



UNIVERSITI  
TEKNOLOGI  
MARA

# HEART-DESIGN NEXUS:

## The Emotion Algorithm



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# PREFACE

The journey that led to this book began nearly 30 years ago when, as a young doctoral student, I first encountered the concept of Kansei Engineering. What started as an academic exploration soon became a lifelong passion, a quest to understand how human emotions shape our interactions with the designed world, and how those insights can be systematically applied to create more meaningful products, spaces, and experiences.

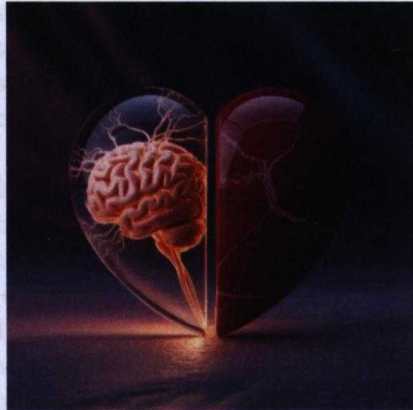
Throughout my career, I have been privileged to witness the evolution of Kansei Engineering, from a specialised Japanese methodology to a globally recognised approach that spans disciplines and cultures. The opportunity to learn directly from Professor Mitsuo Nagamachi, the pioneer of Kansei Engineering, profoundly shaped my understanding of the field and inspired me to contribute my own methodological innovations.

This book, "Heart-Design Nexus: The Emotion Algorithm", represents both a culmination and a continuation of that journey. It is at once a reflection on the historical development of Kansei Engineering, a documentation of my personal contributions to the field, and a forward-looking exploration of emerging trends and future possibilities.



# **CHAPTER 1**

## **INTRODUCTION TO HEART-DESIGN NEXUS**



**Figure 1.1: Emotion-thinking**

### **BACKGROUND AND CONTEXT**

Imagine you hold your smartphone in your hand; what draws you to it? Is it merely the sleek functionality, the technical specifications, or something more? Is there something that resonates with you at a deeper, more visceral level? Perhaps it is the satisfying weight, the subtle curve that fits perfectly in your palm, or the delicate chime that announces a message. These aren't random design elements; they

In a world where products compete on technical parity, what makes us choose one design over another? **Heart-Design Nexus: The Emotion Algorithm** reveals the groundbreaking methodology that transforms fleeting human emotions into tangible design parameters. Drawing from three decades at the forefront of Kansei Engineering, the author unveils how companies like Mazda harness emotional responses to create products that do not merely function, but they resonate at a profound human level. From her pioneering LEIQ™ framework to collaborations with the field's founder, this compelling journey explores how designers systematically bridge the seemingly unbridgeable gap between subjective feelings and objective specifications. For anyone fascinated by the invisible forces that influence our connections with everyday objects, this book illuminates the science behind designing not just for the mind, but for the heart.

**Anitawati Mohd Lokman** is among the pioneering figures in the field of Kansei Engineering in Southeast Asia, with over two decades of research experience translating emotional responses into design parameters. As a Board Member of the Kansei Engineering and Emotion Research (KEER) International Executive Board, she has helped shape the global trajectory of emotion-driven design. She trained directly under Professor Mitsuo Nagamachi, the founder of Kansei Engineering, and subsequently developed the innovative Lokman Emotion and Importance Quadrant (LEIQ)™ model, now referenced across nations. She has authored multiple influential books, including "Innovations of Kansei Engineering" with Professor Nagamachi, and has delivered keynote addresses at prestigious international conferences. As a Professor and an educator at Universiti Teknologi MARA in Malaysia, she has mentored many researchers who continue to expand the field's applications. Her cross-cultural perspective has been instrumental in adapting Kansei Engineering methodologies beyond their Japanese origins to diverse global contexts.