA molecules (contour length less than 500 nanometers) using single molecule techniques and elucidated that these short-chain HA-coated EVs are significantly more elastic than the normal cell-derived EVs. This intrinsic elasticity of HA-coated EVs in cancer helps them to withstand multiple external forces during extracellular transportation, uptake, excretion by cells, adhesion to cell surfaces, etc.

The study has been published in Physical Chemistry Letters.

New initiatives to increase women researchers in Science and Tech

While women researchers have increased in all fields, social sciences and humanities exhibit a larger presence of women researchers

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Recent data released by the Department of Science and Technology (DST) reflects an increase in the participation of women in scientific and technological fields in the last two decades. As per the data, the percentage of women researchers has increased from 13.9 in 2015 to 18.7 in 2018.

In 2018-19, around 28% of women participated in extramural R&D projects as compared to 13% in 2000-01.

An overall increase is observed in almost all the fields, but an encouraging rise of women researchers is seen in the field of social sciences and humanities. The percentage of women researchers in the social sciences and humanities is 36.4% while that in engineering and technology is 14.5%. In natural sciences and agriculture it is 22.5% each and in health sciences it is 24.5%.

"The proportion of female researchers is significantly less in India considering the male-to-female ratio is 4:1 or even less. Also, while there are more than 40% of female graduates in STEM fields in India, which is higher than the global average of 30%, only about 15% land jobs in STEM-related fields," explains Ruchi Singh, Scientist F, ICMR-National Institute of Pathology, Safdarjung Hospital Campus.

"The ratio has improved over the years, as reflected by the report from DST. The percentage has increased by about 30% compared to women researchers in 2015. This increase also includes the number of females working in various short-term research projects of 3 to 5 years, initiated under multiple government schemes launched by DST, ICMR, etc," she adds.

The government is making efforts to encourage girl students to pursue careers in Science, Engineering and Technology at the school level. Also, a significant increase has been observed in the percentage of women contributing to science education at the school level and the percentage of women in government laboratories.

To improve gender ratio in the science and technology research areas, the government has launched schemes such as KIRAN and Women Scientist Schemes

"At IIT Madras, the percentage of female researchers is the highest in Management with around 54%. In Biotechnology, the number is 52%, while it is 50% in Humanities. The proportion of female researchers is noted less in mostly the engineering fields. Around 34% of female researchers are seen in Chemical engineering, 31% in Engg Design and 29% each in Civil Engg, Computer Science and Chemistry. The lowest number of female researchers are from Mechanical Engineering with 10%, Math and Aerospace with 13% each," says Preeti Aghalayam, faculty, Department of Chemical Engineering, IIT Madras, who is mentoring women researchers and is also part of several initiatives on 'Women in STEM'.

Various institutes have undertaken various measures to increase women researchers in STEM. "We are raising awareness schemes for women and offering them special scholarships for undertaking research. The institute is also part of the GATI initiative which is an umbrella programme for improving the number of women in research," adds Preeti.

To improve the gender ratio in the science and technology research areas, the government has launched various schemes such as KIRAN, Women Scientist Schemes. "The schemes have been introduced keeping in mind the crucial phases in women's life like career breaks primarily due to family responsibilities, part-time carrier options, self-employment and relocation majorly due to marriages. International programmes like Indo-US Fellowship for Women enable Indian Women Scientists, Engineers & Technologists to undertake international collaborative research in premier institutions and enhance their research capacities and capabilities," highlights Singh.

Indian experts develop way for early detection of colon cancer

Surendra.Singh
@timesgroup.com

New Delhi: Indian scientists have developed a technique that can detect small pouches covered with sugar molecules that are secreted by cancerous cells that will help in detection of colon cancer and its early diagnosis.

The small pouches namely extracellular vesicles (EV) covered with sugar molecules are called Hyaluronan (HA), which has a direct link to tumour malignancy. These EVs are abundant in body fluids (blood and faeces), and even all types of cells secrete these EVs into the extracellular matrix. These EVs could be isolated non-invasively from a patient's body for early diagnosis of cancer.

Dr Tatini Rakshit laboratory, supported by INSPIRE Faculty grant of the science and technology department at Delhi-based Shiv Nadar Institute of Eminence in collaboration with S N Bose National Centre for Basic Sciences, Kolkata, Saha Institute of Nuclear Physics, Kolkata, and IIT-Bhilai, has unravelled the contour lengths of Hyaluronan on a single cancer cell-derived EV surface using single-molecule force spectroscopy.

The study has been published recently in the Journal of Physical Chemistry Letters. These findings show how sugar-coated pouches increase the risk of cancer progression.