



2nd Workshop on Computer Vision in Endoscopy (EndoCV2020)

(In conjunction with 17th IEEE International Symposium on Biomedical Imaging)

Date: 3rd April 2020

Venue: Webinar

Time: 08:30 am – 01:00 pm (PST)

General Panel: Sharib Ali (University of Oxford), Sophia Bano (University College London), Mariia Dmitrieva (University of Oxford), Noha Ghatwary (University of Lincoln)

Clinical Panel: Prof. Barbara Bradan (NHS, University of Oxford, UK)

Technical Panels: Prof. Danail Stoyanov (University College London), Asst. Prof. Nicholas Durr (John Hopkins University)

Programme

08:30 – 08:40: *Introduction to EndoCV2020 challenges from the organizers*, Sharib Ali (lead organizer), University of Oxford, UK

08:45 – 09:00 Keynote #1: *Endoscopic detection of gastrointestinal disease*, Prof. Barbara Braden, NHS Oxford University Hospital, Oxford, UK

09:00 – 09:40 Keynote #2: *Computer Vision in Endoscopy and Minimally Invasive Surgery*, Prof. Danail Stoyanov, University College London, UK

Session I: EAD2020 Workshop Presentations

Oral presentation (09:40– 10:25)

09:40 – 09:55 Talk #1: *Endoscopic artefact detection with ensemble of deep neural networks and false positive elimination*, Gorkem Polat, Middle East Technical University, Turkey (ID: 10)

09:55 – 10:10 Talk #2: *A U-Net++ with pre-trained efficient-Net backbone for segmentation of diseases and artifacts in Endoscopy*, Le Duy HUYNH, Laboratoire de Recherche & Développement de l'EPITA, France (ID: 11)

10:10 – 10:25 Talk #3: *Deep encoder-decoder networks for artefacts segmentation In endoscopy images*, Yun Bo Guo, University of Central Lancashire, UK (ID: 12)

Pitch Presentations Part 1 (10:25 – 11:00 @ 3min/pitch)

P1.1: Multi-plateau ensemble for endoscopic artefact segmentation and detection (ID: 20)

P1.2: OXENDONET: A dilated convolutional neural networks for endoscopic artefact segmentation (ID: 9)

P1.3: A submission note on EAD 2020: Deep learning-based approach for detecting artefacts (ID: 7)

P1.4: Endoscopy artefact detection and segmentation using deep convolutional neural network (ID: 26)

P1.5: Endoscopic artefact detection using cascade R-CNN based model (ID: 27)

P1.6: Improved cascade R-CNN and U-Net for artefact detection & segmentation (ID: 31)

P1.7: Exploring deep learning-based approaches for endoscopic artefact detection and segmentation (ID: 22)

10:50 – 11:00: Q and A

Session II: EDD2020 Workshop Presentations

Oral presentation (11:00– 12:10)

11:00 – 11:40 Keynote #3: Computational colonoscopy: towards AI and endoscope co-design, Asst. Prof. Nicholas Durr, John Hopkins University, Maryland, USA

11:40 – 11:55 Talk #4: Nhan Thanh Nguyen, VinBDI, *Detection and segmentation of endoscopic artefacts and diseases using deep architectures* (ID: 16)

11:55 – 12:10 Talk #5: *Endoscopic detection and segmentation of gastroenterological diseases with deep convolutional neural networks*, Adrian Krenzer, Julius Maximilian University of Würzburg, Germany (ID: 6)

Pitch Presentations Part 2 (12:10 – 12:25 @ 3min/pitch)

P2.1: Transfer Learning For Endoscopy Disease Detection & Segmentation With Mask-RCNN (ID: 17)

P2.2: CenterNet-based Detection Model And U-Net-based Multi-class Segmentation (ID: 32)

P2.3: Semantic segmentation and detection using SUMNET (ID: 18)

12:20 – 12:25: Q and A

Session III: Leaderboard and closing

12:25 – 12:35: *Awards, leaderboard overview and closing*, Sophia Bano (UCL) / Sharib Ali (Univ. Oxford)

12:35 – 13:00: Panel discussion: Q and A (Questions also taken: via Q and A features in zoom webinar, all panelist)
