Newspaper Clips

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Hindustan Times ND 02/08/2012 P-10

Physicist's $3-million prize dilemma

ROLE MODEL String theorist Ashoke Sen hopes win will attract youth to research

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NEW DELHI: India's star physicist Ashoke Sen has a new dream and is faced with an unusual challenge.

The string theorist who was awarded the $3 million Fundamental Physics Prize (FPP) on Tuesday is hoping that the biggest monetary prize in the world of academia injects fresh interest in basic research — often seen as an unglamorous profession.

Sen, arguably India's best known physicist on the world stage, was awarded the FPP in recognition of his pioneering work on string theory — a model, if proven, could help reconcile the most fundamental forces of nature.

"People should join science because they love it and are passionate about it, but I hope this award sends the message to young scientists that,research isn't as non-lucrative as it is often perceived," Sen told HT in an interview from Allahabad, where he is a Distinguished Professor at the Harish-Chandra Research Institute.

With his thick glasses and soft speech, Sen has emerged as one of the most respected physicists in string theory at conferences across the world over the past two decades.

But the big question the physicist is struggling with right now has nothing to do with string theory. "I'm not sure what to do with this money," Sen said. The scientist, used to his standard government research laboratory salary, said he hopes to "figure out" what to do with the award money over the coming few days.

> **People should join science because they love it and are passionate about it**
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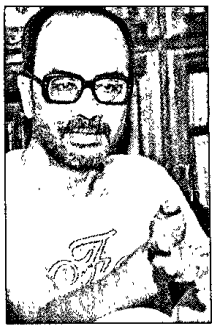
> **I hope this award sends the message that research isn't non-lucrative**
>
> ASHOKE SEN, physicist & professor at the HRI

The FPP was launched this year by Russian billionaire Yuri Milner and consists an annual prize of $27 million awarded to nine physicists. Seven of the physicists are American while one is French.

Sen received an email from the FPP organisers a few days earlier, asking him when he was free to talk, but not sharing any details. "I was intrigued," Sen said. The physicist fixed a time and went to his hotel room to receive the call. "It was a complete surprise," Sen said.

LIFE OF A SCIENCE STAR



Ashoke Sen, 56 HT PHOTO

STUDIED AT: Presidency College (B.Sc.), IIT Kanpur (M.Sc.), Stonybrook University (PhD)

WORKED AT: Stanford Linear Accelerator Center at Stanford University, California; Tata Institute of Fundamental Research and Harish-Chandra Research Institute.

BEST-KNOWN FOR: Explaining apparent gaps in string theory, which could help reconcile nature's most fundamental forces; improving our understanding of black holes.

Times of India ND 02/08/2012 P-8

Indian bags top physics honour

Subodh Varma
TIMES INSIGHT GROUP

A shy and unassuming Indian scientist in Allahabad has won the world's biggest prize in physics. Ashoke Sen, a professor at the little known but exclusive Harish-Chandra Research Institute, Allahabad, was on Tuesday declared one of the winners of the first Fundamental Physics prize started by Russian billionaire Yuri Milner.


Ashoke Sen

Sen and eight other scientists will get $3 million each — double of what is given with the Nobel prize. Seven of the winners are based in the United States, one in France and one in India. Sen has been awarded for his pioneering work on string theory.

Typically, Ashoke Sen deflected attention away from himself and pointed at others in the field in India. "You just see — there are going to be many more awards in the future for Indians," he told TOI from Allahabad.

Yuri Milner made billions from investments in various internet-based companies after giving up his job as researcher at Moscow's Lebedev Physical Institute. He personally selected the winners of this year's award but in future the work would be done by a panel, he told media.

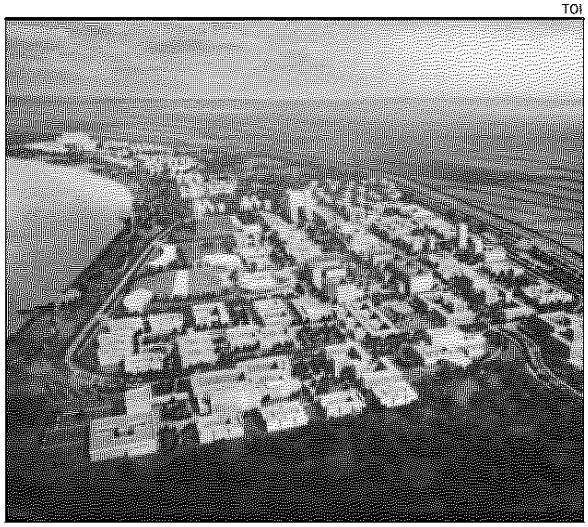
Sen has not yet digested the news. "I have no idea what I will do with $3 million," he exclaimed. Sen is considered one of the original contributors to string theory, a complex mathematical construct which is meant to resolve one of science's biggest mysteries — that gravity as explained by Einstein does not fit in with quantum theory.

