



A FLEXIBLE MIMO TESTBED WITH REMOTE ACCESS (ThuAmOR10)

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★ Abstract :

While wireless systems with multiple transmit and receive antennas have been thoroughly investigated over the past ten years, experimental work to corroborate theoretical results is lagging behind. A major reason for this situation is given by the fact that strong theoretical researchers often have no expertise in implementation issues. Also, building an experimental system is very time-consuming and still it is typically focussed on one transmission mode only. By the time the experimental setup is ready, hundreds of new ideas already exist that cannot be handled by the just finished setup. We thus propose a flexible MIMO testbed that allows to connect directly onto MATLAB code and thus shortens experimental times considerably. A few examples for UMTS HSDPA and for Space-Time Codes strengthen our approach.