(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :02/06/2023

(21) Application No.202311038145 A
(43) Publication Date : 07/07/2023

(54) Title of the invention : SYSTEM TO DETECT AND MITIGATE CROSS-SITE SCRIPTING (XSS) ATTACK IN A WEBSITE

(51) International classification	:B60G 170150, F01N 110000, G06F 211200, G06F 215700, H04L 651069
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

(71)**Name of Applicant :**
1)Chitkara University
Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ---------- ----------
2)Bluest Mettle Solutions Private Limited
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
1)MISHRA, Rahul
Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune ---------- ----------
2)PANDEY, Sakshi
Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune ---------- ----------
3)KUMAR, Naveen
Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ---------- ----------

(57) Abstract :
The present disclosure relates to a system (100) and method (300) to detect and mitigate cross-site scripting (XSS) attack. The system receives an input feature from a machine learning model trained using a predetermined XSS assault data and designed features, formats predetermined XSS assault data for training of machine learning model, evaluates performance of machine learning model against a dataset of predetermined XSS attacks, and integrates it to a production environment for a real-time XSS attack detection and prevention. Additionally, the system monitors and detects change in patterns in XSS attacks and updates machine learning model with new information. The processor (102) integrates the system with an intrusion detection solution to provide network security, predicts XSS attacks in real-time using machine learning model by analyzing incoming web requests and alerts and mitigates by generating alerts to a computing device (112), upon detection of potential XSS attacks by notifying security personnel and executing preventive measures.

No. of Pages : 25 No. of Claims : 10