The Department of Mechanical Engineering presents:

The Master's Dissertation Defense of:

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Learning Based Resource Management in Mobile Cloud Computing

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Dr. Shaolei Ren, Chairperson

Nowadays, smart mobile device such as smart phones, tablets are playing more and more important roles in our life. Due to some resource limitations such as storage capacity, battery lifetime, or processing ability, smart mobile device are consuming much more energy than before. According to recent researches, Mobile Cloud Computing (MCC) is becoming a promising approach, and the core of MCC is computational offloading. In this thesis, we start from choosing different key features to make better prediction by Support Vector Machine (SVM) method to identify if a task is suitable for offloading, then we simulate two cases to calculate energy consumption, time cost and energy saving rate and make the appropriate decision based on the trade-off between the energy consumption and time cost with the help of SVM.

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