

## TOWARDS AN EDUCATED INDIA: GLOBAL DOWNTURN AND ITS IMPACT ON HIGHER EDUCATION LANDSCAPE

**I**N times of economic slow-down, many businesses have been forced to reduce their number of employees to reduce their costs and increasing losses. This has happened across the globe in the West, South-East Asia, China and in India. Though China is doing better than India in terms of economic growth, their government had warned that 2009 would be the 'toughest year' for the economic development of China and it continues to be so. Many US companies have laid off their employees, but companies like IBM are offering its laid-off employees in North America a chance to take jobs with the company in India, Nigeria, Russia or other countries. In UK, the unemployment rate has reached 6.3%, the highest since the last 10 years. In India, there have been massive job losses in labor-intensive industries. Huge job losses have been reported in sectors like textiles, metals, gems and jewelry, automobiles, transport and IT/BPO which contribute over 65% of country's GDP. For example, the growth rate in IT sector has decreased from 21-24%

to 16-18%. Companies like TCS are planning to move around one fifth of their workforce onsite in US to India, on account of general slow-down and drop in client requirement. In the Western countries, the governments are trying to protect their local populations from lay-offs which have resulted in thousands of expatriate Indians to return home.

### EXPERT SPEAK: HIGHER EDUCATION FORUM

One direct impact in India was on software companies that started delaying recruitment process at the entry level by about 12 to 15 months to ensure that they do not over-hire. Though things are looking up, but the problem remains. What has happened in the past is that people were selected & absorbed by the organizations in anticipation of the projects - many of which did not materialize. The recruitment policy, therefore, has undergone a change. Earlier the companies used to take engineering or management

graduates at least six months before the students passed out but now they want to wait till the students pass out from the college. Many companies think that firing employees is easy, but this may cause long-term damage to the organization, particularly its credibility and the branding. Companies are looking at softer measures to save the workforce from being rendered jobless.

They are looking at an innovative compensation structure, trying to restructure organizational set-up and reviewing product lines. Some companies are making their employees work harder and deliver 120% improvement in performance.

Many companies that think from a long-term perspective do not want to lose their precious talent and hence stand by the side of the employees so that they can work with a renewed confidence and are encouraged to outper-

**The need to acquire right skills in a changing market; post the global melt-down, is a very important one**



form in order to tide over any crisis. At the same time, non-performers are being sent the signal that poor performance will not be tolerated. Companies have realized that this is not the time to lose people but to rebuild capability personally (from employee perspective) and companywide. Hence companies are trying to restructure their businesses and cut costs and prepare strategies to suit the very needs of their or-

ganizations. Many organizations now appreciate the fact that best talent is now available at a lesser cost because of lay-offs.

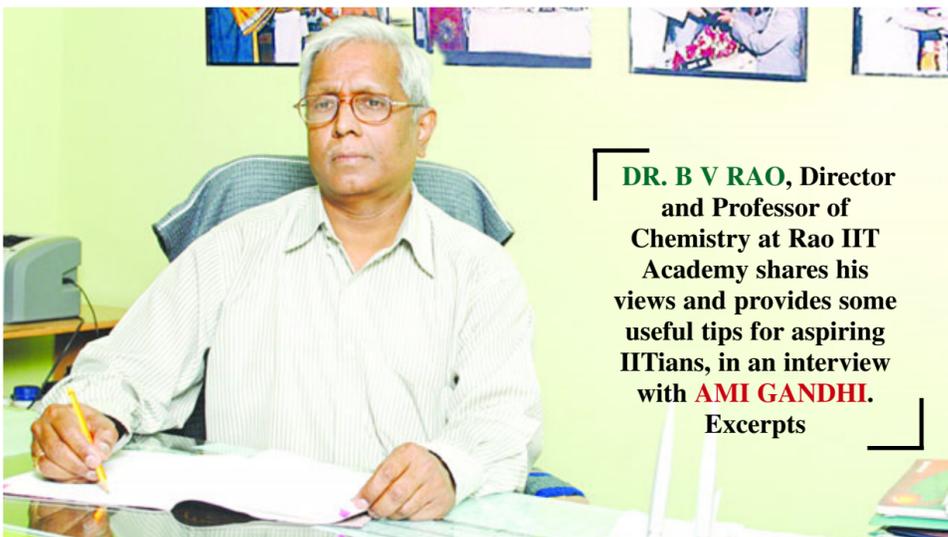
The need to acquire right skills and competencies under the given situation is, therefore, assuming crucial importance. The recruitment processes from engineering as well as business schools are becoming increasingly difficult / tough and the managements of such institutions are increasingly

