CAREER COUNSELLING
HELD AT IIT-D

**New Delhi, 15 September:** IIT Delhi Alumni Association in collaboration with the training and placement centre, organised a career counselling and panel discussion session on 14 September 2014. The event was divided into two sessions -- how to perform during campus interviews and various career options.

Mr Ashok Kumar, president of the association said, "Such sessions play a vital role in shaping students opinions and views. Moreover, it will also provide a complete 360 degree view about any career options."

More than 700 students attended the event, which was first of its kind at the institute.
TIME FOR CHANGE
Joint Admission Board takes into account criticism that percentile rule was shutting out eligible students

IITs may Soften Admission Criteria, Tweak Top 20 Percentile Rule

Ray of Hope
GETTING INTO IITs
It's a two-tier process that starts with the JEE (Main). The top 1.5 lakh get to appear for JEE (Advanced). Those who succeed gain entrance provided they are among the top 20 percentile in the Class XII board exam.

New Delhi: The Indian Institutes of Technology (IITs) have proposed a change in admission criteria barely two years after the premier engineering schools adopted a new format at the behest of Kapil Sibal, then human resource development minister under the previous UPA government. The IITs are in favour of tweaking the requirement that candidates have to be in the top 20 percentile in their Class XII exams in order to be eligible for admission, amid criticism that the condition is shutting many deserving candidates out. The Joint Admission Board (JAB) of the IITs—comprising heads of universities—met last week in Mumbai and proposed to accommodate such candidates who have been rejected despite cracking the entrance test. The proposal regards some weightage to a candidate's aggregate marks in board exams. ET spoke to two IIT directors who support the proposal to avoid discrimination.

There could be some opposition to the attempt to undo the earlier change, which was introduced two years ago.

According to an IIT director about 200 applicants could not gain entry into IIT this year despite securing an impressive All-India rank in JEE (Advanced) as they fell short of the percentile condition. "Such candidates are small in number but they usually make up just 2.5% of those who have cracked the entrance test. It's unfortunate that some cannot get into even though they have scored above 90% in their board examination," an IIT director told ET on condition of anonymity. "We feel that there should be an additional criterion for such candidates. It could be a formula which gives weightage to both aggregate board marks and the top 20 percentile cut-off. We will only finalise once the IIT Council takes a view on this proposal." The percentile criterion was introduced in 2013 at the behest of Sibal so that students would pay greater attention to their performance in school, thus gaining an all-round education rather than merely focusing on entrance exams. It was also targeted at the cram schools that thrive thanks to the relentless striving for acceptance at India's top institutes. There could be some opposition to the attempt to undo the earlier change.

"We understand that there could be some resistance to this move, if approved by the IIT Council," said another IIT director. "But we have discussed the issue threadbare, which is why we have proposed to introduce an additional or a sub-criterion which could be a combination of top 30 percentile condition and absolute marks scored in the board exams."

India Missing in Top 200 Global Varsity Rankings

ITI-B pips Delhi counterpart at No. 222 on QS list; MIT holds top slot for third year

Our Bureau
Mumbai: India still does not feature among the Top 200 world universities in the new QS rankings. Just like last year, the top-placed Indian institution is 222nd in the world, but this year the Indian Institute of Technology Bombay (IIT-B) has overtaken its counterpart in Delhi for the first time.

IIT Delhi has been the leader in India throughout the first 16 editions of the QS rankings, but has slipped to 236th this year; virtually exchanging positions with the IIT-B. IIT Bombay has moved up from 235th to 222nd and IIT Delhi from 222nd to 235th.

While IIT Bombay has done better in the 'Employer Survey' component that accounts for 10% of weightage in the World Rankings, IIT Delhi’s performance has dropped. This could also be read as IIT Delhi receiving a better score or more responses in the 'Employer Survey' than IIT Bombay.

Also, IIT Delhi’s decline in the Citations Per Faculty, indicators, which accounts for 10% of weightage in the World Rankings, has been far greater than its peers. While in the regional rankings, India is 20th and BRICS 10th, the emphasis is also on quantity of research papers published, the World Rankings only focuses on the quality of papers published by taking into account the citations, thereby making it more rigorous and globally competitive.

