

RESEARCH OF GROUND PENETRATING RADAR IN EVALUATING THE EXISTENCE OF ERODED CAVES BEHIND SEAWALL
RESEARCH OF GROUND PENETRATING RADAR IN EVALUATING THE EXISTENCE OF ERODED CAVES BEHIND SEAWALL

LEE, Tsung-lin¹ ; LIN, Hung-ming² ; WEN, Chih-chung³ ; LIU, Chi-min^{4*}
LEE, Tsung-lin¹ ; LIN, Hung-ming² ; WEN, Chih-chung³ ; LIU, Chi-min^{4*}

¹Department of Architecture, China University of Science and Technology, Taiwan, ²Public Construction Research and Development Center, National Cheng Kung University, Taiwan, ³Department of Safety, Health and Environmental Engineering, Hungkuang University, Taiwan, ⁴General Education Center, Chienkuo Technology University, Taiwan

¹Department of Architecture, China University of Science and Technology, Taiwan, ²Public Construction Research and Development Center, National Cheng Kung University, Taiwan, ³Department of Safety, Health and Environmental Engineering, Hungkuang University, Taiwan, ⁴General Education Center, Chienkuo Technology University, Taiwan

As an island, Taiwan is especially sensitive to the impact of the global climate change. Due to the influences of global warming and climate change, coastal floods will be more and more frequent over Taiwan areas. The action of the strong wave force or typhoon force often causes many destroy of seawall, for example the eroded caves behind seawall. This damage not only affects the lives of residents behind seawall, but also causes the severe flooding in coastal area.

This proposal presents an application of the Ground-Penetrating Radar (GPR) to detect the failure potential of eroded caves in a seawall. The seawall structure site survey was selected at Chi-Gu seawall in Tainan. From a series of GPR tests, it was found that the position of the eroded caves in a seawall can be easily identified using GPR

キーワード: ground penetrating radar, seawall, eroded cave

Keywords: ground penetrating radar, seawall, eroded cave