Keynote Speech

Developing Innovations in Electronics and Software

Using TRIZ with AI Interactions

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Speaker Biography:

Dr. Oleg Feygenson was elected as the president of the International TRIZ Official Association (MATRIZ Official) in September 2022.

Since 2014, Dr. Feygenson is a Principal Engineer at Manufacturing Core Technology Team, Global Technology Research of Samsung Electronics. Prior to Samsung Electronics, Dr. Feygenson worked for the world largest TRIZ consulting company GEN3 Partners, Inc. As a Senior Principal and Chief Researcher at GEN3 Partners he managed dozens of successful innovation projects for world-class companies such as General Electric, Doosan Infracore, Unilever, Owens-Illinois and others.

Abstract

Since the early 2000s, the majority of innovations have emerged in the fields of electronics and software, with TRIZ (Theory of Inventive Problem Solving) playing a pivotal role in this development. Dr. Oleg Feygenson will explore the nuances of applying TRIZ methodologies to projects within these rapidly evolving industries. Through real-world examples and case studies, he will illustrate how TRIZ has been instrumental in driving technological advancements and solving complex engineering problems.

Additionally, the presentation will delve into the intersection of Artificial Intelligence (AI) and TRIZ. As AI techniques continue to achieve remarkable success across various domains, a critical question arises: "Do we still need TRIZ or other creativity-enhancing methodologies, or can AI entirely replace them?" Dr. Feygenson will address this question, providing insights into the potential synergies and limitations of AI in the context of innovation and problem-solving. This discussion will offer a thought-provoking perspective on the future of creativity and innovation management in the age of AI.

Outline

- Brief overview of electronics and software industries
- Specifics of TRIZ application for software
- Specifics of TRIZ application for electronics
- Can AI replace innovators?
- Main takeaways