"IIT Delhi has an acknowledged global rankings and put their best foot forward," says Dr Karthick Sridhar, vice chairman, Indian Centre for Assessment & Accreditation. With the increasing globalisation of higher education, Indian universities need to compete to attract the best intellectual talent as well as best qualified faculty from across the world, he says. Globally, students continue to use rankings as one of their decision making tools to choose their destinations. The prestige associated with higher ranks also drives universities to benchmark themselves globally, says Dr Sridhar.

Parameters where Indian universities are weak are research per peer, international mobility, and quality of research (as represented by number of papers and their citation counts); survey of academic peers and employers (as representation of the perception of the quality of the university and ‘outgoing’ students); and internationalisation (as represented by number of international faculty and students).

"These have to be addressed through reorientation of institutional priorities; focused deployment of human and financial resources; enhancement of global reputation and prestige through academic excellence and national higher education policy reforms," says Sridhar.

The number of Indian institutions in the World Rankings has grown to 12 from 11. Indian institutions are engaging with ranking agencies more than ever before and this has started bearing fruit. There are more Indian universities in the QS rankings than any other international comparisons," a release said.

The global rankings are for the third year, led by MIT, which increased year-on-year citations per faculty by 14%. Imperial College London (UK) also reported a 14% increase in this metric compared to last year by The University of Cambridge (UK) and 2% by Harvard. Caltech remains the world’s top university for research citations.

A total of 33 countries are represented in the Top 200. The US remains the dominant nation with 61 institutions, 1 of which are in the Top 10. The US dominates also for research impact with seven of the 10 top spots in the citations per faculty indicator.
‘Rankings are Artificial; Universities Shouldn’t be Obsessed with Them’

The oldest university in the English speaking world isn’t afraid of change. It’s actively pursuing tie-ups and committing to excellence, says Professor Andrew Hamilton, vice chancellor of Oxford University. On the sidelines of Oxford’s first lecture delivered in India, he spoke to ET’s Anumeha Chaturvedi about nurturing tie-ups between Oxford and India, how the 900-year old university is changing and how Indian institutions shouldn’t bother too much about rankings.

What is the objective of your visit?
We are here to celebrate and bring attention to the many many links between Oxford University and India. These are links that stretch a long time. The first English person to come to India was Thomas Stephens from 1579. He was from Oxford. And the most important links in the 20th century have been the many research collaborations, and the students who come and study in Oxford. Part of the purpose of my visit is to encourage other Indian students to think about Oxford as a destination for study.

Is the visit also about fostering new tie-ups with Indian institutions?
Yes, we have more than 40 research collaborations going on. They cover the entire spectrum of academic education from medicine, science to humanities and linguistics and culture. There are many very specific collaborations like INDOX, a collaboration between clinical researchers in Oxford and clinical researchers throughout India. We are also celebrating our collaboration in healthcare through the first Oxford lecture in India today.

How can institutions in India improve their global rankings?
One thing we should all do is not be too obsessed with rankings. University rankings are inventions of journalists. To some extent rankings are artificial. They often create the change by changing the methodology, and not what happens in the universities. And university rankings shouldn’t distort what universities are doing, but sometimes they do. How can they improve? By constantly committing to excellence, recruitment, research. New teaching and research are the way to maintain and improve one’s position in the worldwide community of universities.

The number of Indian applicants to UK universities seems to be going down compared with the US, which is perceived to have a friendlier immigration system. What’s your take on this?
We have been concerned about immigration policy changes. We have, like other institutions lobbied hard for easing the immigration systems like not including student numbers in overall immigration targets. Our university works hard to help students in visa applications. Many Indian students target universities like MIT and Stanford for science and medicine, but Oxford is a powerhouse in science and medicine. We are old and we are proud of our history but we are also a very modern university. We are governed by a federal system, but over the past five years, there’s been a greater extent of collaboration and working together between colleges and the university.
At 13th rank, IIM-C among top non-European B-schools

BS REPORTER
Ahmedabad, 15 September

 Ranked 13th for its post-graduate programme in the Financial Times’ Masters in Management (MiM) Ranking for 2014, the Indian Institute of Management, Calcutta (IIM-C), has emerged as the top non-European business school. The ranking features the ‘top 70’ management degrees for students with little or no previous work experience.

