



סמינר משתלמים - Graduate Seminar

You are invited to attend a lecture by

הנכם מוזמנים להרצאה של

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Technion

בנושא:

Feedback-less Distributed Video Coding and its Application in Compressing Endoscopy Videos

Distributed Video Coding (DVC) is a novel coding scheme that employs principles of lossy source coding with side information (SI) at the decoder. The DVC framework enables to shift the computational load of motion estimation from the encoder to the decoder, resulting in reversed encoder-decoder complexity. This reversed complexity scheme could be appealing for applications in which the encoder is power and/or complexity constrained.

In this work we present a new DVC encoder, named LORD (LOW-complexity, Rate-controlled, Distributed video coding system), which adapts itself to the varying statistics of a video, both spatially and temporally. Moreover, we use a rate distortion optimization process and employ a highly exact rate control scheme that enables the use of our encoder in real time applications. Finally, we adapt our solution to videos acquired by Bayer sensors in endoscopy (medical procedure), in which only partial information of the colors in each pixel is known. This special video format has not been addressed yet in the DVC framework. We show that, using our encoder, a significant improvement in performance can be achieved over a standard intra coding method with a similar complexity.

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* סטודנט לתואר שני בהנחיית פרופסור דוד מלאך.

The lecture will take place on Tuesday, 15/5/2012
at 13:30 in room 1061
Electrical Eng. Building
Technion City

ההרצאה תתקיים ביום שלישי, 15/5/2012
בשעה 13:30 בחדר 1061
בבניין הפקולטה להנדסת חשמל
קריית הטכניון

כיבוד קל יוגש לפני ההרצאה

