Daesuk Kim

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EDUCATION

March 1997- August 2002 **Ph. D**: Korea Advanced Institute of Science & Technology (KAIST), **KOREA**
- Thesis: "3-D Volumetric thickness profilometer based on an acousto-optic tunable filter"
- Major: Micro/Nano Opto-mechatronics

March 1995- February 1997 **MS**: Korea Advanced Institute of Science & Technology, Mechanical Eng.

March 1991- February 1995 **BS**: Korea Advanced Institute of Science & Technology, Precision Eng.

<**Industrial expertise**>
- **Nanotechnology industry**: Nano-lithography and nano pattern measurement technology
- **Semiconductor industry**: Mass-production manufacturing process and semiconductor devices
- **Display industry**: Flat panel display and 3-D display
- **Material science industry**: light emitting devices such as high bright white LED etc.
- **Automobile industry**: Manufacturing automation

EXPERIENCES

May 2011- Present **Chonbuk National University** , KOREA
Associate Professor, Micro Nano Systems Lab., Division of Mechanical System Engineering

May 2007- 2010 **Chonbuk National University** , KOREA
Assistant Professor, Micro Nano Systems Lab., Division of Mechanical System Engineering

February 2005- May 2007 **Samsung Electronics Co., Ltd.**, KOREA
Senior Engineer at Micro Nano Technology Team

October 2003- November 2004 **University of Connecticut**, **USA**
Post-doctoral Associate at Dept. of Electrical & Computer Engineering
- Worked on next generation 3-D display and digital holography

May 2001- June 2003 **SYSNEX Co., Ltd** (www.sysnex.com), **KOREA**
Team manager in high brightness light emitting diode (LED) mass production sector

May 2000- April 2001 **Korea Research Institute of Standards and Science** (**KRISS**), **KOREA**
Assistant researcher at Optical Metrology Group

Summer 1998 **Fern University**, **GERMANY**
Visiting researcher at Optical Computing Lab., Optical communication and computing

March 1997- May 1999 **MECASYS Co., Ltd**. (www.mecasys.co.kr), **KOREA**
R&D consulting: new item development & project planning

Research interest fields

- **Bio-photonics**
  Digital holographic microscopy and 3-D spectral imaging microscopy
  Spectral optical coherence tomography
- **Optical metrology for micro and nano regimes**
  3-D Low coherence interferometric thickness profilometry
  Spectroscopic imaging reflectometry and ellipsometry for 3-D thin film metrology
  Scatterometry based optical nano 3-D measurement
- **Opto-electro devices**

Diffractive optics and micro optical system
Semiconductor light emitting devices: LED & LD

- **3D imaging and display**
  3D display and 3D vision technology
  Printable electronics

HONORS & AWARDS

January 2009 • **Best Intellectual Property Award at Chonbuk National University**
"Digital holography based 3D measurement".

March 2003 • **8th SAMSUNG Co. Human Tech Award**: Measurement and control field
"Non-destructive surface profile measurement of a thin film deposited on a patterned sample".

SKILLS & OTHER INFORMATION

Languages: Fluent in English and Intermediate in German and Japanese
Computer Skills: Matlab, C language, Visual-Basic, Labview