Special Issue on Video Coding: HEVC and beyond

Currently, video communication represents about half of the entire network traffic, with tendency for further increase. Therefore, techniques aiming at efficient compression of video are of paramount importance; an example is how to potentially avoid the "spectrum crunch" which is foreseen due to increasing traffic in mobile networks. Substantial amount of effort have been made in this area during the recent past years, which resulted in the new generation of video compression standard, called High Efficiency Video Coding (HEVC). For similar quality, the current architecture of HEVC only consumes half of the transmission bandwidth of the previous AVC/H.264 standard. The compression capability of HEVC establishes a new benchmark both in video and still image coding. This special issue is intended to provide a forum for recent research in HEVC standardization and possible add-on techniques, which would have potential to further improve its performance, or could even be used for future developments beyond HEVC.

We invite original and unpublished research contributions relevant to the following areas:

- *High coding efficiency techniques*
  Techniques proposed in the course of standardization, either relevant in the context of the HEVC standard or methods that have potential future development of video coding technology.

- *Video coding with high visual fidelity*
  Whereas conventional video codecs often target for optimization of PSNR, this does not necessarily match the visual quality related to human perception. The special issue solicits new techniques to improve visual quality, either in the context of HEVC or beyond.

- *Parallel visual signal coding techniques*
  Visual signal coding and communication must meet the challenges of processing resource constraints. Papers with new video coding architectures are particularly suitable for parallel coding implementation.

- *Analysis and synthesis coding*
  Visual information analysis before and during the coding process showed the future trends of visual signal coding. This special issue solicits emerging ideas and techniques of analysis and synthesis coding.

Prospective authors should visit http://www.signalprocessingsociety.org/publications/periodicals/jstsp/ for information on paper submission. Manuscripts should be submitted using the Manuscript Central system at http://mc.manuscriptcentral.com/jstsp-ieee. Manuscripts will be peer reviewed according to the standard IEEE process.

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