Music trio Shankar-Ehsaan-Loy, actor Piyush Mishra, international music act Junkyard Groove and desi band Spud In The Box will perform at IIT Delhi’s cultural fest, Rendezvous. The bands will come to the institute for the pro-night on October 17. Piyush Mishra will come for an event called Kavi Ki Kalpana on October 18, and Shankar-Ehsaan-Loy will perform on October 19 for Dhoom, the finale night.

While ‘She’, the student organizers’ campaign last year, was for women’s empowerment, this year, ‘Aashayein’ focuses on child rights.
IIT Ropar signs MoU with ISRO’s research institute

Hindustan Times (Chandigarh)

RUPNAGAR: The Indian Institute of Technology (IIT) Ropar and Indian Space Research Organisation’s (ISRO) Semi-Conductor Laboratory(SCL) have signed a memorandum of understanding (MoU) for collaboration in the fields of teaching, research and development and consultancy activities.
The prime minister has mentioned start-ups more than once, in greater detail in Silicon Valley than earlier at Red Fort. Several people have sought to define start-ups and the definitions don’t necessarily agree, because each person has a different angle on what a start-up is. There is a child’s riddle: “I come in different shapes and sizes; Parts of me are curved, others are straight. You can put me anywhere you like. But to do my job, I only have one right place. What am I?” Like many such riddles, the answer isn’t always obvious, especially because the classic form of the object in question is disappearing. In the case of this particular, the answer is “a key.” The key to start-ups, which also come in different shapes and sizes, is partly disruption, as splicing of Shakespeare with Schumpeter. Shakespeare has to be mentioned. To the best of my knowledge, Much Ado About Nothing contains the first known instance of the word “start-up” being used: “That young start-up hath all the glory of my overthrown”—Shakespeare used the word in the sense of upset and indeed, there is a parvenu kind of angle to all start-ups. They overthrow and disrupt the status quo, a bit like Schumpeter’s creative destruction.

Every start-up is an upset, but every upset is not a start-up. The business angle to start-ups is circa 1970s. In Silicon Valley, PM used the terms “imagination”, “inspiration”, “invention” and “innovation”. An individual uses imagination to think of a new product, process or service. This is the innovation bit, which may fall short of strict legal requirements of invention. However, for an upset to be a start-up, there has to be a present, or potential, commercial application. Most importantly, there has to be an entrepreneur and an act of entrepreneurship. Who is an entrepreneur and what is entrepreneurship? The trouble with borrowing words from French and not reading classical economists like Richard Cantillon or Adam Smith is that we sometimes miss the most critical element of entrepreneurship. That happens to be risk-taking. This isn’t a very common human trait. Perhaps that’s understandable, since risk-taking can entail failure, as well as success. After all, if a human ancestor stepped out of a cave in search of better food, there was the chance of being gobbled up by a saber-toothed tiger. Did you know that some human genome research shows risk-taking attributes to be partly genetic? Roughly, one-third of test subjects possess this risk-taking gene. (The MAOA-L gene variant, also called “warrior gene”. It is inherited from the mother, not the father.)

How many risk-taking endeavors succeed? That depends on the context, but is rarely above 5%. There is no guarantee about success in risk-taking. That’s the reason success in entrepreneurship cannot be encouraged without encouraging failure. The eco-system encouraging or inhibiting start-ups isn’t only about credit, or financial products, or equity. Thus, some definitions of “start-up” get fixated on financing, such as venture capital. Alternatively, they are fixated on information technology. Hence, use of expressions like scalable and replicable, the implicit assumption being these start-ups graduate upwards and become large companies. That’s a laudable objective and several high-profile and successful start-ups have done that. But there are others that fail and several that aren’t scalable. That doesn’t mean such a start-up is born to blush unseen, or waste its sweetness in a hostile environment. This paraphrasing from an elegy occurred in the subconscious, but there is a wasting in the ecosystem. While there are data problems and time-lags in data, some 30 million of India’s employment is in organised sector; roughly 18 million public and 12 million private. This private means private corporate sector. Without distinguishing between labour force and work force, there are almost 500 million who work. There are issues in measuring how many are in agriculture, as opposed to primary pursuits in agriculture. Let’s say 250 million are in non-agricultural pursuits.

