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**An Enhanced Cooperative
MAC Protocol Based on
Perceptron Training**

By:

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Cooperation among wireless nodes at the medium access control (MAC) layer has attracted a lot of research attention in recent years. Most of existing cooperative MAC protocols focus on the scenarios with static helpers (relay nodes). However, an optimal helper should not only support a high transmission rate but also have a low mobility. It can be a challenging problem to distinguish such an optimal helper when there are moving helpers of various mobility.

In this talk, we introduce a cooperative MAC protocol by means of perceptron training, referred to as PTCoopMAC. PTCoopMAC selects the optimal helper depending on the achievable data rate as well as the prediction on whether a helper is reliable. The simulation results well demonstrate the throughput improvement of PTCoopMAC and its robustness to high mobility of helper nodes.

**Wednesday, October 10 @ 3:30pm
Information Technology Centre ITC317**