Abstract
In this paper, we determine the Mostar index for several graph families including kite graphs, wheel graphs, chained cubic trees and establish equalities and bounds that illustrate how various graph operations such as inflation , subdivision and contraction affect these indices.

Role:
I conducted a literature review on the Moster index and related graph families, finding gaps in the existing research. Using Python, I developed an implementation of various graph structures, which facilitated testing hypotheses. I also created visualizations of graphs to support the analysis and conclusionI proposed three novel of hypotheses, most of which have been proven, advancing our understanding of how inflation, subdivision, and contraction impact the graph index.