Consider the mind-space occupied by public sector (18 million) and private corporate capital (12 million). That 500 million is also private capital and if PM’s mention of start-ups shifts our attention to 500 million, that’s desirable. Notice that in risk-taking appetite, this 500 million is far less risk-averse. For the 12 million private corporate capital, risk taking is a matter of choice. For the 500 million, it is a matter of survival. You will say I am stretching the mind-space argument too much. Are we not concerned about agriculture? Yes, we are, but let’s take an example. Subject to data and definitional problems again, 131,666 people committed suicide in 2014. 25,504 were self-employed. You have heard about the 1,360 in agriculture (farmers and labourers). Have you heard about the others, that “others” category including vendors and tradesmen? There was a news item about Chinese government pushing for 10,000 start-ups a day. Yes, India’s younger generation is probably more risk-loving and entrepreneurial, especially if you arrive at that conclusion on the basis of IT or financial sectors or top management schools. Yes, entrepreneurship is desirable, because it is better to create employment for others too. But outside that visible sector, you would be mad to be an entrepreneur. Did you know we still don’t have an insolvency law, as against a personal bankruptcy law? Assets/liabilities of such an enterprise are inseparable from those of the owner. If the enterprise fails, so does the owner. That’s just one instance of how we punish entrepreneurship and start-ups.

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We still don’t have an insolvency law, as against a personal bankruptcy law. Assets/liabilities of an enterprise are inseparable from those of the owner. If the enterprise fails, so does the owner. That’s just one instance of how we punish entrepreneurship and start-ups.

The author is Member, NITI Aayog. Views are personal.
Row over appointment in selection panel for DU VC

Kasturirangan welcomes HRD’s decision to replace him

RITIKA CHOPRA
NEW DELHI, OCTOBER 14

K KASTURIRANGAN, former chief of the Indian Space Research Organisation (ISRO), has backed the Human Resource Development Ministry's (HRD) decision to replace him in the selection panel to find the next vice-chancellor (VC) of Delhi University (DU).

Last week, the government had objected to Kasturirangan's nomination to the search-cum-selection committee on the grounds that he is an honourary professor at DU and this could amount to a conflict of interest.

As first reported by The Indian Express on October 8, the HRD Ministry was miffed with incumbent vice-chancellor Dinesh Singh over nominating Kasturirangan to the search-cum-selection committee.

In a letter addressed to HRD Minister Smriti Irani, a copy of which has been reviewed by The Indian Express, the former ISRO chief has expressed his support on the HRD’s decision to replace him, saying it is the “right” one.

"Unfortunately, I noted through the communication from MHRD dt. (sic) 30th September 2015 that persons nominated by the Council shall not be connected with the university or a recognised college or institution, for the first time. Even though I immediately contacted Delhi University to clarify this matter, not to take any chance, I decided to bring to the notice of MHRD directly... I am relieved that the MHRD under your guidance has taken the right decision to look for an alternate name," Kasturirangan said in the letter.

The letter was written on October 12, just a day before an emergency meeting of the university’s executive council was convened at the direction of President Pranab Mukherjee, who is the Visitor of all central universities.

DU authorities have now nominated former UPSC chairman D P Agarwal to replace Kasturirangan.

The ministry had earlier urged Mukherjee to send Singh — who is scheduled to retire on October 28 — on forced leave, alleging that he was trying to derail the selection of his successor by nominating an honourary professor of the university to the panel.

