Success stories: husk remover, wet grinder...

The success rate is higher when inventors are supported by facilitators

There have been many innovations which have been converted into marketable products. For some, technology transfer took place with the assistance of Technology Business Incubators (TBIs).

Experts agree that TBIs are a great support when it has come to hand-holding in identifying the market, conducting market research, assessment of business potential, structuring and negotiating deals for technology transfer.

“Out of all the innovations that are reaching TBIs, 50% of them are being converted into successful marketable products,” says Anil Wali, director, FITT, IIT Delhi. Some of the innovations by IIT, Delhi researchers that have been converted into cost-effective products are colourless/waterless urinal trap, decoricator (husk remover) of hard nuts, canal lining products etc.

Lovely Professional University, which developed a medicine for colon cancer, has signed an MoU with a pharmaceutical company for its manufacture. Vellore Institute of Technology’s TBI helped the creator of a “wet grinder” fetch good compensation by transferring the technology to a manufacturer in Chennai.
JEE: Prepare, plan and act

No need to fret; chart your course for success

Ramach Balitch

HT, New Delhi

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IT Joint Entrance Examination (JEE) is about six months away, it's time for you to gear up. The new selection system gives importance to Class 12 board marks, so one must prepare for both the exams simultaneously. The student must prepare NCERT problems while brushing up JEE chapters. For better preparation, one can join a test series programme. These tests not only check an individual's level of preparation for the JEE but also make him / her aware of one's command over the subject, strong and weak areas and writing speed. Here are a few tips that can help you make a mark:

Time management
While dealing with exam pressure, time management plays a crucial role. Here are some tips:

- Divide six months aptly for the three subjects
- Prepare a chapter-wise and topic-wise revision schedule
- Create short notes, list all formulas and points to remember. This will help in quick revision.

Correct methodology
The correct approach for those appearing from the first or second (last) time is to stick to one source and not refer to a multitude of books/study material available in the market. For example, an engineering student must prepare all topics covering physics, chemistry, and mathematics from the Central Board of Secondary Education (CBSE) syllabus of Class 11 and Class 12 for JEE (main). However, for architecture, one has to additionally prepare for the aptitude test and drawing test.

Month-wise planning
November-February:
One can utilize time for JEE preparation by focusing on each chapter separately. Muree: Keep this month mainly for board exams, except for certain days when you can solve papers for JEE.

April:
As JEE (main) is Scottish April and JEE (Advanced) is April 2019, one can only revise formulas and make mock tests. Students, who will clear JEE (main) are advised to take reputed JEE (advanced) mock tests. All subjects — physics, chemistry, and mathematics—are equally important, thus one must devote at least two-three hours to each subject on a daily basis. It's the quality of time spent on self-study that matters, not quantity. It is advisable to take a minimum of 20 mock tests based on the new pattern from a reputable source and solve at least last five years' JEE papers.

Important topics
The syllabus of Class 11 and 12 contribute about 45% and 55% of JEE (main) question papers, respectively. While preparing, put more stress on the following topics:

Mathematics:
- Quadratic equations and expressions
- Calculus
- Differential equations
- Statistics
- Vectors
- Mechanics
- Physics: Mechanics, Fluids, Heat and Thermodynamics
- Electricity and magnetism
- Optics and Modern Physics

Chemistry:
- Coordination Chemistry
- Chemical Bonding in Inorganic Chemistry
- Electrochemistry
- Chemical Kinetics

Organic chemistry:
- As they say, practice makes a man perfect. Practice as much as you can for JEE. Generally one must keep in mind the following things while preparing:
  - Start from the basics
  - Don't refer to solutions till you get the right answer
  - Never leave the question midway because one must know till what level their concepts are clear
  - Always keep a conceptual approach and understand the question properly. Never cram.
  - Spare some time to relax
  - Study on a regular basis
  - Sleep for at least six hours a day to refresh your mind
  - Never lose your self-confidence
  - Keep in touch with intelligent students of your class or coaching centre to get that extra edge
  - Make it a point to appear in all the major Olympiads, KVPY, SAT, advanced placements etc.
  - Improve your aptitude and analytical ability

Prepare as per prescribed syllabus of the exams. Don't over-stress yourself.

Whenever you complete a chapter or topic, go through that topic again from NCERT books so this would prepare you for the boards as well.

Problem-solving should be more qualitative than quantitative.

If one has the right attitude, then even an average student can clear it successfully.

The author is FFT/JEE head, Noida

All you need to know about GATE

Here's the low-down on the pattern and why it helps to take this test

Preetis Reddy

The 21st century is here. The Indian Institute of Technology (IIT), New Delhi, recently introduced the GATE (Graduate Aptitude Test in Engineering), bringing out the GATE notification, which introduces some changes in the examination, scoring system, etc. Only 18 papers in GATE are to be conducted online this year.

This is in line with gradually shifting the test towards the online mode. Many papers were given online in 2019, and in 2022, this should not be seen as a hurdle but rather an advantage, as it is compatible with the examination pattern and syllabus of the examination. BBM and IIT Indore Engineering (BME) Centre for selecting students with a consistent performance. The entrance examination is conducted by the Indian Institute of Science and seven IITs (Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee), primarily checking the candidates' comprehensive understanding of various undergraduate subjects in engineering and technology.

One must keep in mind that the GATE score is significant for admission into various graduate programs in India. The score is also considered for admission into various graduate programs in India. The score is also considered for admission into various graduate programs in India.

