بيانات البحث رقم (4)

عنوان البحث:

Effect of Using Agricultural Waste as a Cement Replacement on Fresh and Hardened Concrete Properties

مكان النشر:

International Research Journal of Engineering and Technology (IRJET)
e-ISSN: 2395-0056, p-ISSN: 2395-0072, Volume: 07 Issue: 04 | April 2020, PP 3896 - 3909

This study investigated effect of using agricultural waste as a cement replacement on fresh and hardened concrete properties. Two types of agricultural waste used were date palm ash (DPA) and corn cob ash (CCA). Four classes of cement replacement 6%, 8%, 10% and 12% with DPA and CCA are used. Proportions of mixes determined using ACI 318-2019 recommendations. Cubes have a dimension of 100*100*100 mm were chosen to study compressive strength of concrete. Beams have a dimension of 100*100*500 mm were chosen to study flexural strength of concrete. The tested samples were curing in pure water. The concrete cubes and beams were tested at the curing ages of 28, 60 and 90 days. Slump and compacting factor tests were carried out to check the effect of cement replacement with DPA and CCA on consistency and workability of concrete. From results, it was observed that the slump and compacting factor decreased with increasing amount of DPA and CCA. Replacement of 8% DPA has increased compressive strength and flexural strength. While, replacement of 6% CCA has increased compressive strength and flexural strength at later ages (more than 90 days).

يعتمد البحث على رسالة علمية :

عنوان الرسالة : تأثير أستخدام المخلفات الزراعية على خلطات الاسمنت والخرسانة.

اسم صاحب الرسالة : م/ أسماء ثابت عبد الحفيظ جابر.

أسماء المشرفين على الرسالة :

أ.د/مجدى على عبدالعزيز اليمانى – د/ خالد محمد أحمد عثمان – د ./ عادل عبد التواب (معهد المستقبل للهندسة– علوم)

الدرجة العلمية التى حصل عليها صاحب الرسالة :الماجستير

تاريخ المنح :2021/4/28