

# Editorial

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*Amitabh Joshi, Associate Editor*

Although science is in many ways a collective endeavour, major advancements in science have typically been the outcome of the astonishing insight that some thinkers have had into the workings of nature, insights that have fundamentally altered our view of some natural phenomena or even opened up entire new fields of scientific research. In his poem *Tulu'-e-Islam*, Allama Iqbal notes that it is far easier to conquer the world than to comprehend it and then writes



*“Hazaaron saal nargis apni benoori pe roti hai  
Badi mushkil se hota hai chaman mein deedar paida”*

(For a thousand years has the daffodil wept, for the lack of an eye that would render it whole;  
Just once in an epoch a person is born, who possesses the power of the eye of the soul.)

In this issue, we remember Michael Faraday, one of the great and rare *deedar* or ‘possessors of the seeing eye’ in the history of science. Faraday made profound contributions to the development of physics and chemistry, including pioneering work in both electromagnetism and electrochemistry (see articles by Bhat, Chatterjee and Contractor). He also created the notion of a ‘field’ to describe magnetic and electrical forces. It has been speculated that if Nobel Prizes were awarded in Faraday’s time, he would have won at least five! Perhaps more pertinent to *Resonance* and its readers, Faraday was also a great popularizer of science and initiated lectures for children and general audiences at the Royal Institution where he worked. He felt that these evening lectures should “amuse and entertain as well as educate, edify and, above all, inspire”. We reproduce one of his lectures in this issue, and you can see for yourself how much Faraday could explain about natural phenomena while talking about something as commonplace as a candle.

C N R Rao’s tribute to Faraday provides an overview of his life, work and personality, and also gives us a flavour of Faraday’s views on effective lecturing. We also carry V Natarajan’s review of a book that is a biography of both Faraday and the Royal Institution. Other than the articles on Faraday, we have pieces on particle physics, operating systems, bicycles, and a very engaging account of snakes and ladders and Markov chains. And finally, befitting an issue honouring a great lecturer and popularizer of science, we have three classroom items dealing with statistical, chemical and biological issues that can be readily demonstrated and discussed in a classroom setting.

