

# Seungyong Lee

Professor

Dept. of Computer Science and Engineering  
Pohang University of Science and Technology (POSTECH)  
San 31 Hyoja-dong, Pohang, 790-784, Korea  
phone: +82-54-279-2245, fax: +82-54-279-2299  
email: leesy@postech.ac.kr, <http://www.postech.ac.kr/~leesy>

## Short Biography

Seungyong Lee is a professor of computer science and engineering at the Pohang University of Science and Technology (POSTECH), Korea. He received the BS degree in computer science and statistics from Seoul National University in 1988 and the MS and PhD degrees in computer science from the Korea Advanced Institute of Science and Technology (KAIST) in 1990 and 1995, respectively. From 1995 to 1996, he worked at the City College of New York as a postdoctoral research associate. Since 1996, he has been a faculty member of POSTECH, where he leads the Computer Graphics Group. From 2003 to 2004, he spent a sabbatical year at MPI Informatik, Germany, as a visiting senior researcher. His current research interests include non-photorealistic rendering, image and video processing, 3D surface reconstruction, 3D geometry processing, and mobile graphics systems.

# Seungyong Lee

Curriculum Vitae

## Current Position

Professor

Dept. of Computer Science and Engineering

Pohang University of Science and Technology (POSTECH)

San 31 Hyoja-dong, Pohang, 790-784, Korea

phone: +82-54-279-2245, fax: +82-54-279-2299

email: leesy@postech.ac.kr, <http://www.postech.ac.kr/~leesy>

## Education

- |       |      |  |
|-------|------|--|
| Ph.D. | 1995 | Computer Science, KAIST<br>Thesis: <i>Image morphing using scattered feature interpolations</i><br>Advisor: Kyung-Yong Chwa / Sung Yong Shin |
| M.S.  | 1990 | Computer Science, KAIST<br>Thesis: <i>Characterization of planar graphs having rectangular duals</i><br>Advisor: Kyung-Yong Chwa             |
| B.S.  | 1988 | Computer Science and Statistics, Seoul National University (with honors)   |

## Professional Experience

- |                  |  |
|------------------|--|
| 2009.3 ~         | Professor, POSTECH   |
| 2003.3 ~ 2009.2  | Associate professor, POSTECH   |
| 2003.8 ~ 2004.8  | Visiting senior researcher, MPI Informatik, Germany<br>(working with Prof. Dr. Hans-Peter Seidel)        |
| 1996.10 ~ 2003.2 | Assistant professor, POSTECH   |
| 1995.3 ~ 1996.9  | Post-doctoral research associate, City College of New York / CUNY<br>(working with Prof. George Wolberg) |
| 1993.9 ~ 1994.8  | Part-time lecturer, Chungnam National University   |
| 1990.3 ~ 1994.2  | Teaching and research assistant, KAIST   |

## Research Interests

Computer graphics, Image processing;

Non-photorealistic rendering (NPR), Computational photography, 3D surface reconstruction, 3D geometry processing, Graphics applications.

## **Media Exposure**

*Deblurring CCTV images in three seconds: Evolution of 'Computational Photography'*,

Korean Daily Newspaper (Dong-A Ilbo), December 18, 2009

*Revival of corrupted photographs*, Korean Child Science Magazine (Science-Guru), February 2010

## **Honors and Awards**

Samsung HumanTech Thesis Prize, Bronze Prize, 2010 (PhD student: Minjung Son)

Best Paper Awards, Grand Prize, HCI Korea Conference, 2009

Samsung HumanTech Thesis Prize, Bronze Prize, 2009 (PhD student: Mincheol Yoon)

Frontispiece Image of Conference Proceedings, ACM Siggraph Asia, 2008

Microsoft Research Asia, Fellow, 2008 (PhD student: Sunghyun Cho)

KISS Paper Competition in Computer Science, Honor Prize, 2007 (MS student: Minjung Son)

Ph.D. Thesis Award, Dept. of Computer Sci. & Eng., POSTECH, 2007 (PhD student: Minsu Ahn)

Microsoft Research Asia Gaming & Graphics Theme Recipient, 2005

Samsung HumanTech Thesis Prize, Honor Prize, 2001 (PhD student: Junho Kim)

Best paper, KISS Spring Conference, 2000

## **Professional Activities**

Eurographics Korean Chapter Chair (2007 ~)

Steering Committee:

Pacific Graphics Conference Series (2008 ~)

Journal Special Issue Co-editor:

The Visual Computer (2004)

Journal Editorial Board:

Computer Graphics Forum (2008 ~ 2011)

The Journal of Virtual Reality and Broadcasting (2006 ~)

Program Co-chair:

Pacific Graphics (2009)

The 4th Israel-Korea Bi-National Conference on Geometric Modeling  
and Computer Graphics (2003)

Invited Speaker:

Japan Korea Computer Graphics Conference (2002)

Program Committee:

SIGGRAPH Asia (2010)

Eurographics (2007, 2008, 2011)

Pacific Graphics (1999-2001, 2003-2008, 2010)

Non-Photorealistic Animation and Rendering (2007, 2009)

Symposium on Geometry Processing (2008, 2010)  
Symposium of Solid & Physical Modeling (2010)  
Shape Modeling International (2003, 2005-2010)  
Computer Graphics International (2006)  
Symposium on Computer Animation (2005)  
Computer Animation and Social Agents (2001-2003, 2008)  
Geometric Modeling and Processing (2006, 2008, 2010)  
3D Data Processing, Visualization and Transmission (2008, 2010)  
Entertainment Computing (2007, 2008)  
Visual Computing (2007, 2008)  
Israel-Korea Bi-National Conference (2004, 2005, 2007)  
China-Korea Geometric and Visual Computing Conference (2006-2008)

