

## **Real-time Automated Broadcast Monitoring and Information Exploitation System**

The developed solution is a fully automated end to end TV and Radio broadcast monitoring system capable of detecting content of interest in live audio and video streams. The detection and matching results are in turn used by the system to generate critical analytics and statistics. The system works on 'Software as a Service (SAAS)' model where end-clients are able to exploit functionalities of the system over the web. The system addresses the challenges of robust audio-video content matching and the bottleneck of huge computing resource requirement for processing audio-video streams by making innovative use of state-of-the-art many core2 processors. Media monitoring companies, multinational companies, media houses and distant overseas clients may be the potential beneficiaries of the end product.

The system has achieved the following R&D objectives;

- Developed new multimodal video fingerprinting algorithms that effectively combine both audio and visual information contained in a video.
- Developed algorithms and techniques for large scale audio and visual data indexing for robust content matching
- Researched & developed new computer vision algorithms that can make use of computational power of commodity GPUs. In this project, these algorithms include audio and video fingerprinting, data indexing and matching
- Addressed the problem of broadcast content matching in presence of signal noise and strong content distortion

The project has contributed significantly in transforming TechArete's and BurqStream's status from budding startups to successful small businesses. The project has allowed both teams to build on their strong technical capabilities and to showcase these capabilities in terms of a working product. Following are the joint benefits to both the companies;

- Strategically position as leading Imaging & Vision solution providers locally and internationally
- Increase in annual revenue after the commercial launch of the project, through technology transition and commercialization
- Enhance know how for large scale video processing, audio-video finger printing & association, hardware systems and video indexing
- Market component technologies developed during the course of the project to potential clients which will translate into increase revenue and growth

The product is gaining quick recognition among various media related industries, the achievements are;

- PASHA ICT Awards 2014, Winner in the Media & Entertainment Technology
- Winner of RCCI Technology Innovation Award 2015
- Winner of Top 3 Islamabad in Pakistan Startup Cup 2015