

## Assessment of Dose Distributions in a Commercial Radiation Treatment Planning System for Conventional and Conformal Techniques.

#### A Thesis

submitted in partial fulfillment for requirements of the degree of M.Sc. in Physics, 2019, from Ain Shams University

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(2019)

## **Ain Shams University**

## **Faculty of Science**

## **Physics Department**

**Degree**: M.Sc. degree in Physics.

**Title:** Assessment of Dose distributions in a Commercial

Radiation Treatment Planning System for Conventional and Conformal Techniques.

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#### **ACKNOWLEDGEMENTS**

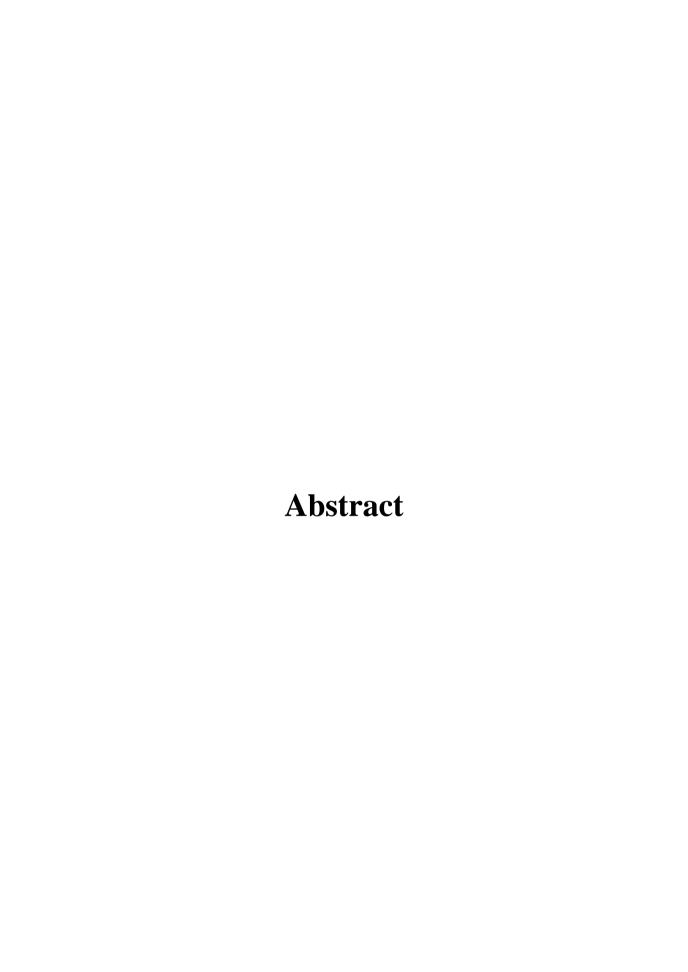
I am greatly indebted to **Prof. Dr.Soad El Fiki**, **Prof. of Radiation physics Faculty of Science**, **Ain Shams University** for his guidance, valuable advice and continuous supervision as well as stimulating the discussions throughout this work.

I am greatly indebted to **Prof.Dr. Khaled M. El Shahat, Prof of Medical Radiation Physics Faculty of Medicine**, **AlAzhar University** for suggesting the point of investigation, his guidance, valuable advice and continuous supervision as well as stimulating the discussions throughout this work. He plays a main source of reliable knowledge and powerful push to this work

I Thank and gratitude For Those Working in Radiotherapy department at the International medical center (IMC) where the study was conducted, because they give me the time.

# FINALLY, I THANK ARE ALSO DUE TO MY COLLEAGUES.

Grateful acknowledgment and deepest thank to my Family for their support and cooperation.



### **Abstract:-**

Surprisingly, the presentation of errors in treatment planning calculations in the treatment planning process itself is uncommon. Doing first things first, there is conceptual logic in an exploration of the uncertainties that originate in treatment planning itself, which is the objective of this thesis, and in a presentation of these uncertainties in treatment planning. During the actual radiation treatment phase, the beam parameters calculated by the treatment planning system (TPS) can be used for the patient and the linac setup, Any deviation in these planned beam parameters would lead to a difference in the dose delivered to the patient.

Summarizing this introductory section, it has been shown that knowledge about the accuracy of treatment planning calculations is a crucial requirement for the enhancement of treatment planning capabilities, and thus an essential condition to achieve the expected benefits of conformal radiotherapy treatment.

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