Newspaper Clips

January 22, 2013

Dainik Jagaran ND 22/01/2013 P3

मेट्रो के साइड इफेक्ट का अध्ययन करेगी आइआइटी

- पिछले 10 वर्षों के दौरान पड़ने वाले अच्छे व बुरे दोनों प्रभावों का करेगी अध्ययन

जागरण संवाददाता, नई दिल्ली : दिल्ली और एनसीआर (राष्ट्रीय राजधानी क्षेत्र) में मेट्रो नेटवर्क का जिस स्पीड से विस्तार हो रहा है, इससे पड़ने वाले प्रभाव को जानने की उत्सुकता भी बढ़ गई है। मेट्रो परिचालन के बाद शहर की व्यस्त सड़कों पर ट्रैफिक का क्या प्रभाव रहा केंद्रीय सड़क अनुसंधान केंद्र ने सबसे पहले अध्ययन किया था। अब तीसरे चरण के दौरान जब अंडरग्राउंड लाइनें अधिक बन रही हैं, भारतीय प्रौद्योगिकी संस्थान (आइआइटी) दिल्ली की एक टीम ढांचागत निर्माण व प्रदूषण के बारे में अध्ययन करेगी।

पिछले 10 वर्षों में दो चरणों के दौरान जितने भी स्टेशन व लाइनें बनी है, रिसर्च टीम वहां बाहर और भीतर के प्रदूषण स्तर, शोर, ढांचागत मजबूती समेत अन्य तथ्यों के बारे में आंकड़ा इकट्ठा कर इसके अच्छे और बुरे दोनों प्रभाव को सार्वजनिक करेगी। डीएमआरसी के एक वरिष्ठ अधिकारी ने बताया कि आइआइटी की टीम ने अध्ययन और उसके बाद रिपोर्ट को अपने पाठ्यक्रम में शामिल करने की इच्छा जताई है। मालूम हो कि अभी तक मेट्रो निर्माण को लेकर केंद्रीय सड़क अनुसंधान संस्थान ने व्यापक रूप से सर्वे कर रिपार्ट सार्वजनिक किया था। रिपोर्ट के अनुसार दिसंबर 2004 में चालू हुई पहले चरण की मेट्रो ने लोगों को अपनी ओर इस कदर खींचा कि लोग वाहन छोड़ मेट्रो में सफर करने लगे।

नतीजा वर्ष 2007 तक पहले की तुलना में प्रतिदिन 16 हजार 895 कम वाहन सड़कों पर उतरने लगे। दूसरे चरण की मेट्रो लाइन शुरू होने के बाद वर्ष 2011 तक राजधानी की सड़कों से हर दिन एक लाख 17 हजार 249 वाहनों का बोझ कम हो गया। यदि मेट्रो न होती तो उसी सड़क पर वाहन रेंगते नजर आते। इससे वायुमंडल में हर साल करीब दो लाख टन से अधिक प्रदूषण तो फैलता ही, ईंधन की खपत भी एक लाख टन से अधिक होती।

मेट्रो में शराब नहीं ले जा सकेंगे

जासं, नई दिल्ली : दिल्ली मेट्रो रेल निगम (डीएमआरसी) ने सुरक्षा कारणों से बैग, थैला व सूटकेस में शराब की बोतल रखकर ले जाने पर प्रतिबंध लगा दिया है। शराब पीकर मेट्रो स्टेशन में प्रवेश करने की पहले से मनाही थी। इस कारण कुछ यात्री बैग में शराब की बोतल रख ले जाते थे। मेट्रो की सुरक्षा में तैनात सीआइएसएफ के एक वरिष्ठ अधिकारी ने बताया कि एहतियातन सुरक्षा कारणों से शराब साथ लेकर मेट्रो स्टेशन में प्रवेश पर प्रतिबंध लगाने का फैसला लिया है। गत 17 जनवरी को आधिकारिक आदेश जारी कर दिया गया है। साथ ही सुरक्षा में तैनात सभी कर्मियों को जांच में सख्ती बरतने को कहा गया है।

HT Bhopal

'Merit, not gender should be criteria for admission'

PARITY PARAMETER Opine IIM-I, IIT-I directors after IIM Calcutta decides to give grace marks to girl students

Amrita U Kadam
amrita.kadam@hindustantimes.com

INDORE: While Indian Institute of Management, Calcutta has decided to give grace marks to girl students to break the traditional male domination on the campus, the directors of IIM-I and IIT-I opine that there should be gender parity and merit should be the criteria for admissions.

