**CONCLUSION AND FUTURE RESEARCH**

Dental practitioners should be aware of the forensic application of dentistry. Dental records that are used to provide patients with optimal dental service could also be very beneficial to legal authorities during an identification process. Therefore, all forms of dental treatments should be recorded and kept properly.

This study has been conducted to validate the performance of dental identification system based on dental radiography and using neural network approaches. The previous research works and related literatures are reviewed to have a better understanding of the related research areas. This study has been evolved to this far and several works have been carried out to make this study a success.

Based on the experiments, it can be concluded that the using of artificial neural network in identification process is successful and very useful because of the easiest way to programming the network architecture and the processing time that takes to training and testing with any number of images, and it can obtain high identification rate and accuracy. In addition, it can conclude that an appropriate network architecture and selection of network parameters for the dataset will influence the convergence and the performance of network learning.

This thesis was organized in four chapters, chapter one presented the historical overview of the evolution of forensic science over time and how the evolution of forensic dentistry in particular. Chapter two explained the research objectives, the artificial neural networks mechanism, and applications. Also the back propagation learning algorithm that was used in this work has been explained. Chapter three described the system design and its processing, as well as the database collection, training and testing process. Chapter four discussed the experimental results that were obtained through the process of training and testing the system. A comparison of the obtained results with the other similar works was also presented.

The results that were obtained in this research are successful and satisfactory. Future research may include increasing the database with a larger number of dental radiograph images. Furthermore, adding the bite mark print to system database and automating the process of cropping and cutting the images to make the work easier, faster and more efficient.