

DISASTER-RESILIENT MULTILAYERED COMMUNICATIONS NETWORK

PROFESSOR FUMIYUKI ADACHI,
TOHOKU UNIVERSITY, JAPAN

Following the Great East Japan Earthquake, Ministry of Internal Affairs and Communications of Japan initiated many R&D programs to establish new communication system in the case of a disaster or emergency. In this talk, some details concerning the “multilayered communication network” will be presented.



Learning from lessons of The Great East Japan Earthquake in March 2011, MIC (Ministry of Internal Affairs and Communications) of Japanese Government initiated many R&D programs in order to establish new communications systems which are robust, resilient, and dependable in case of disaster and emergency. Our proposed project “Multilayered communications network” was accepted. In this talk, the concept of “Multilayered communications network” will be introduced. R&D subjects of the project will be presented and some experimental results will be shown.

FumiYuki Adachi received the B.S. and Dr. Eng. degrees in electrical engineering from Tohoku University, Sendai, Japan, in 1973 and 1984, respectively. In April 1973, he joined the Electrical Communications Laboratories of Nippon Telegraph & Telephone Corporation (now NTT) and conducted various types of research related to digital cellular mobile communications. From July 1992 to December 1999, he was with NTT Mobile Communications Network, Inc. (now NTT DoCoMo, Inc.), where he led a research group on Wideband CDMA for 3G systems. Since January 2000, he has been with Tohoku University, Sendai, Japan, where he is a Professor of Electrical and Communication Engineering at the Graduate School of Engineering. In 2011, he was appointed a Distinguished Professor. His research interests

include wireless signal processing for wireless access, equalization, transmit/receive antenna diversity, MIMO, adaptive transmission, and channel coding.

He is an IEEE Fellow and an IEICE Fellow. He was a recipient of the IEEE Vehicular Technology Society Avant Garde Award 2000, IEICE Achievement Award 2002, Thomson Scientific Research Front Award 2004, Ericsson Telecommunications Award 2008, Telecom System Technology Award 2010, and Prime Minister Invention Award 2010.