IIT-I has the highest gender ratio among all the IITs with the B Tech batch having 23 girls of the total 119 students admitted in 2012. IIM-I has an average of 20% girl students in its first and second year of Post Graduate Programmes and about one-third of the students of Integrated Programme in Management are girls, admission chair IIM-I Rohit Kapoor said.

Revising its selection criteria, IIM-I had recently declared that past academic record would be counted during the final selection of the candidate but giving extra privilege to girls isn't on its list. Talking to the media on Saturday, director N Ravichandran said, "I believe there should be gender equality. Admission should be completely on the basis of merit."

IIM-C has given three extra points to girls while calling them for the interview to ensure that more number of girls make it to the interview.

While it is known that comparatively more number of girls opt for management courses than engineering, HT spoke to the director of IIT-I, Pradeep Mathur to know if IIT had any special plan to encourage girls to opt for technical courses and to give them extra benefits.

"Why should grace marks be given to girls when it is a mental test and not a physical test. There should be gender equality here."
SANDEEP KHEMLANI, management graduate

"Why has IIM Calcutta done that? Do they think women are challenged intellectually? What a way to show respect?"
PRIYA DILLIWAL, area manager of a store

"When you give grace marks, you take away the chance from a merit holder. This isn't the right way to raise the gender ratio," said Mathur.

He added that it is a global trend that there are less number of girls in technical courses. However, he said, "Courses like biotechnology interests more girls and takes care of the overall gender ratio of the institute. Besides this, IIT council had also addressed the issue of gender ratio and we have realised that there is a need to bring awareness through schools.

The girls need to be told that technical courses do not include dealing with heavy machines and there are sophisticated machines and nicely done labs which do not require laborious work."

Business Line, ND 22/01/2013 p-1

The GATEway to engineering jobs

G. Naga Sridhar
Hyderabad, Jan. 21

If you are looking for an engineering job in a public sector major, gear up to first excel in the Graduate Aptitude Test in Engineering (GATE).

Major public sector companies have been increasingly using GATE scores to shortlist/screen applicants for the much-coveted posts of graduate engineers. Till recently, a traditional written examination was the norm.

In a recent notification aimed at filling the posts of 250 graduate engineers, Hindustan Petroleum Corporation Ltd said candidates who wished for a career with HPCL were required to appear in GATE 2013; the scores would be used to draw up a shortlist, leading to the group discussion and personal interview.

This year, 10 public sector majors (twice as many as last year) have identified GATE as a requirement for hiring. They include Bharat Heavy Electricals Ltd, NTPC, Mechanical and Engineering Consultants, Indian Oil Corporation Ltd, GAIL (India), BEL and Concor.

As of now, BHEL has notified an unspecified number of vacancies while GAIL has lined up a recruitment of 153 executive trainee engineers. Remuneration for an executive/graduate engineer is now in the Rs 35,000-45,000 range. Using GATE scores helps recruiters focus on quality, especially given the declining standards following the mushrooming of engineering colleges in the recent past, say experts.