The President however, asked the varsity to convene a meeting of the executive council instead to nominate a replacement.
Embellish on a
new adventure

India can do wonders in the sciences by joining
quality with support for science education,
research and applications, writes KV
VijayRaghavan

When the former premier of the People’s
Republic of China Wen Jiabao visited
the Indian Institute of Science (IISC) in
Bangalore in 2010, he spoke about his
country’s rise in the world of science.
His impressive speech ended with a
striking statement: He said that the two countries should
coordinate in science and technology because there must be
a “bridge between knowledge and power”. There was
no doubt in his mind on who controlled the levers of
power, but it was interesting to hear him say that India
was still a fountain of knowledge.

We in India, however, have other views. Despite suc-
cesses — our average lifespan today is much higher than
it was in 1974, many diseases have moved from being
lethal to treatable and some have been eliminated —
many feel that we have not done well and our science
institutions are moribund.

Such cynicism is not always correct. Just as we
should be proud of our achievements in applying sci-
ence through technology, we must also be proud of our
standing in basic sciences. Much has been achieved
since independence and despite great odds these have
had an enormous social and economic impact. This basic
foundation needs to be strengthened if India wants to
become a true knowledge economy.

At the nucleus of the foundation in basic sciences
are our institutions. Despite all odds, we have built
excellent ones and they have catalysed new ones. The
IISC nucleated the Tata Institute of Fundamental
Research (TIFR) and the Jawaharlal Nehru Centre for
Advanced Scientific Research (JNCASR) that has put
India in the nano-material global map. The TIFR has
nurtured many institutions and the older IITs continue
to nurture new ones.

Institutional qualities with a culture of question-
ing are vital to the success of this ecosystem. Just as our
space and defence R&D programmes owe much to IISc,
there have been new ecosystems in Bengaluru, Pune,
Mumbai and Delhi that have grown thanks to investment
in basic sciences. These institutions have strengthened
India in engineering, chemistry, mathematics, com-
puter science, materials and many other areas. The
Indian Institutes of Science Education and Research are
remarkable examples of transformative investment that
is having a positive effect on the ecosystem. In terms of
value for money, we have done as the best in the world.

Extraordinary institutions nurture extraordinary
individuals. Yet if we have done well in building insti-
tutions, why don’t we have Nobel Prize or the Fields
medal winners? Three kinds of people get such awards:
Talented geniuses who transcend institutions; talented
scientists who build and lead teams; and those who are
ordinary but lucky to have extraordinary collaborators
and a nurturing environment. We have many in each of
these categories but the global competition is stiff.

Yet we must not forget to praise the many excellent
scientists who are in the Nobel category: Shambhu Nath
De for his work on cholera; GN Ramachandran for his
work on protein structure and Subhash Mukhopadhyay
for his work on in-vitro fertilisation. In mathematics,
the TIFR school is extraordinary, exemplified by MS
Raghunathan and MS Narasimhan’s work as has IIT-
Kanpur led by Manindra Agrawal. In materials science,
the JNCASR team has done wonderful work led by CNR
Rao. In string theory, Ashoke Sen is a leader. Ajay Sood
in condensed matter physics and Satyajit Mayor in cell
biology are some other examples.

To continue on this path of success, India today
requires a new mindset that breaks the boundaries
between basic and applied science and a new sense of
adventure to explore our marine, terrestrial and extra-
terrestrial ecosystems. This new adventure must include
building scientific foundations in schools, colleges and
universities, more support for science, more cohesion
among the institutions, reinventing our research insti-
tutes/universities and better functioning of our science
agencies. We must also invest in people as they matter
the most.

The ‘system’ needs to change, but the time spent in
relentlessly flaying ourselves is the time spent away
from working out solutions. We demand ‘process-based’
miracles for our problems. But if there is one thing we
can learn from our scientific successes it is that the places
that have done well are those that have combined good
processes with good culture driven by quality collective
leadership and the quality of young people.

India has everything going on for embarking on this
new adventure. By joining the components of quality, which
we have, with a steadily increasing support for science
education, fundamental research and applications, we
can do wonders. The next time a Chinese premier comes
to Bengaluru he should say that we should collaborate
because India has shown the world how our quest for
knowledge and understanding of nature leads to wisdom,
prosperity and a sustainable planet.

