The 5G ecosystem@UNIPV

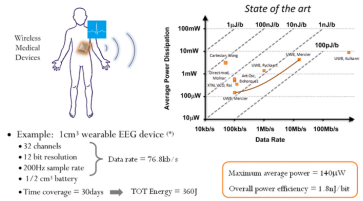
microlab

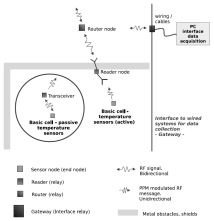
Adaptive filters
Low power circuits
Scalable A/D

MWLab university of pavia

Sensors and Microsystems Lab

Low power circuits
Energy modeling

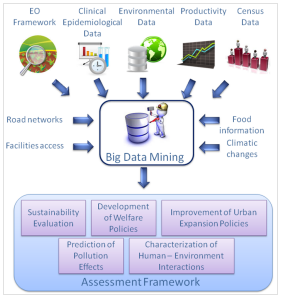




Antenna design
RF energy harvesting
Antenna arrays
mW circuits on textile, paper,…

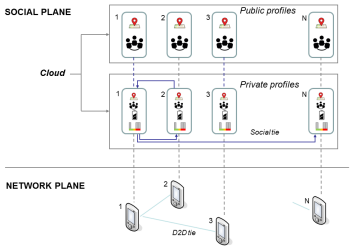
TLC &RS Lab

High capacity backhaul
Distributed MIMO
Adative beamforming
Energy efficient solutions
Scalable and MDC coding
Adaptive video transmission
Social Cognitive Radio
Sensor networks
UWB
Analytics



BMS bioinformatics mathematical modelling and synthetic biology

Big data with application to
DNA sequencing
Clinical data analyses



Total of
- 16 staff
- 6 post doc
- 10 PhD

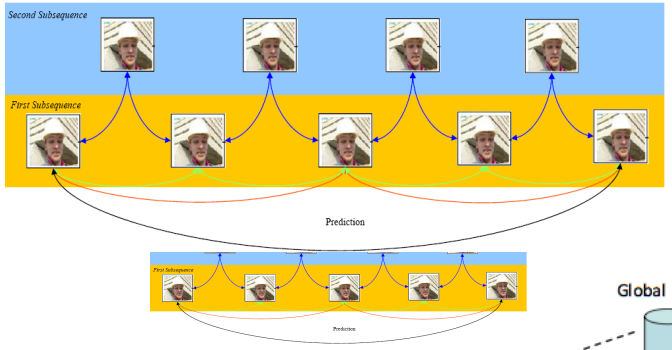
dcalab DIGITALCONTENTANALYSIS

Video indexing
Multimedia datatbases
Social network analysis

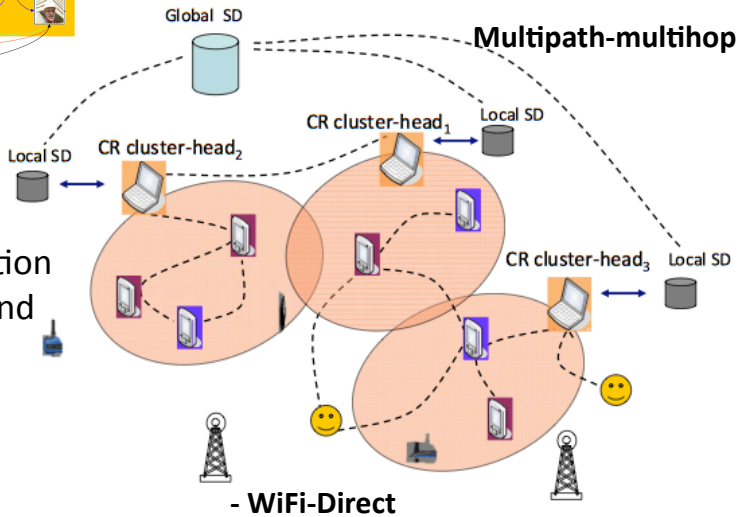
CHT Centre for Health Technologies

Home monitoring applications
Data and system integration

Flexible multimedia in SDR networks

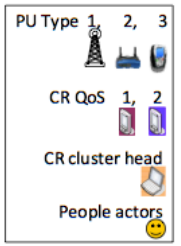


- Scalable and multiple description coded video for enhanced flexibility and reliability
-Prefetching contend based on resource availability
- predictive routing