SECOND PHASE

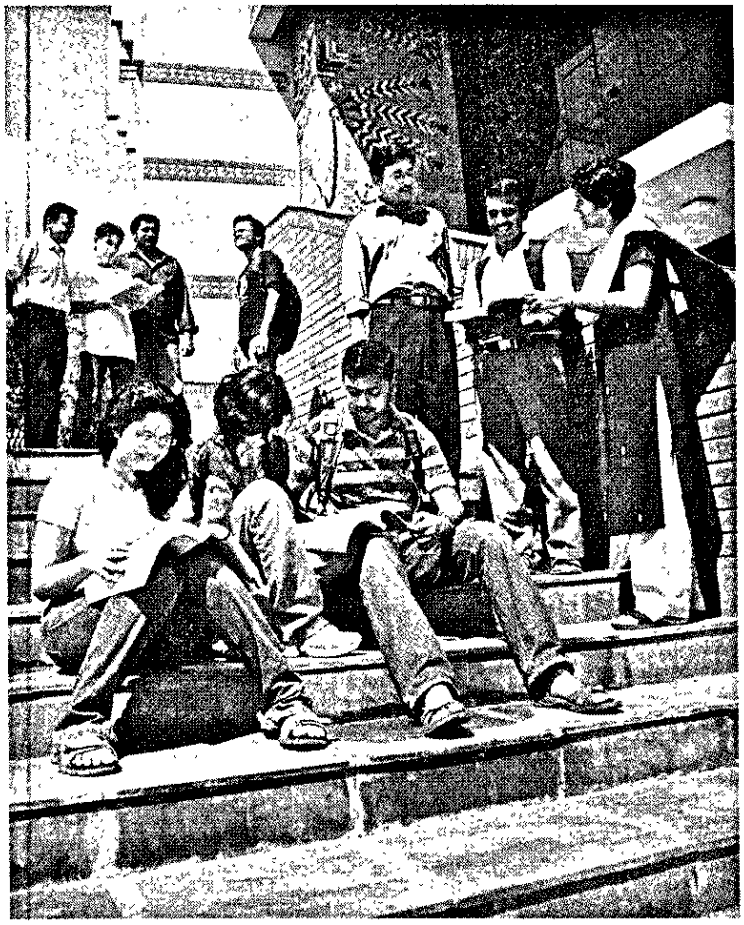
According to data from IIT-Delhi, 7.77 lakh candidates registered for GATE in 2012, of whom 6.86 lakh appeared for the test. Of these, 1,08,526 candidates qualified.

These numbers are expected to increase by 15-20 per cent this year.

The first phase of GATE 2013 was held on January 20; the second is scheduled for February 10.

naga.gunturi@thehindu.co.in

IIMs kill Bill for 'curbing' autonomy



By **Ritika Chopra** In New Delhi

The institutes have communicated their objection in their feedback to the draft IIM Bill prepared by the HRD ministry.

THE INDIAN Institutes of Management (IIMs) are guarding their autonomy like a fortress.

The 13 elite B-schools have shot down the government's proposal to bring them under an overarching advisory body on the lines of IIT Council, which is the highest authority making collective decisions for the Indian Institutes of Technology (IITs) and is headed by the minister for human resource development (HRD).

The 13 IIMs have shot down govt proposal

The institutes have communicated their objection in their feedback to the draft IIM Bill prepared by the HRD ministry. For the uninitiated, the Bill is being worked upon to empower IIMs to award degrees for their postgraduate programmes instead of the diplomas currently offered by them. And since the draft Bill is based on the IIT Act of 1961, it carries a provision for the establishment of an IIM Council similar to the Council for the IITs.

According to sources in the ministry, the IIMs are against to the idea of an IIM Council as they are afraid that this umbrella body would come at the cost of "flexibility" and "autonomy" enjoyed by the each of the 13 institutes. And apparently, the seven old IIMs (in Ahmedabad, Bangalore, Calcutta, Kozhikode, Indore, Lucknow and Shillong) are more opposed to this provision than their relatively younger counterparts established over the last three years.

That apart, the B-schools are also not happy with the provision that proposes the introduction of senate system (like the IITs) for the IIMs, replacing the faculty council.

The ministry had set up a five-member committee — consisting of directors of the IIM Calcutta, IIm Bangalore, IIM Kozhikode, IIM Udaipur and former SEBI chairman and head of the board of governors of IIM Trichy M. Damodaran — to whet the draft law and seek the views of the IIMs.

The feedback was, reportedly, sent back to the HRD ministry last month. The next consultative meeting between the ministry and this committee to discuss the bill is scheduled in February.

"All the IIMs are in different stages of growth and each one of us has built a unique character. An umbrella body like the IIT Council may try and impose uniform standards through a collective decision and that could be a problem for us," said an IIM director, who is a member of the committee set up by the HRD ministry, on conditions of anonymity.

At present, the IIMs function independently of each other with little interference from the government. Their biggest coordination exercise in a year is preparation for the conduct of the Common Admission test or CAT. But this is pretty much where the commonality begins and ends. "After CAT, we all go our own way to devise admission criteria which suits each IIM's distinct character," added the director.

Don't want to be under advisory body

"The media had recently reported that IIM Ahmedabad is mulling an annual package of ₹1 crore for its new director to attract best talent for the job. Each IIM has a different fee structure. We are afraid that the flexibility to take such independent decisions may no longer be there with the Council," said another committee member.

