



3.6.10 AI Health*

COMPOSITION

Juan José Beunza Nuin.

Principal Investigator Professor at the University of Medicine. European University of Madrid

- **Enrique Puertas Sanz.** Assistant Professor Doctor. European University of Madrid
- **Eva Avilés Álvarez.** Associate Professor. European University of Madrid
- **José Luis Lafuente Carrasco.** Assistant Professor Doctor. European University of Madrid
- **Samuel González López.** Associate Professor. European University of Madrid. Specialist in Intensive Care Medicine - HLA Moncloa University Hospital



3.6.Surgery, Transplant and Health Technologies Area

3 Research areas and groups

STRATEGIC OBJETIVES

- The strategic objective of the IASalud group is practical research to implement artificial intelligence tools in clinical practice, primarily focused on intensive care for patients admitted to ICUs.

RESEARCH LINES

- Development of a smart urinometer for automated measurement of diuresis, colorimetry, and spectrometry in critically ill catheterized patients.
- Braga for reducing the pain of dysmenorrhea through TENS electrostimulation.
- Automated capillary refills for peripheral arterial function assessment.
- Thermal camera for automated analysis of body temperature and estimation of internal perfusion.
- Automated detection of respiratory failure in HIV-infected children in sub-Saharan Africa using breath sound analysis.
- Cardiovascular risk prediction using machine learning.
- Automated glucose monitoring in critically ill patients (ICU).
- Automatic monitoring of handwashing in the ICU.
- Noninvasive lactate measurement in critically ill patients.
- Early detection of pre-eclampsia in pregnant women using remote monitoring and analysis of the efficacy of aspirin as preventive therapy.
- Fingerprinting and venous pattern of hands for the identification of newborn children.

*Group recently created, december 2024