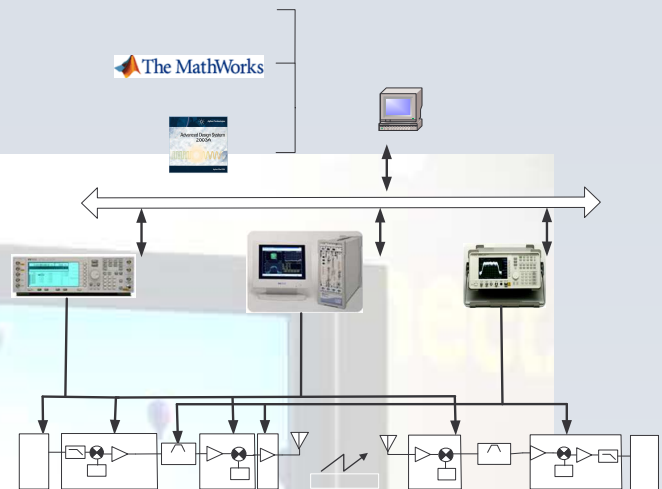


UNIVERSITY OF SOUTH FLORIDA - WCSP GROUP

MIMO And OFDM RESEARCH

AREAS OF EXPERTISE

- ❑ A strong background on OFDM related fields including
 - ⊕ MIMO-OFDM Channel Estimation
 - ⊕ Adaptive Transceiver Design
 - ⊕ Parameter estimation & adaptation
 - ⊕ Synchronization
 - ⊕ Interference Detection & Suppression
 - ⊕ Mobility & ICI reduction
 - ⊕ Multiband-OFDM UWB
 - ⊕ Power amplifier modeling
- ❑ A quantity of related publications including book chapters, patents, and journal & conference papers
- ❑ Wide application area of OFDM
 - ⊕ Wireless LAN (802.11a/g)
 - ⊕ Wireless MAN (802.16d/e) – WiMAX
 - ⊕ Digital video/audio broadcasting
 - ⊕ Multiband OFDM based UWB



- ❑ WiMAX RF:
 - ⊕ Crest Factor Reduction
 - ⊕ Space Time Coding/MIMO
 - ⊕ Digital Up and Down conversion
 - ⊕ Multi-band Radio Solutions
 - ⊕ I/O Imbalance
 - ⊕ Clock Distribution

OUR CAPABILITIES

- ❑ WLAN testbed and Wimax solution
- ❑ Software Defined Radio (SDR) based Transceiver Design
- ❑ FPGA/DSP Design
- ❑ High System-level MATLAB/Simulink
- ❑ Design targeting:
 - ⊕ Xilinx FPGAs
 - ⊕ Texas Instruments DSPs,
 - ⊕ Lyrtech Hybrid DSP/FPGA,
 - ⊕ Nallatech XtremeDSP
- ❑ High performance UNIX terminals

CONTACT INFORMATION

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