

## Veer Arjun ND 19/11/2015 P-4

### आईआईटी के पूर्व छात्रों ने राष्ट्रपति को भेंट की काफी टेबल बुक

नई दिल्ली, (वीअ)। राष्ट्रपति प्रणब मुखर्जी को आईआईटी, दिल्ली के पूर्व छात्रों ने अपने संस्थान की कहानी को दर्शाने वाली एक कॉफी बुक प्रस्तुत की। भारतीय प्रौद्योगिक संस्थान, दिल्ली के पूर्व छात्र एसोसियेशन के अध्यक्ष के नेतृत्व में पूर्व छात्रों ने राष्ट्रपति से सोमवार को राष्ट्रपति भवन में मुलाकात कर पुस्तक भेंट की। देश के प्रतिष्ठित संस्थान की चित्रों के माध्यम से कहानी दर्शाती इस पुस्तक को पूर्व छात्रों ने तैयार किया। श्वेत श्याम तस्वीरों से प्रतिष्ठित संस्थान के गठन से आज तक के सफर को इसमें दर्शाया गया है जिसमें इसके इतिहास, छात्रों, संकाय तथा पूर्व छात्रों के अलावा वहां के वास्तुशिल्प, खेल, संस्कृति तथा पाठ्यक्रम से इतर की गतिविधियों की जानकारी है। राष्ट्रपति संस्थान के विजिटर भी है।

# Nasa's 'chemical laptop' to search for alien life

## Portable Mini Lab To Detect Amino And Fatty Acids On Other Worlds

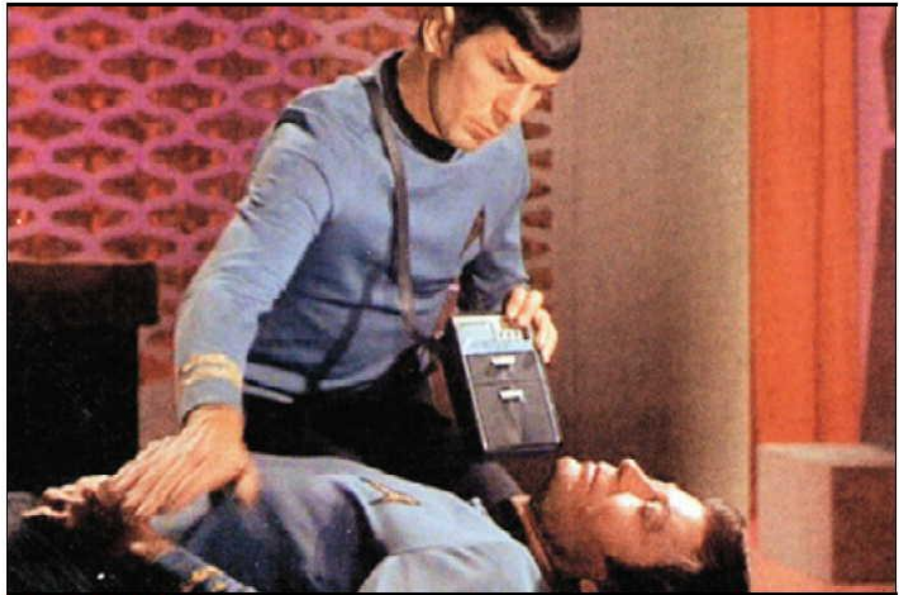
**Washington:** In a bid to find concrete evidence of life outside Earth, Nasa is developing a 'chemical laptop' — the first portable, miniaturised laboratory built to detect both amino and fatty acids on other worlds. The battery-powered device analyses samples for materials associated with life.

"If this instrument was to be sent to space, it would be the most sensitive device of its kind to leave Earth," said Jessica Creamer, a Nasa postdoctoral fellow.

Like a tricorder from Star Trek, the chemical laptop is roughly the size of a regular laptop, but much thicker to make room for chemical analysis components. But unlike a tricorder, it has to ingest a sample to analyse it, Nasa said.

"It is a chemical analyser that can be reprogrammed like a laptop to perform different functions. As on a regular laptop, we have different apps for different analyses like amino acids and fatty acids," said Fernanda Mora, a technologist.

