1135-94-3141 **Rachid Ait Maalem Lahcen*** (rachid@ucf.edu), Department of Mathematics, University of Central Florida, ORLANDO, FL 32816, and **Ram N Mohapatra** (ramm1627@gmail.com), Department of Mathematics, University of Central Florida, Orlando, FL 32816. *Extremal Graph Theoretic Approach to Study Network Vulnerability and Cyber Security.*

In this preliminary study we shall mention the importance of the three layers to study cyber security. Kyle Ingols, Richard Lippmann, and Keith Piwowarski of MIT Lincoln Laboratory, have studied practical attack graphs for network defense. They have shown that Attack graphs are a valuable tool to network defenders, illustrating paths an attacker can use to gain access to a targeted network. Our objective is to see how these methods can be used to protect the communication networks for UAVs. The research is at the exploratory stage. (Received September 26, 2017)