

LOWLAND TECHNOLOGY INTERNATIONAL SPECIAL ISSUE – FOREWORD –

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Lowlands imply regions having low elevation, which are particularly susceptible to climatic, sea water level and environmental changes. For example, global warming, which appears to be causing a rise in sea level, must ultimately affect the safety of coastal dikes and other coastal infrastructures, as well as threaten the water and ecological systems in lowland areas. Lowland regions are also particularly vulnerable to natural disasters. In 2004, several large earthquakes and Tsunami in the Asian region caused major damage in lowland areas. The importance of exploration of problems in lowlands has been recognized by researchers, planners, engineers and administrators all over the world.

Action is now required for the development of new technologies to protect and develop lowland areas and to solve the environmental problems being faced in these regions. To achieve this aim, it will be necessary to draw on and to merge several disciplines, such as geotechnical engineering, water resources and city planning, etc. Therefore, the International Symposium on Lowland Technology (ISLT) was born out of a recognition, by both researchers and managers, that brings together researchers and engineers working in lowland regions, from a broad range of disciplines, in order to present their research results, exchange information, facilitate networking, and to promote and advance technologies related to lowland development. ISLT was first organized in November of 1998, which signified the start of the activities of the International Association of Lowland Technology (IALT) and the international communication between the Institute of Lowland Technology (ILT) and international research institutions. Since then, ISLT series has been held subsequently in the years 2000 and 2002 (in Saga, Japan), 2004 (in Bangkok, Thailand) and 2006 (in Saga, Japan). The sixth event of ISLT will be held on September 24th-26th, 2008 in Busan, Korea. Nowadays, ISLT has been recognized as a high-level international symposium that leads and promotes the researches on lowland technology internationally.

The ISLT 2006 was successfully held in Saga, Japan, from September 14th to 16th, 2006. This symposium aimed at inviting more than one hundred and fifty participants from fifteen countries to discuss various problems and topics with respect to lowland technology, especially in three aspects of geotechnical and geoenvironmental engineering, water environmental engineering, and urban planning and management, for the benefit of collecting and exchanging a large amount of knowledge of techniques or experiences being developed and spreading these to all the countries of the world for further sustainable development. ISLT 2006 consisted of eighteen technical sessions and a technical tour for participants to visit the tidal flats in the Ariake Sea of Japan. One hundred and eight papers were peer-reviewed by two reviewers and the editors. The accepted papers were published in a proceeding of the symposium (the acceptance rate was 98%).

Among ISLT series, it was the first time ISLT 2006 set up awards for the best presentation for young researchers and the best papers to be published in a special issue of the Lowland Technology International (LTI) journal. A selection committee had decided to select eight (8) papers for inclusion in this LTI special issue based on a number of criteria. Among the papers selected, there are four (4) papers for the field of geotechnical engineering, two (2) papers for the field of water resources management, and two (2) for the field of city and urban planning.

We offer our congratulations to the authors of the selected papers, for their contribution to ISLT 2006 as well as to the development of technology for the lowlands. We hope that the papers will inspire all audients who read them to redouble their efforts to ensure that researchers and managers have developed new ways, methodologies and technologies to enhance our understanding and management of the environment in lowlands.

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