

## **Network Security via Cryptographic Validity**

**By Carranza, Aparicio**

What Computer and network security is one of most important areas of study nowadays. With the inception of the Internet in the 1990s, the industry has grown at an exponential rate that will only continue to rise in the near future. People all around the globe are using this method of communication either for email, chatting, games, transfer of information, and other uses. Although this technology sounds wonderful, there is a downside to it as well. The Internet involves people with malicious intentions and the use of malware, which is software that contains malicious code used for targeting network infrastructures. It is for this reason that the studies of computer networking and security have been emphasized within the last few years. One solution for combating malwares and other threats traveling within the Internet is the use of cryptography. This method consists on encryption and decryption of information, which renders a very robust solution in counter attacking dangerous code that is likely to enter a private network. In this research we will explore some of the cryptographic techniques using hardware/software solution modules to verify the robustness of block ciphers mode, data encryption standard, advanced encryption standard, classical transposition ciphers, public and private key ciphers, and RSA as it applies to network security.

### **Biography**

Associate Professor at CUNY – NYCC Technology, Brooklyn, NY and Adjunct at SUNY – New Paltz. His research interest involves CyberSecurity & Technology Education, SDN, Virtualization and Cloud Computing. He serves as an Advisory Council to Vaughn College of Aeronautics, DeVry University, TCI College; and Rockland Community College all in NY. He was chair of his department for six years (2007 – 2013). Dr. Carranza has a PhD from The Graduate School of CUNY, MSEE & BSEE (summa cum laude) from CCNY – CUNY; and AAS (summa cum laude) in Electronics Circuits and Systems from TCI of NY. He also worked as an Engineer Scientist for IBM Corp. For the past 15, he's been with NYCC of Technology.