WHAT THE BILL STATES

- The senate will be the principal academic body in each IIM
- The IIM Council will be the overarching advisory body for the IIMs
- The IIMs will have to introduce reservation in faculty and non-faculty posts as per the rules of the government of India
- Provision has been made for periodic review of the performance of the IIMs
- The selection procedure for the chairman of the board of governors and the director of an IIM will remain the same

Presi does a JU, says no to common entrance test

HT Correspondent
letters@hindustantimes.com

KOLKATA: Presidency University is following in Jadavpur University's footsteps in trying to bypass the proposed Common Entrance Test (CET) to be made mandatory from this academic session for applicants to post graduate courses in state-aided universities and colleges in Bengal.

President has also proposed to start an integrated Masters program from the upcoming academic session.

On January 15, at its executive council meeting, JU decided to start the integrated Masters course from the 2014 academic year. Presidency has gone a step ahead, and at its first internal meeting on Monday decided to start offering integrated Masters courses from 2013 session itself. This will ensure that students need not take the CET or any other entrance exam and also help the university reserve all its Masters seats for its own students.

All state aided universities will have to submit their stand on the CET to the higher education department in writing on January 22.

However, Presidency University authorities refused to comment on the universities stand on record. The University plans to urge the higher education department to exempt its undergraduate students who pass out this year from the process, or allow them to admit 60% of its student and fill the remaining 40% with students from other universities.

Explaining why the university didn't want to go with the CET, one faculty member present at the meeting said, "Presidency became a university aiming to become an institution of excellence. In order to achieve that status, we need to admit quality students. The standard of students we are looking for cannot be gathered through this test, as it would not allow students of national and international level to participate."

"During the entire process of designing the CET, the state higher education council did not bother to take the university's opinion. The document uploaded by the council had to be circulated to the vice chancellors of all the state universities first to seek their opinion but that never happened," he added.

This year, the CET is to be held within June15, 2013. A team of experts will be formed to frame a syllabus and provide questions for each feeder subject. Besides statutory reservations, all other seats will remain open to all students who clear the CET.

Hindu ND 22/01/2013
P-5

Chandrayaan-2: India to go it alone

R. Ramachandran

AHMEDABAD: India has decided to go it alone in its second lunar mission, the Chandrayaan-2, which was originally proposed as an Indo-Russian venture.

This was disclosed here on Monday by S.V.S. Murty of the Planetary Exploration Group of the Physical Research Laboratory (PRL), an institution under the Indian Space Research Organisation (ISRO) here.

Dr. Murty was speaking on India's lunar and Mars missions at the ongoing workshop on exoplanets at the laboratory.

According to an agreement signed on November 12, 2007 between ISRO and Roskosmos, the Russian Federal Space Agency, ISRO had the primary responsibility to provide both the orbiter and the rover, while Roskosmos was to design and build the lander for this combined orbiter-rover-lander mission.

However, following the failure in December 2011 of Roskosmos' Phobos-Grunt mission, there was a delay in the construction of the Russian lander.

The mission had a lander to return soil sample from the Martian satellite Phobos. This resulted in a complete review of technical aspects connected with the Phobos-Grunt mission, which were also used in the lunar projects such as the lander for Chandrayaan-2.

Due to this, as well as financial problems, the Russian agency apparently expressed its inability provide the lander to meet even the revised time frame of 2015 for the Chandrayaan-2 launch.

Dr. Murty stated that the cancellation of the Russian lander also meant that mission profile had to be marginally changed.

The design of the indigenous lander and the preliminary configuration study was completed by the Space Applications Centre (SAC), Ahmedabad, he said.

Chandrayaan-2 will have five primary payloads on the orbiter, two of which will be improvements on instruments that were onboard Chandrayaan-1.

In addition, the rover too will carry two additional instruments. Chandrayaan-2 will be launched by a GSLV powered by an indigenous cryogenic engine.

However, PRL director Jitendra Goswami clarified that this did not mean that the Indo-Russian collaboration on planetary exploration had ended. Since Chandrayaan-2 was intended to be Roskosmos' Luna-Glob moon exploration programme, the Russian agency may join hands with ISRO in any of its lunar missions, Dr. Murty said.

Times Of India ND 22/01/2013 P-19

Quadruple helix DNA find key to cancer cure?

