

Abstract

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WILAB: Discrete Event and Library for Wireless Systems

In this paper, a new library called the WILAB is explained. WILAB was developed using an existing MATLAB toolbox called the simevents toolbox. WILAB was developed with the target of easing the process of simulating wireless networks as a discrete event simulator and allowing the rapid prototyping of vast wireless network types. The paper explains the new library by explaining the block diagrams that compose the new library and demonstrates its usage in building the medium access control of the IEEE 802.11 wireless LAN. The paper confirms with modeling that the developed wireless LAN using WILAB gives the expected results.