

# Contents

Kurt J. Engemann

**Advances in artificial intelligence risk management — V**

## Part I: Fundamentals

Holmes E. Miller and Kurt J. Engemann

**1 The emerging impact of artificial intelligence — 3**

Rachelle Loyear

**2 AI in enterprise security risk management: Threats, benefits, and governance — 35**

Matthew LaGana

**3 Securing the future: Managing cybersecurity risks in the age of artificial intelligence — 59**

Muhammad Z. Hussain, Muhammad Z. Hasan and Muhammad R. Siddique

**4 Mitigating risks in AI-driven network security: Strategies for ensuring resilience and integrity — 77**

Gregory Bramble

**5 How to architect artificial intelligence systems that put the human in the loop and don't overpromise — 95**

Dron M. Mandhana and Krista N. Engemann

**6 A structured approach to evaluating AI capabilities for risk-managed implementation and adoption in organizations — 109**

## Part II: Applications

Jeanne Sheehan

**7 Deepfake democracy: The rise of AI in the electoral process — 127**

C. Christopher Lee and Heechang Shin

**8 Preserving privacy in healthcare: Implications of artificial intelligence — 149**

Yusuf Joseph Ugras

**9 Artificial intelligence in accounting — 165**

Ore A. Soluade and Robert J. Richardson

**10 Autonomous vehicles: Challenges and concerns — 187**

Vinod G. Surange and Lokpriya Gaikwad

**11 Modeling AI adoption barriers for risk management in manufacturing:  
An ISM-MICMAC approach — 209**

Natasha Blazheska-Tabakovska and Snezana Savoska

**12 Artificial intelligence impact on education: Opportunities and risks — 233**

**Contributors — 249**

**Index — 251**