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पेटेंट कार्यालय का एक प्रकाशन  
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(54) Title of the invention : NETWORK SECURITY ATTACK DEFENSE SYSTEM USING STATE ATTACK AND DEFENSE GRAPH MODEL AND METHOD EMPLOYED THEREOF

<p>(51) International classification :H04L0029060000, G06T0001000000, H04L0012180000, B61C0017020000, C23F0001020000</p> <p>(86) International Application No :PCT// Filing Date :01/01/1900</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 : <b>1)CMR Technical Campus</b> Address of Applicant :CMR Technical Campus, Kandlakoya, Medchal Road, Hyderabad, Telangana - 501401, India. -----</p> <p><b>Name of Applicant : NA</b> <b>Address of Applicant : NA</b></p> <p>(72)Name of Inventor : <b>1)Dr. M. Ahmed Ali Baig</b> Address of Applicant :Professor, Dept. of Mechanical Engineering, CMR Technical Campus, Kandlakoya, Medchal Road, Hyderabad, Telangana - 501401, India. -----</p> <p><b>2)Dr. B. Kavitha Rani</b> Address of Applicant :Professor, Dept. of IT, CMR Technical Campus, Kandlakoya, Medchal Road, Hyderabad, Telangana - 501401, India. -----</p> <p><b>3)B. Ramji</b> Address of Applicant :Asst. Professor, Dept. of CSE (DS), CMR Technical Campus, Kandlakoya, Medchal Road, Hyderabad, Telangana - 501401, India -----</p> <p><b>4)J. Srividya</b> Address of Applicant :Asst. Professor, Dept. of CSE, CMR Technical Campus, Kandlakoya, Medchal Road, Hyderabad, Telangana - 501401, India -----</p> <p><b>5)D Sandhya Rani</b> Address of Applicant :Asst Professor, Dept. of CSE, CMR Technical Campus, Kandlakoya, Medchal Road, Hyderabad, Telangana - 501401, India. -----</p>
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## (57) Abstract :

Exemplary embodiments of the present disclosure are directed towards a network security attack defense system using state attack and defense graph model and method employed thereof. The method includes determining connectedness structure reach ability matrix of all hosts node in network topology and utilizing tender spots scanning tools Nessus, ISS and SARA, and each host node in network is scanned and obtains the tender spots set of each host node. The method further includes according to the tender spots set of each host node and the utilization rule structure state attacking and defending figure of each tender spots and conjunction with safe tender spots evaluating system CVSS, the probability of success and the hazard index of each atomic strike in computing mode attacking and defending figure and determining mentioned two kinds of attack paths in conjunction with the tender spots prevention and control measure, formulate defense policies. FIG. 2

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