Faculty backs IIT-D Director

Pheroze L. Vincent

NEW DELHI: The Faculty Forum of the Indian Institute of Technology, Delhi, has come out in support of Institute Director R.K. Shevgaonkar. The executive committee of the Faculty Forum on Tuesday urged Mr. Shevgaonkar to withdraw his resignation.

Mr. Shevgaonkar resigned last week and the Human Resource Development Ministry denied reports that he acted under government pressure.

On the BJP’s demand for a probe into the setting up of the International Institute of Technology Research Academy in Mauritius, which IIT-Delhi had assisted, the institute on Monday issued a clarification saying that the partnership was cleared by the Ministry of External Affairs and there was no financial commitment for IIT-D.

Senior officials in IIT-Delhi and the HRD Ministry confirmed that Mr. Shevgaonkar had expressed reservations about the government’s guidelines on the Unnat Bharat Abhiyan.

As part of the campaign, top technological institutions assist voluntary organisations in scientific inputs to improving the condition of villages. Seven IITs, including the one in Delhi, already work in rural areas through Rural Technology Action Groups.

Mr. Shevgaonkar, who coordinates the programme, was not in favour of IIT’s funding private agencies. The differences cropped up during a workshop which was held from September 7 to 9 at IIT-Delhi.

On Tuesday, the chairman of IIT-Delhi’s Board of Governors, V.P. Bhatkar, met Union HRD Minister Smriti Irani. After the meet, Ms. Irani met President Pranab Mukherjee, who is also Visitor to IIT-D and is the competent authority to accept or withhold the resignation.

---

IIT Delhi Faculty Requests Shevgaonkar to Withdraw Resignation

Chairman Bhatkar meet Irani to convey that director’s resignation was due to ‘personal reasons’

New Delhi: Expressing solidarity with the director, faculty members of IIT-Delhi on Tuesday requested R.K. Shevgaonkar to withdraw his resignation, even as the institute’s chairman rushed to the HRD Ministry to pacify the official. Shevgaonkar is not associated with the institute, which drives Shevgaonkar to put his papers. Shevgaonkar’s resignation was backed by the institute, faculty, alumni members and even Vijay Bhatkar, who have conveyed to Irani that the Mauritius project is completely legitimate and has all formalities.

The institute has also denied allegations regarding Swamy’s dues, saying that it has sought the views of DoPT and finance ministry on the matter. According to ministry officials, DoPT is up to the matter and is now up to the finance ministry to take a call.
IIT DELHI FACULTY ASKS DIRECTOR TO WITHDRAW RESIGNATION

New Delhi, 30 December: The IIT Delhi faculty forum today requested Director R Shevgaonkar to withdraw his resignation over which a controversy had erupted, describing him as a man of “dignity and integrity”.

The request came even as Chairman of the IIT-D's Board of Governors Vijay Bhatkar met HRD Minister Smriti Irani.

“The faculty of IIT Delhi stands by the decisions that its administration has taken to uphold the autonomy of the Institute. We request the Director, IIT Delhi to withdraw his resignation,” the faculty forum said in a statement. The resignation has not yet been accepted. Shevgaonkar had last Friday forwarded his resignation to Bhatkar citing “personal reasons” even as a media report suggested that he was under pressure from the HRD Ministry. The Ministry has denied that any pressure was put on Shevgaonkar that may have made him quit.

Sources in the HRD Ministry indicated that faulting the Director on the issue of the setting up of an extension research campus in Mauritius would prove counter productive as it had approval of the Ministry itself and an MoU in this regard was signed in Mauritius last year in the presence of the then HRD Minister M M Pallam Raju.
IIT-D staff supports director as ministry yet to accept resignation

HT Correspondents

NEW DELHI: Three days after IIT Delhi Director R K Shevgaonkar sent in his resignation, the HRD ministry is yet to accept it, giving weight to speculation that it could be trying to amicably resolve the issue.

Sources in the ministry told HT that the ministry has gone through the MoU signed between the IIT Delhi and Mauritius and realized that it would be difficult to put its onus entirely on the Director.

“The MoU, even if illegal signed in the presence of former HRD minister Pallam Raju, it will not be easy for the ministry to pin down the director,” an official said.

