

EnCase Forensic Technology for Decrypting Stenography Algorithm applied in the PowerPoint file

HyunHo Kim*, Ndibanje Bruce*, SuHyun Park**, HoonJae Lee**

* Dept of Ubiquitous IT, Dongseo University, Korea

** Dept of Computer Engineering, Dongseo University, Korea

feei_@naver.com, ndibanje.bruce.phd@ieee.org, supark@dongseo.ac.kr, hjlee@dongseo.ac.kr

Abstract— The growth of both IT technology and the Internet Communication has involved the development of lot of encrypted information. Among others techniques of message hiding, stenography is one them but more suspicious as no one cannot see the secret message. As we always use the MS Office, there are many ways to hide secret messages by using PowerPoint as normal file. In this paper, we propose a new technique to find a hidden message by analysing the in PowerPoint file using EnCase Transcript. The result analysis shows that Steganography technique had hidden a certain number of message which are invisible to naked eye.

Keyword— Encase, Forensic, Stenography, PowerPoint



HyunHo Kim

2013 : BS at Dongseo University, Republic of Korea
2015 : MS at Dongseo University, Republic of Korea
2015 ~ current: doctor's course Dongseo University, Republic of Korea
Research Interests : Digital Forensic, Information Security, Network Security



Ndibanje Bruce

2004 : BS at Ngozi University, Republic of Burundi
2013 : MS at Dongseo University, Republic of Korea
2016 : Ph.D at Dongseo University, Republic of Korea
Research Interest: Information Security, Wireless Sensor Networks, Cryptography and Network Security, Side Channel Analysis



SuHyun Park

1986 : BS at Pusan National University, Republic of Korea
1988 : MS at Pusan National University, Republic of Korea
1999 : Ph.D at Pusan National University, Republic of Korea
1996 ~ current : Professor of Dongseo University, Republic of Korea
Research Interests : Maritime IT, Artificial Intelligence, Intelligent System



HoonJae Lee

1985 : BS at Kyungpook National University, Republic of Korea
1987 : MS at Kyungpook National University, Republic of Korea
1998 : Ph.D at Kyungpook National University, Republic of Korea
2002 ~ current : Professor of Dongseo University, Republic of Korea
Research Interests : Password Theory, Network Security, Side-Channel Attack, Information Communication/Information Network