

Abstract Submitted  
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**Neutrosophic Quantum Computer** FLORENTIN SMARANDACHE,  
Univ of New Mexico — This paper is a theoretical approach for a potential neutrosophic quantum computer to be built in the future, which is an extension of the classical theoretical quantum computer, into which the indeterminacy is inserted. Neutrosophic quantum communication is facilitated by the neutrosophic polarization that favors the use the neutrosophic superposition and neutrosophic entanglement. The neutrosophic superposition can be linear or non-linear. While into the classical presumptive quantum computers there are employed only the coherent superpositions of two states ( $0$  and  $1$ ), in the neutrosophic quantum computers one supposes the possibilities of using *coherent superpositions amongst three states* ( $0$ ,  $1$ , and  $I$  = indeterminacy) and one explores the possibility of using the *decoherent superpositions* as well.

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