



Kyounghun Lee

Curriculum Vitae

Personal information

Name Kyounghun Lee
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Born July 26, 1984
Citizenship South Korea
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Current Position

March 2017- Postdoctoral researcher in Center for Mathematical Analysis & Computation, Yonsei University, South Korea

Research Interests

PDE-based inverse problems, inverse problems in medical imaging, electrical impedance tomography

Education

2012–2017 **Doctor of Philosophy in CSE-Mathematics**, *Yonsei University*, Seoul.
2008–2012 **Bachelor of Science in Mathematics**, *Inha University*, Incheon.

Doctoral Thesis

Title *Inverse problems in electrical impedance tomography and its applications*
Supervisor Professor Jin Keun Seo

Publications

- [5] A fidelity-embedded Regularization Method for robust Electrical Impedance Tomography, *IEEE Trans. Med. Imag.*, accepted, 2017 (with E.J. Woo, and J.K. Seo)
- [4] Mathematical modelling of conductive fabric-based flexible pressure sensor, *Applied Mathematical Modelling*, 2017 (with M. Chipot, and J.K. Seo)

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- [3] Remote real time monitoring for underground contamination in Mongolia using electrical impedance tomography, *Journal of Nondestructive Evaluation*, 2016 (with M.E. Ts, E. Lee, L. Zhou, and J.K. Seo)
- [2] A pressure distribution imaging technique with conductive membrane using electrical impedance tomography, *SIAM J. on Applied Math*, 2015 (with H. Ammari, K. Kang, and J.K. Seo)
- [1] Electrical Impedance Spectroscopy for Electro-mechanical Characterization of Conductive Fabrics, *Sensors*, 2014 (with T.K. Bera, Y. Mohamadou, H. Wi, T.I. Oh, E.J. Woo, M. Soleimani, J.K. Seo)

Experience

Talks

- 2014. 9. 16 Monitoring pressure-induced deformation of conductive membrane using EIT in 5th International Workshop on Process Tomography
- 2015. 6. 4 Frequency-difference of time-difference EIT imaging to detect regions of lung collapse in 16th International Conference on Biomedical Applications of Electrical Impedance Tomography
- 2015. 8. 7 A pressure sensing technique with conductive membrane based on electrical impedance tomography in A3
- 2015. 11. 19 A pressure sensing technique with conductive membrane based on electrical impedance tomography in KSIAM
- 2016. 1. 13 Boundary artifact elimination with Correlation for lung imaging in EIT in A3
- 2016. 5. 21 Correlation-based reconstruction method for lung imaging in Electrical Impedance Tomography in KSIAM
- 2016. 6. 12 A robust EIT reconstruction using sensitivity-data correlation in 17th International Conference on Biomedical Applications of Electrical Impedance Tomography
- 2016. 6. 28 A robust EIT reconstruction using sensitivity-data correlation in ICIP2016

Posters

- 2014. 12. 13 Electrical impedance tomography(EIT)-based Conductive membrane Pressure-sensing in 2014 Seoul-Tokyo Conference on Applied Partial Differential Equations : Theory and Applications
- 2015. 6. 3 A mathematical framework for EIT-based flexible pressure sensor in 16th International Conference on Biomedical Applications of Electrical Impedance Tomography

Teaching

- 2015. 1st and 2nd Semester **Teaching Assistant.**
Partial differential equation for science and engineering

Scholarship

- 2013~2016 Brain Korea 21 Plus (BK21+) Scholarship, National Research Foundation of Korea
- 2011~2013 World Class University (WCU) Scholarship, National Research Foundation of Korea

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Military service

2005. 1. 17. Served and discharged upon completing military service as Sergeant
~ 2007. 1.16

Patents

2016 Image reconstruction of conductivity for electrical impedance tomography (전기 임피던스 단층 촬영 영상 생성을 위한 전도도 산출 방법 및 장치), DP-2016-0673 (Korea)

Programing skills

Advanced Matlab, \LaTeX
Intermediate JAVA, C#, Comsol Multiphysics
Basic C/C++, Python

Languages

Korean **Mothertongue**
English **Intermediate**
Japanese **Intermediate**

Updated on April 13, 2017