Earlier after the controversy broke out, the ministry had hit back at the director saying he had resigned as he was questioned on the illegality of the MoU. Meanwhile, the IIT Delhi staff association members on Tuesday requested director Shevgaonkar to withdraw his resignation and issued support to upholding the autonomy of the institution.

“The faculty of IIT Delhi stands by the decisions that its administration has taken to uphold the autonomy of the institute. We request the Director, IIT Delhi to withdraw his resignation,” Professor Ram Lal said in a statement issued in consultation with six executive council members.
HRD ministry softens stand against IIT-Delhi director

By Prashant K. Nanda
prashant.n@livemint.com

NEW DELHI

The human resources development (HRD) ministry on Tuesday softened its stand against a director of Indian Institute of Technology (IIT), Delhi, over the opening of a research academy in Mauritius.

Climbing down from its earlier position that IIT-Delhi director R.K. Shevgaonkar has flouted rules in opening a "Mauritius campus", at least three ministry officials said that "blaming the director may not be the solution."

"The resignation of the director has not been accepted yet by the ministry. The opening of a campus in Mauritius may have flouted the IIT Act, yet the director of an institute cannot be held responsible completely," said one of the three officials, requesting anonymity.

"Mauritius is a friendly country and there should not be much problem in helping them with an institute. But for any procedural mistake, the board of governor of the IIT, IIT council and the HRD ministry need to share the responsibility," the second official said, also requesting anonymity.

India signed a memorandum of understanding (MoU) with Mauritius to help them open an International Institute of Technology Research Academy (IIT RA) during former HRD minister M.M. Pallam Raju's visit to the country in November 2013.

"Two MoUs were signed during this visit. The first MoU is between IIT Delhi and Mauritius Research Council for setting up an International Institute of Technology Research Academy (IIT RA). The aim of the IIT RA is to provide world-class, research-based educational platform for full-time and part-time post graduate research leading to MS (Research) and Ph.D degrees to be awarded by IIT-Delhi in identified areas (clusters)," according to an HRD ministry statement dated 21 November 2013.

Mint has reviewed a copy of the statement.

The third ministry official said that this statement indicates that IIT-Delhi's plan to grant degrees to IIT RA students may not be viewed as a mistake of the institute director.

Meanwhile, Vijay P. Bhatkar, chairman of the IIT Delhi board of governors, met President Pranab Mukherjee. The President is the visitor of all IITs.

Officials in the ministry said that Bhatkar's meeting was cordial and they may have discussed issues relating to the row over the director's resignation.

On Monday, IIT-Delhi had clarified that IIT RA is not an extension campus of its own but an "independent research academy" and is not "independent research academy" and IIT-Delhi's role was purely "advisory in nature."

There is no financial commitment on the part of IIT-Delhi, and the original proposal of starting the academy was initiated on the recommendation of the IIT Council in its meeting held on 21 January 2011.

"The final MoU was okayed by MHRD and was signed in the presence of the then Hon'ble HRM and the functionaries from MHRD and the Indian High Commission, on 19-11-2013 in Mauritius," IIT Delhi had said.

On Tuesday, IIT Delhi faculty members also rallied behind the institute's decision and said: "The faculty of IIT-Delhi stands by the decisions that its administration has taken to uphold the autonomy of the Institute. We request the director, IIT-Delhi to withdraw his resignation."
HRD Ministry seeks to end IIT mess

Govt looking for amicable options, faculty throws weight behind IIT-D chief

With IIT-Delhi clarifying its stand that the MoU between the institute and the Mauritius Government for a research institute in that country stands legal, the HRD Ministry is now looking for a way out of the controversy since the faculty members of the prestigious institute on Tuesday also came out in support of its Director Raghunath Shevgaonkar, who has submitted his resignation from the post.

Faculty members led by Dr H Irani, Professor at Department of Mechanical Engineering, requested Shevgaonkar to withdraw his resignation.

Meanwhile quoting sources, PTI reported that HRD Minister Smriti Irani met President Pranab Mukherjee, who is the Visitor of the IITs. While it remained unclear what transpired at the meeting, HRD Ministry sources maintained that Irani went to Rashtrapati Bhavan to enquire about the President’s health.

