

## CURRICULUM VITAE

Shunji KANIE



### PERSONAL

Birth September 22, 1957  
Tokyo, Japan

Affiliation Professor, Structural Mechanics and System  
Faculty of Engineering, Hokkaido University

Address Kita13, Nishi 8, Kitaku, Sapporo  
Japan 060-8628  
Tel: +81-11-706-6175 Fax: +81-11-706-6175  
E-mail: [kanie@eng.hokudai.ac.jp](mailto:kanie@eng.hokudai.ac.jp)

### EDUCATION

B. of Eng. Hokkaido University, Hokkaido, Japan, 1980  
M. of Eng. Hokkaido University, Hokkaido, Japan, 1982  
M. of Sci. Stanford University, California, USA, 1990  
PhD of Eng. Hokkaido University, Hokkaido, Japan, 1997

### PERSONAL EXPERIENCE

1982-2000 Engineer & Researcher, Taisei Corporation, Tokyo  
(Except 1989-1990)

2000-2006 Associate Professor, Hokkaido University, Sapporo

2007-present Professor, Hokkaido University

2007-2016 Secretary General of IACORD  
(International Association of Cold Region Development)

2008-2013 Advisor for Executives (International Affair of Hokkaido University)

2010-present Chair, International Exchange Forum for Sapporo Area Universities

2016-present President of IACORD  
(International Association of Cold Region Development)

### RECENT PAPERS (International Journals; 2010-2017)

1. Hao Zheng, Shunji Kanie, Fujun Niu and Anyuan Li: Application of Practical One-dimensional Frost Heave Estimation Method in Two-dimensional Situation, *Soil and Foundations*, Tokyo-56(5), DOI: 10.1016/j.sandf.2016.08.014, September 2016
2. Chikako Amanuma, Takashi Kanauchi, Satoshi Akagawa and Shunji Kanie: Evaluation of Frost Heave Pressure Characteristics in Transverse Direction to Heat Flow, *Procedia Engineering*, Vol. 171, pp461-468, Elsevier, doi:10.1016/j.proeng.2017.01.357, December 2017
3. Hao Zheng, Shunji Kanie, Fujun Niu and Anyuan Li: Three-dimensional Frost Heave Evaluation Based on Practical Takashi's Equation, *Cold Regions Science and Technology*, Vol. 118, DOI: 10.1016/j.coldregions.2015.06.010, June 2015

4. Shunji Kanie, Akihiro Hayashi, Yutaka Terada and Hao Zheng: Numerical Analysis of Pipe-in-Pipe Filled with Various Materials, Pipeline, Vol. 76, No. 6, pp461-480, ISSN 0373-1006, ASCE, 2015
5. Hao Zheng and Shunji Kanie: Two-dimensional frost heave evaluation by numerical model considering nonlinear elasticity of unfrozen soil, Journal of Seppyo, Vol. 76, No. 6, pp461-480, ISSN 0373-1006, The Japanese society of Snow and Ice, 2014
6. Hao ZHENG and Shunji KANIE: Combined Thermal-Hydraulic-Mechanical Frost Heave Model based on Takashi's Equation.. *Journal of Cold Regions Engineering*.. DOI: 10.1061/(ASCE)CR.1943-5495.0000089, ASCE 2014
7. Akito Ueda, Yuto Ishida, Shunji Kanie: Effect of Elemental Shape and Modeling of Mixed Hybrid FEM on Numerical Solution, Procedia Engineering, Vol. 95, pp213-224, Elsevier, DOI: doi:10.1016/j.proeng.2014.12.181, 2014
8. Akihiro Hayashi, Yutaka Terada, Shunji Kanie: Development of pipe-in-pipe filled with granular material for flexible and ductile bending performance, ProcediaEngineering, Vol.95, pp232-240, Elsevier, DOI: 10.1016/j.proeng.2014.12.183, 2014
9. Shinji Kioka, Takahiro Takeuchi and Shunji Kanie : Meium-scale Experiment and Numerical Simulation for the Impact Load by an Ice Floe against a Pile Structure, Journal of JSCE, A2, Vol.68, No.2, DOI : 10.2208/jscejarn 68 1 423, January 2012
10. Shunji Kanie: Feasibility Studies on Various SFT in Japan and their Technological Evaluation, Procedia Engineering, Vol. 4, pp13-20, Elsevier, DOI: [10.1016/j.proeng.2010.08.004](https://doi.org/10.1016/j.proeng.2010.08.004), 2010

