**Design for Patentability (DFP) Technical Talk Report**

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On November 30, 2023, a highly informative technical talk was held on the topic of "Design for Patentability" at UOW Malaysia KDU, Batu Kawan Campus. The event gathered more than 60 professionals, researchers, and enthusiasts from various technical fields to explore the intricate aspects of designing with a focus on patentability.

The speaker for the session was Prof. Dr. Sergei Ikovenko, TRIZ Master, former President of the International TRIZ Association, Director and Chief Specialist, Innovation Leadership Programs, Massachusetts Institute of Technology (MIT), a renowned expert, leading consultant and project facilitator in innovation technology of design. He has conducted more than 1,000 courses on innovation, Design for Patentability and TRIZ (Theory of Inventive Problem Solving) topics for Fortune 500 companies worldwide.

The session commenced with a warm welcome by the event organizer, Assoc. Prof. Dr. Yeap Gik Hong, UOW Malaysia KDU Head of Operations (Batu Kawan campus), followed by a brief introduction to the topic to be covered in the context of patentability. The audience was encouraged to actively participate in the discussion.

Prof. Dr. Sergei Ikovenko started by introducing the Design for Patentability (DFP) Institute and programme, and the history and origin of DFP before delved into the fundamental concepts of patentability, emphasizing the key criteria that designs must meet to be eligible for patent protection. Topics covered included Patent Laws, Creative Imagination, TRIZ, Scientific Effects and FOS, Trimming, Element-by-Element Analysis, and Value Engineering as shown in Figure 1 below:

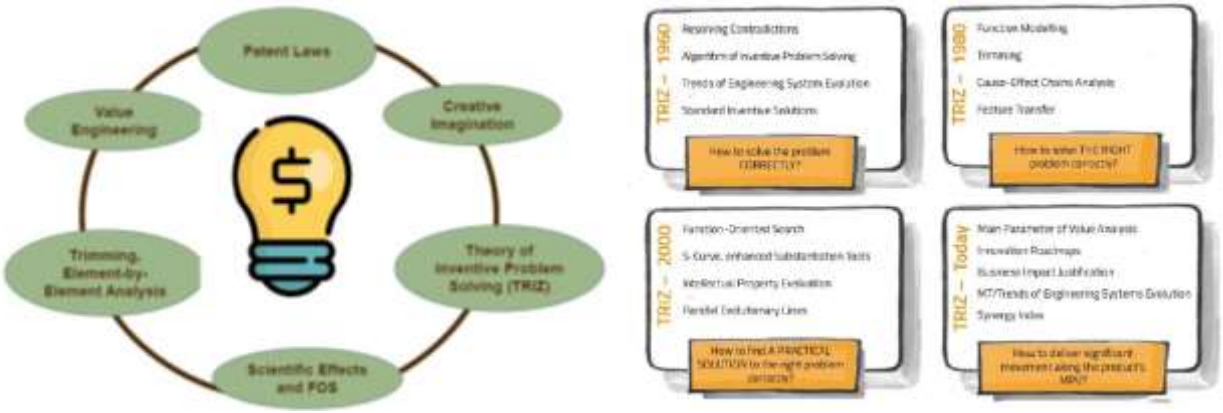


***Figure 1. Snapshot of the topics covered***

Design for Patentability® (DFP) is a powerful innovative design methodology based on a rational and disciplined process. It employs an efficient suite of tools and methods for improving existing products and technologies as well as for developing winning next-generation products. These approaches can also be used to develop the required functionality, reduce the cost of manufacturing processes, enabling the new and improved products to be brought to market with a very high probability of being patented. ABB, P&G, Intel, Samsung, Siemens, LG, Hyundai Motor Company, Continental Automotive, General Electric and many others are active DFP users. Under U.S. patent law as well as China Patent Law, an invention is patentable only if it meets the following four requirements, which are discussed in more detail below:

- The invention must be statutory (subject matter eligible)
- The invention must be new
- The invention must be useful
- The invention must be non-obvious

The speaker has also touched about Doctrine of Equivalents, which is a judiciary-created doctrine, intended to prevent patent infringers from stealing the benefits of the inventions of others. The

definitions of an Equivalent are “Same Results”, Same Operation Principles” and “Same Function”. After which the speaker moved on to share about Patentability and Freedom to Operate (FTO). Within the context of a national or multilateral body of law, an invention is patentable if it meets the relevant legal conditions to be granted a patent. By extension, patentability also refers to the substantive conditions that must be met for a patent to be held valid. While in the other hand, Freedom to Operate (FTO) refers to whether it’s commercially ‘safe’ for you to make or sell your product in the country in which you wish to do so, without infringing existing third-party rights. In order to generate commercial values from a patent, one must have the Freedom to Operate.

The talk addressed common challenges faced during the design patent application process. Prof. Dr. Sergei highlighted issues such as prior art, design variations, and the evolving landscape of design patent laws. Practical solutions and strategies were discussed to overcome these challenges. An insightful segment covered the variations in design patent laws and practices across different jurisdictions. Prof. Dr. Sergey provided valuable insights into the strategies for navigating the complexities of obtaining international design protection.

Prof. Dr. Sergei has also presented several real-world case studies illustrating successful design patent applications via Competitive Patent Circumvention strategies such as Trimming. These examples helped the audience grasp the practical application of design for patentability principles in various industries, from consumer electronics to automotive design as show in Figure 2. He has also touched on the strategy to strengthen patent such as Antidote Strategy and Picket Fence Strategy.


***Figure 2. Case studies shared during the technical talk***

The event concluded with an engaging question and answer session. Attendees had the opportunity to seek clarification on specific topics and share their perspectives on design patentability. The technical talk on "Design for Patentability" provided attendees with a comprehensive understanding of the intricacies involved in securing design patents. Prof. Dr. Sergei skilfully navigated through complex legal and

technological aspects, leaving the audience enriched with valuable insights. The event served as an excellent platform for professionals to network and exchange ideas, fostering a collaborative environment for future innovation in design.

The success of the talk underscored the growing importance of design in the realm of intellectual property and left attendees eager for more discussions on the evolving landscape of design for patentability.