

Table of Contents

Reliability-Based Topology Optimization: Advances and Applications

Edited By

Ghais Kharmanda

Part 1: Introduction & literature reviews

Chapter 1: General introduction

By: Kharmanda, G.* (Germany)

Chapter 2: Basic concepts of RBTO

By: El-Hami, A.* (France) and Kharmanda, G. (Germany)

Chapter 3: Literature review of RBTO

By: Mulki, H.* (Kuwait) and Kharmanda, G. (Germany)

Part 2: Advanced Strategies & Algorithms

Chapter 4: Efficient RBTO strategy under hybrid uncertainty

By: Wang, X.* (China)

Chapter 5: Reverse and inverse RBTO strategies

By: Kharmanda, G.* (Germany); Mulki, H. (Kuwait); Shokry, A. (Egypt) and Gowid, S. (Qatar)

Chapter 6: Robust RBTO strategies

By: Alfouneh, M.* (Iran) and Keshtegar, B. (Iran)

Chapter 7: Intelligent RBTO strategies

By: Keshtegar, B.* (Iran) and Alfouneh, M. (Iran)

Part 3: Advanced Applications

Chapter 8: RBTO for bridge structure applications

By: Kharmanda, G.* (Germany) and Mulki, H. (Kuwait)

Chapter 9: RBTO for composite structure applications

By: Alfouneh, M.* (Iran) and Keshtegar, B. (Iran)

Chapter 10: RBTO for additive manufacturing applications

By: Murat, F.* (Turkey) and Kaymaz, I. (Turkey)

Chapter 11: RBTO for medical applications

By: Kharmanda, G.* (Germany); EL-Hami, A. (France) and Mulki, H. (Kuwait)

Part 4: Future Perspectives and Conclusion

Chapter 12: Future perspectives for RBTO developments

By: Simonetti, H.L.* (Brazil)

Chapter 13: Future perspectives for AI-related RBTO developments

By: Keshtegar, B.* (Iran); Kharmanda, G. (Germany) and Alfouneh, M. (Iran)

Chapter 14: Future perspectives for vital RBTO applications

By: Kharmanda, G.* (Germany); Shokry, A. (Egypt) and Gowid, S. (Qatar)

Chapter 15: General conclusion

By: Kharmanda, G.* (Germany)

***: Correspondence (Senior Contributor) with ELSA (Elsevier System)**