Scientists in India, especially string theory practitioners in Mumbai, Chennai and Kolkata were overjoyed. Sunil Mukhi, chair of theoretical physics at Tata Institute of Fundamental Research, Mumbai, said, "It should be noted that he is the only Indian among the nine awardees. That shows his world stature, and India's too," he added.

Sen studied in Shailendra Sircar Vidyalaya, and then Presidency College, in Kolkata before going to IIT Kanpur in 1976. He got his doctorate from State University of New York, Stonybrook and then worked at Fermilab and Stanford before returning to India.

IIT-Gn gets 400 riverside acres for own campus

TOI



An artist's impression of the plan

New Premises Will Meet Green Norms

Bharat Yagnik | TNN

Ahmedabad: Indian Institute of Technology Gandhinagar (IIT-Gn) will finally get its own address. After a four-year wait, IIT-Gn took possession of over 400 acres of land for its new campus on Monday. The land is on the banks of the Sabarmati near Palej in Gandhinagar.

IIT-Gn is one of six new IITs set up in 2008-09 and presently functions from a temporary campus at Vishwakarma Government Engineering College (VGEC) at Chandkheda.

This delay by state government in allocation of land drew flak from educationists and IITians across the country.

The institute was forced to function from a makeshift arrangement and saw its first batch graduate from the temporary campus.

The new campus will be constructed at a budget of around Rs 1,200 crore in the first phase, as a fully residential campus for 2,400 students. Work is set to begin in six to nine months, and the campus will flaunt some of the country's most environment-friendly buildings.

IIT Gandhinagar authorities hope to move into the campus by 2015.

Director of IIT-Gn, Sudhir Jain said, "Construction at the new campus will begin with classrooms and student hostels. Once these are ready, we can start functioning from there."

Jain added: "We will recycle used water to flush toilets, water plants and so on. The campus will also have a solid waste management system so refuse can be segregated and have non-organic waste sent to recycling centres."

The institute's new premises will have two parts – North campus and South campus – which will be connected by a Central campus. Along with solar back up for power consumed during the day, most of the campus will be vehicle-free zones.

Palej villagers also will benefit from the institute. Administrators have decided to set up a fund of Rs 1 crore. "The money will be used to teach village children and students will also venture go to the village to teach. This will create goodwill between the institute and villagers," said an IIT-Gn official.

Dainik Jagran ND 02-Aug-12 p10

शिक्षकों की कमी से जूझती सरकार देख रही सपने

- स्कूली शिक्षकों के 12.5 लाख पद खाली, यूपी-बिहार सबसे आगे
- केंद्रीय विवि, आइआइटी और आइआइएम जैसे संस्थानों में भी दस हजार पद खाली

राजकेश्वर सिंह, नई दिल्ली

भारत को 'नॉलेज इकोनॉमी' में विश्व का हब बनने का सपना सरकार भले ही देख रही हो, लेकिन सच्चाई यह है कि देश का शैक्षिक ढांचा बुरी तरह चरमरा रहा है। जिस देश में स्कूली शिक्षकों के साढ़े बारह लाख और केंद्रीय विश्वविद्यालयों में छह हजार से अधिक पद खाली हों, वहां शैक्षिक बदहाली का अंदाजा आसानी से लगाया जा सकता है। शिक्षकों की कमी को पूरा करने और योग्य शिक्षकों के बिना क्वालिटी एजूकेशन (गुणवत्तापूर्ण शिक्षा) के मोर्चे पर राज्य सरकारें तो गुनाहगार हैं ही, लेकिन केंद्र खुद भी कठघरे में है।

