

Computer networks bring along many benefits in present-day society. The full benefits of computer networking are yet to be realised because of non-resilience issues. Universities are one of the sectors that have been a forefront user of computer networks and are yet to tap into its full benefits. This paper examines computer networks and develops a framework for computer network resilience in achieving computer network dependability in the context of universities. The paper adopted a survey research design targeting universities where Kibabii University was purposively sampled as the case study. The target population comprised (6246) undergraduate, (248) masters and (42) PhD students and (430) Kibabii staff. Random and purposive sampling were used where appropriate. The study used content analysis, questionnaires, interviews for data collection and a focus group for the framework validation process. Data collection tools were given to (3) experts to validate where they scored a validity value of (78.3%). Inferential and descriptive statistics were used to analyse the data. A KMO value of (0.803) justified the use of factor analysis on the collected data. Network, connectivity and human characteristics with factor loadings of (0.1898), (0.4359) and (0.3243) were the main constructs of the framework. The researchers expect that focusing on connectivity, human behavior, and network characteristics guarantees network end users a worthwhile experience, help computer hardware and software vendors fine-tune their solutions and guide governments and universities to plan and invest in enlightened environments when investing in computer networks, especially in universities.