getting worried. As the job market becomes difficult, the anxiety levels of students also go up in terms of choice of institutions. The result is that several thousands of seats in engineering and business schools remaining vacant.

This problem was not to such an extent before the global crisis. But one good thing that has happened as a result of the crisis is that both the institutions and students are coming to a conclusion

that engineering or management education may not provide the easy visa to a good & lucrative job as used to happen earlier. The other issue that has come to the fore is that it is not education but application thereof in terms of skills acquisition that is more important in this competitive scenario. The curriculum, therefore, is under scanner. The paradigm of building quality in all academic deliverables has assumed importance. What has not happened till now is the realization in the minds of the regulators that before giving approval to new institutions, it is time to look at the broader picture. Whether leaving the entire game to the market forces in a country like India is the right approach is a question that needs answer!

*(This article has been authored by Mr. Sandeep Bhanot, Professor, SIES College of Management Studies, Navi Mumbai and a member of Higher Education Forum (HEF). He may be contacted at bhanot.sandeep@gmail.com)*



**DR. B V RAO, Director and Professor of Chemistry at Rao IIT Academy shares his views and provides some useful tips for aspiring IITians, in an interview with AMI GANDHI. Excerpts**

## TREAT JEE AS A LIFETIME OPPORTUNITY

**Why achieving entrance into an IIT is often considered the pinnacle of achievement for a student?**  
The Indian Institutes of Technology (IITs) need no introduction. They designed to create an environment conducive to the formation of world class Engineers and Technologists, the standards of excellence maintained by these institutes are recognized and respected the world over. It's ranked amongst the top institutes of the world; the degree awarded by the IITs is at par with that awarded by the best universities in the world.

**What is the best way to start preparations for appearing for IIT JEE?**  
IIT-Jee is a test of the ability in Physics, chemistry and mathematics of a student. It not only tests the child's ability in all the three subjects but also measure the student's capability to understand and to apply the knowledge of these three subjects. In each subject for IIT-Jee one needs to study many books. One should complete at least one book thoroughly and try to go through most of the topics, so that all types of questions and concepts are covered. The student should also attend at least 10 mock tests before appearing for the final examination.

**What does this test consist of? What is the current paper pattern?**  
JEE has two papers. Both the papers have three subjects - Physics, Chemistry and Mathematics - and the split is as follows:  
Paper-I: 8 single choice questions, 5 multiple choice questions, 2 paragraphs and 10 integer type questions (Total of 84 questions for three subjects)  
Paper-II: 6 single choice questions, 5 integer type questions, 2 paragraph and 2 match the column (Total of 57 questions for three subjects)

**Knowing the fact that 1 in 50 students get selected in IIT JEE, how can one crack it?**  
Out of 3.98 lakh students, 8000 students were selected in 2009 and out of 4.73 lakh students 12,500 students were awarded ranks in 2010. So the examination has a very meager 2.5-3% success rate. In order to be successful in JEE proper training, serious efforts and guidance, enough test practice are needed. Clarity in conceptual understanding, rigorous practice, calm temperament and enduring patience are the key for success in IIT-JEE.

**Where can s/he apply for admission - once a candidate qualifies in IIT JEE? What are the future prospects?**

The seats in various courses of the institutes (IITs, IT-BHU and ISM Dhanbad) are allotted strictly on the basis of the All India Rank, category rank, and the choices of each qualified student submitted either On-line or Off-line at the time of counseling. It is not only limited to engineering courses as IITs today are offering courses in various other fields like core science, and many others. A selection in JEE is a gateway for the four year B.Tech., B. Pharm., five year B.Arch., M.Tech and M.Sc. courses.