Early in the day IIT-Delhi Chairman Vijay Bhatkar called on the HRD Minister and apprised her of the development and the feelings of the faculty of the institute over resignation of its Director.

Continued on Page 4

From Page 1

and Mauritius and primarily found that “only one man” could not be blamed in the entire episode.

“This was not possible only with his (Shevgaonkar) consent. Other’s role would have to be looked thoroughly and we are examining the sequence of meetings and exchanges of emails or letters in this regard. As far as the Director IIT-Delhi is concerned, he has explained that he has offered to quit due to personal reasons,” said a top Ministry official.

The faculty members in a statement said that they were of the unanimous view that interference in the operational autonomy of IIT-Delhi (and IIT system in general) was the beginning of the end to excellence that has been achieved so far, or can be achieved in future, especially in the Indian context.

“For any academician, including all the faculty of IIT-Delhi and especially Prof Shevgaonkar, dignity and integrity are the sole assets of our lives. Thus, direct or indirect communication affecting these parameters is bound to create unrest in an otherwise peaceful mind that truly loves research and teaching. This is the spirit of IIT-Delhi. The faculty of IIT-Delhi stands by the decisions that its administration has taken to uphold the autonomy of the Institute. We request the Director, IIT-Delhi to withdraw his resignation,” said the statement.

On the controversy pertaining to an MoU between IIT and Mauritius Government, IIT-Delhi on Monday had clarified that International Institute of Technology Research Academy (IITRA) is not an extension campus of IIT-Delhi but an independent Research Academy named IITRA, Mauritius and that the institute’s role is that of advisory only with no financial commitments.
Mauritius institute claims MoU was ‘limited to research’

RUHI TEWARI
NEW DELHI, DECEMBER 30

THE Mauritius Research Council on Tuesday said that the Indian Institute of Technology-Delhi’s scope in the MoU signed between the two institutes was “limited to research”. The statement comes amid the controversy over the resignation of IIT-Delhi director Raghunath K Shevgaonkar and the HRD Ministry setting up an inquiry into the MoU.

HRD Ministry officials claim that the MoU between Mauritius Research Council and IIT-Delhi for setting up an International Institute of Technology Research Academy (IITRA) in Mauritius provides for a greater scope of IIT-Delhi than the IIT Act permits and is, in fact, an ‘extension campus’.

However, A Suddhoo, executive director of Mauritius Research Council said: “The MoU is limited to research and provides purely for a research academy. Its (IIT-Delhi) role is only that.” He added that the proposed centre in Mauritius wasn’t an off-campus centre.

The MoU has Shevgaonkar and Suddhoo’s signatures.

IIT-Delhi chairman Vijay P Bhatkar met HRD Minister Smriti Irani on Tuesday, after which he paid a visit to President Pranab Mukherjee who is the Visitor of IITs. The ministry is yet to accept Shevgaonkar’s resignation.

Meanwhile, IIT-Delhi’s faculty forum came out in strong support of Shevgaonkar and urged him to withdraw his resignation.

“IIT-Delhi faculty members are of the unanimous view that interference in the operational autonomy of IIT-Delhi (and IIT system in general) is the beginning of the end to excellence that has been achieved so far, or can be achieved in future, especially in the Indian context. For any academician, including all faculty of IIT-Delhi and especially Prof. Shevgaonkar, dignity and integrity are the sole assets of our lives. Thus, direct or indirect communication affecting these parameters is bound to create unrest in an otherwise peaceful mind that truly loves research and teaching,” it said in a statement.

“The faculty of IIT-Delhi stands by the decisions that its administration has taken to uphold the autonomy of the institute. We request the director, IIT-Delhi, to withdraw his resignation,” it added.

In a statement issued Monday evening, IIT-Delhi administration had also clarified its stand on the issue, explaining there was no violation in setting up of the IITRA.
Swamy versus IIT-D case takes new turn

NEW DELHI, DHNS: In a setback to the Indian Institute of Technology-Delhi (IIT-D), the Department of Personnel and Training (DoPT) has said that Central government services rules will not be applicable in the case of the institute's former faculty and now Bharatiya Janata Party (BJP) leader Subramanian Swamy, who has been fighting a long battle with the institute for payment of his arrears.

