Amazing events in SKR’s life and the men behind them

I have read the obituary of S. K. Rangarajan (henceforth referred to as SKR, the name he was popularly known by), published in Current Science with great interest. As stated there, SKR started his career as a film critic, changed a number of jobs, and finally evolved as a Distinguished Professor at the Indian Institute of Science (IISc), Bangalore and later at the Institute of Mathematical Sciences (Matscience), Chennai. There are many amazing facts in his life and works. With only a B A (Hons) degree in mathematics, he became an Assistant Professor in mathematics in an engineering college two years after his graduation. This is quite unusual and has few parallels, as all colleges prescribe a Master’s degree as the minimum qualification for a teaching position. The principal of the college must have been more than a routine administrator in recognizing the potentials of SKR.

With only a Bachelor’s degree, for SKR to actively pursue research in special functions and publish 17 papers is also unusual. This amply illustrates the kind of genius that he was. From special functions to developing a theory of Faradic rectification in the domain of electrochemistry, and that too in a couple of days, is another amazing achievement. K. S. G. Doss, the then Director of the Central Electrochemical Research Institute (CECRI), Karaikudi, at whose request SKR solved this problem, was quick to recognize the talents of this man and was bold enough to offer him a scientist’s position at his institute. Doss must have broken all rules of CSIR to offer a scientist’s position in electrochemistry to a Bachelor’s degree holder in mathematics, for which, again, a Master’s degree in the relevant field must have been the minimum qualification. But SKR proved his worth by doing
excellent work in electrochemistry at CECRI, so much so that he was invited by the then USSR Academy of Sciences by none other than A. N. Franklin, a giant in the field of electrochemistry.

SKR’s next job was at the National Aeronautical Laboratory (NAL), Bangalore, first as a Homi Bhabha Fellow and later as a scientist, apparently at a junior level. After spending five years at NAL, SKR got the biggest jump in his career, due to the talent-spotting capability of another giant – Satish Dhawan – the then Director of IISc, who personalized an outstanding mix of academics and administration. Dhawan wanted to appoint SKR as an ‘Institute Professor’, the highest level at the IISc, the only other person holding such a position being G. N. Ramachandran. However, the Council did not approve of this in view of his previous position as a junior scientist in a CSIR laboratory and his highest degree. However, Dhawan succeeded in offering SKR the position of ‘Senior Professor’ in the Department of Inorganic and Physical Chemistry. Did anyone else, with an Indian B A degree ever occupy the position of a Professor at IISc? Many other talents were spotted and inducted into the IISc by Dhawan, but SKR’s case must have remained unique in its history. (Here I am reminded of Ashutosh Mukherjee who had spotted C. V. Raman, an MA degree holder, and invited him to the prestigious Palit Professorship in physics at the Calcutta University.)

For four years, SKR went on deputation to CECRI as Director. Is there any other example of a B A degree holder occupying the position of the Director of a CSIR laboratory? Yet another amazing event in SKR’s life is the invitation by MatsuScience to join the same as a Senior Professor. Again, in the history of MatsuScience, is there another such instance? A versatile talent like that of SKR is indeed rare to find. Mathematics, electrochemistry, theoretical physics, mathematical modeling of engineering problems and English poetry were all close to his heart, and he made original contributions to each field.

It is gratifying to note that unlike many unsung heroes, SKR got many recognitions and appreciation, including the Fellowship of all the national science academies during his lifetime.


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In memory of K. R. Rao, BARC and Editor, Physics News

I am deeply pained to learn about the sad demise of K. R. Rao (Current Science, 2008, 95, 1507–1508). An outstanding scientist, Rao’s scientific achievements were in the area of condensed matter physics. He carried out phase transition simulation studies as well as neutron scattering studies in metal oxides and other materials at Bhabha Atomic Research Centre, Mumbai. He was also serving for Indian Physics Association as Editor, Physics News. I hardly knew him personally, but as a new entrant to DST system in 1980s, I have cherished his memories through a communication inviting me to contribute to Physics News about DST’s programme on Thrust Areas in Physical Science. P. J. Lavakare, heading the SERC Division in DST, encouraged me to write as it was recognition to DST’s contribution and a new direction in support for physics research based on DST policies.

Thereafter I worked in DST in different divisions. When in the Earth System Science, I was asked to coordinate country wide MONTBLEX-90 and other national programmes in atmospheric science during early 1990s. In the subsequent years, technology assessment and technology development projects became priorities for me. In the last few years I was constantly reminded of my first few days in DST, when we were told to learn about national science. Coming from a premier technology institute in the country and having adequate research publications in journals of international repute, I knew science is international and wondered how national science could be different from that. Evidently basic research is open ended and is international. Therefore, it is only the strategic, applied or industrially directed research, which is national. By the time I retired from DST, I became fully familiar with national science priorities. Often, these days I am reminded of the following quote from the late S. Ramaseshan:

‘Neither age, nor field of study, nor scientific position plays any role; common interest brings people together.’

I do not know how good my first article in Physics News was in dissemination of information, but it marked a beginning for me to write on science–technology–policy interface, especially on topics related to environment and energy. I owe it to visionaries and committed scientists like Rao.

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