

Simplifying smart security for the middle-aged

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Home security for people who have reached middle age and older is an important concern in China, according to the authors of new research published in the *International Journal of Embedded Systems*.

Guangyi Ma, Hui Xu, Xijie Zhou, and Wei Sun of the School of

Automation at Nanjing University of Information Science & Technology explain how current systems are difficult to setup, costly, have high power consumption, and components that wear out rapidly. They have now designed an alternative that has low power dissipation, convenient operation, and high stability.

The team's smart security device has standard master controllers to command a camera module, GSM/GPRS module, smoke sensors, flame sensors, and infrared sensors. They explain that the camera module captures live images of monitored areas, which can be transmitted to the user via the GSM module. ZigBee wireless technology is used instead of conventional Wi-Fi to keep power consumption down and reduce the risk of a security breach by a malicious third party.

"Compared with other [security systems](#), the proposed program optimizes the interface to make interaction operation easier for middle-aged and older users," the team writes. Given that the population is aging, there is an increased urgency for such systems that are easy to use and offer the requisite [security](#) for older people. This, the team suggests, is especially poignant for the younger generation who are the adult offspring of one-child families.

More information: Guangyi Ma et al. Home security alarm system for middle-aged people living alone, *International Journal of Embedded Systems* (2020). [DOI: 10.1504/IJES.2020.108285](https://doi.org/10.1504/IJES.2020.108285)

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