



## POSITION STATEMENT

### **Patent-Eligible Subject Matter Under 35 U.S.C. § 101**

*Adopted by the IEEE-USA Board of Directors  
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IEEE-USA supports a patent system that promotes innovation in all technology sectors-- including software, computer-implemented systems, medical devices, diagnostic, treatment, dosing methods, pharmaceuticals, manmade materials, and isolated or improved versions of materials that exist in nature only in impure form.

Categories of subject matter eligible for protection under U.S. patent laws are stated in 35 U.S.C. §101 (“any ... process, machine, manufacture, or composition of matter, or any ... improvement thereof”). The “subject matter” requirement of §101 is a gating filter that excludes from the patent system innovations Congress deemed to be unpatentable.

Patent-eligible subject matter is only one requirement among many in the patent system. Subject matter eligibility inquiries should not be conflated with, confused, or diluted by concerns with those other requirements, such as novelty and nonobviousness over prior art, quality of disclosure, and definiteness of the claimed invention.

Decisions on subject matter eligible for patent protection --the kind and type of inventions to be so protected – should be made under predictable rules. However, judicial decisions have expressly created “exceptions” to the categories of subject matter defined by 35 U.S.C. §101 and promulgated various tests and criteria to determine when those exceptions apply. Those exceptions and criteria have narrowed the scope of innovations eligible for patenting and introduced uncertainty into what innovations are eligible for patent. IEEE-USA is concerned that judicial decisions on patent eligibility have adversely impacted technological innovation.

Patent protection is an essential property interest for entrepreneurs and inventors. Patent protection serves to help attract essential investment which is often the most constrained input in the process of turning ideas into products and businesses. A strong patent system provides individuals, startups, small companies, and large companies alike with a sustainable competitive advantage and allows a return on investment in research and development.

The United States built its technological successes, in large part, on the strength of its patent system and its ability to protect wide areas of inventive subject matter. Unless patent protection is available in all such areas, some R&D efforts will offer too little incentive to investors, resulting in a loss of U.S. technological momentum; and eventually leading to a loss of jobs and a weakening of the national economy.

The eligible subject matter requirement is separate and distinct from the other requirements for patentability in the *U.S. Patent Act*, which serve as specific filters based on other parameters. These specific filters include novelty and non-obviousness over the prior art, written description, enablement, utility requirements, and definiteness of claiming. These specific filters protect the public by ensuring that inventors genuinely disclose their inventions to the public; the scope of resulting patents is not overbroad; and the public's rights to use pre-existing technology, and to conduct research, are not impaired.

To implement these broad objectives, IEEE-USA believes the following:

- To function effectively, patent law must provide a legal and commercial level of certainty. The law of subject matter eligibility must be sufficiently objective to enable businesses and innovators to have reasonable expectations as to patentability; examiners to apply the subject matter tests predictably; and judges to apply the tests consistently. For that reason, subject matter eligibility under §101 must be based on claim language, using the same precision and evaluation, as under any other requirement of the *U.S. Patent Act*. The courts have applied informal concepts, such as “the invention,” “inventive concept,” “directed to,” and “technical contribution,” subjectively and imprecisely. Unnecessary subjectivity and imprecision impart uncertainty that undermines a robust, commercially predictable patent system.
- Judicial exceptions to patent eligibility, such as “laws of nature,” “natural phenomena,” and “abstract ideas,” should be replaced; or bound with precision and certainty, so that they apply only to claims expressly reciting such subject matter--without additional elements that constitute an “actual application” of such subject matter--and that entirely preempt all embodiments of the law, phenomenon, or idea. An actual application of such eligible subject matter should be sufficient to meet the subject matter requirement of §101. IEEE-USA favors subject matter eligibility of computer-related inventions, so long as the patent's claims recite actual participation of a computer, or other real-world “machine.”
- Conflating patent-eligible subject matter with novelty and obviousness creates immense uncertainty. Moreover, the status of an invention as either “new” or not “new” should not be a requirement for subject matter eligibility.

IEEE-USA believes a broad construction of the patent eligibility categories favors innovation. IEEE-USA also believes that R&D policies should not be enacted through judicial exceptions to patent eligibility. For example, categorization of an invention as being directed to a research tool should have no bearing on judicial determination whether that invention is patent eligible.

*This statement was developed by IEEE-USA's Intellectual Property Committee and represents the considered judgment of a group of U.S. IEEE members with expertise in the subject field. IEEE-USA advances the public good and promotes the careers and public policy interests of nearly 150,000 engineering, computing and allied professionals who are U.S. members of the IEEE. The positions taken by IEEE- USA do not necessarily reflect the views of IEEE, or its other organizational units.*