Conclusions

- The outcome of this proposed work elaborates the means by which development and use of knowledge networks, multimedia communication and multimedia presentation becomes effective.

- Design pattern helps multimedia designers to manage the complexity of the multimedia tool/ module. Multimedia production architecture enabled with pattern designing features has also been proposed.

- The text communication approach has been defined and a novel mechanism for text communication is proposed.

- The quantitative analysis of the contemporary Noise removal algorithm of Audacity and proposed prototype for noise removal algorithm is compared. From the results of the proposed prototype algorithm, it is clearly apparent that, the output obtained after the proposed prototype is not too different than existing algorithm’s output. The proposed prototype algorithm does similar operations by reducing overhead of the system in comparison with existing Noise removal algorithm of Audacity.

- The system for audio stream monitoring has been proposed using IDS. Intrusion detection works on the principle of monitoring ports. The monitored port information is recorded in the log files. A mechanism for generating alerts can be customized. In the proposed prototype the log files are monitored for audio streams.

- A prototype algorithm for step wise normalization has been proposed for increasing normalization. This proposed prototype emphasizes the
concept of increasing normalization for smoothing out the variations in gain or loudness. The experiments carried out for increasing normalization based on step wise increase yield the variations in peaks of the audio file. SNORM is a proposed prototype algorithm for increased normalization based on loudness factor of the audio. SNORM can be substantial in the audio broadcast systems for applications in live audio streaming, news broadcast, sports coverage, live programming where the loudness control mechanism is essential. For the selective or predictive loudness control systems SNORM can be effectively applied.

**Future Scope**

There still exists a scope for the extension and applications in the field of Multimedia architecture development and multimedia development.

- The noise removal prototype proposed here can be configured and extended on to video files.
- The streaming prototype can be extended for documents with image contents and separately to image files.
- Artificial Intelligence can be implemented for Filter Parameter Specification for reducing system overhead.
- Text compression algorithms can be incorporated with the proposed text streaming feature.
- The proposed prototype for normalization can be configured for live audio.
- An inclusive system of these proposed prototypes can be packaged into a suite, which will be an effective multimedia production and presentation application.