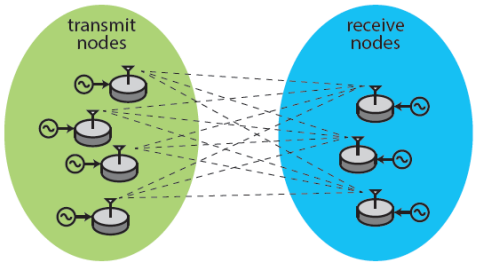


-Distributed network coordination with dynamic user clustering and resource allocation
- Exploitation of D2D communication to support network reconfiguration
-mW for proximity communication
- device sociality to spread information

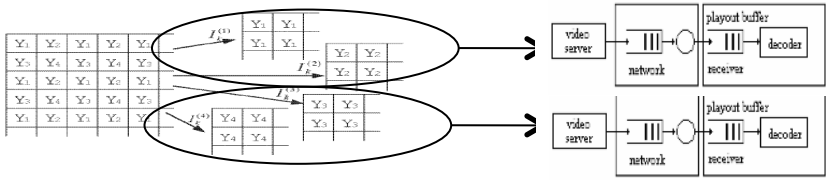
- WiFi-Direct
- 802.11af
- IEEE 1900

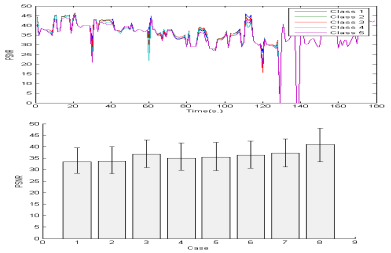


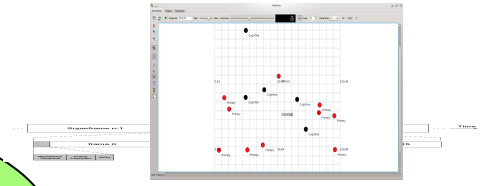
•SDR-MIMO
•AMC
•beamforming

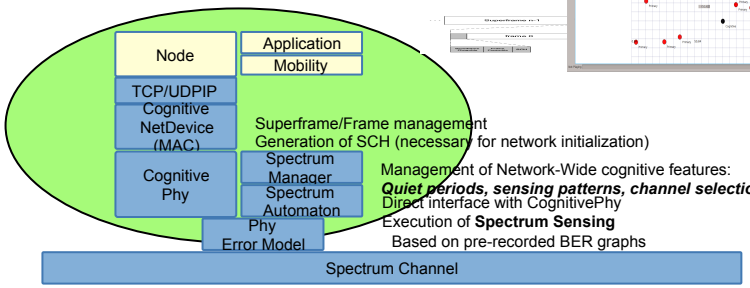


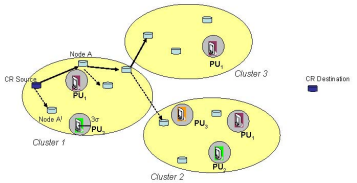
Our expertise

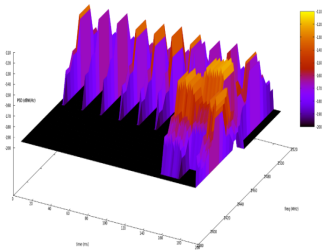


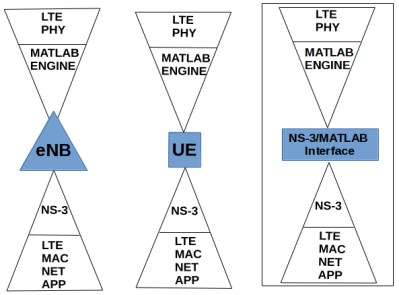


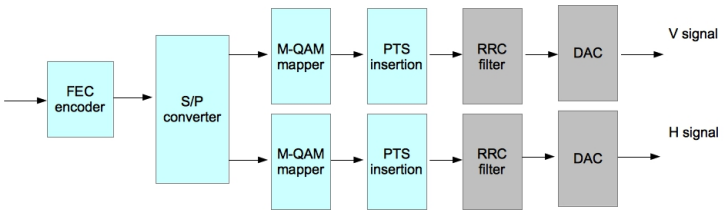












Competences searched

- Prototyping/Experimental validation
- Media generation/coding/quality analysis
- D2D
- Trust and security
- SDN
- Cloud

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