Nobel Prize in Engineering?

by **Ir. Oon Chee Kheng**

WE all know that, since 1901, the Nobel Prize has been awarded for outstanding achievements in the fields of physics, chemistry, medicine (later "physiology" was added to it), literature and peace. Hey, wait a second, there is one glaring omission. Is there a Nobel Prize awarded for achievements in Engineering (in all its disciplines)? For that matter, it must not be forgotten that Alfred Nobel himself was often referred to as an engineer.

The answer is of course in the negative. That prompts the question: should there be one added to the current fields? This suggestion is not a new one. The Nobel Prize for economics, or strictly economic science, was introduced only in 1968 with the first prize awarded in 1969. For that matter, it was strictly not Nobel Prize so to speak. I gather the following from Wikipedia (emphasis mine):

> *"The Sveriges Riksbank (Bank of Sweden) celebrated its 300th anniversary in 1968 by donating a very largesum of money to the Nobel Foundation. The following year, the Nobel Memorial Prize in Economic Sciences was awarded for the first time … **Although not technically a Nobel Prize**, it is identified with the award; its winners are announced with the Nobel Prize recipients, and the Prize in Economic Sciences is presented at the Nobel Prize Award Ceremony."*

This seems promising. It means that fields other than the original fields which Alfred Nobel opined were to be recognised, can be added, albeit indirectly. But before we start campaigning, or lobbying, for a Nobel Prize in engineering, the last sentence of the above extract from Wikipedia needs to be reproduced, as follows:

> *"Subsequently, the Board of the Nobel Foundation decided that after this addition, **it would allow no further new prizes**." (emphasis added)*

So our campaign seems to have come to an end before it even starts! But engineers should not take this as an obstacle. What is next? How can this be overcome? Or are there alternatives?

Before we proceed from here, it is worth stating that some of the Nobel laureates started their professional life as engineers. For example, Wilhem Rontgen, the very first Nobel laureate in physics, once studied mechanical engineering (though I am not sure if he ever graduated). Paul Dirac, the 1933 winner in physics, obtained his first degree in electrical engineering. William Fowler, 1983 winner in physics, is a graduate in ceramic engineering. Jack Kilby, 2000 winner in physics, is another graduate in electrical engineering. Herbert Kroemer, 2000 winner in physics with Jack Kilby, is a Professor of Electrical and Computer Engineering. And the latest (2009) winner in physics is Charles Kao who gained his first degree in Electrical Engineering. There may be others, I do not know. This proves one thing: engineers are intellectually no bar to such a prestigious prize. The only difference is that these engineers seem to go on to other fields of endeavours.

Now, back to our question. Of course, there are many other prizes available. But none seems so far to achieve that pre-eminent status as that of the Nobel Prize. And there are of course some "alternative Nobel Prizes".

There is the Draper Prize which is awarded biennially under the auspices of the National Academy of Engineering in Washington, United States. It is billed as the engineering equivalent of the Nobel Prize. As the name of its sponsor suggests, it was created by engineers who wanted the public to appreciate what they do. And this relates to the recognition and image of engineering as a discipline as well. The following report about the Draper Prize is taken from an extract in Scientific American:

> *"Sheila Widnall, professor of engineering at MIT and a member of the 1991 award's selection committee, explains: 'When people ask, 'What is engineering?' the common answer I hear is: 'Damned if I know'.' The Draper Prize, she says, 'is a link in a long chain' that, by its visibility, will answer that question."*

But, wait. That does seem to detract from any real comparison with the objectives of the Nobel Prize. The Nobel Prize recognises for outstanding achievements and contributions to the advancement of the chosen fields of learning (save for the Nobel Prize for Peace!). The Draper Prize seems to go off-tangent and set to lead people to recognise engineering generally?

It may be said that some noted engineers are winners of the Draper Prize, among them is Frank Whittle, the aeronautical engineer credited with the invention of jet engines.

If however we were to have a Nobel Prize (or its equivalence), we would still need to define what contributions and achievements that could merit such recognition in the engineering field, as compared to say, physics and chemistry. In this regard, it may be what is generally known as science but reduced to practical application that will fit the bill. But, then, if this was the criterion, will the late Professor Chin Fung Kee, arguably one of the best known Malaysian engineers whose contributions to "inverse square law" in engineering fields qualify him a prize? ■