

**CALL FOR PAPERS**  
**IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY**  
**Special Issue on Visual Computing in the Cloud: Mobile Computing**  
*Part of Visual Computing in the Cloud Special Issue Series*

Recent advances in smartphones and wireless technologies are fuelling a new wave of user demands for rich mobile experiences. Mobile users not only expect a broadband connection wherever they go and interact with each other via social networks on the go, but also demand ubiquitous access to a wealth of video contents and services. However, this trend is seriously hindered by the fact that onboard resources with mobile devices are inherently limited and its growth rate falls behind that of their desktop counterparts. Fortunately, the emerging cloud computing paradigm offers a natural solution to extend the desktop visual experience to mobile devices. In fact, it is essential for the seemingly unlimited cloud to provide computational and storage support for many media-rich applications with both front-end and back-end functionalities. At the same time, the synergy between image/video and cloud computing requires novel solutions to address many technical challenges arising in this exciting space. For example, the fundamental tension between resource-hungry video applications and power-limited mobile devices has yet to be resolved, and is complicated by operating mobile devices as access points. Effort for providing a universal rich-video experience across many screens is typically limited by the heterogeneity amongst ever-evolving mobile devices, as manifested in their different physical form factors, middleware platforms, and interactive features, and rapidly-changing networking technologies (e.g., WiFi, WiMesh, 3G/4G/5G, LTE, SDN, NDN). This challenge is further aggravated by business concerns from different service providers (e.g., Telcos, MSOs and ISPs), as well as security concerns from users and content providers. In the back-end, video processing, distribution, adaptation and analytics need to be revisited under this new paradigm, to best serve the mobile clients with good QoS/QoE at a low cost. These daunting technological challenges are better tackled by an interdisciplinary approach and draw insights from both academic research and industrial development. In this issue, we invite novel, innovative original research and extensive review articles that study the state-of-the-art interactions among advanced mobile video technologies, cloud computing, mobility and social network.

Potential topics of interest include, but are not limited to:

- Enhanced QoE/QoS for mobile video with cloud support
- Mobile video content delivery in the cloud
- Video search on mobile devices with cloud support
- Distributed caching for mobile cloud video
- Mobile video processing in the cloud
- Media cloud resource management for video applications
- Metadata management for mobile video applications
- Mobile video analytics in the cloud
- Context-aware mobile video over the cloud (e.g., location, user, etc)
- Video adaptation for mobile cloud
- Location-based mobile video services
- User-centric video adaptation in the cloud
- Interactive video rendering for mobile devices
- Service-oriented video management
- Cloud-based mobile video system and applications
- Security and privacy for mobile cloud video
- Mobile video networking in the cloud
- Mobility management for cloud video
- Mobile cloud video over future Internet (e.g., SDN, NDN)
- Synthesis between mobile video and social networking with cloud support
- Cost optimization (e.g., energy, monetary cost, etc) in mobile cloud video
- Video/image editing/authoring on mobile devices with cloud support

## Important Dates

Initial Paper Submission:	August 14, 2015
Initial Paper Decision:	September 15, 2015
Revised Paper Submission:	October 15, 2015
Revised Paper Decision:	December 15, 2015
Final Paper Submission:	January 15, 2016
Final Paper Decision:	March 1, 2016
Publication Date:	June 2016

## Manuscript submissions and reviewing process

Submission of a paper to CSVT is permitted only if the paper has not been submitted, accepted, published, or copyrighted in another journal. Papers that have been published in conference and workshop proceedings may be submitted for consideration to CSVT provided that (i) the authors cite their earlier work; (ii) the papers are not identical; and (iii) the journal publication includes novel elements (*e.g.*, more comprehensive experiments). For submission information, please consult the IEEE CSVT Information for Authors: <http://tcsvt.polito.it/authors.html>.

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