(12) PATENT APPLICATION PUBLICATION   (21) Application No.202311042187 A

(19) INDIA

(22) Date of filing of Application :23/06/2023   (43) Publication Date : 21/07/2023

(54) Title of the invention : SYSTEM AND METHOD TO REVERSE ENGINEER AN ANDROID APPLICATION

(51) International classification	:A61K 380000, B01D 670000, C12N 092200, H01L 230000, H04W 523200
(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)SINGH, Dhiraj
Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune ----------- -----------
  3)MANTRI, Archana
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 for reverse engineering an Android application of a user. This application can be on a mobile or computing device of the user. The system first obtains the APK file associated with the Android app and decompiles it completely to extract all the individual files contained within including the source code. The system involves analysing the source code and other resource files with a static and dynamic analysis (110) technique to understand the behaviour of the Android app completely. The system also reviews all security configurations of the Android app along with the incoming network traffic or even the external connections of the App to gain a complete insight into its underlying structure. The process of reverse engineering also consists of disassembling all resources into their original files and aid in the management of the bare APK and JAR files.

No. of Pages : 28 No. of Claims : 10