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.

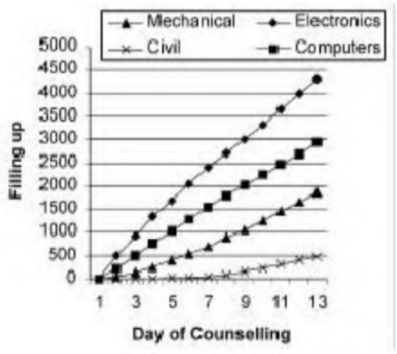

Figure 1. The diagram shows how the students have opted for branches while counselling was conducted for the Karnataka CET 2004. It is seen that on the first 13 days of counselling, when counselling was interrupted, Electronics and Computers were the most popular choices followed by Mechanical and Infoscience (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

four weeks at IISc. So my romance with Molecular Biophysics ended and I joined Punjabi University, Patiala to work on a project in geochronology.

During my brief sojourn, I observed that Ramachandran was an introvert, a thorough gentleman who was least interested in publicity and fanfare in which our self-seeking bureaucrat–politician–scientists indulge these days. He was rated as the topmost scientist in India who had won laurels at the international level. I fully agree with the remarks that he remained a reclusive figure, ignored by press and powers that be, as we Indians are accustomed to seeing the greatness of our scientists through the eyes of foreign judges. In my estimation, the work of Ramachandran deserved a Nobel Prize.

1. Balaram, P., *Curr. Sci.*, 2004, **87**, 549–550.

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Research papers from non-*SCI* journals can be indexed in *SCI*

Science Citation Index (*SCI*) is one of the best tools for information retrieval and dissemination. There is a growing trend that the papers indexed in *SCI* are considered as valuable ones. As *SCI* database includes only ten Indian journals for source items, a large proportion of Indian research papers are being published in non-*SCI* journals. Sometimes it creates confusion among authors who publish in non-*SCI* journals as to whether their paper can be indexed in *SCI* or not. The *Citation Index* of the *SCI*® lists all the references (cited items) found in footnotes and bibliographies of journals (citing items) covered in the *SCI*[1]. So when a paper is cited by a *SCI* source item or *SCI* source journal (*SCI*-SJ) then it gets indexed in the *Citation Index* part, which helps in tracing a piece of information, but all may not be indexed in the *Source Index* part (*Source Index* contains entries for all items from each journal covered by the *SCI*). That is why some papers published in *Indian Journal of Chest Diseases and Allied Sciences*, *Indian Journal of Experimental Biology*, *Indian Journal of Gastroenterology*, *Indian Journal of Pediatrics*, *Indian Journal of Physiology and Pharmacology*, *Indian Journal of Surgery*, *Indian Heart Journal*, *Indian Pediatrics*, *Journal of the Indian Medical Association*, *Neurology India*, etc. are indexed whereas these are not found in *SCI* list of source journals. For example, the article in *Indian Heart Journal*, 2002, **54**, 404 is indexed in *SCI*, because it is already cited four times in *SCI*-SJs (*Annals of Internal Medicine*, 2004, **141**, 169; *Journal of the American College of Cardiology*, 2004, **43**, 12S; 2004, **43**, 1149; *Circulation*, 2003, **108**, 2066). I have searched nearly 50 papers out of the 272 published in the year 2002 of *Indian Pediatrics* that are cited more than 60 times in total by *SCI*-SJs. Sometimes a paper is being indexed in *SCI* by self-citation or team-citation in a *SCI*-SJ. So an article having intrinsic quality can attract worldwide acknowledgement. Elsevier is currently developing a bibliographic database including citation called *SCOPUS*™, which includes more Indian biomedical journals for source items.

1. *Science Citation Index 2002*, *Annual Guide and List of Source Publications*, Institute for Scientific Information, Philadelphia, 2003.

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Is Diclofenac the only cause of vulture decline?

'Vulture population decline, Diclofenac and avain gout' by Arun and Azeez' makes good reading and may generate further debate on the issue of vulture decline, which needs more insight. These authors have rightly opined that it is premature to conclude that Diclofenac is the main factor for the decline of vulture population. This is contrary to what has been said in the study conducted in Kasur, Khanewal and Muzaffargarh and Layyah districts of Pakistan[2]. This study was restricted to Oriental white-backed vulture (*Gyps bengalensis*). But no study on Diclofenac-poisoning has ever been undertaken on any of the three *Gyps* vulture species found in India. Statements like 'Population of all three *Gyps* vultures, namely white-backed vulture (*G. bengalensis*), long-billed vulture (*G. indicus indicus*) and slender-billed vulture (*G. tenuirostris*) has declined drastically to below sustainable limits throughout their distributional range', is therefore incorrect. The study from Pakistan cannot be generalized and should not be applied to all the three *Gyps* species. This view is based on our long-term intensive eco-ethological studies conducted in and around Jodhpur, Thar Desert, Rajasthan[4–8] for about a decade. We view the statement made by Arun and Azeer[1] that 'serious ecological studies and long-term population monitoring programmes need to be targetted on urban birds population' is in place. We have found seven species of vultures at one time in our study area. These include king vulture (*Sarcogyps calvus*), long-billed vulture (*G. indicus*), slender-billed vulture (*G. tenuirostoris*), white-backed vulture (*G. bengalensis*), Egyptian vulture (*Neophron percnopterus*), cinereous vulture (*Aegypius monachus*), Himalayan griffon (*G. himalayensis*) and Eurasian griffon (*G. fulvus*). The first five are resident and the rest are migratory species. Since 1995, we have been studying their habitat preferences, ecology, population dynamics, etc. by monitoring their nesting sites, feeding ecology, breeding success, inter- and intra-species interactions, seasonal migration, predation, etc. During 1995–96, we counted, photographed and videographed 630 vultures of seven species. Our demographic study is being continued. The 2003 census yielded 927 individuals. However, we did record population decline of long-billed and white-backed vultures to about 24 and 40% respectively, between years 1995–96 and 2003. On the contrary, the Egyptian