Editorial

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The world faces many environmental, developmental, social and health challenges. These include ageing societies, the digital divide, poverty, climate change, energy efficiency and security. There is an ever-increasing need to find solutions to such complex problems. Technology today is evolving at an extraordinary pace, changing the way we live and work. *IJHT* addresses research into the responsible use of advanced technologies which offer concrete ways to improve the life and society of people worldwide.

This inaugural issue of *IJHT* focuses on following topics:

First, the usable technology for different Abled-hearing impairment describes an assistive software-based technology for the hearing impaired which is capable of identifying phonemes (voice) in a video stream and render computer-generated lip movements on an auxiliary overlay. Users trained in lip-reading can use the visual clues to understand the speech. The software maps phonemes into visemes (lip images) and animates the transitions through ai interpolation algorithm. As an advantage, the many-to-one mapping of phonemes to visemes improve robustness and, also, the phonetic translation is less dependent on the language structure. The system is made of a quite ingenious combination of techniques.

Second, clustering or unsupervised classification techniques can be used to solve different types of classification problems of different domains. Symmetry is an important property for any real life object. Therefore symmetry based distance measurements play some important roles in identifying some patterns or clusters of real life data sets. In this work inspired by the symmetric property which illustrates a point symmetry based clustering algorithm which has been used to identify clusters of tissue samples from some real life cancer data sets.

Third, design of near optimal user interface with minimal UI elements using evidence based recommendations and multi criteria decision making: TOPSIS method. One among the research challenges in human computer interaction (HCI) is to build user interfaces in the way that make users satisfy. This would improve the usability of an information system.

Fourth, maintaining communications across disconnected networks can be a troubling issue, particularly since existing solutions are highly theoretical or have unrealistic hardware requirements. As a result, CANDICE was designed with the aim of allowing extensible accessible facilitation of Internet connections in environments not suited to reliable communications – particularly hostile zones. This leads for the importance of

evaluating the feasibility of maintaining Web 2.0 communications during civil emergencies.

Fifth, the development of phasor measurement unit (PMU) in the power network and availability of real time communication in wide area monitoring system has enabled the proactive blackout prediction and possibility of mitigation against blackout events. This provides an essential of augmenting wide area monitoring protection and control (WAMPAC) with machine learning tools for early warning and mitigation of blackout events.

The editorial boards want to give a special thank for the previous Editor Dr. Sabu Thampi for these articles which were under his auspices that the content was developed.