



PC – 08

Learning tool for reinforced concrete design – element design

N. P. K. V. Karunaratne, N. C. Liyanage, R. A. S. Prabath and H. P. Sooriyaarachchi

Department of Civil and Environmental Engineering, University of Ruhuna, Galle, Sri Lanka.

Reinforced concrete design is considered as a vitally important disciplinary in the field of civil engineering. The design of reinforced concrete is done to various standards and well establishes practices. The British standards have been used in Sri Lanka. Since United Kingdom has withdrawn BS8110, paving the way for Euro standards, Sri Lanka has been compelled to use Euro standards or adopt other international standard for the design of reinforced concrete. American Concrete Institute ACI 318(2008), EC2 (BS EN 1992-1-2), JCI standards, CEB FIP are the commonly used international standards for reinforced concrete design. It is known that design approach in various codes of practices differ from each other.

Results of various design approaches and their structural implications are continuously debated in various forums. Knowledge of different design approaches are considered vitally to understand the design philosophies of reinforced concrete design. In addition, there is a requirement to train structural engineers to adopt Euro standards as Sri Lanka is gearing to recognize Euro as our next standard for reinforced concrete design. Both of the above objectives can be achieved well by a design learning tool. Learning tool allows the users to learn on their own phase. It is in this back ground that interactive learning tool “Recode” is formulated.