

# Keon Jae Lee, Ph.D

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## Education

Ph.D degree in University of Illinois at Urbana-Champaign, May, 2006.

## Experience

2009-current: **Associate Professor**, Department of Materials Science and Engineering,  
Department of Electrical Engineering, KAIST

2012-2015: **Director**, Flexible and Nanobio National Research Lab. (NRF of Korea)

2013-2014: **Visiting Professor**, MGH, Harvard Medical School, Harvard University.

## Research Interests

*Self-powered flexible electronic systems*

*Flexible energy harvesting (nanogenerator) and storage systems*

*Flexible GaN/GaAs LED for implantable biomedical applications*

*Flexible large scale integration (LSI)*

*Flexible high density memory (memristor and phase change memory)*

*Laser material interactions for flexible electronics*

*Flexible and stretchable sensors & user-interface*

*Graphene research using laser material interaction*

## Honors and Awards

2016 'Keynote Speaker' at IUTAM Conference in Hangzhou, China.

2015-2016 Invited talk at IEDM (Washington 2015) & ISSCC (San Francisco 2016) & Stanford Univ.

2015-2016 Invited talk at MRS (Spring & Fall 2015), MRS (Spring & Fall 2016) & MRS (Spring 2017)

2015 Prof. Lee won 'Advanced Materials Scientist Award' from IAAM (Sweden).

2015 Prof. Lee won '2014 KAIST Top 10 Research Award'

2015 'Keynote Speaker' at EUROMAT Conference in Poland

2014 Prof. Lee won Minister's Award from Ministry of Science, ICT and Future Planning

2014 Cover articles for Advanced Materials, Energy Environ. Sci., Adv. Func. Mater. & Small.

2013 Prof. Lee gave an invited talk at Harvard Medical School & MIT in Boston.

2012 Flexible battery is highlighted in Nature as 'The Most Viewed Papers in Science'

2012 Prof. Lee won '2012 Merck Young Scientists Awards'

2012-2013 Cover feature article for Advanced Materials and Advanced Energy Materials

2012 National Research Lab. from National Research Foundation of Korea.

2012 'Keynote Speaker' at International SPIE Conference in San Diego

2012 'Plenary Speaker' at International CSMNT Conference

2011 Prof. Lee won 'KAIST 2011 Technology Innovation Award'

2010 Thin Film Nanogenerator is selected as 'Top 10 Lifestyle Innovation Technology', Donga Science

2009 George Smith Award for the best paper published in IEEE Elect. Dev. Lett.

2006 Three dimensional chips are published in Science

2006 Printed semiconductor technology won "2006 Innovation Award" from Wall Street Journal

2006 Printed semiconductor technology is licensed to Semprius Inc.

2005-2006 Cover article for Nature Materials and Advanced Functional Materials

## Publications

~130 patents in the field of flexible and nanoelectronics. More than 40 of these are licensed.

~70 SCI papers in journal including *Science*, *Nature Materials*, *Nature Comm.*, *Nano Letters*, *Advanced Materials*, *ACS Nano*, *Adv. Energy Mater.*, *Energy Environ. Sci.*, *Adv. Func. Mater.*, *Nano Energy*, *Small* etc.