

# Process Colour Offset Printing Viewed at Close Range



by Ir. Ong Guan Hock

STANDING COMMITTEE ON INFORMATION AND PUBLICATIONS

ON 20 July 2013, representatives from the IEM's Standing Committee on Information and Publications comprising Ir. David Lai Khong Phooi, Ir. Yam Teong Sian and Ir. Ong Guan Hock, and IEM Secretariat staff Ms. Pamela Jitab, made a technical visit to Hoffset Printing Sdn. Bhd. in Taman Perindustrian Kinrara, Puchong, accompanied by the General Manager and Business Development Manager of Dimension Publishing Sdn. Bhd. Hoffset Printing Sdn. Bhd. is responsible for the printing of IEM's monthly bulletin, *JURUTERA*. The purpose of the visit is to get a first-hand look at the printing facilities and operations, and to find out more about the printing process itself.

A director of the firm Mr. Kwong Tai Chee provided a briefing to the visitors on the key factors that would affect printing quality and an outline of the entire process involved from the moment the electronic file is received from the publishers until completion when the final printed copies of the bulletin are trimmed, bound and packed for delivery to IEM. The briefing continued during the walkabout tour of the factory premises. Although much of the process has been automated or computerised, there is still a sizable human component involved in the entire process particularly for quality control, equipment operation and final packing. The modern factory occupies 2 floors, employs about 120 staff and can operate in shifts if warranted.

The visitors were told that there were several steps that had to be accomplished before the actual printing could commence. One of the initial tasks was to prepare the printing plates which are used in colour printing. The plates are made of thin aluminium, are not reusable, and are made specifically for each of the 4 basic printing colours – cyan, magenta, yellow and key (or black). The plates must be sufficiently durable to last for 20,000 runs without any loss in printing quality.

The visitors were surprised to learn that the actual printing of 20,000 copies of *JURUTERA* would require only about 2 days as most of the time was spent on initial work, test runs, quality monitoring, binding and packing. Colour printing is a complex art that relies on modern technology, skilled operators and proper quality assurance during the printing operation in order to deliver the desired high quality results.

The Editorial Board wishes to express its thanks to Mr. Kwong Tai Chee and his assisting staff for spending their entire Saturday morning with our representatives for the informative briefing of the printing process and the interesting tour of the plant. ■



Ir. Yam Teong Sian, Ir. David Lai and Ir. Ong Guan Hock being briefed by Mr. Kwong Tai Chee (centre)



A view of one of the many printing machines in use



Observing how electronic editing is performed on the proof

Ir. Ong Guan Hock is a member of the Standing Committee on Information and Publications and is a Technical Director of Minconsult Sdn. Bhd. where he heads the Infrastructure & Water Supply Division