Engineering Competency Development: Paving the Path for Future Professional Engineers



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n 1982, IEM initiated the Log Book Training Scheme (LBTS) programme to assist Graduate Members obtain their professional engineer qualification. The objective was to support graduate members in organisations which did not have a professional engineer with the same engineering discipline to act as mentor or supervising professional engineer.

It is with this very core essence of its establishment and to support the change of professional engineer interview from outcome based to competency-based assessment that IEM has rebranded LBTS to Engineering Competency Development (ECD).

Since its inception, many graduate members have benefitted from this programme. IEM shall continue to provide this service to graduate members with enhancements (the objectives of this rebranding exercise) to cater to changes in the IEM Professional Interview assessment format, the younger generation and advancements in the industry.

In this rebranding exercise, we concentrate on five elements: Database, Survey, Name, Engagement and Appreciation.

Firstly, membership to the ECD programme is not automatic. Neither was the LBTS. However, as the years went by, the programme accumulated a very long list of mentors and mentees, whether they were active or not. The list became meaningless and using manual tracking made it too complex and time consuming to utilise or maintain.

To streamline this issue, database clean-up was required. An invitation email/letter was sent out in December, 2017, to all mentors and mentees listed in the database. The objective was to update and confirm interest of each mentor and mentee to be maintained in the programme. Their replies were tabulated.



Elements of LBTS rebranding

Enrolling in the programme is voluntary since a graduate member can take other routes to become a professional engineer. We believe in concentrating our efforts and energy of our resources on graduate members who are serious about progressing in their professional careers. We volunteer because we believe in nurturing the engineering industry and this should be appreciated by the participants. The database clean-up exercise reduced the list of participants by more than half. The list of mentors and mentees will be listed in the ECD section for the reference of members.

Secondly, we conducted a survey of all the members in the old database with the objective to improve LBTS effectiveness for the candidates pursuing Professional Engineer Certification, to make

LBTS more effective for the mentor in helping their mentees and to collect information on areas of improvement that need to be considered during LBTS rebranding. The survey was conducted on the "survey monkey" platform from 5 January to 5 February, 2018. It was divided into 3 categories: Demographic Information, Engineer's Log and Overall Scheme.

The response was not encouraging but those concerned over the well-being of the LBTS programme, managed to voice out their opinions. One of the most important findings was that all respondents thought the programme was beneficial and relevant to their organisations and their career development. This was important to know because, if this programme was deemed irrelevant, it should be scrapped.

Another major finding was that LBTS needed to be made online and paperless. This was actually the approach the committee felt strongly about, moving forward. However, such interface would require a major information technology setup which would mean high financial investment. The committee agreed that the project should be conducted over a longer period of time in multi-stages to go along with the upgrading of IT infrastructure at IEM.

We shall update the progress in upcoming articles. Other findings relating to the improvement process are in the process of implementation or will be reviewed and implemented in the near future.



Thirdly, to be current with the industry and in-line with the changes in IEM, a new name was deemed necessary. The IEM PI assessment format was enhanced to competency based with the last batch of PI applicant registered by 31 December, 2017. So, a "competency" based assessment need to be supported with mentorship that focused on competency based as well. This was where LBTS needed to be enhanced. The competency was not about focusing on traits of engineers personally but rather their engineering capabilities. This programme may also be expanded to include potential members from backgrounds such as technicians and technologists, once the organisation has designed the career development path of these groups of members.

A new logo was introduced, together with the new name "Engineering Competency Development" (instead of "Log Book Training Scheme"), as part of the marketing impact for brand recognition.

The fourth element in this rebranding exercise is engagement. We believe that all programme participants need support from the IEM secretariat and committee members. With this in mind, we will bring in more mentor and mentee support sessions to continue to brief and refresh participants about the programme, update new features (if any), and answer queries from members. The committee shall also start monitoring such sessions at the branch level and provide support as required. In 2017, the committee started the initiative of training trainers for branch representatives to conduct such briefings at their respective locations.

The "train the trainer" programme was implemented to reach out to more qualified mentors, especially to cater to the needs of branches outside the Klang Valley (HQ). This will make the programme more effective in serving mentees at their respective regions. In addition, the trainers can also organise mentor-mentee engagement sessions to support more graduate members requiring mentors to pursue the professional certification. The committee will continue to provide such support and seek cooperation from all to engage the secretariat incharge and the committee for any assistance required.

The last element is recognition for mentee and mentor. For the mentees, we encourage giving feedback on their mentors, introducing a mentor recognition programme and social media engagement. We encourage feedback on the mentors, be it positive or requiring improvements. Feedback is important to monitor the suitability of a mentor and a mentee. This is a 3-year relationship during which both parties will need to connect with each other professionally. Should the match between a mentor and mentee not be achieved, then we should find alternatives. Mentor recognition is also another way for mentees to provide the best feedback on their mentors. We have heard many stories of the admiration mentees have for their mentors and we would like to make these stories known. Do not hide your

admiration but instead recognise the efforts of your mentor.

When social media engagement started a few years ago on Facebook, many graduate members preferred this method of reaching out for assistance. We shall streamline and promote more such social media presence.

As for mentors, we shall maintain the list of mentors on the website as part of an elite group of people who has reached a certain level of ability to be a mentor in the industry, appreciation letters and a mentor recognition programme. These are members who are able and willing to altruistically help others to be as successful as they are.

When a mentee becomes a corporate member, the mentor will receive an appreciation letter signed by the IEM President. We believe a mentee's success is also that of the mentor's. Another form of recognition for mentors is the annual "Top 5 Mentors". Based on the feedback from mentees, these 5 mentors will be given recognition at an official IEM event.

For now, these are the elements of our rebranding effort. The Committee would like to thank all survey participants for providing ideas on how they would like to see the programme sail in the IEM organisation, how to make it relevant in the industry and how to engage with the participants.

We will provide updates, from time to time, on the progress of the ECD programme. This is part of our engagement efforts for all members. We must remember that all the committee members and mentors in this programme are volunteers who are passionate about helping the younger generation achieve career development satisfaction with professional certification.

Contributing our personal time and sharing our knowledge and experiences are done in the hope that our contributions will translate into the development of Malaysia and bring the country to greater heights. Therefore, instead of criticism, let us think of how the programme can be made better. We will certainly appreciate help in any way possible. Let us all work together.