IIM-C not only emerged as the only Asian B-school in the top cluster of 14 B-schools but also improved upon its previous debut rank of 19th position in 2013. With only six non-European schools in the list of top 70, the other Indian school in the ranking is IIM Ahmedabad at 16th position for its flagship post-graduate programme in management (PGP-IIM) as against 18th position last year.

The rankings are based on several parameters such as salary, value-for-money rank, careers rank, aims achieved, placement success, employment at three months, female faculty, female students, international faculty, international students, international board, international mobility rank, international course experience rank, languages, faculty with doctorates, maximum course fee (local currency), course length (months), number of students, enrolment 2013-14, and company internships.

Ashok Banerjee, dean, New Initiatives and External Relations at IIM-C, stated that while celebrating the B-school’s Golden Jubilee in 2011-12, IIM-C had taken initiatives to enhance internationalisation among other things.

“Of the areas we had been focusing on was internationalisation wherein whatever we do, it should have a global perspective. For instance, we began looking at courses that should have more global context, more institutes for student exchange programmes and increased foreign students footfall. We have also been focusing on global accreditations which we have been receiving every year now since 2012,” said Banerjee.

The oldest IIM in the country was also ranked No. 1 in the careers rank. “This signifies that our alumni have registered the best career growth over the last three years in comparison to all other participating B-schools. We are now focusing on enhancing research. One of the ways we are doing this is by creating an environment for foreign faculty and our faculty to work together which will result in increased quality research,” Banerjee added.

In terms of placement success parameters, while IIM-A was ranked at No. 2, IIM-C was ranked at third position.

The Institute is also in talks with global B-schools for allowing its doctoral programme students to spend a few weeks at their campuses for gaining experience in international research.
IIM-C ranks No. 1 biz school globally for eco and finance

Hindustan Times (Kolkata)

KOLKATA: Indian Institute of Management, Calcutta (IIM-C), has added yet another feather in its cap on Monday, securing the 13th rank in a global ranking of top B-schools by the Financial Times. Last year IIM-C was ranked 19th in a list of 70 B-schools.

IIM-C has also been recognised as the best management institute globally for study in economics and finance. Incidentally, this survey is conducted among all B-schools except those in the US.

The rank is not only three steps ahead of arch-rival IIM-A that ranks 16 in the survey, but IIM-C is also the highest-ranked non-European B-school. The top position went to University of St Gallen, Switzerland. HEC, Paris, grabbed the second spot.

A vital factor in the ranking methodology was ‘Careers Rank’ under the Alumni Career Progress section of parameters for which the batch of 2011 was considered. IIM-C ranked No. 1 in the careers rank, signifying that the alumni has registered the best career growth — calculated in terms of seniority, company size and employee strength --- over the last three years. Other parameters that are considered while awarding the ranks include infrastructure on campus and teacher-student ratio but the maximum emphasis is on how the students have progressed in their jobs.

“This is a big day for India and the nation’s higher education sector. It is also a great day for all associated with IIM-C. The FT survey is considered the gold standard in B-School rankings and we are indeed happy and proud to make such progress in a single year. This is a significant milestone in our globalisation journey. The rankings will help us network more closely with the top European B-schools,” said Prof Ashok Banerjee, dean, new initiatives and external relations of IIM-C.

IIM-C has stolen a march over IIM-A on another count. FT has put IIM-C in the top cluster of 14 B-schools worldwide. It is the only non-European B-school in the top cluster. The second cluster is formed with institutes that occupy ranks between 15 and 33. IIM-A belongs to this group.

Interim director takes charge at IIM-Lucknow

CONFUSION OVER Institute awaits MHRD’S sanction regarding appointment of a permanent director

Hindustan Times (Lucknow)

LUCKNOW: The weeklong confusion over the developments at the IIM-L came to an end with senior-most professor Rajiv Kumar Srivastava taking charge as interim director of the institute on Monday. He replaced Prof Devi Singh, whose nearly 11-year stint as director ended recently.
Dr JJ Irani, chairman, IIM-L formally announced the interim director for IIM-Lucknow. Prof Srivastava is an alumnus of Virginia Tech USA, NITIE Bombay and IIT Kanpur.

