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(54) Title of the invention : REMOTE TUNING OF MALWARE CONTENT DETECTION SYSTEM USING MACHINE LEARNING AND TRAFFIC ANALYSIS TECHNIQUES

<p>(51) International classification :G06N002000000, G06F0021560000, G06F0021550000, H04L0043160000, H04L0043045000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant :</p> <p><b>1)Chitkara University</b> Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----</p> <p><b>2)Bluest Mettle Solutions Private Limited</b> <b>Name of Applicant : NA</b> <b>Address of Applicant : NA</b></p> <p>(72)Name of Inventor :</p> <p><b>1)MISHRA, Rahul</b> Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune -----</p> <p><b>2)SINGH, Dhiraj</b> Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune -----</p> <p><b>3)MANTRI, Archana</b> Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----</p>
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(57) Abstract :

The remote tuning system (100) for malware content detection in a network environment comprises key components: a malware content detection system (102) employing machine learning techniques to classify network content, a centralized management server (104) receiving metadata from a traffic analysis module to generate and update machine learning models, and a traffic analysis module (106) monitoring network traffic patterns and providing anonymized metadata for analysis. These machine learning models (108) are trained with labeled datasets to improve accuracy and adapt to emerging threats using collected metadata and threat intelligence. A user-friendly remote tuning interface (110) empowers administrators to configure the system and adjust parameters while continuous updates enhance real-time threat identification. This system ensures heightened network security while optimizing resource efficiency.

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