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(57) Abstract :

The present invention a novel intrusion detection system based on adaptive neural networks with dynamic threat assessment. The method comprising, neural network architecture with adaptive learning capabilities, continuously adjusting network parameters based on real-time data to enhance intrusion detection accuracy and Analyzing and identifying potential threats in real time through a dynamic threat assessment mechanism. Neural network architecture is engineered to analyse network communication patterns effectively, identify unusual activity, and accurately categorize any intrusions. A dynamic threat assessment process that changes over time is incorporated into the proposed system, which is different from standard systems for intrusion detection. Because of its flexibility, cybersecurity is addressed proactively, guaranteeing strong defence against new threats. By utilizing real-time data, the neural network is continuously trained and improved, enhancing its detecting skills and reducing unwanted positive results.

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