Real-Time Video Surveillance System

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Nowadays, many security problems exist at home such as burglaries, child abuse and fire accidents. People are very concerned about the situation in their houses. A possible solution is to install a home surveillance system so that users can remote monitor their houses and take immediate action if necessary.

Home surveillance systems available in Markets are very expensive. Most people cannot afford them. Moreover, those systems are not user-friendly. The goal of our Final Year Project is to develop a low cost, user-friendly digital video surveillance system used at home.

So far in our project, we have applied a lot of innovative features. For instance, software encoder for real-time video encoding.

The main idea of this project is to combine Four video webcams into a single frame.
The following diagram can conclude the infrastructure of our application so far. The boxes represent different module (or sub-modules) of our application. The arrows represent the data flows with the type of Input-Output employed.

We divide our system into four main parts:

Video Capturing

Video Transform

Video Data Transmission

User Interface
Interface

Real-Time Video Surveillance System Client

Real-Time Video Surveillance System Server