Conveying its view to the Human Resource Development (HRD) Ministry on the issue, the department has said that the provisions of the Fundamental Rules of Central government services that IIT was invoking since the beginning of its dispute with Swamy over his arrears will not be applicable in his case because the institute is autonomous.

DoPT sources said.

The ministry had sought the department's view on Swamy's case about a month back, following a request from the BJP leader for settling of his long-pending dues with IIT-D. The ministry sought the view of the Finance Ministry on the issue as the IIT remained adamant on its stand that Swamy will have to first furnish the details of the emoluments that he earned while working at Harvard University during his period of termination, which was declared null and void by a Delhi court on February 20, 1991.

As per the Fundamental Rules, the amount that Swamy earned from Harvard University during his termination period had to be adjusted against his IIT arrears. But, Swamy wants the IIT to give it a pass and settle his dues giving him extraordinary leave for the period of his termination. The ministry is waiting for the Finance Ministry's view on the issue.

Swamy was appointed as a visiting faculty of IIT by a nine-member selection committee on April 22, 1970. He was later elevated to the post of professor of economics in October 1971. On elevation, however, Swamy was put on a year's probation even as he objected to it on the ground that he had already been working for 21 months with the institute. The institute, later, terminated him on December 11, 1972, prompting him to knock at the doors of the court.

After getting relief from a Delhi court, Swami joined the IIT on March 27, 1991 but resigned the same day in the evening. He has been demanding payment of Rs 70 lakh which includes his salary and other allowances with 18 per cent interest for the period for the period 1972 to 1991.

IIT Director Raghunath K Shevgaonkar resigned last week amid allegations that he was being pressurised by HRD Minister Smriti Irani to reach an out-of-court settlement with Swamy on the issue of payment of his arrears.

ALUMNI MEET AT IIT DELHI

IIT Delhi in collaboration with IIT Delhi Alumni Association celebrated its alumni day recently. The theme was Envision the Future Together. The occasion brought an opportunity for all alumni to assemble and interact with each other. Around 600 alumni along with their family from overseas as well as from India attended the event and cherished their thoughts and experience to make IITians a path for India's growing economy and success.

Prof RK Shevgaonkar, director, IIT Delhi and dean of IIT Delhi presented an orderly presentation and spoke on targeting the IIT Delhi to the next level. He talked about his dream of making IIT Delhi at the Top 15 in the world. Speaking at the function IIT Delhi Alumni Association's president, Ashok Kumar said: "I am glad to announce the success of alumni day. We aim to engrain the entrepreneurial DNA in our students/faculty and activated it with help of our alumni. The sessions focused on empowering industry partnerships on specific technology areas and how alumni can collaborate to make meaningful innovations to create an impact on the society."
IIT urges R Shevgaonkar to withdraw resignation


Three days after resigning as IIT-Delhi director, R Shevgaonkar met president Pranab Mukherjee on Tuesday. While the ministry is on a backfoot and has yet to accept Shevgaonkar's resignation, the Faculty Forum of IIT has come up with a resolution requesting Shevgaonkar to take back his resignation. The forum has criticised the ministry for interfering in the functioning of the IIT. The support that Shevgaonkar has gathered from the board, faculty and alumni has forced the ministry to soften its stand on the director. "An inquiry is on and his resignation is yet to be accepted," said an official at the ministry.

Shevgaonkar had resigned on Friday citing personal reasons. However, the controversy over his resignation suggested that he was under pressure from the ministry for the MoU that the IIT Delhi has signed with Mauritius to set up a campus there. IIT Delhi has set up International Institute of Technology Research Academy (IITRA) with Mauritius Research Council.

Unlike the controversy over Sanskrit vs German, this time the ministry has not made any statement for its Mauritian counterpart and is treating the subject as an internal matter.

During his meeting with president Mukherjee, who is also the visitor of IITs, Shevgaonkar apprised him of the issue.