*K VijayRaghavan is secretary, department of biotechnology
and ministry of earth sciences
The views expressed are personal
IISc's mobile robot can help in household work

Bengaluru, Oct 15, 2015, DHNS:

http://www.deccanherald.com/content/506513/iiscs-mobile-robot-can-help.html

It can move in a stable manner on uneven surfaces

Robotic engineers at the Indian Institute of Science (IISc) have designed a wheeled mobile robot that can move in a stable manner on an uneven terrain with minimal slipping.

Prof Ashitava Ghosal from the Department of Mechanical Engineering, the Indian Institute of Science, and Dr Tharakeshwar Appala from SSJ Engineering College, Hyderabad, have successfully demonstrated a prototype of an “autonomous mobile robot” that can travel in a straight line, make turns and also switch lanes on bumpy terrain, without the risk of falling off and with minimal slip.

Autonomous mobile robots are capable of navigating in unknown and unstructured environments and have the capability of negotiating rough terrains with minimal intervention from human operators. This makes them suitable for activities such as household cleaning, delivering goods and services and planetary exploration. NASA’s ‘Curiosity’ Mars rover, currently exploring the surface of the Red Planet, is an excellent example of an autonomous mobile robot.

Common problem
A common problem with these robots is the slip at the wheel-ground contact. “When a wheel slips, during the rotation of the wheel, the robot’s location is unchanged and this leads to localisation errors,” explains Prof Ghosal. He also notes that the wheel slip leads to power wastage – a premium resource in planetary exploration. Wheel slip can also lead to unstable motion and the robot can tip over or fall on the uneven terrain. Motivated by this challenge, the team at the IISc focused on designing robots that do not slip and are stable in such terrains.

In the proposed design, the robot consists of one front wheel and two torus-shaped rear wheels connected to a platform. The wheels are designed to always keep contact with the ground and they are driven by motors. The rear wheels are connected to the platform through a suspension mechanism having four links. Two of the links are fixed and the other two are free to move at an angle.

Enables lateral tilting
This enables lateral tilting of the wheel, thus preventing a slip. The performance of the robot was assessed for three types of desired paths: straight line, a circular motion of 30 degrees and a lane change. With the new design, the team observed 50 per cent reduced slippage in comparison with previous models.

The applications of such autonomous wheeled robots are enormous. “Rover ‘Opportunity’ sent by NASA has
been successfully exploring Planet Mars for more than seven years now. In my opinion, apart from planetary missions, the wheeled robots will find increasing use in industry and security related applications in India,” points out Prof Ghosal.

**JoSAA 2015: Common counseling to be conducted**


In order to allot seats in Indian Institute of Technology (IIT), ISM, National Institute of Technology (NIT), Indian Institute of Information Technology (IIITs) and GFT, JoSAA (Joint Seat Allocation Authority) is required for choice filling. Admission to all the academic programmes offered by these Institutes will be made through a single platform, this year onward.

Earlier CSAB and IIT JAB used to be conducted, but this year for the first time, a joint counseling is being conducted for the academic year 2015-16. JoSAA is the conducting body for the common counseling.

Candidates who submitted seat acceptance fee during JoSAA counseling, and reported at any one of the reporting centre of NIT+ System but did not report in respective participating institutes (NITs/IIITs/GFTIs only) will also be treated as rejecting the offer. Such candidates may seek refund of seat acceptance fee after deduction of Rs 1,000 through the CSAB portal.

Presently, 440 candidates have filled incorrect bank details like account number, IFSC code etc. CSAB has already sent a mail regarding this for re-filling correct information.

Candidates who cancelled their admission after taking admission at NITs./IIITs/GFTIs may seek refund from the Institute as per the norms of the respective Institute. Candidates will be allotted seats in the colleges on the basis of merit and the choice filled.

**Total number of seats offered**

IITs: 10006

NITs: 17390

GFTIs: 3741