भारतीय प्रौद्योगिकी संस्थान (आइआइटी), भारतीय प्रबंध संस्थान (आइआइएम), भारतीय विज्ञान शिक्षा एवं शोध संस्थान और भारतीय प्रबंध संस्थानों (आइआइएम) जैसे संस्थान भी इस बदहाली से अछूते नहीं हैं। अकेले आइआइटी फैकल्टी के कुल 5092 पदों में 1611 खाली है। तो आइआइएम में स्वीकृत 638 पदों में 111 खाली चल रहे हैं। सरकार केंद्रीय विश्वविद्यालयों को राज्य विवि की तुलना में बेहतर मानती है। जबकि, वहां स्थिति और बदतर है, जहां 6542 पदों पर शिक्षक ही नहीं हैं। इनमें शिक्षकों के 16,602 स्वीकृत पद है।

जहां तक स्कूली शिक्षकों की कमी का सवाल है तो उसमें बिहार, उत्तर प्रदेश, प. बंगाल, झारखंड समेत लगभग आधा दर्जन राज्यों ने देश की तस्वीर बिगाड़ रखी है। देश में कुल साढ़े बारह लाख स्कूली शिक्षकों की जो कमी है, उनमें आधी छह लाख 26 हजार इन्हीं राज्यों में है। 20 करोड़ से अधिक आबादी वाले देश के सबसे बड़े राज्य उत्तर प्रदेश में तीन लाख 12 हजार शिक्षकों के पद खाली है। बिहार में नीतीश कुमार सरकार की वाहवाही हो रही है, जबकि वहां दो लाख 62 हजार स्कूली शिक्षकों के पद रिक्त पड़े है। प. बंगाल में स्कूली शिक्षकों के एक लाख अस्सी हजार पद खाली है। भाजपा शासित मध्य प्रदेश में 89 हजार शिक्षकों के पद भरे जाने का इंतजार कर रहे है। इसी तरह दिल्ली में भी दस हजार शिक्षकों के पद रिक्त है।

केंद्रीय संस्थानों में फैकल्टी के खाली पदों की स्थिति

केंद्रीय विश्वविद्यालय	कुल पद : 16602	खाली : 6542
आइआइटी	कुल पद : 5092	खाली : 1611
ट्रिपल आइटी	कुल पद : 224	खाली : 104
आइआइएम	कुल पद : 638	खाली : 111
एनआइटी	कुल पद : 4291	खाली : 1487
आइआइएससीआर	कुल पद : 518	खाली : 131

Pioneer ND 02/08/2012 P-4

Gopinath Pradhan is new IGNOU V-C

PNS ■ NEW DELHI

Prof Gopinath Pradhan has taken over the charge of Vice-Chancellor of the Indira Gandhi National Open University (IGNOU) on Wednesday. He was the director of School of Social Sciences (SOSS) of the university since 2010.

Prof Pradhan joined IGNOU in 1993 as a reader in economics and became a professor in 1998.

Prof Pradhan, 60, completed his MA and PhD in ecnomics from Odisha's Sambalpur University in 1975 and 1984 respectively. His areas of specialisations are development economics, industrial economics, public economics and quantitative economics.

Prior to this, he was associated with the National Institute of Public Finance and Policy, New Delhi, first as an economist and then as a senior economist, NAC College, Odisha as lecturer of economics, Sambalpur University as research fellow.

He has been a post doctoral visiting scholar at the Centre for Asian Development Studies, Boston University, USA; post doctoral fellow at the Concordia University under Shastri Indo-Canadian Faculty Research programme; and a visiting fellow for sustainable forest management at the National Institute of Public Finance and Policy, New Delhi.

His academic publications include Industrial Estates and State Development, Evasion of Excise Duty in India (co-author of the theme dealing with Cotton Textile Fabrics) and Fiscal Policy for National Capital Region.

Economic Times ND 02-Aug-12 P13

The Case for IT in the Power Grid

A smart grid will allow utilities and consumers to reduce peak demand and help avert blackouts

