

(54) Title of the invention : SYSTEM AND METHOD FOR SCANNING VULNERABILITIES IN ETHEREUM VIRTUAL MACHINE BYTECODE

<p>(51) International classification :B01L 030000, G06F 094550, G06F 215500, G06F 215600, G06F 215700</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, Saket</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)SHARMA, Manish</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 present disclosure relates to a system (100) and method for scanning vulnerabilities in the bytecode of an Ethereum Virtual Machine (EVM) (110). The system (100) includes a processor (102) that receives bytecode from one or more EVMs (110) and analyses all the bytecode to scan for vulnerabilities or defects in the smart contracts of the EVM (110). The bytecode is a low-level programming language, and the system (100) first converts it into a higher-level programming language that can be easily analysed by it. The data of the smart contracts is stored in a confidential and secure manner and if there are any vulnerabilities in the bytecode, then alerts or warning are issued by the system (100) on an interface (104) and suitable alerts are also sent to the user. The vulnerabilities may include another user trying to overwrite in the smart contract, change in ownership, data corruption or even syntactical errors in the bytecode. Therefore, the system (100) aims at providing an efficient method to scan the entire bytecode of an EVM (110) to ensure that it is a safe distributed state machine to store important smart contracts.

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