He has been associated with the IIM for more than two decades and has held various academic and administrative positions including chairperson student affairs, chairperson alumni affairs, chairperson PGP, and dean academic affairs.

The IIM-L, however, still awaits a full-time director. Irani reiterated that the institute was waiting for the MHRD’s sanction regarding the appointment of a permanent director who has been shortlisted by a properly constituted selection committee.

He congratulated the interim director and extended all support to him on behalf of the board of governors, IIM-L.

Soon after handing over charge, Prof Devi Singh, in a statement to HT, said: “During the last 11 years, the institute has witnessed all-round growth in academic programmes, activities, research, corporate and international linkages, infrastructure and faculty strength.”

The ministry of human resource development (MHRD) had on September 9 given additional charge of director IIM-L to Prof Rajiv Kumar Srivastava. But strangely, the top brass of the institute slept over the MHRD order, thus creating confusion over the leadership at the premier B-school.

A day after HT’s report, ‘Confusion after IIM-L brass sleep on MHRD order’ on September 12, IIM-L issued a press note on Friday to clarify about the developments at the institute.
The statement reads: “Dr JJ Irani, chairman, board of governors, IIM-L today said that he had seen the letter which had been sent by the MHRD. The person who has been named in the letter to take charge as interim director of IIM-L is currently on leave and would be resuming office on Monday (September 15). His decision is expected on the same day.”

HT had accessed and published a copy of the MHRD letter dated September 9 (DO 4/4/2013-TS.V) addressed to Jamshed J Irani, chairman, board of governors, IIM-L. It reads: “Competent authorities have directed to assign additional charge of director IIM-L to Prof Srivastava for a period of six months with effect from 09-09-2014 or till appointment of regular director or until further order, whichever is earliest.”
Govt approves ₹930-cr scheme to boost capital goods sector

PNS NEW DELHI

Government today approved a ₹930 crore scheme to bring competitiveness of domestic capital goods sector at par with global standards, which is first in the series of initiatives under Prime Minister Narendra Modi’s vision of ‘Make in India’.

“Scheme on enhancement of competitiveness in the Indian capital goods sector to be implemented in the current 12th Plan period (2012-17) and spilling over to the 13th Plan period with an estimated outlay of ₹930.96 crore,” an official release said.

The decision was taken at a meeting of the Cabinet Committee of Economic Affairs here in the capital. According to the statement, the gross budgetary support from the government for the scheme would be ₹581.22 crore and the balance ₹349.74 crore would be contributed by the stakeholder industries.

“This is a pilot project, going ahead we plan to expand the project across the country. The total cost to be incurred for implementation of the entire project is around ₹20,000 crore in coming years,” Heavy Industries Minister Anant Geete told reporters here at a press conference after the CCEA decision.

He further said, “Since last 15 years small scale industry associations were demanding support from the government as they were unable to sustain because of global competition. Today the Narendra Modi led Government has met this demand.”

The scheme, on implementation, would attempt to make the Indian capital goods sector globally competitive. The Capital Goods value added contributes a fairly constant proportion of 9-12 per cent of the total manufacturing value added.

The sub-sectors of Capital Goods covered under the scheme are mainly for Machine Tools, Textile Machinery, Construction and Mining Machinery, and Process Plant Machinery.

The scheme would address the issue of technological depth creation in the capital goods sector, besides creating common industrial facility centres.

The scheme has five components to achieve the desired result in pilot mode.

Firstly, it would create Advanced Centres of Excellence for R&D and Technology Development with National Centres of Excellence in Education and Technology such as Indian Institute of Technology (IIT) Delhi, IIT Bombay, IIT Madras, IIT Kharagpur and Central Manufacturing Technology Institute (CMTI), Bangalore.

The Government also approved a scheme for strengthening power transmission in Arunachal Pradesh and Sikkim at an estimated cost of ₹4,754.42 crore. The Cabinet Committee on Economic Affairs approved this scheme, an official statement said.

