



סמינר משתלמים - Graduate Seminar

You are invited to attend a lecture by

הנכם מוזמנים להרצאה של

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בנושא:

A Segment-wise Hybrid Approach for Improved Quality Text-to-Speech Synthesis

Concatenative synthesis and statistical (model-based) synthesis are the two main approaches to text-to-speech (TTS) synthesis. A concatenative TTS (CTTS) directly uses natural speech features, selected from a recorded speech database. Concatenation of such segments may result in audible discontinuities. On the other hand, statistical TTS systems (STTS), while having a smaller footprint than CTTS, generate speech that is free of such discontinuities but, in general, is of lower quality than CTTS in terms of naturalness. This is due to over-smoothing of model-generated speech features.

In this research we developed two approaches aimed to improve the quality of TTS generated speech. First, we developed a segment-wise model that provides additional degrees of freedom, used to improve STTS quality. Second, we proposed a technique for combining CTTS with STTS for a new class of TTS systems, denoted hybrid TTS (HTTS), where natural speech segments are interwoven with statistically generated segments. The proposed HTTS includes a hybrid dynamic path, which determines positions of statistical segments within a generated utterance, and a hybrid speech generation algorithm, which generates iteratively statistical speech features with boundaries constrained to natural speech features. The HTTS is shown to improve the quality of STTS by introducing natural speech segments. On the other hand, it improves the quality of CTTS by smoothing possible audible discontinuities.

* M.Sc. Research under the supervision of Prof. David Malah.

* סטודנט לתואר שני בהנחיית פרופסור דוד מלאך.

The lecture will take place on Tuesday, 7/4/2009
at 13:30 in room 1061
Electrical Eng. Building
Technion City

ההרצאה תתקיים ביום שלישי, 7/4/2009
בשעה 13:30 בחדר 1061
בבניין הפקולטה להנדסת חשמל
קריית הטכניון

כיבוד קל יוגש לפני ההרצאה

