## Implementation and Analysis of Mood-based Music Recommendation System

JungHyun Kim, Seungjae Lee, WonYoung Yoo

Convergent Content Research Department, ETRI, 218 Gageongno, Yuseong-gu, Daejeon, KOREA bonobono@etri.re.kr, seungjlee@etri.re.kr, zero2@etri.re.kr

*Abstract*—This paper presents probability based music mood model and implementation of music recommendation system using the mood model. We implement three types of mood-based music recommendation players, for PC and mobile devices, and web. We make users' satisfaction test through web-based music recommendation service for three months. This paper shows analysis result of users' satisfaction and mood reappearance test after listening to music, two months apart.

Keyword-music mood, music recommendation, arousal-valence, mood model



JungHyun Kim was born in Korea in 1976. She received the B.S. and M.S. degrees from Jeonnam National University, Gwangju, Korea, in 1999 and 2001, respectively. Since then, he has been with Electronics and Telecommunications Research Institute, Daejeon, Korea, where she is currently the Senior Member of Technical Staff. Her main areas of research interest are audio and video copy protection, data visualization, and contents recommendation systems.



SeungJae Lee was born in Korea in 1977. He received the B.E. degree in electronic engineering from the Yonsei University, Seoul, Korea, in 2002, the M.E. degree in electronics engineering from the Korea Advanced Institute of Science And Technology, Daejeon, Korea, in 2004, respectively. Since then, he has been with Electronics and Telecommunications Research Institute, Daejeon, Korea, where he is currently the Senior Member of Technical Staff. His main areas of research interest are audio and video copy protection, visual search, and contents recommendation systems.



**WonYoung Yoo** was born in Korea in 1970. He received the M.S. and Ph.D. degrees from Chonbuk National University, Jeonju, Korea, in 1998 and 2002, respectively. Since then, he has been with Electronics and Telecommunications Research Institute, Daejeon, Korea, where he is currently the Senior Member of Technical Staff. His main areas of research interest are audio and video copy protection and visual quality assessment.