#### **RECENT INTERNATIONAL CONFERENCE (2010-2017)**

1. Shunji Kanie, Akihiro Hayashi, Yutaka Terada and Hao Zheng: Numerical Analysis of Pipe-in-Pipe Filled with Various Materials, Pipeline, Vol. 76, No. 6, pp461-480, ISSN 0373-1006, ASCE, 2015
2. Shunji Kanie, Akihiro Hayashi, Yutaka Terada and Hao Zheng : Numerical Analysis of Pipe-in-Pipe Filled with Various Materials, Conference on Pipeline, ASCE, Baltimore, USA, 2015
3. Shunji Kanie, Zheng Hao, Satoshi Akagawa and Yasushi Ueda: Experimental and Practical Evaluation Method of Three-dimensional Frost Heave of Frozen Soil, International Conference on Cold Regions Development, Anchorage, USA, 2013
4. S. Kanie, M. Sato, T. Kowatari, S. Akagawa: Development of flexible and ductile pipe-in-pipe filled with granular material for cold regions, Arctic Technology Conference, OTC23843, USA 2012
5. Shunji Kanie, Zheng Hao, Michiyo Makimura, Shuhei Takahashi: A Practical Method for Three-Dimensional Frost Heave Simulation based on Takashi's Equation, 15<sup>th</sup> International Conference on Cold Regions Engineering, pp. 697-704, Quebec, Canada, August 19-22, 2012
6. Shunji Kanie, Zheng Hao, Satoshi Akagawa: Two-Dimensional Frost Heave Simulation based on the Takashi's Equation, 10<sup>th</sup> International Conference on Permafrost (TICOP), 2012
7. Hao ZHENG and Shunji KANIE: Practical Evaluation for Interactive Behavior between Structure and Two-Dimensional Frost Heave.. *The 46th Geotechnical Engineering workshop Japanese Geotechnical Society*. Kobe. 2011
8. Kanie S., Tsuchiya T., Sato M. and Akagawa S., "Structural Design Of Chilled Gas Pipeline Considering Adfreeze Strength Between Frost Bulb And Chilled Pipe, Proceeding of International Symposium on Cold Region Development, Yakutsk, Sakha Republic, Russia, 2010

#### **KEY NOTE and INVITED LECTURES (International)**

1. Shunji Kanie: 'Sustainable Development in Vulnerable Environments: Difficulties in Cold Regions Engineering and Construction', Keynote Lecture, 1<sup>st</sup> International Conference on Sustainable Civil Engineering Structures and Construction Materials (SCESCM), Universitas Gadjjar Mada, Yogyakarta, Indonesia, Sept. 11, Oct. 2012
2. Shunji Kanie: 'Feasibility Studies on Various SFT in Japan and Their Technological Evaluation', Keynote Lecture, 1<sup>st</sup> International Symposium on Archimedes Bridges (ISAB-2010), Chinese Academy of Science, National Natural Science Foundation of China, Qiandao Lake, China, 10,

Oct. 2010

3. Shunji Kanie: Sustainable Development in Vulnerable Environments: For Construction and Engineering in Permafrost Regions”, Invited Key note lecture, The 1st International Conference on Sustainable Infrastructure and Built Environment in Developing Countries (SIBE-2009), November 2nd-3rd 2009, Bandung, West Java – Indonesia, 2009