

**Department of Artificial Intelligence**

**College of Computer Science and Information Technology**

In this lab session, you are a group of aspiring medical image analysts working on improving diagnostic processes using computer vision techniques. Today's focus is on implementing image segmentation on Dates images using the scikit-image (skimage) library in Python, with a special emphasis on thresholding techniques. It is left to you to explore other advanced techniques for image segmentation.

Provide an explanation of your code in your own words. This is to ensure that you have a deep understanding of the code you've written and its underlying concepts. You are expected to comments on the main parts and functions of the code.

Guidelines:

* Your explanation should be original and in your own words. Do not copy explanations from textbooks, online resources, or peers.
* Go beyond just describing what the code does. Explain why you chose certain methods or approaches and how they benefit the solution.
* Avoid Using ChatGPT: It has come to our attention that some students might be using ChatGPT or similar AI tools to assist in explaining code. Using ChatGPT or similar tools for this purpose follows certain guidelines (refer to course syllabus).

**Assessment**

1. Each student will show all the above parts running as demo to the Lab Instructor **before leaving the lab.** Total marks for the lab is as follows

|  |  |
| --- | --- |
| Task 1 | Marks (demo + report) |
| 1 | 10 |
| Total | 10 |

1. Students will prepare a report in which they will submit the snapshots taken while they worked on each part. They will explain the figures to make sure that they understood what they did.