

Spectrum sensing is an important technological requirement in the quest to realize dynamic spectrum access (DSA) in today's wireless world. Cognitive radio (CR) has been identified as an enabling technology that will considerably mitigate the effect of spectrum underutilization and cushion spectrum scarcity. But for this to happen, fast and accurate sensing technique must be developed. Quite a number of spectrum sensing techniques are available in literature, but these are not without inherent shortcomings. Recently, applications of wavelet techniques for spectrum sensing is receiving attention in the research community, this is attributed to its unique ability to operate both in the time and frequency domains and its suitability for wideband sensing. This paper takes a general look at the applications of wavelets in solving problems in science and engineering and then focused on its recent applications in spectrum sensing. Besides discussing the general spectrum sensing techniques in literature, the paper also discussed wavelet-based spectrum sensing, and its variants; pointing out the merits and limitations of each. It noted that, like any other sensing technique, wavelet-based technique has its strengths and weaknesses, hence, the advantages and disadvantages of this technique are also highlighted. Also, wavelet techniques in spectrum sensing was variously compared with existing wavelet sensing techniques; other spectrum sensing techniques; and existing wideband sensing techniques. Emerging research trends involving wavelets in wireless communications systems design are discussed while some challenges posed by wavelet techniques are mentioned. The paper is intended to provide necessary information and serve as a pointer to relevant literatures for researchers seeking information about