بسم [illegible]

قـــــال تعالـــــى

) وجعلنـــا مـــن المـــاء كـــل شـــئ حي (

صدق الله العظيم
سورة الأنبياء (30)

Dedication

To the Soul of my Sister Huda

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Abstract

This research is dedicated to develop a model which could be used as an early warning system for the River Nile to assist the authority to prevent the risk of flooding. For this purpose data which comprises to water level for four gauge stations along the River Nile have been used. Time series analysis, in particular, exponential smoothing method was used, for forecasting the future of the phenomena we studied. Third quartile measure method has been used for the early warning, which indicated the maximum of 14 mts water level at AL-Daim station and a minimum of 13.5 mts below which we expect dry season. The same method has been applied for the other stations. The study shows that the 95% confidence interval for River Nile at AL Daim, Malakal, Atbara, Dongola

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ملخص

هذا البحث يهدف إلى إنشاء نموذج يمكن إستخدامه للإنذار المبكر لفيضان النيل حتى يمكن تجنب مخاطر الفيضانات لهذا الغرض إستخدمت قراءات مستوى إرتفاع مياه النيل على 4 محطات . نظرية التقدير الأسى هى جزء من التحليل بالسلاسل الزمنية وتستخدم للتنبؤ بالنسبة لظاهرة معينة فى المستقبل ومقياس الربيع الثالث والمتوسط يستخدم لمعرفة الإنذار المبكر للفيضانات حيث توصلنا أنه عندما يصل الإرتفاع إلى 14 متر وأكثر هنا يحدث فيضان وعندما يقل عن 13.5 متر يعنى هذا جفاف هذا بالنسبة لمحطة الديم .

إستخدم هذا المقياس على كل المحطات . وايضاً توضح الدراسة حدود ثقة 95% بالنسبة لنهر النيل في كل من الديم وملكال وعطبرة ودنقلا