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Departamento de Engenharia Mecânica e Industrial

Systematic Innovation and Problem Solving

UNIDEMI





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Objectives

The TRIZ methodology, with its strong theme of innovation, can contribute to accelerating the resolution of problems in the engineering and management activities.

The standard solutions of TRIZ methodology can help to significantly accelerate and improve the process of problem solving in virtually all human activities.

This research work is focused on the integration of TRIZ analytical tools with a design for environment system, to assure that the production system management is really sustainable.

Methodology

The Theory of Inventive Problem Solving (TRIZ), Brainstorming, Collateral Thinking, Mind Maps and other methodologies can stimulate individual and collective creativity.

The integral development of TRIZ consists of a set of concepts:

- Problem formulation system
- Physical and technical contradictions solving
- Concept of the ideal state of a design
- Analysis "Substance-Field"
- Algorithm of Inventive Problem Solving (ARIZ)

Expected Results

Implementation in industrial companies, helping companies to establish procedures to solve problems and stimulate greater creativity and innovation.

Organizing national and international events in the field of systematic innovation.

Publication of books and book chapters on innovation (systematic innovation, green innovation, eco innovation).

Dissemination through training activities and participation in side events.