**What kind of reforms are on the cards, with reference to the selection procedure etc.?**  
HRD Minister Kapil Sibal had announced a change in the pattern of selection to the IITs. Of course JEE-2011 aspirants need to worry because nothing changes for them. But after that some changes are inevitable. There are various possibilities like a student's 12th Standard PCM marks could determine JEE rank which, in turn, would require standardization of all state boards, CBSE and ICSE boards.

**What should one look for while selecting any particular institute for IIT JEE? What are the main USPs of Rao IIT Academy?**  
Look for a premium IIT-JEE training academy having vision of quality education and care of students. In today's time when students and parents are getting carried away by top rank projection of various academies it is important to see the overall success rate in IIT-JEE by an academy. The academy with highest percentage selection is a better choice. Look for the institute with the best teaching and management team for students. In RAO IIT Academy, we have an extremely student friendly management. We are the academy in Mumbai today, with highest percentage selection in JEE in 2009 and 2010. As the batch doesn't comprise of more than 40 students, we are able to give proper attention to each and every student.

**Can you give some quick and ready to use tips for the aspirants for the IIT entrance exams?**  
An aspirant must treat JEE as a lifetime opportunity. Give your best possible effort, and try to get the best possible rank. Treat it as a medium to study the three core subjects - physics, chemistry and mathematics to the highest possible level of perfection. Manage your time well between the three subjects. Remember that you have to attempt all three subjects in Paper 1 and Paper 2. Each paper lasts for 3 hours. Some questions may not carry negative marks. So read instructions carefully, and solve the questions which do not carry negative marks as they represent an easy scoring opportunity.

## Mathemagic

BY KAVERI ROY

**A**LBERT Einstein once said that pure mathematics, in its way, is the poetry of logical ideas. At a time when science, technology and banking sectors are ruling the roost, math lovers are set for a plethora of career choices.

As a study, mathematics is the art and science of forms, structures, operations and relationships. It is the very basic for engineering, scientific study, astronomy, physics, as well as to the field of commerce, production, logistics, planning and development. "Be it physical sciences or even the biological and medical sciences, mathematics is the basic tool for both along with commerce and banking," explains Prof. Dr. Jyoti Sengupta, Convener, the School of Mathematics, Tata Institute of Fundamental Research (TIFR).

Once a student is hooked to numbers then, the inclination can help him/her hence forward build a substantial background in mathematics. Math graduation or PhD is a key to some of the most lucrative career options, often under-rated. "Actuaries, computer scientists, mathematicians, statisticians, teachers and many more career options are thrown open to math lovers based on their interest," added Prof. Sengupta. While advanced skills in mathematics have always been a requisite if one wishes to have science-related careers, a math degree gives an upper hand to many software engineers and analysts.

Here's a list of some of the most lucrative options for math admirers to pursue.

### Software Engineer

Software engineers design and develop software for organizations. Mathematics plays a key role in the application of the theories and principles of computer science and analysis for the creation, the testing, as well as the evaluation the software applications and systems. "Most information processing is done in the bits ie. in 0s and 1s, which forms the base of use of mathematics in software engineering. Every command a computer is processed to perform is in math and the logic used has a mathematical base," says Vinod Iyer, a software engineer by profession.

Software engineering is also among the fastest growing occupations and is said to add the most new jobs over the 2008-18 decade, resulting in excellent job prospects.

### Computer Systems Analyst

Information Technology is one of the prime resorts for all organizations, irrespective of the industry, to conduct business and operate efficiently. Computer systems analysts and IT professionals who help or-

ganizations to plan implementing proposed technology and analyze the financial feasibility.

"Every business enterprise needs a lot of analysis to be done in order to achieve the goals set by a technology to be used. There are various technologies available but it is the role of the computer systems analyst to figure out the kind of strategy needed. In simple words, the prime function of a Computer Systems Analyst in to analyse what is the goal and how can we achieve it. We use a number of mathematical techniques such as structured analysis, data-modelling, information engineering, mathematical model building, sampling, and a variety of accounting principles. Mathematics helps understand

### CAREERS



the logic for the right kind of system flow and also find the optimized way for achieving a task," describes Kabir Roy, a former Computer Systems Analyst.

