



Contactless Monitoring of Vital Signs Using Radar Technology

Early detection of patient deterioration.
Less contact. More accessible monitoring.

What is mRADAR?

mRADAR is a developing contactless vital signs monitoring system that uses mmWave radar technology to analyze micro movements of the human body associated with breathing and heart activity.

The solution is being developed based on research and development work carried out by researchers from Gdańsk University of Technology and the Medical University of Gdańsk.

The project is currently at the functional prototype development stage (TRL4 → TRL5).

Potential Applications

- monitoring of cardiac and pulmonary patients
- telemedicine and home care
- elderly care
- respiratory monitoring
- rehabilitation
- intensive care
- screening and primary care



Why Contactless Technology?



**0 contact points
with the patient**



**Faster
examination
setup**



**Potential
reduction of staff
workload**



**Reduced use
of consumables**



Current **Development Stage**

The project builds upon earlier R&D work focused on the use of radar technology for monitoring respiratory activity and heart function.

- Early functional prototype
- Pilot studies confirming technological feasibility
- Development of signal processing algorithms
- Ongoing work on HR measurement quality and robustness against signal disturbances



Looking for **Clinical & Technology Partners**

We are interested in collaboration in the following areas:



Clinical
consultations



Pilot
deployments



Further technology
development



Usability
testing



Scientific
collaboration



Interested in the technology?

Read the scientific publication



Help us improve mRADAR

Share your expert feedback (2-3 min)

Your feedback will help shape future clinical applications and pilot studies.



mRADAR

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