

Editorial

Are we sinking into mediocrity?

THERE ARE many indications that support for science and technology is withering, while student numbers increase without bounds. Big research projects that devour large budgets are not popularly supported, as witnessed, for example, by the demise of support for the superconducting supercollider in the USA. The tradition of supporting a relatively small number of scientists in a single project stems from the Second World War, and the success of a selected number of first-class brains in constructing the atomic bomb and inventing radar. Nowadays, practically all projects require popular support, and are eventually approved or rejected by a bureaucratic process which is presented as being democratic. Everyone not only wants a piece of the cake, but seem to be convinced they deserve it. Decisions on grants and support are controlled by political pressures, by the requirement for even-handedness, not necessarily by merit. Other pressures for equality are the dances that take place around the names of institutions of higher education, the translation of degree titles and the international recognition of degrees. Gone are the days when science and technology were exotic and prestigious, untouchable by the masses, and small scale. Through the media, the lobbies, the environmentalists, and the politicians, science and technology has been exposed, and sometimes trampled into interpretations and opinions rather than analysis and truths. Seemingly gone are the days of the Einsteins and Bohrs who resided in a secluded hall of reverence. We are now faced with issues like the quality of teaching, the equality of minorities, of majorities, international exposure, national renewals and much more critical funding requirements for science, technology and teaching. These developments may actually be detrimental to the quality of science and technology—especially in the eastern democracies. With mass education it will be difficult to spot quality, and even when spotted it may not be able to raise its head. We need more quality in science and education but we also need the mechanisms to differentiate between mere equality and quality. With the massive academic world of today equal chances are mandatory but not equal distribution. Let us remember that only a merit system will improve quality, and with assessment of educational merits having an increasing presence we also need to think of a merit reward system for teaching. Unless we are going to reward good teaching—which involves knowledge, personality and skills—we are going to contribute to the dive into mediocrity of science and technology.

Engineering cases

Beginning with this issue we are publishing a series on engineering cases. 'Cases are a unique tool for bringing realistic engineering problems into the classroom' as stated in the introductory paper to the series by **Charlie (Cosine) Smith** and **Geza Kardos**. This tool has been pursued by Smith and Kardos and in its current incarnation contains a number of interesting design cases. The complete cases are available from *Professor D. Dekker, Rose Hulman Institute of Technology, 5500 East Wabash Avenue, Terre Haute, IN 47802, USA*. We will be highly pleased if readers will supply us with engineering cases for publication. Cases can be put together from any branch of engineering.

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