Abstract Decision-making is an integral part of technical problem-solving. In this study, two decision theories, which are capable to deal with uncertain information — Info-Gap Theory and RDM (Relative-Distance-Measure) interval arithmetic, are presented. The paper shows some aspects of the robustness function and uses each approach to evaluate the example of charging car battery. The comparison of Info-Gap Theory and RDM-arithmetic not only improves understanding of these methods, it also suggests some broader insights into robustness understanding.

Keywords Info-Gap Theory, uncertainty, RDM-arithmetic, robustness function.