Abstract Submitted for the TSS09 Meeting of The American Physical Society

Quantum Entanglement in Jaynes-Cummings Model PHU NGUYEN, University of Houston at Clear Lake — Quantum entanglement is a quantum mechanical phenomenon in which two or more quantum states are linked together so that one state can no longer be adequately described without full mention of its counterpart. Quantum Entanglement is fascinating and its future application is endless. This paper explores the applications of what has been called Einstein's Spookiest Theory. The world of Information Technology is in for a dramatic change with the introduction of Quantum Information, Cryptography, Computation, and Teleportation. We discuss the entanglement in Jaynes-Cummings Model and try to find its applications in different fields of physics. As research progresses, the upcoming years are bound to reveal some astonishing advancements and breakthroughs in quantum entanglement.

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Date submitted: 02 Apr 2009 Electronic form version 1.4