Amino acids are building blocks of proteins, while fatty acids are key components of cell membranes. Both are essential to life, but can also be found in non-life sources. Amino acids come in two types: Left-handed and right-handed. Like the left and right hands of a person, these amino acids are mir-



**FROM REEL TO REAL:** A still from the 'Star Trek' series. The 'chemical lab' device will be like a tricorder seen in 'Star Trek', a multifunction hand-held tool used for sensor scanning, data analysis, and recording data

## Powerful radiation blasts may have stripped life on most Earth-like planet, says study

The most Earth-like planet ever found could have been made uninhabitable by vast quantities of radiation superflares ten times more powerful than those recorded on the Sun, a study has found. Kepler-438b's atmosphere is thought to have been stripped away as a result of radiation emitted from a superflaring Red Dwarf star, Kepler-438, researchers said. While superflares themselves are unlikely to have a significant impact on Kepler-438b's atmosphere, a dangerous phenomenon associated with powerful flares, known as a coronal mass ejection (CME), has the potential to strip away any atmosphere and render it uninhabitable. PTI

ror images of each other but contain same components.

Some scientists hypothesise that life on Earth evolved to use just left-handed amino acids because that standard was adopted early in life's history. It is possible that life on other worlds might use the right-handed kind. "If a

test found a 50-50 mixture of left-handed and right-handed amino acids, we could conclude that the sample was probably not of biological origin," Creamer said. "But if we were to find an excess of either left or right, that would be the best evidence so far that life exists on other planets," she said. PTI

# IIT Kharagpur finally codes un-hackable password with US varsities

<http://timesofindia.indiatimes.com/tech/tech-news/IIT-Kharagpur-finally-codes-un-hackable-password-with-US-varsities/articleshow/49838522.cms>

KOLKATA: If you are hassled using multiple passwords for accessing your accounts, you can breathe easy. Experts at IIT Kharagpur have come up with a solution that won't tax your memory. Instead of a password, you may be asked a few questions such as what was the last call you received or the latest song you downloaded. Answer them and you get access.

The innovation has been lauded by MIT and has gone viral in foreign media. The breakthrough claims to make you 95% safer online, which has taken the world by storm. Efforts are on to achieve the remaining five percent.

The project has been jointly handled by the computer science engineering faculty of IIT Kharagpur and the universities of Texas and Illinois. Interestingly, the two investigators at Texas and Illinois are also alumni of IIT Kharagpur. The idea was to bypass the multiple passwords that we juggle at all times for the plethora of online and digital interactions that we engage in daily. The alternative system will allow you to bypass password-based authentication on your personal devices and instead ask you a set of questions based on your recent online/digital activity. If you are able to answer these correctly, a new password for the day would be generated that is unique to you and cannot be permeated.

"Though it might sound a bit complicated, it is not so. We have been able to show how it is possible to extract 'adequate secrets' by observing the user's activity logs from social networking sites, browsing history, call logs, and SMSes and then use those to frame questions," explained Niloy Ganguly, a senior computer science faculty member and the principal investigator of the project. "In order to access a certain website on your smartphone, you could be asked, who called you from Mumbai last evening or which song did you listen to during lunch hour today," he added.

Questions could come in two formats, either text-based or multiple choice (MCQ). They change for every instance of authentication, and a single breach cannot cause permanent damage. For example, a user may be posed a set of three questions and will be authenticated even if he can answer two correctly. "A good mix of activity sources are considered during the challenge set generation which could comprise of three questions - one drawn from phone call history, one from face messaging and another from browsing history," said Romit Roychowdhury, who has been leading the team from the University of Illinois.

With a 95% success rate, the three institutions are now entering into understandings with e-commerce sites, especially those that deal with net flicks (online entertainment) to test run their system. Flipkart is one of the e-tail majors that have shown interest in putting the new

password system into practice, the team revealed. "It is not about the protection of the net user alone. The new technology will help even the online sites where clients have to subscribe. The password is usually shared among friends who enjoy the flicks while only one person pays, naturally the site bleeds!" Ganguly explained.

However, till the last 5% infallibility is achieved, the new technology cannot be used for online cash transactions, warns team members who hope to achieve their goal in the next couple of months. The team has just published its achievement in foreign technology journals from where MIT picked it up and highlighted it in the current edition of its MIT tech Review. Naturally the story has gone viral and has now been picked up by the foreign media like the Wall Street Journal and Guardian.