Meanwhile, IIT Delhi faculty members in a resolution passed on Tuesday held a unanimous view that interference in the operational autonomy of IIT Delhi could be the beginning of the end to excellence that the institute has achieved so far. "For any academician, including all faculty of IIT Delhi and especially Prof Shevgaonkar, dignity and integrity are the sole assets of our lives. Thus, direct or indirect communication affecting these parameters is bound to create unrest in an otherwise peaceful mind that truly loves research and teaching. We request the director, IIT Delhi to withdraw his resignation," reads the resolution.
Govt stands exposed on IIT Director row. Summary of where we stand.

**Row Over IIT Director: Is Human Resource Development the Most Controversial Ministry?**

Centre invites studies of river basins

Meena Menon

NEW DELHI: To understand the impact of climate change on water systems, the government has invited proposals from knowledge institutions like the Indian Institutes of Technology (IITs) and the Indian Institute of Science (IISc), Bangalore to undertake studies on 20 major river basins in the country. This is one of the steps under the National Water Mission which is one of the eight priority missions under the National Action Plan on Climate Change (NAPCC).

Official sources told The Hindu on Tuesday that these institutions would study impacts using downscaled global climate models. The studies are expected to be commissioned shortly and will take between six months to two years for completion. Six IITs and the IISc will be involved in the project which will provide valuable inputs to policy decisions and adaptation measures. This is the first time that such studies will be undertaken on a large-scale with downscaled models which will be relevant for local regions, he said.

According to the NAPCC, 2008, government expenditure on adaptation to climate variability exceeds 2.6 per cent of the GDP. The technical document says that many parts of India are water stressed and the country is likely to be water scarce by 2050. There is a decline in total run off for all rivers projected, except for Narmada and Tapti.

Most of India’s eight national missions are adaptation centric and the National Water Mission has five goals, official sources said. The Mission has already set up a comprehensive database called the Water Resources Information System, in partnership with the National Remote Sensing Agency which is updated every six months.

The Mission is focusing on capacity building right down to local self-governments which is an ongoing exercise and has an MoU with the National Institute of Rural Development and other agencies for this purpose.

As part of adaptation it has focused attention on critical areas like depleting ground water and is undertaking aquifer mapping, and flood management with a focus away from structural measures like building embankments and instead working with communities for preparedness.

Two pilot projects with technical assistance from the Asian Development Bank in the Burhi Gandak basin in Bihar and Brahmani in Orissa will lead to a master plan on preventive action in flood-prone areas, using best practices and providing value additions.

With the aim of increasing water use efficiency by 20 per cent across all sectors, the government is developing a National Bureau of Water Use Efficiency which is in the advanced state of being set up on the lines of the Bureau of Energy Efficiency. Among other things it will set national standards on water appliances and also focus on efficient technology and best practices.

While the Water Mission has taken several steps, there are several challenges. In 2012, a study said the mission should be led by inter-disciplinary experts, which is not how the Ministry is currently set up.
Higher education 2015

LOOKING AHEAD
Opening of more educational institutes, a new higher education policy, likely passage of pending bills in Parliament... there's much to look forward to.

It has been an eventful year as far as Indian higher education is concerned. With the new government coming to power, a lot has been promised and proposed.

The new year promises to usher in major transformations in the education sector, thus creating a lot of exciting opportunities for students in the coming year. The Credit Transfer Scheme, introduced this year, would be fully implemented by all Central universities. The state and private universities will also be facilitated to do the same. Adoption of the National Skills Qualifications Framework would also greatly benefit students by providing multiple pathways that allow lateral and vertical mobility across the current education systems, says Shibhima Mishra Gosh, senior director, education, FICCI.

The proposal to bring all Central universities under one umbrella for the purpose of admissions will help the institutes attract more students. However, there shouldn't be a single entrance test and the government should give them autonomy when it comes to the admissions. Likewise, the complete overhaul of the education policy will lead to more transparency. Streamlining all the activities will ensure more outcome-driven quality institutions available to students, says Gosh.

