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**ABSTRACT**

Flow line production systems are designed such as to result in, among other objectives, high production rates and low down times. Use of buffer storages between work stations/machines and consideration of scheduled maintenance are two areas to investigate to achieve the design objectives.  
The purpose of this project work is to analyze a simple flow line production system of varying characteristics through a simulation approach to check on the effects of the above factors on production and down time.  
 For the cases considered in this work, the results indicated a diminishing effect of increasing buffer size and decreasing maintenance time, which points to the necessity of analysis of such systems.

**الخلاصة**

يتم تصميم خطوط الإنتاج المستمر لكي ينتج عنها , من ضمن ما يجب أن يتحقق , مستوي عال من الإنتاج ومنخفض من وقت التعطيل .

وإن وضع أماكن التخزين بين محطات الإنتاج / الآلات والأخذ بالاعتبار وقت الصيانة المبرمجة وسيلتان لتحقيق أهداف التصميم .

والغرض من هذا العمل هو تحليل , عن طريق برمجة المحاكاة , لخط إنتاج مستمر بسيط له خصائص مختلفة , لبحث تأثير العاملين السابق ذكرهما علي الإنتاج ووقت التعطيل .

وتبين من الحالات التي تمت دراستها أن هناك تأثيرا متناقضا لزيادة حجم مكان التخزين و تقليل وقت الصيانة , ويوضح ذلك ضرورة تحليل هذه النظم.