ing. The Internet will change the way we think. Youngsters are becoming a little irreverent'. And according to Mashelkar, this irreverence could eventually save India.

1. Unnikrishnan, M. K., *Curr. Sci.*, 2003, **84**, 484.
2. Kar, A., *Curr. Sci.*, 2004, **86**, 7.
3. Chopra, K. L., *Curr. Sci.*, 2004, **86**, 497.
4. Mashelkar, R. A., *Curr. Sci.*, 2003, **85**, 860–870.

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Women in science

This is with reference to the 'news' item by Monika Kaul Moza[1]. While I am glad to see this news item, I must confess that I am rather distressed with the word 'Luring' in the title. Let me say at the outset that I very much commend the DST for having started such a scheme. The scheme indeed has been a godsend for many of the recipients of this DST award. I myself have 'shown off', in talks to an international audience, the much more enlightened approach of the Indian national science agencies to aid the women who have had a break in their scientific careers due to the usual extracurricular reasons.

In fact, I personally know of many such women scientists who had been desperately looking for ways to get back to the way of life that they have had to leave for a while. However, I am sure that none of them needed to be 'lured' back to science. Removing obstacles in their return to science and facilitating ways to help them get out of the state of being stiffled, can hardly be termed 'luring'. I cannot but help feel that the use of the word is a reflection of the unconscious bias that we all seem to have that women need to be told what is good for them!

Incidentally, the utility of this otherwise useful piece of news would have been further enhanced had a web address been given where the interested women scientists could get more information on the scheme. Such information and application forms are available at: http://dst.gov.in/doc/wos_advt.doc, and http://dst.gov.in/scprog/women.htm As an aside, the word 'fellowships' might be better suited to describe these awards rather than 'scholarships'. The news item uses the two words interchangeably.

Apropos women in science, it may be mentioned that both, the Indian Academy of Sciences (IASc) and the Indian National Science Academy (INSA), had formed over the past two years, special committees to look into the issue of women in science. The IASc committee came up with a set of recommendations for action points for the Academy to facilitate better and higher participation of women in science. Some of those may be taken up soon. The INSA had set up a committee to bring out a report on women in science. This report, based on a survey conducted by the Research Centre for Women's Studies (RCWS) of SNDT University, has been released on 11 October, in Delhi and copies should be available soon. A further brainstorming meeting is also being planned where specific course of action to be taken by various science agencies and organizations to improve the situation may be discussed further.

Note added in proof: The University Grants Commission has also recently announced 100 awards of part-time research fellowships for unemployed women who hold a Ph D degree, to pursue research in many different disciplines. The award is for a maximum of five years and the terms seem very reasonable. I came across the advertisement in the *Times of India* of 20 November 2004 and at present do not know official websites etc. where more information may be available.

1. Moza, M. K., *Curr. Sci.*, 2004, **87**, 852.

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CET watch 2004: The middle class love affair with 'scope'

It has been known for some time that the middle class (an euphemism for the top 5% or so of the population) has a fascination for disciplines that have 'scope'. I became acutely aware of this when my son came up for counselling a few years ago. While it was clear to us that he should go into Mechanical Engineering discipline, because he bought my argument that Mechanical Engineering was the 'Mother of all Engineering', most of his coevals were opting for the Information and Communications Technology (ICT) branches. We were bemused by calls from well-wishers who wanted to know why our son was choosing a 'useless branch'. Our answer was that it was natural since he came from a family which had three generations of civil, mechanical and aeronautical engineers. Others asked, 'Does Mechanical Engineering have scope?'

Many years ago, when I wrote a review for *Current Science* of A. P. J. Abdul Kalam's *Wings of Fire*, I found myself preaching, hopefully addressing my younger audience of aspiring engineers that 'I was particularly intrigued by the following paragraph on pg. 18, which I thought the most meaningful lesson for a young person preparing for a professional life:

"The trouble with Indians [was] not that they lacked educational opportunities or industrial infrastructure – the trouble was in their failure to discriminate between disciplines and *to rationalise their choices,"*

a lesson that young Kalam learned from Sponder, an Austrian aeronautical engineer who taught him at the Madras Institute of Technology. It was Sponder who, as it were, dedicated Kalam to a life in Aeronautical Engineering. Kalam's own well-meaning advice to all novitiate engineering students is "that when they choose their specialization, the essential point to consider is whether the choice articulates their inner feelings and aspirations". All those young men and women who rush headlong into software careers should pause and reflect.'

