Spectrum sharing for wireless networks

Wireless networks act as a key enabler for many applications enriching user experience and bringing convenience to many aspects of human life. However, with the increasing use of wireless services and the number of wireless devices, the need for more efficient use of the available spectrum becomes paramount. To this end, rather than exclusive-spectrum use, spectrum access based on temporal or spatial sharing offers many benefits in terms of spectrum efficiency. However, wireless networks sharing the spectrum might cause service degradation or disruption on each other if they do not implement efficient coexistence and spectrum sharing schemes. In this line of research, M.Sc. and B.Sc. projects are available on a regular basis addressing spectrum sharing challenges or design of mechanisms to monitor the current spectrum usage and identify the anomalies and performance evaluation of spectrum sharing schemes.

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