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Engineers for the Construction Industry

By: Engr. Dr Jeffrey Chiang Choong Luin, *M.I.E.M., P.Eng.*

The theme for this July IEM Bulletin Issue is on "The Construction Industry". As one of the key economic factor or economic indicator of a developing nation, the construction industry has played a tremendous role in nation building, since fifty years ago, right after the nation's independence. Where would the nation be, without the multiplying growth in housing for the homeless, roads and bridges to connect the rural areas (including remote forest) to ports, major cities and towns, near the coastal belts, and also the mushrooming spirals of commercial offices, shopping complexes, government administrative centres.

All these and more lend to the premise that, the construction industry has been the major charger of the nation economic growth, and will remain so for the many years ahead, right up to 2020, when Malaysia is expected to reach developed state. This is in spite of the industry being saddled with the image of being the first to be hit in times of an economic downturn, and also the slowest to get off the starting block in the growth race, when times are good.

The Institution of Engineers, Malaysia (IEM) which was formed in 1959, two years after the nation has achieved independence, has been and it still remains as the major non-governmental engineering institution in Malaysia. During its inception, the two major engineering disciplines, namely, Civil and Mechanical Engineering, were its focus areas. And, needless to say, civil and mechanical engineers were the bulwark of the construction industry from the early years onward. As specialisation steps in, civil engineers became adept in civil as well as structural engineering, whereby, civil engineers are now regarded as more focused on civil works, such as roads, drainage and other infrastructural works, whereas the structural engineers are more geared towards design and construction of concrete or steel buildings, bridges and other related structures.

Likewise, the mechanical engineers are also very much involved in the construction industry through their expert contribution into the building services, such as mechanical conveyance system such as lifts, escalators, and also the air-conditioning system and other controls in heat and fluid transfer systems, in constructed structures.

Hence, this issue of the Jurutera Bulletin highlights the current developments and interests in the construction industry nowadays. From the use of steel design and fabrication for building structures, to structural appraisal techniques of bridges and the design of flexible road pavements, and so on, it is hoped that readers will be able to get, not just a glimpse but an in-depth look at how engineers have contributed in the current state of affairs in the construction industry. This is not withstanding the images of the well-renown Petronas Twin Towers, KL Communication Towers, Penang Bridge and also the Putrajaya Government Administrative Centre, which are testaments of engineer's feats to the nation growth.

IEM will stay on its path to provide nurture to budding engineers in the construction industry and also remain as a learned engineering society, giving guidance and advice not only to engineers in the field, but also to other societies and institutions, as a way to generate growth of engineering knowledge and awareness of engineering issues for the nation. ■