

**HANOI UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**SCHOOL OF INFORMATION TECHNOLOGY AND COMMUNICATION**

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**AI PROJECT REPORT**

**Project name**: **Fire detection system**

**Supervisor**  **Assoc. Prof. Phạm Văn Hải**

**Student names :** Group 16

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| **Name** | **Student ID** |
| Nguyễn Thị Nga | 20184296 |
| Nguyễn Thị Thu Thảo | 20184312 |
| Nguyễn Trọng Khang | 20184275 |

*Hanoi, December 2021*

*AI Project name:*

*Fire detection in python using OpenCV*

*Student name: Nguyen Thi Nga, Nguyen Thi Thu Thao, Nguyen Trọng Khang*

*Class ICT Global 01,02, Hanoi University of science and technolog, No 1, Dai Co Viet st, Hanoi, VietNam*

**Abstract:**

* + *Most of the fire detection are performed by sensor-based systems which have perceived the temperature and smoke by themselves and utilized in various type of industry after combining with the fuzzy theory. Generally this kind of methodology is useful for many spots of fire occurrences. However, it could not satisfy the requirement of accuracy and reliability on some environment. For example, large spaced factories, common area of electric power facility, communication facility are vulnerable to the sensing accuracy and too expensive to cover the entire place. Thus, fire might spread widely over the spots and hard to extinguish even though those sensors detect the fire. For the more it could be worse in the area that causes high temperature, humidity, dust, vibrations. In this study, we tried to improve the problems by using camera image processing instead of sensors. We designed the prototype system and implemented it after suggesting some type of fire detection algorithm.*

***Introduction:***

***- Phát hiện đám cháy qua video***

***- Đổ chuông***

***- Send email/ gọi điện***