RESEARCH NOTE

Estimation of Priority Vectors

Peter Shaohua Deng[1,*], Kevin Chen[2], and Peter Chu[2]

[1] Department of Information Management, Central Police University, Taiwan ROC

[2] Department of Traffic Science, Central Police University, Taiwan ROC

Abstract──In a recent paper of Murphy (1993), he predicted that if the relative weight of two alternatives were overestimated as demonstrably more important than another then the restriction of the range for the scales would reduce the error from inflating the ratio. In this paper, we will use the sum of square residues between the normalized principal right vectors to show that the Murphy's prediction is questionable. Our method provides a suggestion to explore the properties of eigenvectors.

Keywords──Analytic hierarchy process, Comparison matrix, Inconsistency

* Corresponding author email: pdeng@mail.cpu.edu.tw