Artificial Intelligence (AI); A Revolution in Radiation Protection in Modern Life

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Dear Editor,

The use of artificial intelligence in radiation protection has the potential to revolutionize the way we approach safety measures in various industries, particularly in healthcare, nuclear energy, and telecommunications [1].

Artificial intelligence (AI) technology can significantly enhance radiation protection by enabling real-time monitoring, predictive analysis, and automated response systems. With AI, we can develop sophisticated algorithms that can detect abnormal radiation levels, identify potential hazards, and provide timely alerts to minimize exposure risks. This proactive approach can greatly improve the safety of workers and the public in environments where radiation is present [2].

Furthermore, AI can be utilized to optimize radiation shielding designs, improve dosimetry techniques, and enhance the accuracy of radiation therapy in medical settings. By leveraging AI's capabilities, we can develop more efficient and effective radiation protection strategies that prioritize human safety and minimize environmental impact [3].

Several recent studies have highlighted the potential of AI in radiation protection. For example, a study conducted by Qi et al. demonstrated the effectiveness of AI-based algorithms in detecting and predicting radiation exposure levels in nuclear power plants [4]. Additionally, a review article by Abolaban (2023) discussed the application of AI in optimizing radiation therapy delivery for cancer patients, leading to improved treatment outcomes and reduced side effects [5].

It is important to note that while AI offers tremendous potential in radiation protection, ethical considerations and regulatory frameworks must be carefully addressed to ensure responsible and safe implementation of these technologies.

In conclusion, the integration of AI in radiation protection represents a significant step forward in enhancing safety measures across various industries. We are hopeful that continued research and development in this area will lead to innovative solutions that prioritize the well-being of individuals and communities.

Authors' Contribution

All authors contributed equally to this work.

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Conflict of Interest

None

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