

Recovery of the Demolition and Construction Waste, Casablanca (Morocco)

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Abstract : Casablanca is the biggest city in Morocco. It concentrates more than 60% of the economic and industrial activity of the kingdom. Its building and public works (BTP) sector is the leading source of inert waste scattered in open areas. This inert waste is a major challenge for the city of Casablanca, as it is not properly managed, thus causing a significant nuisance for the environment and the health of the population. Hence the vision of our project is to recycle and valorize concrete waste. In this work, we present concrete results in the exploitation of this abundant and permanent deposit. Typical wastes are concrete, clay and concrete bricks, ceramic tiles, marble panels, gypsum, scrap metal, wood . The work performed included: geolocation with a combination of artificial intelligence and Google Earth, estimation of the amount of waste per site, sorting, crushing, grinding, and physicochemical characterization of the samples. Then, we proceeded to the exploitation of the types of substrates to be developed: light cement, coating, and glue for ceramics... The said products were tested and characterized by X-ray fluorescence, specific surface, resistance to bending and crushing, etc. We will present in detail the main results of our research work and also describe the specific properties of each material developed.

Keywords : déchets de démolition et des chantiers de construction, logiciels de combinaison SIG, valorisation de déchets inertes, enduits, ciment léger, casablanca

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