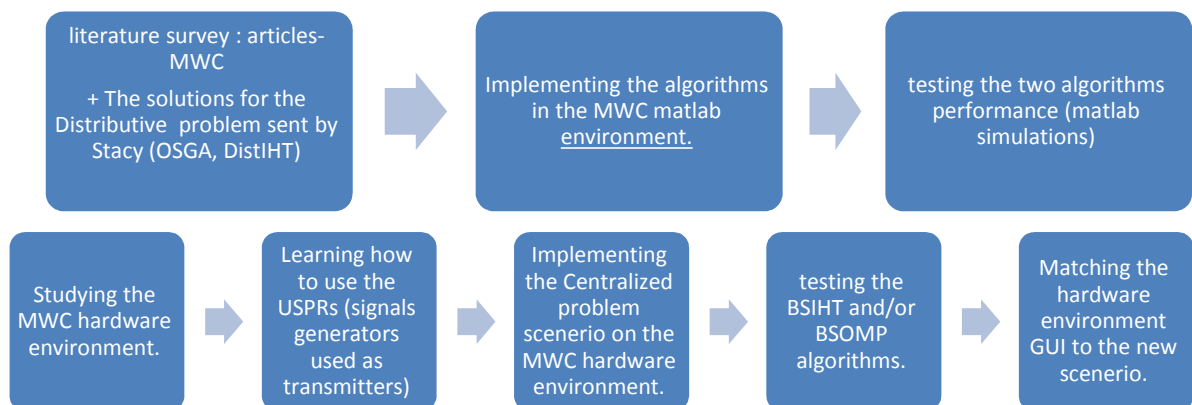


PDR

- Project ID: 2154
- Project Name: Collaborative spectrum sensing from sub-Nyquist samples for Cognitive Radios
- Supervisor: Deborah Cohen
- Students: Alon Akiva 307920959, Barak Avraham 312610579
- Motivation and background: the idea of cognitive radio has become very popular, and therefore there is a need to improve the efficiency of its performance, mostly meaning spectrum sensing- estimate the bands of frequencies which are currently occupied from sampled data. Our project will focus on the collaborative information sharing between several cognitive radios.
- Project goal: 2 main process in parallel:
 - Examine, implement and test two algorithms for efficient distributive support recovery from several cognitive radios' sampled data. This project's innovation is the use of the collaborative properties of the data from each CR in order to maximize the efficiency (success rate). But unlike the former project; there are restrictions on the accesses between one CR to another.
 - Implement and test the centralized algorithms from the former project on hardware (MWC hardware environment).
- Block diagram:



- Development environment: matlab, MWC hardware.