**CONCLUSION:**

The emergence of the IoT has made data sharing one of its most prominent applications. To guarantee data confidentiality, integrity, and privacy, we propose a secure identity-based PRE data-sharing scheme in a cloud computing environment. Secure data sharing is realized with IBPRE technique, which allows the data owners to store their encrypted data in the cloud and share them with legitimate users efficiently. Due to resource constraints, an edge device serves as the proxy to handle the intensive computations. The scheme also incorporates the features of ICN to proficiently deliver cached content, thereby improving the quality of service and making great use of the network bandwidth.