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CONSTRUCTION RECYCLING: AN EFFICIENT TECHNOLOGY FOR HEALTHCARE

The construction industry is one of the biggest polluter from the process of extracting the raw materials to the demolition process of the existing constructions. The building and construction industry uses 40% of the materials entering the global economy, consumes approximately 50% of the total energy supply and contributes with almost 50% to the total CO₂ emissions. This represents really a problem of the healthcare. Waste management encompasses the collection, transporting, storage, treatment, recovery and disposal of waste. There are only some of the countries highlighted waste management as one of the criteria of sustainability. The aim of the present plenary speech is to underline the efficiency of the construction recycling. The main themes are: importance of construction recycling; experimental determinations; construction recycling properties. On the other hand, two important themes, with implication on efficient technology, are presented: a proper sustainability model and a quantitative appreciation of reinforcement corrosion. The main advantages of the sustainability model are: cover the three dimensions of sustainability, includes only quantitative parameters (energy, materials, cost, manpower, waste, dust, noise, main strength etc.), flexibility of solutions and so on. The quantitative model of reinforcement corrosion gives a formula for average depth of carbonation or chloride penetration. These themes help specialists to choose proper materials as construction recycling.

Biography

Corneliu Bob has graduated at the University Politehnica of Timisoara, Romania in 1961 and PhD civil engineering in 1971 at the same University. In 1990 he became professor of R C structures and completed his PhD as scientific coordinator at the civil engineering faculty in Timisoara. From 1996 till 2004 he was the head of the National Building Research Institute, Timisoara. He has also been very active in the Romanian Associations for Civil Engineering as National Association Engineering for Structural Analysis, Bucharest, Romanian Concrete Commission, Romanian Academy of Material Science. Since 1992, he became the member in the permanent committee as a chairman of the IABSE Romanian group and member of the SED editorial board.

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