

research establishment and the fast reactor programme took concrete shape. It is known that he was also working on other major schemes such as the agro-industrial complex with nuclear energy as the driving force and much ahead of his times he tried to bring in modern management practices in the Department of Atomic Energy. To say that he neglected the nuclear programme is a malicious statement. On p. 8, it is said that the Indian government has given greater importance to weapons development rather than production of electricity. There is nothing to show, in terms of money, manpower or effort, that the weapons programme took precedence over the nuclear power programme. On p. 34, it is said that construction of Tarapore Atomic Power Station commenced in 1964 but could be completed only in 1969, a year later than was scheduled. But on p. 58, the authors say that power station at Tarapore was delayed by more than 5 years! On p. 40 it is said, '... although experts believe the useful life of a nuclear power reactor is about 30 years'. Which experts are they talking about? 30 years is taken only for costing purposes and it is well established now that with 'extension of life exercises' carried out, power reactors can safely operate for 50 years and more. On

p. 41, it is said that the engineers of DAE claim that adequate safety measures to withstand any seismic disturbances have been taken in the design of Narora power plant but their optimism remains to be proven. DAE's claim is not without basis. The power plant design is based on a very thorough study by the nation's top experts in earthquake engineering. On p. 68, the authors say the slow progress made in the atomic energy programme throughout the 1950s and early 60s invited strong criticism from many quarters. On the contrary, during that period the progress in the Indian atomic energy programme was considered to be remarkable and unparalleled. Starting from scratch, with the primitive infrastructure of a developing country, the programme built APSARA, the first atomic reactor in Asia, CIRUS, a powerful research reactor and a reprocessing plant, which very few countries in the world possessed then. It is only in the field of atomic energy, India was ranked amongst the leading developed countries in the world.

What is given above is just indicative. The list in both the categories can go on and on. Lastly, both Raghavan and the author have said that Krishnan seems to be unaware of the fact that one of the authors worked in BARC. I am aware that

Sarma was in the group making some neutronic measurements at APSARA. I am also aware that BARC is the nation's premiere, multidisciplinary research centre with over 15,000 persons working on a whole lot of subjects ranging from quarks and gluons to genomes. Not all of them are experts in reactor technology. In any case, a book has to be judged by what it contains and not by the claimed connections of its authors.

Considering all the above, Krishnan's review of the book is quite moderate, even magnanimous. The word 'vituperative' used by Raghavan seems to be applicable to the book itself rather than Krishnan's review of the book.

1. Raghavan, A. K., *Curr. Sci.*, 2009, **96**, 752.
2. Krishnan, L. V., *Curr. Sci.*, 2008, **95**, 1747-1748.
3. Sarma, N. and Banerjee, B., *Nuclear Power in India*, Rupa & Co, New Delhi, 2008.
4. Nataraja Sarma, *Curr. Sci.*, 2009, **96**, 1435.

D. V. GOPINATH

208, IV Cross, I Stage,
Gangotri Layout,
Mysore 570 009, India
e-mail: dvopinath@gmail.com

Delinking incentives from the age of Fellows of scientific academies and SSB awardees

A strong case for delinking incentives for innovation from age of Fellows and SSB awardees has been made by Saidapur¹. He has discussed the issue in detail and suggested modification of UGC Circular Clause 3.3 of UGC guidelines dated 24 March 2009. He has delineated the whole issue effectively. Fellows working in state universities retire at 60 years of age. These schemes should be broad based and linked with performance rather than with more emphasis on age and remove anomalies/disparities. It is worth mentioning here that recently MHRD has enhanced retirement age from 60 to 65 for teachers of IIT and central universities. The main purpose of this action was to retain experienced teachers and good established researchers for the benefit of a large number of brilliant youngsters and also to maintain/accelerate the quality of research activities.

Fellows of prestigious science academies and SSB awardees have set novel precedents in attaining much higher academic achievements and have been pursuing to sustain it. Their vast accumulated knowledge and experience is an impetus towards this effort. The national consensus is to enhance the academic quality of our institutions, especially state universities, which will be met if suitable measures are introduced on priority. Universities should attract and retain a pool of talented and committed scientists to work in various departments and influence younger colleagues to imbibe high quality research and teaching. The primary requirement of a university is to engage in knowledge creation with wider and lasting impact on learners and on society as a whole². It is quite apt to note that eminent scientists are embarking on US universities after superannuation to

contribute to the overall academic development whereas in India the policy is quite contrasting.

When sufficient care is not taken, while sending circulars, many teachers and researchers from various institutes (especially state universities) will be deprived of these benefits and the very purpose of the scheme is defeated and it amounts to a kind of discrimination. It is necessary for the UGC and CSIR to modify and send the revised guidelines for implementation uniformly all over India immediately.

1. Saidapur, S. K., *Curr. Sci.*, 2009, **97**, 467-468.
2. Yashpal, *Yojana*, 2009, **53**, 8-12.

N. M. BUJURKE

Karnatak University,
Dharwad 580 003, India
e-mail: bujurke@yahoo.com