

SPOTLIGHT

on FSPE education project*

Crossroads for Students

Students in their matriculation year, whatever their background, have reached a crossroads in their lives: behind them lie the relatively carefree years of childhood; ahead lies the whole of their working lives. Whether those working lives will be rewarding and interesting depends to a considerable extent on whether they get 'a good matric' and carry on to some form of further education.

The Engineering Careers and Education Project (ECEP), which started over two years ago with the broad support of the engineering community to assist the development of young Blacks with the potential for a career in engineering, now comes to that same crossroads. The first of its selected pupils, who began attending weekend classes and other activities organized by the ECEP two years ago when they were in Standard 8, sit their matriculation examinations this month. How they fare, and what becomes of them, is obviously of great concern to those involved in the project.

'We knew when we started that we were facing a huge task, and as we have progressed we have come to realize that it is even bigger than we anticipated', says project director Lente Louw. 'We found, for instance, that we had to go back in the pupils' educational process before we could go forward. We had to teach some of them *how* to learn before they could benefit fully from what we had to teach them. Blacks, by and large, have been little involved in engineering up to now, and have little background to draw upon for a quick understanding of concepts that are new to them. Yet the basic talent is there if it can be channelled correctly'.

First Educational Programme

The educational enrichment programme for the first batch of pupils has been a race against time. Saturday schools were held regularly, at first only in the mornings, and were well attended. Later they were expanded to include tutorial sessions during the afternoons. Site visits, lectures, workshops, and other activities were also arranged at intervals, as were visits to various firms to give the pupils some idea of the working environment they would face later.

Lente reports: 'The progress has been encouraging, but the problem has been to get enough done in the limited time available. Our policy is not merely to provide extra tuition, but to provide extra learning skills that the pupils can apply during normal school time. The end result should be to make the pupils less reliant on teachers and more in control of their own achievement. The afternoon tutorials,

with their smaller teacher/pupil ratio, allowed the introduction of university/technikon style teaching and learning. Pupils were also able to discuss individual difficulties with tutors, who were practising engineers. This was a lot of ground to cover, and, when one bears in mind that the pupils were giving up their precious free time, as were the tutors, week after week, one has to accept the sincerity of their commitment'.

As a reward for this commitment, 44 of the Standard 10 pupils attended a 3-day camp at the Scripture Union's Stoney Ridge Farm in the Magaliesburg in early July, organized by Daniel Reineke, an engineer who has devoted a good deal of time to the project. They spent some time on basic construction techniques and other engineering activities, including the construction of a Jungle Gym that was donated to the camp. But recreation and relaxation were also an important part of the programme — with football, trampolines, deck tennis, and other games much in evidence.

Since then, the ECEP has been concentrating on post-school opportunities and the placement of its first batch of pupils following the November matric examinations. As Lente reports, 'A meeting was held with prospective employers and those who had offered bursaries. This established that there were two distinct categories: those who had bridging and bursary programmes, and those who did not but who were interested in offering something of that kind to ECEP pupils. In the first case, we simply advised suitable pupils to apply and go through the companies' selection procedures, our subsequent involvement being in the feedback on progress. In the other cases, things proved to be more difficult since there was often no policy for dealing with such students — and experience has shown that a clear policy is necessary'.

Prospects of First Candidates

Lente takes an optimistic but not unrealistic view of the prospects of the first 67 matriculants, most of whom she believes will get university exemption. Only about 15, however, are likely to achieve the standard required for entrance into university engineering faculties, with another 20 borderline cases between university and technikon. Those not accepted into university the first time, she feels, might benefit from a bridging year, possibly with technikon study, before reapplying the following year. The remainder are technikon candidates or borderline technikon/artisan material. Inevitably some will not enter engineering at all.

Given the starting point of the project and its relatively short existence, Lente feels an outcome on these lines would be by no means a disappointment. 'We could not possibly have expected, in our wildest imagination, that all

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67 of the first batch — or indeed any subsequent batch — would go to university and in due time graduate as engineers. In any such group, there will be people who change their minds, people who choose other careers, people whose circumstances prevent them from completing their studies, and people who try hard but don't quite make it. If these people turn to other pursuits and make the best use of the talents they have, that is all we can expect. At least we will have helped them develop those talents and make something of their lives. Those who do stay in engineering, whether as graduate engineers, technicians,

or artisans, will still represent a success for the ECEP. Without our project, probably none of them would have ended up in engineering at all'.

Future of Project

Lente concludes: 'Most important of all is that we are still here, much further on than we were two-and-a-half years ago, with further groups of pupils eager to learn from us. I see that as a great vote of confidence in what we are trying to do, and a great hope for the future of engineering in this country'.

IPMI awards 1985

Nominations for the 1985 Awards are now being accepted by the Awards Committee of the International Precious Metals Institute. THE DISTINGUISHED ACHIEVEMENT AWARD was established to recognize important career contributions to the advancement of precious metals, be it technological, economic, or business. The Award consists of a plaque bearing a precious-metal medallion and the name of the recipient, and will be presented at the Annual Meeting, 10th to 13th June, 1985, in New York City.

The HENRY J. ALBERT AWARD was established in 1979 by Engelhard Industries as a memorial to Dr Henry J. Albert, who was a charter member and President of IPMI. Its purpose is to recognize and encourage outstanding theoretical or experimental contributions to the metallurgy of precious metals. The prize consists of a palladium medal struck in the likeness of Dr Henry J. Albert, and a certificate citing the contributions made by the recipient.

IPMI, wishing to recognize and encourage outstanding

work by a graduate or undergraduate student in precious-metals research, established a STUDENT AWARD consisting of \$500 and a certificate citing the recipient's contributions. Nominations for the Student Award will be accepted from *bona fide* members of school faculties with a minimum one-page review of the student's work, which may have been published or presented within the prior twelve months, although this is not required for consideration.

These IPMI Awards are open to all persons regardless of nationality, race, age, or sex. All nominations must be received by the Awards Committee by 1st February, 1985. The Awards will be presented at IPMI's Annual Meeting in June.

The nominee's name and a brief description of his/her achievements should be forwarded to IPMI, Attention: Chairman Awards Committee, Government Bldg, ABE Airport, Allentown, Pa 18103, U.S.A.