Professor Rajan Saxena, co-chairman, high education, FICCI, agrees. "The HRD minister talked about a few things at the recent FICCI Higher Education Summit which included the new higher education policy. Today, the youth is far more aspiring than before, there are new technological advancements, multiple institutions and more enrolment. About 62% (investment) is in the private sector and 38% in the public sector. The new policy should take these facts into account and all stakeholders should be consulted," he says.

There are two review committees currently set up by the government, one to review the functioning of the University Grants Commission (UGC) and the other to review the functioning of the All India Council for Technical Education. "Both these committees are looking into how regulations will be made more in line with what is required currently," says Saxena.

For the last five years, there has been a lot of education-related bills pending in Parliament. These include the National Accreditation Regulatory Authority Bill, Foreign Education Institutions Bill (Regulation of Entry and Operations), and Prohibition of Unfair Practices in Technical Educational Institutions, Medical Educational Institutions and University Bill, 2010, and the Rights of Persons with Disabilities Bill, 2014.

Then comes the Massive Open and Online Courseware (MOOCs) platform launched this year. "It cannot replace a formal education system, though, as it does not lead to a certification because there is no way of assessment. Having created a platform for MOOCs, the government and private institutions should be allowed to upload courseware and bodies such as a distance education council and the UGC should recognise these and give certifications," adds Saxena.

The government's focus will continue to be on improving higher education access by tech-enabled online education and this will ensure that more students get access to information, says Gautam Srivastava, senior manager, education sector, Ernst & Young India.

Management education also may not necessarily remain under the purview of AICTE. The government is likely to propose the creation of an all-India management education board and a global-level test, say experts. For the technical institutions such as the Indian Institute of Technology and National Institutes of Technology there will be common counselling from 2015. The Union budget 2014 had proposed ITIs in Jammu and Kashmir, Chhattisgarh, Goa, Andhra Pradesh and Kerala, and IMFs in Himachal Pradesh, Punjab, Bihar, Odisha and Maharashtra. Another IMF will come up in Andhra Pradesh. The budget allocated an initial sum of 500 crores for the current fiscal year for these institutions which are likely to become operational by 2015. Four central universities are also on the cards.
The education market in India is growing at a very fast pace. It is estimated that its net worth will be ₹5.9 trillion by next year. This means that there will be a shift in how learning will change from e-learning to virtual classrooms to new training and teaching tools and therefore, transforming the entire system, says ADIT GUPTA

According to a report by India Ratings and Research Pvt Ltd, the education market in India will be worth ₹5.9 trillion in 2014-15 as against ₹3.33 trillion in the 2011-12 fiscal year. The education sector received an allocation of ₹68,728 crore for 2014-15, up from a revised budget estimate of ₹61,857 crore in 2013-14. The Modi Government recently announced the establishment of five more Indian Institutes of Technology (IITs) in Jammu and Kashmir, Chattisgarh, Goa, Andhra Pradesh and Kerala and five Indian Institutes of Management (IIMs) in Himachal Pradesh, Punjab, Bihar, Odisha and Maharashtra, with an allocation of ₹500 crore. The Government has realised that India needs a large number of centres of higher learning which are of world class standards and can boast of industry best-practices.

Once the initiative is complete, India will have a total of 18 IIMs and 21 IITs. The previous Government had set up seven new IIMs and eight new IITs between 2008 and 2011, but most of these are operating from makeshift campuses and face challenges in terms of their quality of teaching and research. Technology as it does to everything it touches, has brought about paradigm shifts in the way education and learning is imparted and consumed. Starting with simple distance learning and e-learning solutions and then growing into learning facilitated by social media and interactive virtual classrooms, technology has come a long way in transforming the education ecosystem.

The generation of Web 2.0 is steadily changing the landscape of the education sector and over the past decade, we have witnessed several significant ramifications and implications of this change. In sync with this ever evolving trend, the Government voiced its plan to set up virtual classrooms and online courses for school education with an allocation of ₹100 crore for this initiative. Indeed the education industry ecosystem in India is witnessing a sea change nowadays, in both its nature and its scope. As part of its Vision 2020 plan, the Government is also looking to increase the number of school going children to 30 per cent by 2020.

