“Trust Pass’’ – Blockchain-Based Trusted Digital Identity Platform Towards Digital Transformation.

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Abstract— According to the United States Census Bureau, by June 2019 world population on earth was 7.5 billion, which exceeds the world population of 7.2 billion as of 2015. Each of these citizens needs to prove their identity to fulfil their day-to day routine. In this current digital revolution whole world is transforming to digitalization. Therefore, proving someone's identity in the digital space is a must. Being able to track a person digitally can eliminate identity theft and most incidents related to online harassment. With the focus on data privacy and security of citizens, we have proposed "Trust Pass": Cyber Security Intelligence-based trusted digital identity platform capable of registering and verifying service providers based on document validation neural network model (95.4% accuracy) and allowing citizens to authenticate themselves to service providers with three-factor biometrics authentication with liveness detection neural network model (99.8% accuracy). The requests of the whole system are secured with Cyber Security Threat Intelligence System, and unusual activities of users are monitored through Informative Data Analytics Engine. All the sensitive user data is saved using a blockchain to ensure user privacy while reducing the system's vulnerability.

Keywords— *cyber security intelligence, blockchain, cyber threat, Three-factor biometric, Data security and privacy, Digital Identity, Neural Networks*