Review: Wavelet New Tool for Path Loss Prediction

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Abstract : In this work, GSM signal strength (power) was monitored in an indoor environment. Samples of the GSM signal strength was measured on mobile equipment (ME). One-dimensional multilevel wavelet is used to predict the fading phenomenon of the GSM signal measured and neural network clustering to determine the average power received in the study area. The wavelet prediction revealed that the GSM signal is attenuated due to the fast fading phenomenon which fades about 7 times faster than the radio wavelength while the neural network clustering determined that -75dBm appeared more frequently followed by -85dBm. The work revealed that significant part of the signal measured is dominated by weak signal and the signal followed more of Rayleigh than Gaussian distribution. This confirmed the wavelet prediction.