

# Researchers develop system to control COVID-19-related fever and coughing

May 11 2020

---



Credit: Asociación RUVID

Since the declaration of the state of emergency in Spain due to COVID-19, over 17,000 care home users have died from coronavirus or

similar symptoms, according to data provided by the regions. In this context, researchers from the University of Alicante Group in Robotics and Three-Dimensional Vision (RoViT) are designing a system to improve effectiveness in controlling the disease by automatically measuring two of its main symptoms: fever and coughing.

To rapidly detect any coronavirus-related symptoms, [care homes](#) allocate many human resources to control fever and coughing manually and individually. UA Professor of Computer Engineering Miguel Cazorla says, "The system we have designed is intended to reduce the time devoted by staff to this task."

## Innovations

The integrated system for [symptom](#) detection designed by the UA research team of Miguel Cazorla, Félix Escalona, Francisco Gómez and Ester Martínez consists of a set of cameras for identifying care [home](#) users, measuring fever with a thermographic camera, and detecting coughing through artificial intelligence and by analyzing images based on models of people coughing.

"The cameras are placed in a strategic passage area to control body temperature and the exact location of anyone in the care home. Additionally, with this [monitoring system](#), we can know the activity each user is performing and whether they coughed," Cazorla explains. When a cough or fever is detected, the system sends an alert to the care home staff.

One of the main innovations of the system proposed by the University of Alicante researchers is that it is based on a non-invasive method. In other words, Cazorla says, "users do not have to carry any devices, and no one holding a [thermographic camera](#) has to take users' temperature. Furthermore, the system integrates and processes all information using a

single application and is able to detect coughing, an aspect that no technology currently controls."

The research team is already working on a prototype to be installed and validated at a care home in Alicante city this summer. While the system is targeted at this sector, which is severely hit by the pandemic, the UA researchers point out that it could be installed in any establishment with restricted admission and monitoring symptoms to curb the spreading of [coronavirus](#).

Provided by Asociacion RUVID

Citation: Researchers develop system to control COVID-19-related fever and coughing (2020, May 11) retrieved 9 April 2024 from <https://medicalxpress.com/news/2020-05-covid-related-fever.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--