The GATE score is only one among the various factors that determine admission. In addition to the GATE score, the candidates are also evaluated based on their academic performance and the results of other competitive examinations.

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IIT KHARAGPUR TO ORGANISE KSHITIJ IN FEB

BHOPAL: IIT Kharagpur will host its annual techno-management fest-Kshitij-from February 1st to 4, 2013. Engineering students from any part of the country can take part in it.

To participate in the fest the students need to register on the website, www.ktij.in. It recorded a whopping 8 million hits last year, says a press release. As per the release, Kshitij offers a national-level platform for the students to showcase their technical and managerial prowess in over 40 events encompassing 9 diverse genres. The release says the association of globally-reputed organisations like ACM, ASME, IMechE, IEEE and ASHRAE with flagship events stands testimony to the outstanding quality of participation in the fest.

ACM certifies the popular night-long coding competition ‘Overnite’ while the aircraft designing competition ‘Laws of Motion’ is backed by IMechE (Institution of Mechanical Engineers). These events are sponsored by the likes of Facebook, Google, IBM, Tata and Barclays Capital, among other noted Fortune 500 companies.

In the event ‘B Plan’, the budding entrepreneurs can submit the executive summary of their business idea and receive huge incubation from angel investors and venture capitalists to kickstart their dream venture.

Apart from events, Kshitij organises guest lectures featuring eminent personalities from the world over. In the past, dignitaries like Nobel laureate Sir James Mirlees, co-founder of Wikipedia Jimmy Wales, inventor of the USB Ajay Bhatt as well as acclaimed actor Nasseruddin Shah have addressed the students.

HTC
‘30% enrolment goal in higher education’

Pulwama (Jammu and Kashmir): Union human resource development minister Kapil Sibal on Tuesday said private educational institutions would have to play a key role to achieve the target of 30% enrolment in higher education by 2020 at national level.

“When we will have maximum number of students passing out from schools, the enrolment ratio will increase. We have set a target of 100% retention in schools by 2020,” Sibal said at a function near Srinagar. PTI
Apple Inc, facing competition, introduces a smaller iPad

Apple senior vice-president of worldwide marketing Philip Schiller introduces the new iPad mini during an Apple event in San Jose, California on Tuesday.

"The iPad is the top-selling tablet in the world, but we're not taking our foot off the gas," said Tim Cook, Apple's chief executive, at a press conference here. The introduction of a smaller iPad is a bit of a shift for the company. In 2007 with the first iPad, Apple introduced a 7.7-inch tablet from competitors like Samsung and Research In Motion were "swimmers" that were too big to compete with a smartphone and too small to compete with an iPod. The new iPad Mini is slightly larger than 7 inches, but can still fall into that category. But with all the action in the technology market, smaller tablets have become impossible to ignore. Google, Apple's closest competitor, recently released its 7-inch Nexus 7 tablet for $330. And Amazon recently introduced seven new Kindles, including a 7-inch tablet for $150 and an 8.9-inch tablet for $300. Barnes and Noble's Nook tablet, which starts at $300, has also sold well. Combined, the three companies have sold about 15 million of these smaller, cheaper tablets, according to estimates by forecasters. Apple recognizes it now has more real competition. At the event, Schiller actually did a side-by-side comparison of the Mini to the Google Nexus 7 tablet. He said that other companies had tried to make smaller tablets, but that they were inadequate. He noted that the iPad Mini was thinner, lighter and more durable than Google's tablet, and still had a bigger screen.

"Others have tried to make tablets smaller than the iPad but they've failed miserably," Schiller said at the press conference here while showing screenshots of apps running on the Nexus 7 and iPad Minis side-by-side.
Microsoft gives a peek at new Windows, tablet

Agence France-Presse
Shanghai, Oct 23
US computing giant Microsoft on Tuesday gave an early peek to the key Chinese market of its new tablet computer and Windows 8 software, promising a “fast and fluid” operating system.

Microsoft will launch Windows 8 and the Surface tablet computer, designed to compete with Apple’s popular iPad, in the US on Friday. The launch of the two products in China is the same day.

Windows remains the dominant platform for personal computers, but it has lost ground to Apple and Google in newer devices which use rival operating systems.

“With Windows 8, we introduced this fast and fluid experience that works across a broad range of different types of PCs (personal computers),” said Steven Sinofsky, president of Microsoft’s Windows division.

“Windows 8 seamlessly moves between a world of touch-only tablets to laptops that have touch screens to desktops and to portable computers without touch screens,” he said in a speech to the media in Shanghai.

Microsoft’s new tablet was designed to be a platform for Windows, Sinofsky said, as he compared the challenger to Apple’s iPad.

“Even though it’s bigger than an iPad, it’s actually lighter in your hand because of the way the physics of the design work,” he said.

The Surface has a full-sized USB port unlike the iPad, a built-in stand and a cover which doubles as a keyboard, he said, ticking off the features.

The tablet runs the new Windows RT, a form of Windows 8, and comes with Microsoft Office 2013, he added.

It is not Microsoft’s first foray into the tablet market. In 2000 the company unveiled a prototype tablet PC and shortly after began licensing its specifications to various manufacturers.

Some who have tested Windows 8 complain about the change from earlier versions of Windows, which could force users to relearn how to operate their computers, the New York Times reported Sunday.