KUTAISI INTERNATIONAL UNIVERSITY

Numerical Programming

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CP#1

Computational Project, 12 points

Problem 1.1

- Extract number of moving objects and conventional motion speed from a video.
- Methods to be used: edge detection and clustering.
- Using of thresholding and smoothing technics are accepted.

Tasks

- Formulate algorithm, explain your approach in written.
- Select video for which your approach works fine.
- Select another video for which your method produces incorrect results.
- Understanding limitations of the methods and its application domain is an import skill. Explain why your method works in one case and why it does not work in another case.
- Bonus point: adaptation of the approach for automating counting of class attendees or for some other cases.

Computational Project

Important Notice

- CP assigned 0 points if:
  - a model problem (video) provided twice by students. Make sure, your model is different from models given by others.
  - submitted results are not reproducible.
  - student cannot apply his own code for the input data provided by TA or instructor.
- Submission deadline: 3 weeks after the date of CP's publication.