The new threat: Megadroughts

Global Warming Could Lead To Decades Without Rainfall: Study

Tom Bawden

Climate change is set to unleash a series of decades-long “megadroughts” this century, according to research to be published this week.

Megadroughts — which are generally defined as lasting 35 years or more — will become considerably more frequent as global warming increases temperatures and reduces rainfall in regions already susceptible, warns Cornell University’s Toby Ault, the author of the report.

“Without climate change there would be a 5-15% risk of a megadrought in the south-west of the US this century. With it, the probability jumps to between 20% and 50%,” Ault said. “The south-west of the US, southern Europe, much of Africa, India, Australia and much of Central and South America could all have a drought that lasts decades,” said Jonathan T Overpeck, an environmental scientist at the University of Arizona.

Megadroughts have occurred periodically around the world in the past few thousand years. In some cases, they have caused civilizations to collapse.

Asian monsoon almost 40 million years old

Asian monsoon, one of the largest climate systems in the world, existed 40 million years ago — much earlier than previous estimates, according to a new study. Scientists first believed the Asian monsoon began 22-25 million years ago as a result of the uplift of the Tibetan Plateau and the Himalaya Mountains.

A research team has now found that it existed 40 million years ago during a period of high atmospheric carbon dioxide and warmer temperatures.
Student's agri-copter a boon for farmers

MANOJ MATHEW
KOCHI, SEPT. 15

A novel idea of spraying fertilizer for paddy using a remote-controlled quadcopter ideated and put forward by a group of B.Tech students promises to bring much-needed respite to farmers troubled by shortage of workers, particularly in a state like Kerala, where farmers and their profession are decreasing in number.

The Agri-Copter won accolades at the Young Entrepreneurs Summit (YES), held in the state on Friday, and fetched Athul K. Shibu and three of his friends from Government Engineering College, Thrissur, a third prize in the category of “Best Innovative Ideas”.

The copter that flies at a level of five to six feet from the ground with a payload of 10 kg urea can spray the fertilizer to about 22 acres of paddy land a day. This can save the labour of at least four farm hands a day, Athul explains, son of a farmer.

In fact Athul got hold of the idea due to his involvement in paddy cultivation.

“I used to assist my father in the farm after my studies and was struck by the idea after a mishap occurred to him. One day, my father was bitten by a snake when he went to put fertilizer to paddy. And snake bite is common during farming. I started looking for a method by which fertiliser can be applied to paddy without stepping into the slushy field,” he told. According to Athul, the copter, running on a rechargeable battery of the size of a eight-inch by six-inch brick, could be controlled by the farmer himself sitting in a shade and he can also monitor the operation by a camera attached to the copter. It can even be controlled from a two-kilometre distance.

“Farmers in Kerala are leaving their paddy fields uncultivated due to shortage of labour and also because of the high labour cost. The stage is set right for such a machine,” he said.

Athul hoped that his invention would attract more youths to farming. “Educated youngsters are now keeping off farming as they don’t want to get soiled in a slushy field. Such a machine can convert a blue collar job to a white collar one,” Athul explained.

He said that the first copter that would weigh not more than six kg (without the payload) would be out for operations in two months. The machine was expected to cost Rs60,000.

“The copter can be shared by a group of farmers. Or someone can buy it and give to farmers on a rental basis,” Athul added.

He is doing the project with the support of his friends Job V.J., Sarath Marson and Arjun Ajay and under the guidance of Professor T.V. Gopinath.
VCs resolve to bring teacher education under varsity system

NEW DELHI: Vice chancellors from across the country today resolved to bring the entire gamut of teacher education under university system, rationalise the duration of the B.Ed and M.Ed courses and ask teacher training institutes to go for mandatory accreditation.

A meeting here attended by vice chancellors of central and state universities along with education bodies such as UGC, NEUPA, NCTE, NCERT, further decided to bring the teaching profession on par with any other professions with relevant interventions, officials said.

National Council for Teacher Education (NCTE), as part of the convergence initiative, will collaborate with UGC to engaging all central, state and private university education department to reform teacher education curriculum, they said.

