

## CSC 3141 - IMAGE PROCESSING LABORATORY (2022/2023)

### Assignment 07

**Due date: 10<sup>th</sup> August 2024, 11.59 PM**

Submit answers using a **single PDF file**. Paste your codes or screenshots of codes where necessary. Use your registration number for the file name (e.g.:- S19XXX.pdf).

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1. Count the number of cells in the given 'cell\_segmentation.jpg' image by applying the watershed algorithm.
2. How does the choice of pre-processing techniques impact the performance of the watershed algorithm in biomedical image segmentation?
3. How can the watershed algorithm be effectively utilized to enhance the segmentation accuracy of overlapping or touching objects in biomedical imaging, and what potential applications could this have in the diagnosis and treatment of diseases?