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OIST- Talk to IP lawyer

By Yoshihide Yanagino

The session led by Mr. Yoshihide Yanagino provided a clear and practical overview of intellectual property (IP) protection in research and technology, focusing particularly on the distinction between what can and cannot be patented in Japan and the United States. The discussion centered on patent eligibility, practical examples from engineering and AI, and the varying levels of IP protection researchers should be aware of when developing innovations at OIST.

Mr. Yanagino emphasized that hardware innovations (such as new sensors, mechanical devices, or physical systems) are generally easier to patent than software or algorithms. This is because patent law in both Japan and the U.S. requires inventions to have a “technical effect” or “practical application”. In contrast, algorithms and abstract ideas are often considered non-patentable unless they are tied directly to a specific technical improvement. For example, an algorithm for detecting Parkinson’s disease could only be patented if it has a clearly defined and novel feature that distinguishes it from an algorithm detecting cancer or other conditions. Conversely, developing a physical device, like an electronic nose, would be much easier to protect legally because it represents a tangible technological contribution.

In the field of drones, a similar distinction applies: one can patent the design, components, and mechanical structure of the drone, but not necessarily an AI or reinforcement learning algorithm used to control it unless that algorithm leads to a measurable technical improvement in how the drone operates (e.g., flight stability or energy efficiency).

Mr. Yanagino also outlined the main types and levels of IP protection available:

- Patents: Protect new inventions with industrial applicability and novelty (valid for ~20 years).
- Utility Models: For smaller technical improvements, typically simpler and faster to obtain.
- Design Rights: Protect the appearance or form of a product.
- Trademarks: Protect logos, brand names, or symbols that distinguish goods or services.
- Copyrights: Protect creative works such as software code, artistic materials, or written documents.

An interesting question arose regarding whether the concept of Exponential Developing Goals (EDGs) could be protected. Mr. Yanagino explained that while such frameworks cannot be patented, they could potentially be registered as copyrights in Japan, as they may qualify as original written or conceptual works rather than technical inventions.

Overall, the session clarified key boundaries between research ideas and protectable inventions, helping participants better understand how to navigate the intersection of academic creativity and intellectual property law.