Accurate measurements of extragalactic distances are crucial for understanding the Universeâ€™s formation and evolution and resolving the Hubble tension. While various standard candles have been explored, the use of Type-II Cepheids (T2Cs) remains relatively unexplored. In this talk, I aim to establish T2Cs as a reliable tool for calibrating the extragalactic distance scale, using the Andromeda galaxy (M31) as a benchmark. Since there are limitations of Ordinary Least Square regression methods, we employ the Bayesian robust regression (BRR) model with âˆ¼ 100 T2Cs, âˆ¼ 1000 fundamental mode, and âˆ¼ 750 first-overtone classical Cepheids (CCs) in the Large Magellanic Cloud (LMC) to derive new Period-Luminosity (PL) and Period- Wesenheit (PW) relations. These relations are then applied to M31â€™s photometry, yielding a distance of 24.409 Â± 0.025 mag (statistical) Â± 0.156 mag (systematic) for T2Cs, consistent with literature values. This study validates T2Cs as accurate distance indicators, suitable for upcoming observing facilities like JWST, LSST, and ELT, offering the capability to probe galaxies lacking the young population distance indicators. Additionally, T2Cs PL/PW relations demonstrate minimal metallicity dependence, enhancing their utility in diverse galactic environments. These findings may contribute to the resolution of the Hubble tension and advance our understanding of the cosmos.