



The 14<sup>th</sup> International Symposium of  
Geospatial Information Science and Urban Planning

February 16-18, 2012  
Beppu International Convention Center (B-Con Plaza)  
Yamanote-cho 12-1, Beppu, Oita, JAPAN

Organized by Organizing Committee of GISUP2012, International  
Sponsored by Faculty of Engineering, Nagasaki University  
Faculty of Environmental Studies, Nagasaki University  
Faculty of Education, Nagasaki University  
School of Health Sciences, Nagasaki University



## *Welcome to GISUP 2012*

For our happy future.

Dear colleagues and friends from Korea and Japan !

We are so glad that we can meet again at Beppu in Kyushu island.

Beppu is one of most famous hot spring cities in Japan.

In Beppu you can see, hear, smell and feel natural activities of the earth.

If you visit hot springs in Beppu, you can understand how great the natural power is !! Last March we had terrible tsunami and earthquake in East Japan. It was caused by natural power. Because of such strong natural phenomena, many people were dead and still so many people have to live apart from their home and their family.

But through this tsunami disaster, impressing news was that great amount of rescue goods were donated by many foreign governments and also many foreign peoples. These worldwide supports encouraged refugees. Of course, from our neighboring Korea rescue teams arrived to Japan immediately after the Tsunami. We are thankful to all foreign friends who offered such supports. From this experiences we noticed that collaboration encouraged people. Helping each other yields power for the weak people.

Everybody, let's talk and spend goods time at Beppu with your friends. Our collaboration and cooperation will lead us to fruitful future.



Prof. Takakazu ISHIMATSU

Dated on 2012/01/30

In Kenya

*Takakazu Ishimatsu*

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## **GISUP2012 Detailed Program**

The 14<sup>th</sup> International Symposium of  
Geospatial Information Science and Urban Planning  
(GISUP2012, International)

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Faculty of Environmental Studies, Nagasaki University

Faculty of Education, Nagasaki University

School of Health Sciences, Nagasaki University

### **Schedule**

February 16, 2012 Registration and Special Lecture, B-Con Plaza

February 17, 2012 GISUP2012, Oral Presentation, B-Con Plaza,

Session-1, 2, 3, 4 (9:00-17:00)

February 18, 2012 Technical tour in Beppu city (Geothermal power plant)

(9:00-13:00)

### **Registration Fee**

General: 6,000 Yen

Student: 3,000 Yen

### **Conference Program Contents**

The conference consists of information symposium for Geospatial Information Science and Urban Planning (GISUP2012), for scientific sessions on various GIS and urban planning method and system.

## Oral Presentation Schedule

Place: Beppu International Convention Center (B-Con Plaza), Beppu, Oita, JAPAN

### REGISTRATION (9:00 - 9:20)

### OPENING ADDRESS (9:20 – 9:30)

*Chairman: Prof. Takakazu ISHIMATSU (Nagasaki University, Japan)*

### KEYNOTE LECTURE (9:30 – 10:30)

Titled: O-RID KYBER: Degitizing Handwriting and Business Cards Better Than any OCR 1

*Mr. Raymond GRONDIN (O-RID Co., Ltd, Japan)*

### SCIENTIFIC SESSIONS

#### SESSION – 1 (10:45 – 12:00)

*(Session Chair: Prof Byungdug JUN, Nagasaki University, Japan)*

1. Investigations of Hot Thermal Environment and Evaluations of Air Conditioning Energy Loads  
in Kumamoto City Urban Districts 3  
*Shota MORISHITA, Yukiko SORAOKA, Takahito UENO*
2. Methodology to Reduce Greenhouse Gas by Alternative Street Trees Using GIS 9  
*Su-Jee LEE, Eui-Myoung KIM*
3. Estimation of Street Trees Information Using Aerial LIDAR Data in Urban Area 17  
*Eui-Myoung KIM, Du-Young CHO*
4. Construction of Cycling Map in Nagasaki City by Using Web GIS 25  
*Keiko SHIRAISHI, Teruhiro MISAKI, Yoshifumi SAKAI, Kazuichi SUGIYAMA*
5. Changes of Traffic Circumstances of Iojima Island before and after Iojima Bridge Constructing 29  
*Koji FURUKAWA, Kazuichi SUGIYAMA*

#### SESSION – 2 (13:00 – 14:00)

*(Session Chair: Assoc. Prof Eung-Nam KIM, Inha Technical College, Korea)*

6. Comparison of Digital Camera with Two and Three CMOS 33  
*Mitsuru AMANO, Byungdug JUN, Kazuichi SUGIYAMA, Eung-Nam KIM*
7. A 3D Image System to Use Vision for Black Haired Cow 39  
*Joel Palomino Masco, Takakazu ISHIMATSU, Takeshi NAKAHAMA*
8. Computer Input System by Using Image Processing for Spinal Injured Patients 45  
*Haruo NAKASHIMA, Chao ZHANG, Shunji MOROMUGI, Takakazu ISHIMATSU*
9. A Filtering Automatic Technique of LiDAR Data by Multiple Linear Regression Analysis 53  
*Jun-Seong KIM, Ji-Hyun CHO, Seung-Pil CHOI*

### **SESSION – 3 (14:15 – 15:15)**

*(Session Chair: Prof Takahito UENO, Sojo University, Japan)*

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|--|-----------|
| <b>10. Impact Study of Personality with Several Sibling Formation</b>  | <b>63</b> |
| <i>Minoka TAMURA, Byungdug JUN</i>   |           |
| <b>11. Analysis of Soundscape in Kurosaki and Konoura Areas of Nagasaki City</b>   | <b>69</b> |
| <i>Natsuki KOHAGURA, Yukiko NAKAYAMA, Kazuichi SUGIYAMA</i>  |           |
| <b>12. Investigation of Landscape and Soundscape in Urban Areas of Tamsui Ward, New Taipei City, Taiwan</b>                    | <b>75</b> |
| <i>Ping CHEN, Kazuichi SUGIYAMA, Ryohei HARADA</i>   |           |
| <b>13. Quantitative Evaluation of Landscape and Soundscape by Using Semantic Differential Method and Quantification Theory</b> | <b>81</b> |
| <i>Ryohei HARADA, Kazuichi SUGIYAMA, Chong WANG</i>  |           |

### **SESSION – 4 (15:30 – 16:30)**

*(Session Chair: Assoc. Prof Rieko NAKAO, Nagasaki University, Japan)*

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|---|------------|
| <b>14. The Analysis of Correlation between GIUH Parameters and DEM Based Parameters</b> | <b>85</b>  |
| <i>In-Tae YANG, Sang-Yun LEE, Seung-Ku LEE, Moon-Seung SHIN</i>                         |            |
| <b>15. A Study on the Selection of Silver Zones through GIS</b>                         | <b>93</b>  |
| <i>So-Rang PARK, Jae-Kook PARK</i>  |            |
| <b>16. A Survey on Attitude toward Atomic Bomb between Nagasaki and Hiroshima</b>       | <b>99</b>  |
| <i>Yusuke MITANI, Byungdug JUN</i>  |            |
| <b>17. Development of Peace Education Class with ICT Tool and Its Practice</b>          | <b>105</b> |
| <i>Kanna KUBO, Byungdug JUN</i>   |            |
| <b>18. Analysis of Shelter Service Areas according to Walking Speed</b>                 | <b>109</b> |
| <i>Jae-Kook PARK</i>  |            |

### **CLOSING ADDRESS (16:30 – 16:40)**

*Prof. Seung-Pil CHOI (Kwandong University, Korea)*