Tweaking Four-Stranded Structures Can Prevent Cell Replication, Thus Halting Tumour Spread

London: For the first time, Cambridge scientists, including one of Indian origin, have discovered the four-stranded "quadruple helix" DNA in human cells which they say may be key to conquering cancer.

Researchers have proved that four-stranded 'quadruple helix' DNA structures — known as G-quadruplexes — also exist within the human genome and form in regions of DNA that are rich in the building block guanine 'G'.

The study, published in Nature Chemistry shows clear links between concentrations of four-stranded quadruplexes and the process of DNA replication, which is pivotal to cell division and production.

By targeting quadruplexes with synthetic molecules that trap and contain these DNA structures — preventing cells from replicating their DNA and consequently blocking cell division — scientists believe it may be possible to halt the runaway cell proliferation at the root of cancer.

"We are seeing links between trapping the quadruplexes with molecules and the ability to stop cells dividing, which is hugely exciting," said professor Shankar Balasubramanian from Cambridge's department of chemistry. "The research indicates that quadruplexes are more likely to occur in genes of cells that are rapidly dividing, such as cancer cells. For us, it strongly supports a new paradigm to be investigated — using these four-stranded structures as targets for personalized treatments in the future," he said.


© Tetra Images/Corbis

LIVING ON HOPE

Physical studies have shown that quadruplex DNA can form in vitro — in the 'test tube'. Now researchers know for the first time that they actually form in the DNA of human cells. "This research further highlights the potential for exploiting these unusual DNA structures to beat cancer — the next part of this pipeline is to figure out how to target them in tumour cells," said Dr Julie Sharp, senior science information manager at Cancer Research UK.

Lead researcher Giulia Biffi generated antibody proteins that detect and bind to areas in a human genome rich in quadruplex-structured DNA, proving their existence in living human cells. Researchers identified 'hot spots' for the occurrence of four-stranded DNA, using fluorescence to mark the antibodies.

A marked increase was shown when the fluorescent staining grew more intense during the 's-phase' — the point in a cell cycle where DNA replicates before the cell divides.

Cancers are usually driven by genes called oncogenes that have mutated to increase DNA replication — causing cell proliferation to go out of control leading to tumour growth. The increased DNA replication rate in oncogenes leads to an intensity in the quadruplex structures. This means that damaging cellular activity can be targeted with synthetic molecules. PTI

Business Line, ND 22/01/2013p-18

Giant Mars crater shows evidence of ancient lake

Press Trust of India
Washington, Jan. 21

A NASA spacecraft has provided compelling new evidence that a Martian crater once may have held groundwater-fed lake.

The new information comes from researchers analysing spectrometer data from NASA's Mars Reconnaissance Orbiter (MRO), which looked down on the floor of McLaughlin Crater.

The Martian crater is 92 km in diameter and 2.2 km deep. McLaughlin's depth apparently once allowed underground water, which otherwise would have stayed hidden, to flow into the crater's interior, NASA said.

Layered, flat rocks at the bottom of the crater contain carbonate and clay minerals that form in presence of water.

McLaughlin lacks large inflow channels, and small channels originating within the crater wall end near a level that could have marked the surface of a lake.

These new observations suggest the formation of the carbonates and clay in a groundwater-fed lake within the closed basin of the crater.

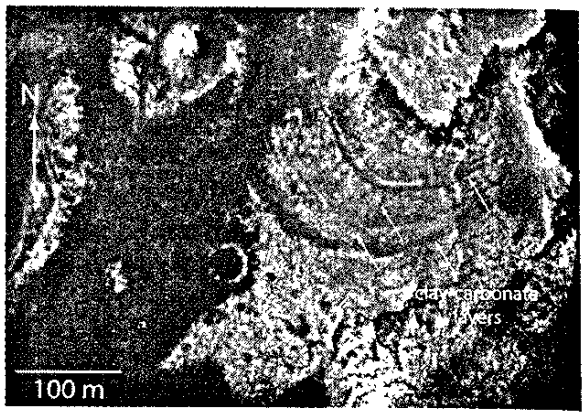
Some researchers propose the crater interior catching the water and the underground zone contributing the water could have been wet environments and potential habitats, according to the study published in *Nature Geoscience*.

"Taken together, the observations in McLaughlin Crater provide the best evidence for carbonate forming within a lake environment instead of being washed into a crater from outside," said Joseph Michalski, lead author of the study.