It will also negotiate with UGC to start refresher course programme for teacher educators in all academic staff colleges under the universities.

HRD minister Smriti Irani, who inaugurated the meeting, directed NCTE to develop database of all teacher educators in the country for capacity building. Convergence of resources among the central, state and higher educational bodies to enhance quality of teacher education remained the underlying theme of the meet, which was held a day after the Irani chaired a meeting of the central university VCs in Chandigarh.

With quality of teacher education remaining a contentious issue, it was resolved that pre-service education of teachers for the secondary and higher secondary level as well as elementary level will be brought under university system.

'So far teacher education in the country has remained scattered impeding infusion of quality,' officials said.

An uniform rationalisation of the B.Ed and M.Ed programme was also underlined at the meeting as the duration of such programmes vary from institute to institute. The overall consensus was on fixing the durations to two years, they said. Monday’s meeting also decided to set up a committee to look into the implementation of the recommendations of the Justice Verma committee on teacher education.
Don’t poke your nose in UGC affairs, SC tells HRD

UTKARSH ANAND
NEW DELHI, SEPTEMBER 15

THE Supreme Court on Monday censured the Union HRD Ministry for its “intrusive attitude” and “unwarranted interference” in the working of the University Grants Commission (UGC).

“We can see there is unnecessary interference by the ministry. It is totally unwarranted. You (HRD) cannot thrust your decision on the UGC. UGC is an autonomous body and it needs to be left to work as such. What is the point of having a separate statutory body if the ministry has to control everything at every level?” said a bench led by Chief Justice of India R M Lodha.

“Don’t poke your nose into everything. It is not required at all. UGC has to work independently and intrusion on your part is not right,” said the bench also comprising Justices Kurian Joseph and Rohinton F Nariman.

The bench was hearing a petition filed by Symbiosis International University (SIU) against the UGC’s decision to block its proposal for setting up an off-campus centre in Hyderabad.

The UGC had decided at its meeting on July 22 that the proposal could not be recommended in view of the HRD Ministry’s policy on deemed universities and their expansion. It had also considered reports by the UGC expert committee, the All India Council for Technical Education (AICTE) and the Bar Council of India (BCI).

However, when asked by the bench, the UGC counsel disclosed that the final decision was taken after also taking note of the HRD Secretary’s comments. The court then asked why the HRD Ministry was involved in the decision-making process, since the UGC was expected to apply its mind independently.

Appearing for the government, Solicitor General Ranjit Kumar said the UGC panel must have a member from the ministry. The court retorted: “You can be a member and also be an active member but you cannot thrust your decision.”

The bench maintained that the expert committee had, in fact, given its opinion in favour of the SIU’s off-campus plan on fulfillment of certain conditions, but it appeared that the UGC went by the HRD Ministry’s views.

When Kumar said the UGC was merely a recommendatory body and the final decision rests with the government, the bench said the ministry could decide once the UGC sends its recommendations, but it could not scuttle the statutory process. The bench then quashed the UGC’s July 22 resolution, and asked it to assess the SIU’s request afresh “with an open mind” and take a decision in three weeks.

Meanwhile, SIU’s lawyer Ram Jethmalani sought permission to let the university go ahead with admissions, but the court turned down the request, saying the UGC and the government must first take a decision.
Coimbatore: Government schools are usually in the news for all the wrong reasons but a recent survey has ranked Chennai's Kendriya Vidyalaya-IIT Madras campus at the top. Ten other schools from Tamil Nadu found a place among the top 10 in various categories.

Seven of the top 10 government day schools are Kendriya Vidyalayas with the one on the IIT-Madras campus at the top. The school scored 981 points out of 1,500 in the survey, leading Kendriya Vidyalaya, NMR, JNU Campus, Delhi, by four points. Rajkiya Pratibha Vikas Vidyalaya, Dwarka, Delhi, is at the third place with 951 points and its branch in Shalimar Bagh in the city is at sixth place with 925 points. Two schools from Kerala and one each from Kolkata, Kanpur, Hyderabad, Bangalore, and Mumbai are the others topping the list.

