



Consider upskilling concrete batchers and plant staff to increase efficiency, reduce production waste, and lower production costs with CCSA's School of Concrete Technology.

BY JAN DE BEER

Cement and Concrete South Africa's School of Concrete Technology plan to offer special one-day courses for concrete batchers and batch plant staff in Midrand, Durban, and Cape Town in the second half of 2023.

John Roxburgh, a senior lecturer at the School of Concrete Technology, says batching – the process of measuring and combining concrete ingredients according to the predetermined mix design – is a vital element of concrete production that ensures high and uniform quality of ready mix concrete for each batch produced by a batching plant.

"The durability of a structure is highly dependent on the quality of the concrete used to build it. Therefore, it is essential to precisely and meticulously select the concrete ingredients, and a competent batcher can only achieve this.

It is, for example, important to maintain the water-cement ratio constantly at the set value, and a skilled batcher can adapt their production to cater for the water content in the aggregate," Roxburgh explains. "Unskilled batching can result in weak or brittle concrete that is prone to cracking which endangers the safety and durability of a structure."

He says proper batching offers several other benefits including:

- Low variability in plastic and hardened concrete properties;
- Better plant efficiency;
- Lower production costs; and
- Higher client satisfaction and sales volumes.

"Proper batching cuts down on waste and therefore reduces costs. By measuring and combining ingredients more accurately, skilled batching avoids ordering too high or too low volumes of concrete components, which can lead to excess waste and higher production costs.

"The training course offered by the School of Concrete Technology will provide batchers and staff at a batch plant with the essential concrete education and theory to competently produce quality ready mix concrete. The training will also benefit batch plant supervisors, laboratory staff, sales, and even general laborers involved with batching," Roxburgh adds.

Topics covered in the course will include:

- Batchers' responsibilities;
- The concrete materials and their effect on the concrete mix;
- Fresh properties of concrete - and the tests to check it;
- Basics of mix design, including the control of the water content;
- Testing for the hardened properties of concrete; and
- Basic management of a batch plant, including implement Quality Control systems.

For further information and dates of the course this year, contact John Roxburgh on 011 315 0300 or email john.roxburgh@cemcon-sa.org.za.