Michalski checked for minerals such as carbonates, which are best preserved under non-acidic conditions.

"New results like this show why that effort is so important," said CRISM Principal Investigator Scott Murchie of Johns Hopkins University Applied Physics Laboratory.

McLaughlin Crater sits at the low end of a regional slope several hundreds of miles long on the western side of the Arabia Terra region of Mars. As on Earth, groundwater-fed lakes are expected to occur at low regional elevations. This site would be a good candidate for such a process.



This view of layered rocks on the floor of McLaughlin Crater on Mars shows sedimentary rocks that contain spectroscopic evidence for minerals formed through interaction with water in this undated handout photo from NASA. The High Resolution Imaging Science Experiment camera on NASA's Mars Reconnaissance Orbiter recorded the image. — Reuters

Financial Chronicle ND 22/01/2013 P-10

Opportunity, Nasa's older Mars rover completes 10 years of exploration

ALICIA CHANG
Associated Press

LOS ANGELES: Opportunity, NASA's other Mars rover, has tooled around the red planet for so long it's easy to forget it's still alive.

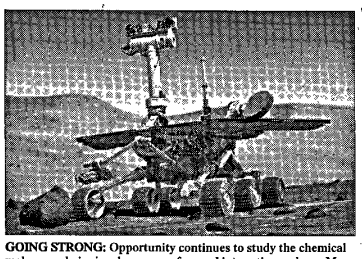
Some 5,000 miles (8,000 kilometers) away from the limelight surrounding Curiosity's every move, Opportunity this week quietly embarks on its tenth year of exploration — a sweet milestone since it was only tasked to work for three months.

"Opportunity is still going. Go figure," said mission deputy principal investigator, Ray Arvidson of Washington University in St Louis.

True, it's not as snazzy as Curiosity, the most high-tech interplanetary rover ever designed that awed the world with its landing near the Martian equator five months ago.

After so many years of crater-hopping, Opportunity is showing its age It has an arthritic joint in its robotic arm and it drives mostly backward due to a balky front wheel — more annoyances than show-stoppers.

For the past several months, it has been parked on a clay-rich hill along the western rim of Endeavour Crater that's unlike any scenery it encountered before. It plans to wrap up at its current spot in the next several months and then drive south where the terrain looks even riper for discoveries.



GOING STRONG: Opportunity continues to study the chemical makeup and pinning down ages of several interesting rocks on Mars

Long before Curiosity became everybody's favorite rover, Opportunity was the darling.

The six-wheel, solar-powered rover parachuted to Eagle Crater in Mars' southern hemisphere on January 24, 2004, weeks after its twin Spirit landed on the opposite side of the planet.

During the first three months, there were frequent updates about the twin rovers' antics. The world, it seemed, followed every trail, every rock touched and even kept up with Spirit's health scare that it eventually recovered from.

Opportunity immediately lived up to its name, touching down in an ancient lakebed brimming with minerals that formed in the presence of water, a key ingredient for life. After grinding into rocks and sifting through dirt, Opportunity made one of the enduring finds on Mars that point to an ancient environment that was warmer and wetter than today's dusty, cold desert state.

Spirit, on the other hand, landed in a less interesting spot and had to drive some distance to find geologic evidence of past water. After six productive years wheeling around, it fell silent in 2010, forever stuck in Martian sand. Opportunity went on to poke into four other craters, uncovering even more hints that water existed on Mars long ago.

"The rover is not like a lander staring at the same real estate. We've gone to different terrains, explored different geology and answered different questions on Mars," said project manager John Callas of the Nasa Jet Propulsion Laboratory, which runs the $984 million project.

What's still unknown is whether Mars ever had the right environmental conditions to support microscopic organisms — something Curiosity is trying to answer during its two-year mission. Besides water, it's generally agreed that a power source like the sun and carbon-based compounds are essential for life.

Unlike the flashier Curiosity, armed with the latest tools, Opportunity is not equipped with a carbon detector. Its latest crater destination, which it arrived at last year after an epic three-year journey, contains sections rich in clay deposits. Clays typically form in the presence of water and can be a fine preserver of carbon material. But scientists will never know.

As it enters its tenth year on Mars, Opportunity will continue studying the chemical makeup and pinning down the ages of several interesting rocks at its location for several more months before adding more mileage to the 22 miles (35 kilometers) it has logged since landing.