

Special Issue on **Bioengineering Applications of Electromagnetic Wave Propagation**

CALL FOR PAPERS

Microwaves have been proven to be a potential and promising alternative to standard X-rays in the framework of medical screening and detection by offering several advantages in terms of patient comfort and protection, as well as in terms of reduced costs and repeatable acquisitions. Major countries have defined future healthcare as one of the main challenges in the framework of research initiatives; thus the investigation of safety issues relative to the adoption of electromagnetic waves in medical sensing, monitoring, and diagnostics could be of strong interest.

We invite authors to submit original research as well as review articles reporting recent advances in the application of electromagnetic waves technologies in bioengineering. We are particularly interested in new design methodologies and simulation techniques to face the challenges imposed by the biological environment for wave propagation due to the physiological variations in the human body.

The scope of this special issue will be the collection of new and/or review results exploring the use of electromagnetic waves for medical treatment and diagnosis, thus including diagnostic tool for cancer detection and antenna systems for accurate radar imaging of the human body.

Potential topics include but are not limited to the following:

- ▶ Microwave biosensors
- ▶ Non-invasive electromagnetic diagnostic tools
- ▶ Radar technologies for biosensing
- ▶ Usage of electromagnetic waves for probing organs and advanced MRI techniques
- ▶ Therapeutic applications of electromagnetic waves
- ▶ Theoretical modeling of electromagnetic propagation through human body and tissues
- ▶ Application of electromagnetic waves in advanced MRI techniques
- ▶ Advanced methods for wireless power transfer of electromagnetic waves through the body

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/ijap/bael/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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