

## MPEG-4 video transmission using distributed TDMA MAC protocol over IEEE 802.15.4 wireless technology

### Abstract:

The issues of green technology nowadays give an inspiration to the researcher to make all the future design to be energy efficient. Medium Access Control (MAC) layer is the most effective layer to provide energy efficient due to its ability to control the physical radio directly. One of the important applications in the future is a video transmission that can be transmitted with low-cost and low power consumption. MPEG-4 is one of the international standards for moving video. MPEG-4 provide better compression and primarily design at low bit rate communication. In order to achieve good quality for video application, the design at MAC layer must be strong. Therefore, to increase the performance of the MPEG-4 in IEEE 802.15.4, in this paper we propose a cross layer design between MAC layer and Application layer. A priority queue will be implemented at MAC scheduling depends on the level of frame important in MPEG-4 format frame. A distributed Time division Multiple Access (TDMA) will be used for MAC protocol to provide reliable data transmission for high priority frame.