A locative inconsistency-tolerant hierarchical probabilistic computation tree logic (LIHpCTL) is introduced in this paper to establish the logical foundation of a new model checking paradigm. This logic is an extension of several previously proposed extensions of the standard temporal logic known as CTL, which is widely used for model checking. The extended model checking paradigm proposed is intended to appropriately verify locative (spatial), inconsistent, hierarchical, probabilistic (randomized), and time-dependent concurrent systems. Additionally, a survey of various studies on probabilistic, inconsistency-tolerant, and hierarchical temporal logics and their applications in model checking is conducted.