

Neural networks are a tool which is today commonly used for detection or recognition of different phenomena and objects. As an input for the network a feature vector is used describing visual characteristics of the phenomenon. There are lots of neural network models and the design of specific network depends on the particular problem at hand. There are different applications of neural networks in smoke detection process. Some of the neural network models implemented in various phases of smoke detection are described in these articles:

Z. Xu, J. Xu,

"Automatic Fire Smoke Detection Based on Image Visual Features",

Proceedings of the 2007 International Conference on Computational Intelligence and Security Workshops, 316-319, 2007.

<http://www.computer.org/portal/web/csdl/doi/10.1109/CIS.Workshops.2007.55>

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Y. Cui, H. Dong, E. Zhou,

"An early fire detection method based on smoke texture analysis and discrimination"

Congress on image and signal processing, 95-99, 2008.

<http://www.computer.org/portal/web/cSDL/doi/10.1109/CIS.Workshops.2007.55>

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