

Probing potential of knowledge engineering support for electrical engineers – a case study

ABSTRACT

Because of ever increasing complexity of electrical engineering systems, this is needed to provide supportive guidance to electrical engineers in dealing with increasing complexity of systems. This paper summarizes a case study conducted to assess qualitative benefits of emerging knowledge engineering tool named TRIZ (Theory of inventive problem solving), for the field of electrical engineering. The study considers few key aspects, which proves that knowledge based guidance can facilitate electrical engineers at initial stages of solution hunting and design process. This early conceptual guidance results into reaching more practical innovative solutions with less time and less need of very high expertise in multiple fields. For purpose of this case study, a group of electrical engineers from National Engineering Consultants (NEC) Pakistan were consulted. Engineers involved in discussion presented few common problems which they faced in their field of working. Initial stages TRIZ based conceptual guidance for reaching innovative and practical solutions was explored and feedback of this joint session is summarized in this paper.

Keyword: Knowledge engineering; TRIZ; Electrical engineering; Thinking support