MECHANICAL ENGINEERING
M.S. DEFENSE

The Department of Mechanical Engineering presents:

The M.S. Defense of:

Miaogeng Zhang

Department of Mechanical Engineering
Advisor: Professor V. Sundararajan

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3:00PM-5:00PM
EBU II 202

Speaker Classification based on Multiple Criteria

Abstract: This thesis presents techniques to classify speech signals produced by unfamiliar speakers into categories based on criteria such as gender and age. Such classification is useful to augment the efficiency of conventional video surveillance systems. Existing systems classify speakers along only one dimension. This thesis develops methods to classify speakers based on multiple categories. Age group (children and adults) and gender group (male and female) are used as examples to clarify these issues. Experimental evaluation indicates that 1) Speaker groups are dependent 2) The use of single classifier to sort speakers into multi-criteria groups yields sub-optimal results. Thus, a sequential approach is necessary 3) The sequence of classification affects the performance of the system.