

FOREWORD

Last year was the birth centenary of the mathematical genius Srinivasa Ramanujan. This year we celebrate the centenary of the scientific colossus Chandrasekhara Venkata Raman.

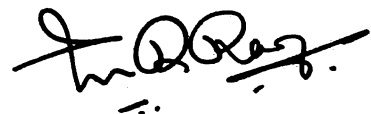
Raman is the greatest physicist and experimental scientist this country has so far produced. He was totally self-made and self-taught, his only true "teachers" being Rayleigh and Helmholtz through their writings. In some ways he may be viewed as the last in their line of classicists, though his own work, in the words of R. W. Wood, gave "one of the most convincing proofs of the quantum theory of light". Raman was blessed with supreme self-confidence, boundless curiosity to understand Nature, infinite sensitivity to her nuances, and a deep sense of patriotism. In addition to these remarkable qualities, he was able to inspire those around him to achievements of an order they could not have reached on their own.

With indefatigable energy and a "European intensity" no other Indian scientist exhibited, in the period 1907 to 1933 Raman created and sustained a school of physics in Calcutta that in Sommerfeld's words made this country "an equal partner with her European and American sisters". Even before the discovery of the Raman Effect in 1928 which led to the award of the Nobel Prize in 1930, Raman had done outstanding work in acoustics and light scattering recognised by his election to Fellowship of the Royal Society in 1924.

We at this Institute remember Raman as our first Indian Director from 1933 to 1937, and thereafter as Professor and Head of the Department of Physics (set up by him in 1933) until his retirement in 1948. Here too he created an outstanding school of physics with memorable contributions such as the Raman-Nath theory of diffraction of light by ultrasonic waves and the Raman-Nedungadi discovery of the "soft mode", among others. It was also in the Bangalore period, in 1934, that Raman established the Indian Academy of Sciences.

In our one-day symposium arranged to pay tribute to Raman, we have invited a group of distinguished scientists to speak to us of Raman's life and work, the contributions of his school in Bangalore, and the present scope and applications of the Raman Effect. This special issue of the *Journal of the Indian Institute of Science* brought out on this occasion contains the texts of these talks, some rare photographs, and reprints of some of Raman's most significant papers.

On Raman's birth centenary it is appropriate that we remind ourselves of the great qualities that he possessed, and the ideals and dreams of self-reliance and independence that he cherished.



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