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**Study on the Effect of Bending Optical Fiber and
Temperature on the output of Laser Intensity**

دراسة أثر إنحناء الألياف البصرية ودرجة الحرارة على شدة الليزر الخارج منه

**A Thesis Submitted in Partial Fulfillment for the Requirements of
the Degree of Master of Science in Physics**

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Dedication

***I dedicate this research to my family
And to all who helped me.***

Acknowledgement

First, all my thanks to the

Allah Who has given me

The opportunity to complete this research,

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*I am grateful to all whom helped me to complete this
research*

Abstract

Studying the effect of bending angle of fiber optics and the effect of temperature on laser intensity were performed. The results obtained were analyzed and found that; the increasing of bending angle decreases the output laser intensity through fiber optics according to the bending on the room temperature. Then the effect of the temperature were studied and found that; the temperature affected on the laser intensity output for the optical fiber. According to that; it is preferred to decrease the bending angle and temperature when using the fiber optics for information transmission.

المستخلص

تم دراسة أثر إنحناء الليف البصري ودرجة الحرارة علي شدة الليزر الخارج من الليف البصري. تم تحليل البيانات ووجد أنه كلما زاد الإنحناء قلت شدة الليزر الخارج من الليف البصري علي حسب الإنحناء عند درجة حرارة الغرفة.

تم بعد ذلك دراسة أثر درجة الحرارة ووجد أن لدرجة الحرارة أثر واضح علي شدة الليزر الخارج من الليف البصرى. إعتامادا علي ذلك يفضل تقليل الإنحناءات ودرجة الحرارة عند إستخدام الألياف البصرية لنقل المعلومات.

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