

# A Design and Simulation of Variable CCH Interval based on Message of V2X

Shin-Kyung Lee\*, Hyun-Kyun Choi\*\*

\*Department of Smart Mobile Research, ETRI, 218 Gajeong-ro, Yuseong-Gu, Daejeon, 34129, Korea

\*\* Department of Smart Mobile Research, ETRI, 218 Gajeong-ro, Yuseong-Gu, Daejeon, 34129, Korea

[neuron@etri.re.kr](mailto:neuron@etri.re.kr), [choihk@etri.re.kr](mailto:choihk@etri.re.kr)

**Abstract**—V-Link communication is responsible for high-speed, broadband communications between vehicles. It is allowed the MAC and network service architecture specified by the IEEE 1609.3/4 standards. Also in the multi-channel operation, channels are assigned as the control channel (CCH) and service channel (SCH). In this paper, we suggest and simulate a variable control channel interval, which can adjust the access time adaptively in the range of road side unit based on message traffic demands. **Keyword**—WAVE, V-Link, Multi-channel, CCH, SCH

**ShinKyung Lee** (BS'99–MS'01) is currently a Senior Member of Engineering Staff in the Software Contents Research Laboratory at Electronics and Telecommunications Research Institute (ETRI), Korea since 2000. Her research interests include autonomous vehicle and Vehicular Network.

**HyunKyun Choi** (BS'95–MS'97–Ph.D'15) is currently a Principal Member of Engineering Staff in the Software Contents Research Laboratory at Electronics and Telecommunications Research Institute (ETRI), Korea since 2000. His research interests include ITS and Vehicular Network.