ARTIFICIAL INTELLIGENCE REVOLUTION:

SHAPING INDUSTRIES, CITIES, AND EDUCATION IN THE DIGITAL ERA

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Dedication

This book is dedicated to all the innovators and leaders driving transformation through AI, shaping industries, cities, and education for a sustainable and digital future. It is a celebration of the 40th Dies Natalis of IPMI, marking four decades of excellence and leadership in education and business.

Source: Pixabay

Table of Contents

FOREWORD.....5
Chapter One..... 7
Analysis, Evaluation of Hospital Financial Performance and Financial Health Assessment Before and During the Implementation of Digital Transformation Towards High-Quality Hospitals. A Case Study: PKU Muhammadiyah Surakarta Hospital Period 2016 – 2023 *(Wiwiek M Daryanto, Soffin Arfian)*.....7
Abstract..... 7
INTRODUCTION..... 9
RESEARCH METHODOLOGY.....15
RESULT AND DISCUSSION.....22
Financial Performance Measurement Result..... 22
Altman Z-Score Measurement Result.....33
Analysis Hypothesis Testing Result.....35
LIMITATION.....40
CONCLUSIONS AND RECOMMENDATIONS.....40
Chapter Two..... 43
City Image and Tourism Components: Agile Management In The Blok M Area *(Samuel PD Anantadjaya, Irma M Nawangwulan, DC Ethan Samuel)*.....43
Abstract..... 43
INTRODUCTION..... 44
STATE OF THE ART..... 57
CITY IMAGE..... 58
TOURISM COMPONENTS.....62
CHALLENGES AND CONSIDERATIONS.....66
Chapter Three..... 69
Utilization Of Artificial Intelligence in Inventory Management Optimization to Increase Profitability and

Efficiency of UMKM in Jakarta (*Dety Nurfadilah, Lusita Vebrianti, Siti Siyara*.....69
Abstract.....69
INTRODUCTION.....70
STATE OF THE ART.....71
DISCUSSION.....72
CONCLUSION.....92
POLICY BRIEF.....93
Chapter Four.....95
Integrated Environment-Friendly Tourism Transportation Empowered by Artificial Intelligence Highlighting Cultural Heritage Uniqueness (*Amelia Naim Indrajaya,Zainal Arifin)*.....95
Abstract.....95
INTRODUCTION.....97
METHODS.....103
RESULTS AND DISCUSSION.....103
CONCLUSION AND RECOMMENDATION.....106
Chapter five.....109
Are the User's Values and Behavior Affecting the Electronic Marketplace Quality? (*Amita Yapy, Roy Sembel, Melinda Malau)*.....109
Abstract.....109
INTRODUCTION.....110
STATE OF THE ART.....112
DISCUSSION.....113
CONCLUSION.....120
Chapter Six.....123
Leveraging AI Language Processing to Create Pedagogical Business Case (*Marjaldi Loeis)*.....123
Abstract.....123
INTRODUCTION.....124

Generating Business CASES, The Traditional Way..... 126
AI Language Processing Technology.....128
Writing Business Cases Using AI..... 130
Challenges and Ethical Considerations.....132
Writing Cases in the Future.....133
Conclusion..... 134
Chapter Seven..... 137
Leveraging Artificial Intelligence for Optimizing Renewable Energy Supply Chain and Green Finance Strategies (*Eka Sri, Dana Afriza, Dety Nurfadilah)*.....137
Abstract..... 137
INTRODUCTION..... 139
STATE OF THE ART..... 140
DISCUSSION..... 142
CONCLUSION.....154
Chapter Eight..... 162
Aspects of Legal Protection of Personal Data in Smart City: Current Conditions in DKI Jakarta (*Agus Loekman)*..... 162
Abstract..... 162
INTRODUCTION..... 163
STATE OF THE ART..... 165
DISCUSSION..... 165
CONCLUSIONS.....177
POLICY BRIEF.....178
REFERENCES.....180
BIBLIOGRAPHY..... 208

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FOREWORD

The rapid advancement of Artificial Intelligence (AI) has undeniably reshaped the landscapes of industries, cities, and education across the globe. From enhancing operational efficiencies to driving innovation in various sectors, AI is no longer just a concept for the future—it is the force driving the present transformation.

In this book, *Artificial Intelligence Revolution: Shaping Industries, Cities, and Education in the Digital Era*, we explore how AI is fostering innovation, reshaping diverse sectors, and providing solutions to complex challenges. Through case studies, theoretical frameworks, and practical applications, this book presents a comprehensive analysis of how AI optimizes business processes and enables the emergence of new ideas, business models, and smart, sustainable environments.

Moreover, we delve into how AI revolutionizes education by creating new pedagogical opportunities and fostering innovation in teaching and learning. Institutions such as IPMI Institute recognize this potential through initiatives like Innolab/Innohub and forward-thinking programs such as Entrepreneurship and Digital Business. These initiatives empower students and

professionals to harness AI-driven innovation for business growth and societal advancement.

The chapters are as varied as the sectors AI touches. From the healthcare sector, where AI is improving financial performance and operational efficiency, to the tourism industry, where AI-driven solutions create agile, personalized travel experiences, the book showcases AI's diverse applications and potential in the real world. Furthermore, AI plays a crucial role in enabling cities to become more adaptive, innovative, and user-centric in the digital age.

This book highlights the importance of thoughtful AI integration, emphasizing ethical considerations and the impact of human values on digital innovation. As AI drives innovation, efficiency, and inclusivity in the digital era, it is crucial to harness these technologies responsibly to ensure sustainable benefits for society.

I invite you, the reader, to dive into the chapters that following chapters and explore how our world through innovation, reshaping industries, cities, and education. The future is driven by the intelligent systems we create today, and this book explores the opportunities and challenges that lie ahead.

Jakarta, 3 December 2024
Prof. Ir. Aman Wirakartakusumah, Msc., Ph.D, Rector of IPMI Institute