Automatic Polyp Detection in Colonoscopy Videos

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Sub-challenge

Tired of detecting faces, vehicles, and pedestrians in images? Want to make an impact on people's lives through your promising technologies? Then join us in the polyp detection challenge! The goal of the challenge is to automatically detect polyps in colonoscopy videos, thereby reducing polyp miss-rate and the subsequent mortality rate of colon cancer.

Colonoscopy is the primary method for colon cancer screening and prevention, during which a tiny camera is navigated into the colon in order to find and remove polyps— precursors to colon cancer. However, according to clinical studies, during the colonoscopy procedures, one out of every four polyps is missed! The contributing factors include eye fatigue and lack of attentiveness during long and back-to-back procedures. Patients with missed polyps may develop a late-stage colon cancer with a survival rate of less than 10%. An automatic polyp detection system can point out the locations of polyps in the videos, increasing the attentiveness of colonoscopists during procedures, helping them reduce their polyp miss-rates. Given the large population that annually undergoes colonoscopy, even a modest decrease in polyp miss-rate can save a lot of lives!

Overall, the sub-challenge can be divided into two different tasks, participants are invited to submit results for at least one of the following tasks:

- **Polyp localization**: Can your method cope with high polyp appearance variability and, therefore, accurately indicate the area of the image where the polyp is?
- **Polyp detection**: Can your method state whether there is a polyp or not in the image? Which is the delay between polyps' first apparition and your first detection?

Committee

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More information

See the Sub-challenge website: http://polyp.grand-challenge.org/

ETIS-Larib Polyp Database

Informations about the challenge database "ETIS-Larib Polyp Database" are available on this webpage.