Study and Learning Centre

Research publications: the voice of authority

Jen Anderson
Identifying features of voice control

Conduct a discourse analysis of articles in target refereed journals:
1. layout (sections, image/diagram/table & text)
2. heading functions
3. purpose of topic and concluding sentences in paragraphs
4. type of in-text referencing (author or information prominent)
5. linking words between sentences and paragraphs
6. comparison and contrast of current work with the work of others
7. syntactic ‘gems’.

‘Borrow’ these conventions.
Risk Management in the Construction Industry Using Combined Fuzzy FMEA and Fuzzy AHP

Mohamed Abdelgawad1 and Aminah Robinson Fayek, A.M.ASCE2

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Abstract: sentence analysis

(1) Failure mode and effect analysis (FMEA) is recognized as one of the most beneficial techniques in reliability programs. (2) FMEA is a structured technique that can help to identify all failure modes within a system, assess their impact, and plan for corrective actions. (3) Although this technique has been widely used in many industries, it has some limitations. (4) The purpose of this paper is to extend the application of FMEA to risk management in the construction industry. Fuzzy logic and fuzzy analytical hierarchy process AHP are used to address the limitations of traditional FMEA. (5) In essence, this method explores the concept of fuzzy expert systems to map the relationship between impact I, probability of occurrence P, and detection/control D and the level of criticality of risk events. (6) A case study is presented to validate the concept. (7) The results obtained confirm the capability of fuzzy FMEA and fuzzy AHP to address several drawbacks of the traditional FMEA application. (8) The use of this approach can support the project management team to establish corrective actions in a timely manner.
INTRODUCTION – sentence 1

The construction industry is characterized by high levels of risks and uncertainties.

Over the past decade, many projects have experienced large variations in cost and/or schedule turning these projects into unsuccessful endeavours.

The current trend in the construction industry is toward increasing project size and complexity, both of which result in greater levels of risk and uncertainty.

Thompson and Perry (1992) attributed the failure of projects to the lack of effective management of risk events, which often leads to overlooking of milestones and targets.

Clearly, the management of project risks has become fundamental to successful project management.
Puente et al. (2002) and Pillay and Wang (2003) noted that the RPN does not take into account possible weighting for the importance of severity S, occurrence O, and detection D. Xu et al. (2002) noted the difficulty of using numerical values to evaluate the occurrence of the failure event and argue the advantage of using other techniques that can support linguistic assessment of failure modes.

Failure mode and effect analysis (FMEA) is one of the risk analysis techniques recommended by international standards such as MIL-STD-1629A (U.S. Department of Defense 1980).
Ayyub (2003) noted that any failure mode with a RPN greater than 125 should be considered seriously. However, such a rule of thumb for determining the RPN threshold is very subjective. In fact, without linking the value of the RPN to linguistic terms describing the priority to take corrective action, the project team will not be able to recognize the difference, for example, between a risk with a RPN equal to 140 versus one with a RPN equal to 160.
The current trend in the construction industry is toward increasing project size and complexity, both of which result in greater levels of risk and uncertainty.

X (year) and Y (year) noted that RPN does not take into account possible weighting for the importance of severity S, occurrence O, and detection D.

X and Y (year) attributed the success/failure/findings/results etc of X to the lack of effective management of risk events, which often leads to overlooking of milestones and targets.

The results obtained confirm ...

Blahblah is characterized by...
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