

Figure 9. A simple three-stage model of the design process

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Theory of Technical Systems

A Total Concept Theory for Engineering Design

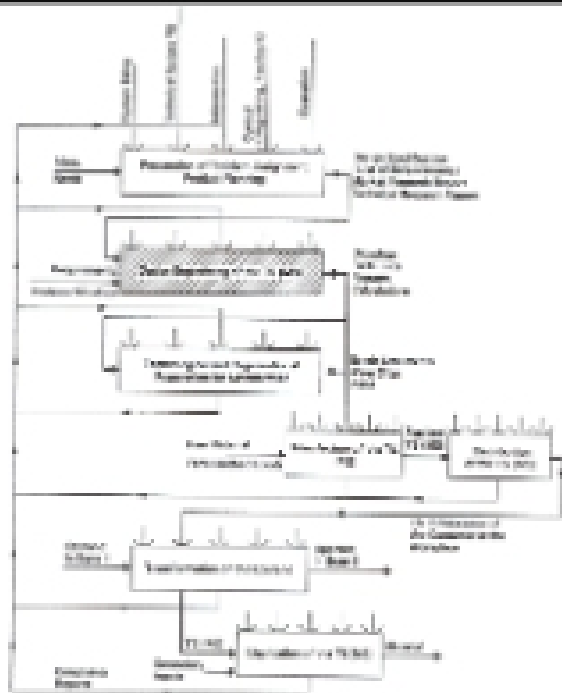


Fig. 9.4. Complex Model of the Optimization and Operation Process of Technical Systems (Reproduced from V. Hubka, *Engineering Design: A Systematic Approach*, Butterworths, 1982/1994, by kind permission of the publisher)

THE MECHANICAL DESIGN PROCESS

Second Edition

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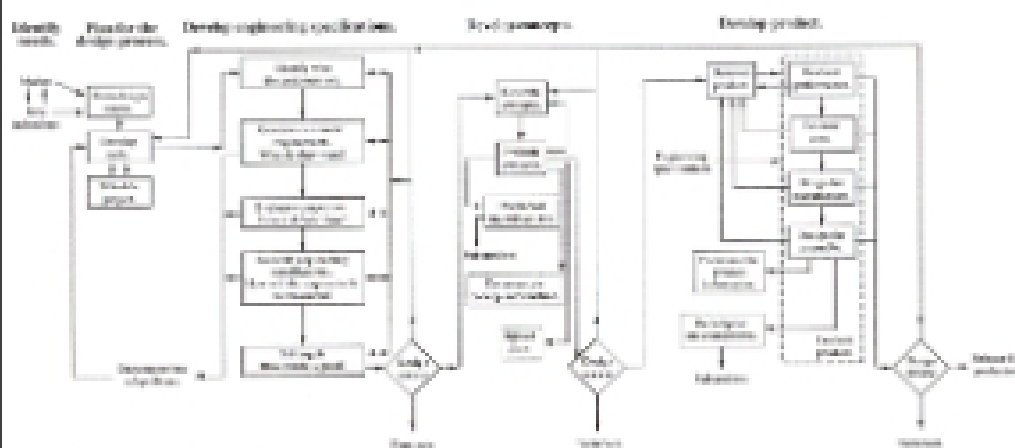


FIGURE 4.1 The mechanical design process

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Engineering Design

a systematic approach



Figure 1-10. Steps of the systems approach.

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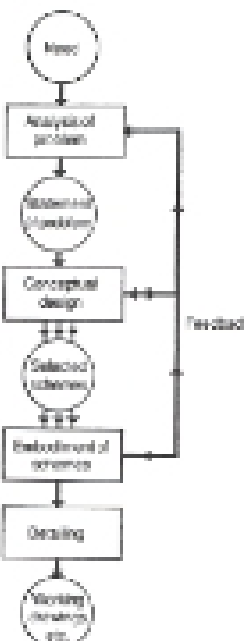


Figure 1-1. Block diagram of design process.

ENGINEERING DESIGN

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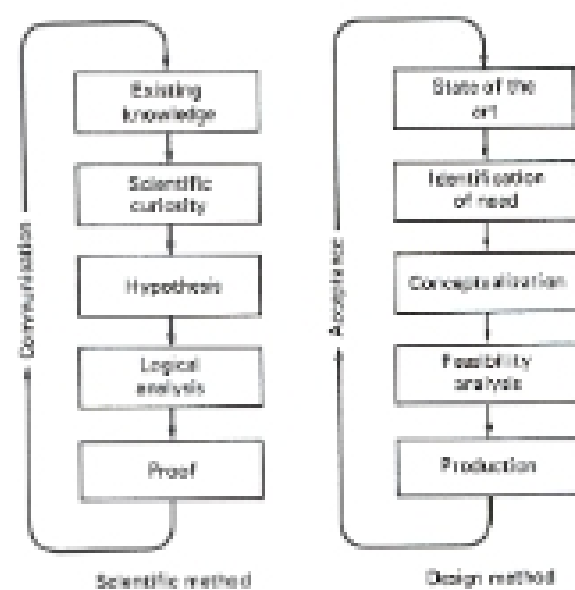


FIGURE 1-2 Comparison between the scientific method and the design method. (After Pevcy, AML.)

1-3 THE DESIGN PROCESS STEPS

To further illustrate the design process, we consider the process to consist of the following steps:

- Recognition of a need
- Definition of a problem
- Gathering of information
- Conceptualization
- Evaluation
- Communication of the design