

Group decision based dependency modeling - methodology and observations

Jaemyung AHN¹ and Don-Goo LEE¹

1) *Department of Aerospace Engineering, Korea Advanced Institute of Science and Technology, Daejeon 305-701, KOREA*

Corresponding Author: Jaemyung AHN, jaemyung.ahn@kaist.ac.kr

ABSTRACT

This research introduces a framework model the dependency between different elements of a system using group decision approach. The different perspectives of the influencing and influenced parties associated with the dependency are the source of the uncertainty in the modeling. A procedure to systematically contrast the difference and derive the converged opinion is proposed. A case study results for dependency modeling of critical infrastructure is presented with observations that on the tendency of the converged opinions to move following the perspectives of the influenced party.