

the advances which have been made in concrete technology in the last decade. The most basic requirement in any concrete work is the design of a suitable mix, and the provision of suitable control to ensure that the quality of the concrete—both in the plastic and hardened states—is maintained reasonably constant. Numerous courses have been held on mix design and quality control which, it is hoped, will lead to an improvement in concrete work.

The most outstanding of recent developments is the technique of prestressing concrete, and this has now reached the stage where it is no longer a novelty, but a generally accepted constructional system. Here, again, numerous courses have been held on this subject, during which trial mixes are designed, and beams cast, stressed and tested. Prestressed construction requires a concrete of much higher strength than that needed for normal reinforced concrete work, and methods of mix design for obtaining these high strengths are fully dealt with on these courses.

Other subjects covered by the Training Courses include concrete and soil-cement road construction, shell roof construction, surface finishes, concrete for farm buildings, and precast construction.

The courses were first started as an experiment, and although the response was very encouraging, it was felt likely that the demand would drop off after one or two years. This has been far from the case; the demand for places on the courses has been such that the courses have now become an established part of the Association's activities. Indeed, the demand is still increasing, and although the number accepted for each course is now nearly double the early intention, it is obvious that far more courses held in Technical Colleges throughout the

country would not find any lack of support. These could be on the basis of one two-hour session once a week, spread over about eight or ten weeks.

But who, one may ask, would give the lectures on such courses? Are the present lecturers themselves sufficiently in touch with the practical side of these new techniques to be able to do so? It is impossible to give a sweeping answer to this. There are in our Colleges of Technology many excellent lecturers who are fully alive to their responsibilities and who do spend much of their own spare time in keeping in touch with the latest developments in their subjects. Their number, however, is all too few. In many cases, they *themselves* need additional training on these specialized subjects. How are they to get it?

The best plan is for them to attend a course at the C.A.C.A. Training Centre. The facilities are there: the staff, the laboratories, the equipment are all waiting to help. If they can be used to train those who are themselves going to train others, then the number of engineers and budding engineers who finally receive the knowledge will be greatly increased.

Well, you lecturers, it is up to you. We know all too well your limitations of both time and money. We must leave it to you to persuade the powers that be to let you attend the courses—although why the powers that be should need persuasion is beyond our comprehension. But if sufficient of you demand places on courses, then special courses adapted to your own special needs will be provided.

One final word. Don't ask to come on courses this year—places are already booked up. But do ask now for a lecturers' course to be held *next* year. The aim of the Cement and Concrete Association is only to respond to a demand; if the demand is there, it will be met.

## ERRATA

Magazine of Concrete Research No. 11.

p. 52. col. 2. line 3. For "γ-hydrate" read "α-hydrate."

p. 52. col. 2. line 11. For "γ-hydrate" read "α-hydrate."

p. 52. col. 2. line 21. For "γ-hydrate" read "α-hydrate."

p. 70. col. 1. line 32. For LD/l<sup>d</sup> read LD/l<sub>d</sub>.

p. 75. col. 1. Equation 4 should read

$$P(u) = \int_u^{\infty} \frac{e^{-\frac{1}{2}(t-Z)^2/\sigma_z^2}}{\sqrt{2\pi} \sigma_z} dt$$