With the growing dependency of IT in every industry, employment in this sector is expected to increase much faster than average. The future looks only brighter as organizations continue to adopt increasingly sophisticated technologies.

**Those who love numbers have a number of careers to choose from**

### Banking

As per the McKinsey report India Banking 2010, the banking sector index has grown at a compounded annual rate of over 51 per cent since 2001. It is projected that the sector has the potential to account for over 7.7 per cent of GDP with over Rs.7,500 billion in market cap, and to provide over 1.5 million jobs. The booming economy has brought immense growth prospects in the consumer banking industry.

Bankers deal with money primarily and hence mathematic skill is the key strengths looked for. Math lovers who are not keen on sciences can cash in on the ever growing Indian banking sector.

### Actuary

Have you ever wondered who decides as to what amount of money an insurance policy holder should pay as premium or what sum should be given as pension amount or returns by the company? Here's where an actuary steps in. In technical terms, s/he assesses the financial impact of an uncertain future event by combining the skills of a statistician, an economist and also a financier.

Mathematics not only plays an important role in this profession but is also a prime requisite just like in any other physical sciences for eligibility of a student to even pursue the degree. For finance enthusiasts with a keen interest for math, the profession is tailor made along with the emerging insurance-sector.

So all those enthusiastic for their numbers, get crunching ahead.

## MADURAI KAMARAJ UNIVERSITY

DDE RECOGNIZED BY DISTANCE EDUCATION COUNCIL (DEC)

Professional Courses		IT Courses	
M.B.A. Finance	(2 Yrs)	M.C.A. Any Degree with Mathematics at +2 Level (3 Years)	<b>P.G. Courses (2 Years)</b> M.Sc. Maths/Physics/Chemistry/Electronics & Communications M.A. History/Economics/English/Tamil/Political Science/Psychology/Criminology & Police Admin / Public Administration / Gandhian Thought / Philosophy and Religion / Hindi. M.Com*
M.B.A. Marketing	(2 Yrs)	M.C.A. B.Sc. (C.S.O) / B.Sc. (IT) Lateral Entry B.C.A. / Any Degree with P.G.D.C.A. (2 Years)	
M.B.A. Human Resources	(2 Yrs)	B.C.A. Pass in +2 (3 Years)	
M.B.A. System	(2 Yrs)	Lateral Entry pass in (2 Years) 10th Std with any 3 Years Diploma Qualification Polytechnics.	
M.B.A. Production Management	(2 Yrs)	B.Com., (Computer Application) Pass in +2 (3 Years)	
M.B.A. Retail Management	(2 Yrs)	B.B.A., (Computer Application) Pass in +2 (3 Years)	
M.Com., Banking	(2 Yrs)	P.G.D.C.A. Any Degree (1 Year)	
M.Com., Co-operative Management	(2 Yrs)		
M.A., Labour Management	(2 Yrs)		
M.A., Tourism Management	(2 Yrs)		
M.A., Advertising Public Relation	(2 Yrs)		
M.A., Journalism & Mass Communication*	(2 Yrs)		
B.G.L., Bachelor of General Law	(2 Yrs)		
B.L.I.S.C., Bachelor of Library & Information Science	(1 Year)		
M.L.I.S.C., Master of Library & Information Science	(1 Year)		
M.Sc. (T.H.M) Tourism & Hospitality Mgmt.	(2 Yrs)		
B.Sc. (T.H.M) Tourism & Hospitality Mgmt.	(3 Yrs)		
P.G. Diploma Tourism Management	(1 Year)		
P.G. Diploma Hotel Management	(1 Year)		
P.G. Diploma Nutrition & Dietetics	(1 Year)		
P.G. Diploma Bio Statics	(1 Year)		

17/19, Hira Building, Mint Road, Opp. GPO, Near CST Railway Station, Mumbai 400001.  
Tel: 22630666 / 22630667 Mob: 9757429739 / 9892463609  
E-mail: mkuclst@gmail.com **EXAM CENTRE IN MUMBAI**