In terms of investments in schools, the sector got 9.9 per cent more than the revised budget estimate of 2013-14. Of the total higher education budget, technical education, which comprises, among others, the IITs and the IIMs, got the lion’s share of ₹1,188.97 crore.

Moreover, the Government also proposed to set up a Jai Prakash Narayan National Centre for Excellence in Humanities in Madhya Pradesh and five new All India Institutes of Medical Sciences and a Sports University. This is part of the total school education allocations.

It also advocated starting a school assessment programme and aimed to infuse new training tools and motivate teachers through another scheme called the Pandit Madan Mohan Malviya New Teachers training programme. The burgeoning scarcity of well-trained teachers is considered a hurdle in improving schools and education. The biggest challenge undoubtedly is that of infrastructure. Setting up a school is a cumbersome process necessitating very high costs in terms of building materials, municipality permits, electricity, remuneration for teachers, and maintenance. As a corollary, this acts as a hurdle to many bright students who cannot afford that kind of money.

Inspite of the best of intentions, the Budget had categorically failed to provide fiscal incentives to attract private sector investment in education. That will have given education a status of an infrastructure sector, thus enabling it to access inexpensive domestic and foreign funds.

On the other side of the fence, local administrative bodies and NGOs are displaying well-crafted efforts to ensure that education reaches the masses. Newborn entrepreneurs are launching unique educational concepts and generating quality funding to expand their ventures.

Investors are not staying away from putting in good amount of money as they find the education domain quite lucrative and more or less risk resistant in the long run.

(The writer is founder & CEO, Fundoo Space)
Scientists find new method to treat brain cancer, deadly diseases

BY NIKITA MEHTA

NEW DELHI

Scientists have discovered a new method that could be used to treat brain cancer and many difficult-to-treat infectious diseases by using drugs to attack a protein in cancer cells, virus and bacteria.

GRP78 and related proteins can be targeted using a drug combination of Viagra, Cialis, and the clinically tested OSU-03012 (AR-12) to treat diseases including brain cancer, Ebola, influenza, hepatitis and those caused by superbug bacteria, found a Virginia Commonwealth University-led pre-clinical study published in the journal of Cellular Physiology. "...we’ve got a concept that by attacking GRP78 and related proteins: (a) we hurt cancer cells; (b) we inhibit the ability of viruses to infect and to reproduce; and (c) we are able to kill superbug antibiotic-resistant bacteria," said lead investigator, Paul Dent, professor in the department of biochemistry and molecular biology, VCU School of Medicine, and Universal Chair for Signal Transduction.

Data were obtained in multiple brain cancer stem cell types, influenza, mumps, measles, rubella, respiratory syncytial virus (RSV), cytomegalovirus (CMV), adenovirus, coxsackie virus, chikungunya, Ebola, hepatitis, E. coli, MRSA, MRSE and N. gonorrhoeae, and many others.

Among viral diseases, the OSU/viagra drug combination cut infectivity by preventing virus replication, reduced expression of viral receptors for Ebola, Marburg, hepatitis A, B and C, and Lassa fever viruses.

In bacteria, the drug combination reduced expression of the equivalent GRP78 protein in bacteria called Dna K, and was found effective against drug resistant forms of E. coli, MRSE, MRSA and N. gonorrhoeae.

"The findings open an avenue of being able to treat viral infections, infections that certainly most people would say we’ll never be able to treat; they prove that GRP78 is a ‘drugable’ target to stop viruses from reproducing and spreading," Dent said. "In the case of bacteria, we have a new antibiotic target, Dna K, that if we’re careful and only use the OSU drug in hospitals, we’ve got something that can help to treat superbugs."

The drug combination when tested on mice killed just the cancer cells without affecting normal tissues.
UK students aim to grow lettuce on Mars by 2018

London: A student team in the United Kingdom plans to grow lettuce on Mars by 2018 using the atmosphere and sunlight on the Red Planet.

LettuceOnMars, a student project from the University of Southampton Spaceflight Society, has reached the finals of an international competition run by Mars One, a Dutch non-profit organization, to land experiments on Mars. It is one of ten shortlisted university projects that was selected for technical feasibility and popularity.

The winning payload will arrive on Mars in 2018 together with the official Mars One experiments.