

The making of a professional engineer

In many systems of education, the ceremony during which a graduate receives his degree is termed "Commencement", that means a beginning, a starting point. Each graduate should realise that the academic courses he followed during his college years gave him only the theoretical background and the intellectual frame of mind to analyse engineering problems. He now commences his career, a junior with no experience; only years of practice will make an experienced engineer out of him.

Some years ago, because of the urgent needs of the country in its first phase of technical development, young graduates had opportunities to succeed to posts of responsibility normally reserved to experienced engineers. No doubt, records show that some of them did very well, but from the start, the country as well as private firms had to accept that a non-experienced graduate gained his experience at their own expense and at the expense of their clients. There was no alternative and there was no competition.

At the present moment, when more engineers are available and when competition gives the client a choice between different engineering firms, experience and competence become the parameters of success.

Experience and competence are acquired only through years of practice at every level of the profession. That means that normally, a young engineer is not expected to start from the top but from the bottom of the ladder and work his way up, the hard way, under the active supervision of competent senior engineers. Year by year, competition makes each step harder to reach; competence alone should now be the factor of selection of candidates for positions of greater responsibility.

A young engineer in his first years of employment needs careful supervision and encouragement; his ideal and enthusiasm may rapidly worn out under the drudgery of slow progress and lower wages. The role of responsible government agencies and private companies and professional associations, such as the EAEA is extremely important at this critical moment: their responsibility is to take over where the University tutorial role has ceased. Senior engineers have now to guide the younger ones, open their minds to new practical problems, introduce them to new methods and give them gradually increased responsibilities which will turn young graduates into experienced professional engineers that Ethiopia needs to-day to build a prosperous to-morrow.