Skin Detection for Adult Image Identification

Jung-Jae Yu, Seung-Wan Han

Video Surveillance Research Section Electronics and Telecommunications Research Institute, Rep.of Korea jungjae@etri.re.kr, hansw@etri.re.kr

Abstract— This work is aimed at the estimation of the skin region in pornographic images to identify and block the pornographic contents. We propose a novel method to estimate the skin region using simple operation in HSV color space and additional post-processing to reduce the noise effects. Our method does not require any pre-process such as object detection. It is fast and its result is good enough to be used for fitlering out the clear non-objectionable images before main identification process. So the proposed method can be used as pre-processing for more accurate poronographic image identification process.

Keyword- skin, color, detection, estimation, image, adult, pornography, naked



Jung-Jae Yu received a B.S. degree in electronic engineering from Yonsei University, Rep. of Korea, in 2003 and a Master degree in electronic engineering from KAIST, Rep. of Korea, in 2005. Since 2005 he is a senior researcher in Electronics and Telecommunications Research Institute (ETRI). His research interests include computer vision, pattern recognition, machine learning and 3D reconstruction..



Seugn-Wan Han received a B. S. degree in Computer Science from Chonnam National University, Rep. of Korea, in 1994 and received Ph.D. degree in Computer and Statistics from Chonnam National University, Rep. of Korea, in 2001. He was a adjunct professor at University of Science & Technology (UST), Rep. of Korea from 2005 to 2007. Since 2001 he is a principal researcher in Electronics and Telecommunications Research Institute (ETRI). His research interests include image processing, machine learning and security technology.