Fire detection systems The Detection system can limit the emission of was toxic products created Three types of alarm Detecting the fire Sensor Analyze the by combustion. monitoring systems Quickly and Accurately. data it collects right are used Ionization, there on a spot. Photoelectric and Combination. **Process** Detect the fire Alarm **Analyzing** immediately & sound **System** the alarm, Sending a Automated early fire signal to the cloud and detection protecting the notifying emergency Global Environment. service. Techniques, Gain Applying machine limitations techniques to fire detection systems. **Monitoring** Improve the fire detection in real time a Detection is of 2 types Threshold Limited amount of K means clustering ratio & Machine learning algorithm. energy, the energy algorithm Radio acoustic system with fine required for the data characterized by high space, time, resolution capabilities processing. stabilization and for monitoring is proposed versatility