

Innocent equipment and sophisticated users

The editorial by Balam¹ on the status of sophisticated instruments in Indian laboratories has succinctly brought out the pitfalls and advantages of installing state-of-art instruments. As rightly mentioned, now-a-days there is no dearth of funds to establish a 'centre of excellence' that boasts of an array of analytical instruments. But having procured an instrument, a competent person should be appointed to operate it and funds for routine maintenance, spares and upgradation should be provided. But unfortunately, an analytical instrument is forgotten after installation. Trained or partly-trained technician who may not have sufficient knowledge about the instrument are employed to operate it. To compound this issue, researchers feel that a few electron micrographs, X-ray profiles and other interesting figures and data would enhance their presentations. Neither the guide nor the student considers the relevance of using a particular instrument to address a specific problem. Sometimes, an instrument is used as it is available either within the institution or

as a national facility. The original title of Balam (Innocence and sophistication: users and equipment) has been modified to reflect the following issues: (1) As the indenter of the instrument would not always be in a position to operate the instrument at the cost of his/her research, teaching or official assignments, a competent technician should be employed to operate sophisticated and complex instruments. (2) At the time of promotion or in the annual performance report, less or nil weightage is given to researchers who operate and maintain an instrument. Only publications in impact factor (IF) journals or the amount of revenue generated through projects and consultation fees are considered. This fact needs to be satisfactorily addressed by the assessing committee. (3) The indenter may be given first preference to use the instrument, but there should be a provision to make it available to other users. (4) Users should be familiar with the working principle, utility and limits of an instrument that they plan to use. (5) Users should justify the need of a particular

instrument to address their research problem. Clarity about the problem would help the technician to set the operating parameters and thus save time and resources. The facility should not be provided until the work objective is made clear. (6) In institutions or universities, funds should be used to procure only necessary and suitable instruments. (7) The infrastructure should be ready before the instrument arrives. Several times, the instrument remains uninstalled for a long time and is then returned to the stores. (8) Upgrading should be encouraged rather than buying a new instrument.

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1. Balam, P., *Curr. Sci.*, 2012, **102**, 1241–1242.
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SRIDHAR D. IYER

*Chamunda Residency,
Caranzalem,
Goa 403 002, India
e-mail: sdiyer2001@rediffmail.com*

Martians of science

Apropos of the write-up by Geethanjali Monto¹ on Professors Magdolna and Istvan Hargittai: Monto mentions that the book title *Martians of Science* is used by Istvan Hargittai to refer to the extraordinary group of five contemporaneous Hungarian scientists (von Karman, Szilard, Wigner, von Neumann and Teller) who emigrated to the US and made so many outstanding contributions to their areas of expertise. A few words on the origin of the unusual title of the book would have been appropriate, especially for younger readers who might not have heard of the story.

In a discussion on the possibility of extraterrestrial (ET) life and intelligence, Fermi posed the famous question, 'So

where are they?' – if such life exists, why have we not seen them as yet? He based this poser on a rough estimate that suggested that the earth should have been visited more than once by ETs. It is often (erroneously?) claimed that Fermi himself answered this question by remarking facetiously that the ETs were indeed here, 'but they are called Hungarians!', in admiration of the amazing prowess of the illustrious Hungarian emigres. There is a slightly less dramatic, but equally interesting version that attributes the reply to Szilard, who was actually referring to the fact that the Hungarian language is apparently unrelated to any of the neighbouring European languages. In any case, it would be interesting to learn what

Hargittai has to say about the title of his book.

As an aside, it obvious that 'Martians of science' is also meant as a counterpoint to the more conventional phrase 'Titans of science'. But in a strange twist, it seems to be Titan that may actually harbour life now, rather than Mars!

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1. Monto, G., *Curr. Sci.*, 2012, **102**, 1626–1628.
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V. BALAKRISHNAN

*Department of Physics,
Indian Institute of Technology Madras,
Chennai 600 036, India
e-mail: vbalki@physics.iitm.ac.in*