But no, the middle class today is made of sterner stuff. Scope is what matters. To test this, I followed the tables that *The Hindu* carried each day while counselling was in progress for the engineering seats due for allotment based on the results of the Karnataka Common Entrance Test (CET) for 2004. At the end of the first day of counselling (8 August 2004), of the 927 seats that were allotted, 92% went to the main ICT branches (Electronics, Computer Science, Telecommunications and Information Science). Only 6% of the candidates opted for the core engineering branches of Mechanical, Electrical and Civil Engineering. In fact, of the 927 top-ranking candidates of CET 2004, only one brave student chose civil engineering.

I continued to track the progress of CET 2004 counselling until it was discontinued after 13 days because our body politic is still not sure who should pay for education. Figure 1 shows the way the seats were allotted for what I call some of the main core and ICT branches, i.e. how the students have opted for branches while counselling was conducted for the Karnataka CET 2004. It is seen that on the first 13 days of counselling, when counselling was interrupted, Electronics and Computer Science were the most popular choices followed by Mechanical and Infoscience (not shown in the figure). Also shown for comparison is the filling up rate for Civil. The graph speaks for itself.

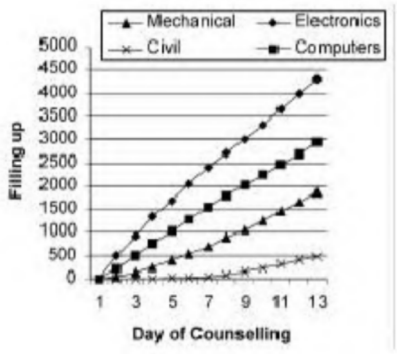

Figure 1. The diagram shows how the students have opted for branches while counselling was conducted for the Karnataka CET 2004. It is seen that on the first 13 days of counselling, when counselling was interrupted, Electronics and Computers were the most popular choices followed by Mechanical and Infoscience (not shown in the figure). Also shown for comparison is the filling up rate for Civil.

Table 1 shows that the filling up rate at the end of ten days of counselling had improved somewhat in that the ICT disciplines were filling up only 72% of the total engineering seats (down from 92% on the first day). The core engineering disciplines accounted for only 22%.

This is still worrying. The core engineering people are the ones who build up a nation's civil and industrial infrastructure. They are the ones who bake the cake. The ICTwallahs only put the icing on the cake. Our middle class is building up the icing makers and leaving the baking of the cake to others less endowed or less fortunate. As R. A. Mashelkar once told me many years ago, when this mad obsession with software began, 'You can't eat software, you can't drink software, and you can't bathe with software'.

Table 1. The filling up rate at the end of 10 days of counselling in Karnataka. The ICT disciplines were filling up nearly 72% of the total engineering seats. The core engineering disciplines accounted for only 22%

Course	Rate/day
Electronics	366.3
Computers	247.4
Mechanical	145.8
Electrical	79.4
Civil	31.9
Telecom	60.7
Infoscience	122.3
Total	1150.1

I would like to end this piece with another anectode. I was asked more recently by a young aspirant, 'Uncle, does aeronautical engineering have scope?' Unhesitatingly I answered, 'Yes, one of us has just become the President of India'.

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Reminiscences of G. N. Ramachandran

The editorial[1], 'Revisiting an old triumph' brought to my mind vivid memories of G. N. Ramachandran, the doyen of Indian science in the post-independence era. On my return to India in 1972 after completing my doctorate degree in high energy nuclear physics from Marie Curie University, Paris, I was on the lookout for joining a research group of my interest in TIFR, Bombay to work as post-doc fellow under the Indo-French collaboration on K^0-meson investigations. My efforts to join this research collaboration were frustrated and I was so dejected that I wanted to return to Paris. At that time G. N. Ramachandran was heading the Molecular Biophysics Unit at the Indian Institute of Science (IISc), Bangalore and he came to my rescue. He very kindly invited me to join a Summer School held in April 1974 at IISc, if I wanted to pursue my research activity in the field of Molecular Biophysics. I was interested in Radiation Biology and submitted a research project to CSIR. I participated in the Summer School as advised by him but found to my dismay, the course contents heavily loaded with organic and stereochemistry. At the end of the Summer School, I told Ramachandran that my research training in Paris would be of no use if I joined the Molecular Biophysics Unit. Moreover, I was much too scared of the Biochemistry taught during the