Decision Tools for the Engineering of Steel Structures

Michael Gedig

AMEC Dynamic Structures, Ltd., Port Coquitlam, BC, Canada

Siegfried Stiemer

University of British Columbia Department of Civil Engineering, BC, Canada

ABSTRACT

This paper gives an overview of currently available tools for decision making in the field of steel structures engineering. The theory of decision making in business, economics, and politics is well established. There is a wide array of methods and software that is used to implement the theory. In particular, the realm of decision making under conditions of uncertainty is of particular importance to the practicing engineer. This paper describes methods and software that may be used to inform and guide the decision making process in engineering practice. Examples are provided to illustrate the application of these tools to steel structures engineering.

KEYWORDS

steel structures; engineering; decision analysis; decision theory; decision making