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IoT-Enabled Covert Intelligent Executive Chair

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Abstract

A very necessary requirement of Smart Cities' administration is the availability of sincere and uncorrupted information for decision making process. The natural propensity of humans to misrepresent information based on personal biases often limits the sincerity level of communicated information. It thus becomes necessary to device means of obtaining uncorrupted information by covert means. Such a system as can mitigate this challenge has been developed and presented in this poster.

System Components

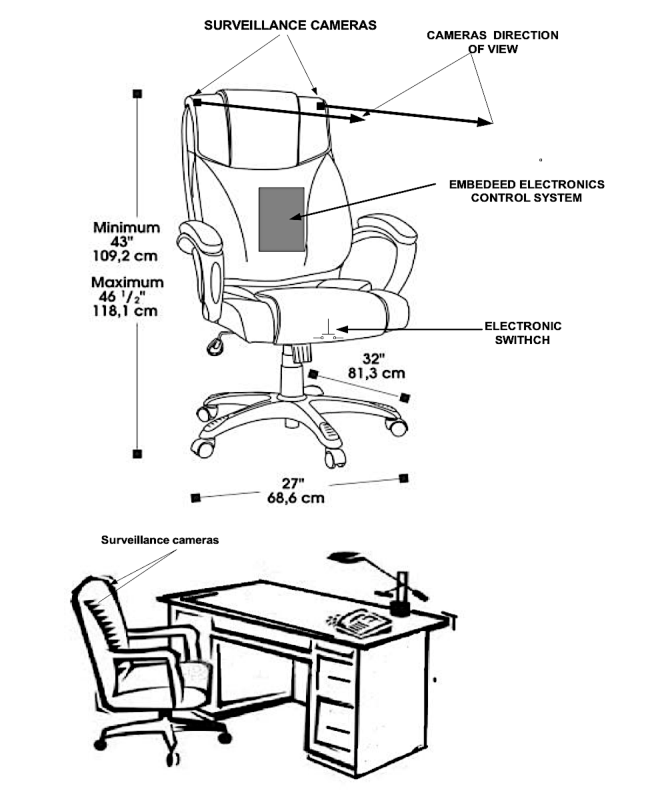

Figure 2. Full View of Intelligent Chair

System Description

- The developed system consists of a video/audio real-time in-house electronic covert surveillance circuitry embedded in an executive chair.
- The head-rest of an executive chair carries a hidden high definition video surveillance camera for direct recording of the person seated opposite the chair's occupant.
- The switches are special pressure sensitive pads placed under the chair to put on/off the video device at will
- The left pressure pad is meant to switch on the video recording, while the right one switches it off covertly.
- The video cameras are of wide angle type and the microphone is highly sensitive and but rugged.
- The system incorporates a PIR , a motion detector as well as a GSM system that can send SMS alert at the presence of an intruder.

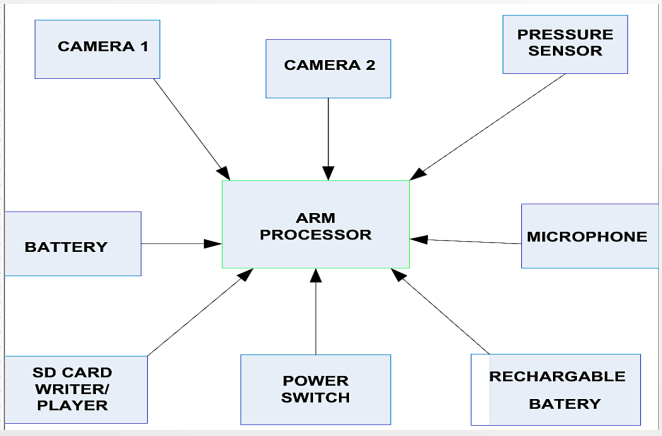

Figure 1. Block Diagram of Arm Chair.

Conclusion

- A covert intelligent chair was designed and developed for in-house/office use.
- The device can also serve as a stand-alone covert system when the owner is not available.
- It has the capacity to record and store information on an embedded disk in the system.
- This device has been tested and found to work perfectly according to specifications.
- ***Patent Pending***

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