

# DIGITAL SIGNATURE VERIFICATION USING ARTIFICIAL NEURAL NETWORK

Bio-metrics play a crucial role in establishing an individual's identity. A signature is one of the most widely recognized way to authorize transactions and authenticate the human identity as compared to other electronic identification methods such as fingerprint and retina scans. Due to a huge demand for authentication, fast algorithms need to be assimilated for signature recognition and verification. Human signatures can be treated as an image and the techniques of neural networks can be applied to them for recognition and verification. This project exploits a database of samples of signatures that are captured in an image format, and this system and database is used to train the neural network. The authenticated signature data is then encrypted for security and confidentiality. The technology is based on measuring script pressure and angle used by the person when a signature is produced. This technology uses the individual's handwritten signature as a basis for authentication of entities and data. The authentication is mostly accurate and reliable. It uses one-way hash functions to encrypt the signature dynamics and data, and then append it to the document being signed in order to secure the authenticated signature.