In the survey carried out in Delhi, Chennai, Bangalore, Hyderabad, Lucknow, Mumbai, Kanpur, Bhopal, Kolkata and Kochi, more than 1,000 fee-paying and non-fee paying parents from various socio-economic categories, teachers, principals, educationists and academicians were interviewed by field researchers of C-Fore, a marketing company in Delhi. The survey was conducted between May and July, and the results were declared in September.

The interviewees were asked to rate schools on a 10-point scale based on 14 parameters like teacher welfare and development, competence of faculty, sports education, special needs education, co-curricular education, infrastructure provision, academic reputation, value for money, individual attention to students, management quality, parental involvement, internationalism, community service, and life skills education and conflict management.
INDIA SET FOR A FIRST TO MARS
MARS-CRAFT PREPARES TO ENTER RED PLANET’S ORBIT IN IT’S MAIDEN ATTEMPT

TYAGARAJ SHARMA

Bangalore, 15 September

India is all set to become the first nation to successfully place its Mars spacecraft into the Red planet’s orbit on 24 September, in its maiden attempt itself. The exercise will see the fruition of an effort which was launched on 5 November last year involving an investment of Rs 450 crore.

As of now, the ISRO scientists are gunning for exhibiting confidence about the mission so far especially as India would become the only Asian country to send a space craft to Mars. Secondly, compared to other countries, ISRO, till the time of writing, has not had any hiccup during its mission, something even countries like the US cannot claim.

More important, once the Mars Orbiter Mission spacecraft reaches the proposed target, ISRO would become the fourth space agency after National Aeronautics and Space Administration (NASA), US, Russian Federal Space Agency (RFSA) and the European Space Agency to have successfully undertaken a mission to the Red planet.

For now, however, as ISRO’s scientific secretary, Dr V Koteswar Rao, told newsmen at the ISTRAC, the MOM spacecraft would enter the mysterious planet’s environment after a 306-day voyage through inter-planetary space having cruised through 666-million km in the solar orbit for over nine months. The spacecraft would be inserted into the, Martian orbit on 24 September at 7:30 a.m.

He said ISRO had learnt from the failures of other countries’ initial missions, carefully ensuring that all glitches were avoided even as the MOM completes 90 per cent of its journey’s objective, as of now.

Responding to queries about the health of the MOM, he said that as of now everything was running smoothly. The space agency would be using four ground stations to track the spacecraft including the one at Bangalore, Madrid, Canberra and the US.

The ISRO authorities started sending commands to the MOM spacecraft well in advance. The space vehicle would execute the commands at the appropriate time on 24 September to inject the orbiter into the Red planet’s environment by firing the Liquid Apogee Motor. This would enable the craft to remain in Mars’ orbit for studying its atmosphere for the next six months.

Importantly, the MOM would remain out of communication for about 22 minutes while it is behind the Red planet. During this time, ISRO would not have any radio communication with the spacecraft. This explains why the scientists have fed the commands into the MOM spacecraft in advance for timely execution.

For added measure, Mr Rao explained that the scientists would be reducing the speed of the spacecraft.
CCEA approves ₹930-crore scheme for capital goods sector

New Delhi, Sept 15: The Cabinet Committee on Economic Affairs (CCEA) on Monday approved a ₹930-crore scheme for making India’s capital goods sector globally competitive.

The CCEA, chaired by PM Narendra Modi, approved a scheme titled 'Enhancement of Competitiveness of the Capital Goods Sector' that will mainly cover sectors such as machine tools, textile machinery, construction and mining machinery, and process plant machinery.

The proposed scheme addresses the issue of lack of technological depth creation in the capital goods sector, besides creating common industrial facility centres, an official statement said. The scheme will be implemented in the 12th Plan period and spill over to the 13th Plan with an estimated outlay of ₹930.96 crore, the statement said.

The gross budgetary support from the government for the scheme would be ₹581.22 crore and the balance ₹349.74 crore would be contributed by the industries concerned.

A common engineering facility centre for textile machinery would be set up with active participation of the local industry and industry association under the scheme. Setting up of a 'testing and certification centre' for earth moving machineries is also envisaged in the scheme.