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Editorial

Low-Cost Inventions and Patents

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1. Introduction

Inventions have been the technological advances of mankind. There are inventions of all kinds, some of which have lasted hundreds of years or even longer, preserving their essence. For example, the pipe as a means of transporting water, concrete to attach stones in construction, or the pulley to lift heavy objects; all of these are attributed to Roman times, and are still relevant today. Low-cost technologies are expected to be easy to build, have little or no energy consumption, and be easy to maintain and operate. The use of sustainable technologies is essential in order to move towards greater global coverage of technology, and therefore to improve human quality of life. Low-cost products always respond to a specific need, even if no in-depth analysis of the situation or possible solutions have been carried out. It is a consensus in all industrialized countries that patents have a decisive influence on the organization of the economy, as they are a key element in promoting technological innovation. Patents must aim to promote the technological development of countries, starting from their industrial situation.

Usually, for the proposal of a patent, a review of the state of technology on that particular issue must be made. This type of study is not often published in scientific journals, despite the technological value they have. This is why this Special Issue aims to include research works reviewing the state of the art in low-cost technologies used for patent applications. One of the ways that allows the survival of a company, in a world as competitive as the current one, is the promotion of technological innovation through its inventions; this makes it possible to add value to the services and products it can offer. The management of technological innovation requires the implementation of a set of mechanisms, including the protection of intellectual property. Thus, patents, licenses, copyrights, trademarks and trade secrets are some of the legal tools through which inventors and innovators enforce their legitimate right to keep ownership of their inventions.

2. Publications Statistics

This Special Issue has eight published manuscripts. The submitted manuscripts come from nine countries and are summarized in Table 1. For this statistic, only the first affiliation of the authors has been considered. Note that it is common for a manuscript to be signed by more than one author and for authors to belong to different affiliations. The average number of authors per published manuscript in this Special Issue was three authors.

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Table 1. Authors' countries: statistics.

Country	Authors
Brazil	3
Colombia	1
Germany	3
Greece	3
Iraq	3
Malaysia	3
Russia	4
Spain	5
UK	2
Total	27

3. Authors' Affiliations

There are 14 different author affiliations for the manuscripts of this Special Issue. Note that only the first affiliation of each author has been considered. Table 2 summarizes the authors and their first affiliations.

Table 2. Authors' affiliations.

Author	First Affiliation	References
Ephraim Bonah Agyekum	Ural Federal University	[1]
Seepana PraveenKumar	Ural Federal University	[1]
Aleksei Eliseev	Ocean Rus Energy	[1]
Vladimir Ivanovich Velkin	Ural Federal University	[1]
Daniel Fontoura Barroso	Bundesanstalt für Materialforschung und -prüfung (BAM)	[2]
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Ernst Niederleithinger	Bundesanstalt für Materialforschung und -prüfung (BAM)	[2]
Chun Quan Kang	Multimedia University	[3]
Poh Kiat Ng	Multimedia University	[3]
Kia Wai Liew	Multimedia University	[3]
Zain-Aldeen S. A. Rahman	Southern Technical University	[4]
Basil H. Jasim	University of Basrah	[4]
Yasir I. A. Al-Yasir	University of Bradford	[4]
Raed Abd-Alhameed	University of Bradford	[4]
Bilal Naji Alhasnawi	University of Basrah	[4]
Juan D. Borrero	Huelva University	[5]
Renan Rocha Ribeiro	University of Brasília	[6]
Rodrigo Lameiras	University of Brasília	[6]
Dora Cama-Pinto	University of Granada	[7]
Juan Antonio Holgado-Terriza	University of Granada	[7]
Miguel Damas-Hermoso	University of Granada	[7]
Francisco Gómez-Mula	University of Granada	[7]
Alejandro Cama-Pinto	Universidad de la Costa	[7]
George Voudiotis	University of Ioannina	[8]
Sotirios Kontogiannis	University of Ioannina	[8]
Christos Pikridas	Aristotle University of Thessaloniki	[8]

4. Topics and Keywords

Table 3 summarizes the research conducted by the authors in this Special Issue, by identifying the areas to which they report. It was noted that they have been grouped into two main lines of research: Agronomy and Monitoring. Table 4 summarizes the keywords of the published manuscripts. The most frequent keywords were: IoT [2,7,8] and low-cost [2,6], see Table 4.

Table 3. Topics for low-cost inventions and patents.

Topics	Number of Manuscripts	References
Agronomy	3	[3,5,7]
Monitoring	1	[1,2,4,6–8]

Table 4. Keywords for low-cost inventions and patents.

Keywords	References
wave energy converter; emulator; point absorber; power take-off; hydrodynamics	[1]
low-cost; ultrasound; IoT; non-destructive testing; coda wave interferometry	[2]
conceptual synthesis; design; lawnmower; multifunctionality; usability	[3]
fractional order; dynamics; chaotic; system; synchronization; arduino due	[4]
vertical farming; indoor farming; low-cost vertical farming; small farming; vertical hydroponics; technology readiness level; utility model	[5]
temperature; humidity; low-cost; open-source; Arduino; data-logging; material testing; laboratory; electronics	[6]
wireless sensor networks; WSN; received signal strength indicator; RSSI; Internet of Things; IoT; free space pathloss; smart farming	[7]
beehive-monitoring systems; IoT; convolutional neural networks; image processing; performance evaluation; distributed systems	[8]

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2. Fontoura Barroso, D.; Epple, N.; Niederleithinger, E. A Portable Low-Cost Ultrasound Measurement Device for Concrete Monitoring. *Inventions* **2021**, *6*, 36. [CrossRef]
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