

# 要 旨

## 高齢者安否確認システムの研究

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近年，日本の高齢者の割合の増加に伴い，高齢者の単身世帯数が増加している．また，高齢者の事故発生場所数では自宅内での事故が大半を占めている．そのため，遠隔地からでも高齢者の安否が確認できるシステムの需要が高まっている．

既存のシステムには，センサやカメラを使用するものがある．センサは，一定時間反応が無ければ，異常動作と識別するため，自動で報告するが，即時性に優れていない．カメラは，すぐに異常動作を識別し報告するが，自動化されていない，または，機器コストがかかるため，介護者に負担がかかる．よって，既存システムは介護者の負担の軽減，即時性の二つを両立させることができない．

本論文では，介護者の負担を軽減でき，即時性のある高齢者安否確認システムの提案と開発を行った．人感センサを用いて高齢者の行動パターンを学習し正常動作と異常動作の識別を行い，カメラを用いて高齢者の安否を確認できるシステムを提案した．そして，実際にシステムを開発し，評価を行った．結果，ある程度即時性を保ちながら介護負担を軽減することができた．

キーワード 介護負担, 人感センサ, 安否確認

# Abstract

## Research of an elderly-people safety check system

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In recent years, elderly people's number of single-person households is increasing with the increase in Japanese elderly people's percentage. Moreover, in elderly people's number of accident occurrence places, the accident in a house occupies most. Therefore, the demand of the systems which elderly people's safety can check even from a remote place is increasing.

There are some which use a sensor and a camera in the existing system. A sensor will identify that it is unusual, if there is no reaction for a definite period of time. Therefore, although abnormalities are reported automatically, that is not reported immediately. A camera identifies and reports abnormalities immediately. However, it does not automate or apparatus cost is expensive. Therefore, a burden is placed on a care worker. Therefore, the existing system cannot reconcile these two that a care worker's burden reduces and that is reported immediately.

Elderly people's action pattern is learned using the person perception sensor, operation is identified, and the system which can check elderly people's safety using a camera was proposed. And it evaluated by actually developing a system. As a result, it could report somewhat immediately and was able to ease the care worker's burden.

**key words** Care burden, Person perception sensor, Safety check