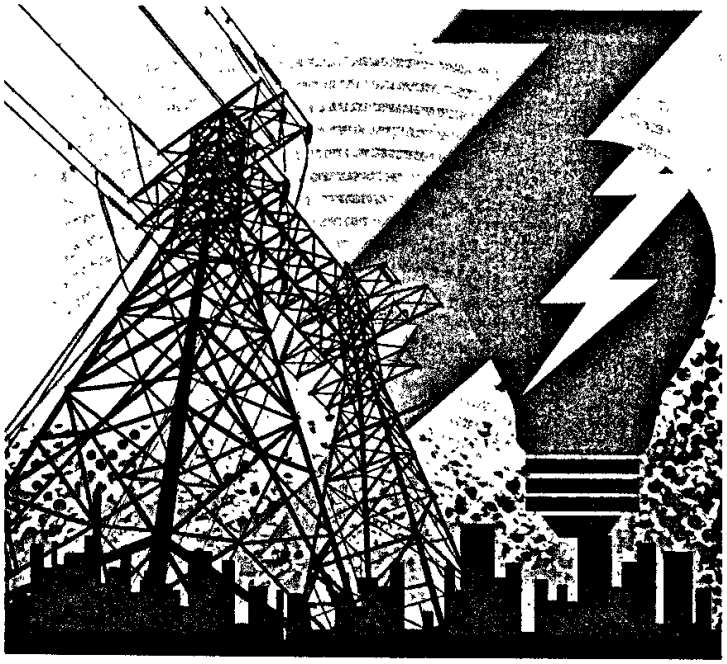
DHAMODARAN RAMAKRISHNAN

How do we streamline our power generation, transmission and distribution supply chain? How can we avert the massive blackouts which recently plunged half the population of India into darkness and despair? How do we empower the consumers? How can we efficiently manage the ripple effects in such crisis scenarios, which virtually tripped the entire lifeline?

While the debates still rages on what caused the fault, and who is responsible for the gloom, it is not the lack of governance, indiscipline of individual states, or even the lack of sophisticated technologies which is standing between us and an illuminated future.

One of the main hurdles that we need to manage is the lack of adequate collaboration amongst the ecosystem. Collectively, we need to work towards evolving industry standards, policies, and reforms, helping the utility companies transform energy, environmental and sustainability issues into opportunities that positively impact the world. If only, we can think, and leverage the power of collective thinking, to drive synergy across the energy value chain, we can steer the nation towards progress.

Fortunately, our energy production and delivery systems can be made much smarter. We can now instrument everything from appliances and the meter in the home to the turbines in the power plants that can be monitored and controlled in real time. In fact, the intelligent utility system will actually look a lot more like the Internet than like a traditional grid. It can be linked to thousands of power sources, including climate-friendly ones such as wind and solar. All of this instrumentation then generates new data, which advanced analytics can turn into insight, so that better decisions by key stakeholders of the value chain can be made in real time. The whole system can become more efficient, reliable, adaptive and smarter.



ANIMISHA

As appliances and other technologies align with a smart grid's capabilities, consumers will also be able to create 'home area networks' of smart appliances, thermostats, security systems, and electronics that will 'talk' with the grid. For example, there is no need for the compressor or defrost unit of a refrigerator to operate during peak hours – it can wait. Today, millions of refrigerators that operate at random contribute to thousands of megawatts of peak-load. This can be controlled through simple modifications in the refrigerator. Very soon, most home appliances will become smart.

Consumers could get voicemail or email messages during a peak-energy-use time that encourages them to turn off certain appliances in return for financial incentives from utilities. Or there might be a setting on an appliance, such as a dishwasher, so that it would automatically run at a time when electricity demand is relatively low. These capabilities would allow consumers, companies and communities to save power and money. And ultimately this would result in lower levels of emissions of the greenhouse gases that contribute to climate change.

Indeed, the smart grid is no longer a futuristic idea, it's a necessity, and it's happening. By providing accurate, timely and detailed information on the energy being used, a smart grid will allow utilities and consumers to reduce peak demand and make the most of other opportunities for the efficient use of energy. Moreover, a smart grid will seamlessly integrate all clean and green energy technologies, from electric vehicles (which are best recharged at off-peak times, such as at night) to roof-top solar systems and wind farms.

By expanding these efforts at energy conservation and the use of alternative energy sources, the smart grid will reduce the emissions of the greenhouse gases.

With smart meters, consumers remain informed and empowered to save money, to save electricity – and, ultimately, to reduce carbon emissions that contribute to climate change. Smart meters provide instant information about electricity consumption, so that consumers will be able to see, in near real time, how much energy is being used in their home and how much it costs. With this additional information, consumers will be better able to make wise energy decisions, such as running their dishwashers, washing machines and dryers during periods of lower tariff. In fact, studies have shown that, when consumers know how much electricity they are using on a daily basis, they will become 5-15% more energy-efficient.

Our electrical grids can be a symbol of progress again, if we imbue the entire system with intelligence. The decisions made today about the world's electricity networks will impact our lives for decades to come. What this requires is perpetual collaboration amongst the ecosystem, and leveraging IT to switch on to a brighter smarter future.

(The author is Director, Smarter Planet Solutions, IBM India/South Asia)