Organizing Committee:

Japan Korea Computer Graphics Conference (2002)

Visiting Professor:

Shenzhen Institute of Advanced Technology (SIAT) (Summer 2008)

Microsoft Research Asia (MSRA) (Summer 2002, Summer 2007)

Journal review:

IEEE TVCG, IEEE CG & A, ACM TOG, Computer Graphics Forum,  
CAD, CAGD, Graphical Models, Visual Computer, Computers & Graphics

Domestic Journal Editor-in-chief:

The Journal of KCGS (Korea Computer Graphics Society) (2007 ~)

Domestic Conference Conference Chair:

KCGS Summer Conference (2006)

**Professional Membership**

ACM SIGGRAPH, IEEE Computer Society, Eurographics

Korea Computer Graphics Society (KCGS), Korea Information Science Society (KISS)

**Courses Taught**

Computer Graphics, Advanced Computer Graphics, GPU-based Graphics, Real-Time Graphics;  
Digital Image Synthesis, Computer Animation,  
Image and Volume Graphics, Multiresolution Graphics Techniques;  
Computer Algorithm, Object-Oriented Programming, Introduction to Programming;  
Computer Organization, Computer Architecture

**PhD Theses Supervised**

Sungyul Choe, *Random Accessible Mesh Compression for Large Meshes*, POSTECH, August 2009.

Currently a Senior Researcher at Samsung Electronics.

Minsu Ahn, *3D Mesh Processing Using Connectivity Transformations*, POSTECH, February 2007.

Currently a Senior Researcher at Samsung Electronics.

Kyuman Jeong, *Detail Control in Non-Photorealistic Rendering*, POSTECH, February 2007.

Currently a Full-time Lecturer at Daegu University.

Yunjin Lee, *Mesh Scissoring: Contour-Based Mesh Segmentation*, POSTECH, August 2005.

Currently an Assistant Professor at Ajou University.

Junho Kim, *Theoretical Analysis and Applications of Selective Refinement of Progressive Meshes*,  
POSTECH, February 2005.

Currently an Assistant Professor at Kookmin University.

## Research Grants

(US\$1.00  $\approx$  1,000 Korean Won was used for the currency conversion.)

- [1] 2008.3-2010.2, *Development of Computational Photography Technologies for Image and Video Contents*, Principal Investigator, Institute for Information Technology Advancement (IITA), \$2,100,000.
- [2] 2007.12-2008.12, *Bilateral Texture Filtering*, Principal Investigator, Microsoft Research Asia, \$18,518.
- [3] 2007.6-2007.12, *Stylized Facial Illustration System*, Principal Investigator, Mix Film Co., \$55,000.
- [4] 2007.4-2009.3, *Surface Reconstruction using Bayesian Statistics*, Principal Investigator, Korea Science and Engineering Foundation (KOSEF), \$28,000.
- [5] 2006.12-2007.7, *3D Mesh Compression Techniques for Mobile Devices*, Principal Investigator, Samsung Electronics, \$49,000.
- [6] 2006.6-2007.1, *Real-time Pen-and-ink Illustration Using Multi-texturing*, Principal Investigator, Electronics and Telecommunications Research Institute (ETRI), \$45,000.
- [7] 2006.4-2007.3, *Multiresolution Random Accessible Mesh Compression*, Principal Investigator, Microsoft Research Asia, \$15,000.
- [8] 2006.4-2006.12, *Image-based Background Scene Modeling*, Co-Principal Investigator, KT Co., \$45,000.

- [9] 2006.1-2006.11, *Visualization Software for Aircraft Navigation*, Co-Investigator, Ministry of Industry and Energy, \$80,000.
- [10] 2005.7-2006.1, *3D Oriental Black Ink Rendering System*, Principal Investigator, DGSpot Co., \$65,000.
- [11] 2005.7-2007.6, *Virtual Reconstruction of a Cultural Heritage: Emperor Qin's Terra-cotta Army*, Principal Investigator, Korea Science and Engineering Foundation (KOSEF), \$10,000.
- [12] 2005.5-2006.2, *JSR-184 Compatible 3D Game Engine Development*, Principal Investigator, Sinjisoft Co., \$50,000.
- [13] 2002.12-2003.10, *Expression and Motion Generation for Mobile 3D Characters*, Principal Investigator, Virtual Media Co., \$40,000.
- [14] 2002.3-2002.9, *3D Graphics Engine for Mobile Platforms*, Principal Investigator, Electric Island Co., \$25,000.
- [15] 2002.3-2003.2, *Virtual Reality Research Center*, Co-Investigator, Korea Science and Engineering Foundation (KOSEF), \$10,000.
- [16] 2001.11-2007.8, *Game Animation Research Center*, Co-Investigator, Institute for Information Technology Advancement (IITA), \$327,000.
- [17] 2001.11-2002.10, *Multiresolution Analysis and Remeshing of Meshes*, Principal Investigator, nXen Technology Co., \$40,000.
- [18] 2001.2-2002.1, *Motion Adaptation with Self-intersection Avoidance*, Principal Investigator, nXen Technology Co., \$45,000.
- [19] 2000.12-2001.12, *3D Game and Character Animation Using Motion Libraries*, Principal Investigator, POSTECH, \$22,500.
- [20] 2000.5-2001.4, *Image Processing Libraries for Image Portals*, Principal Investigator, ACS Technology Co., \$25,000.
- [21] 1999.8-2000.7, *Digital Animation Software Tools*, Principal Investigator, POSTECH Venture Capital/Dream World Co., \$120,000.
- [22] 1999.7-2000.6, *Image-based Object Modeling and Rendering*, Principal Investigator, Ministry of Information and Communication, \$25,000.

- [23] 1999.5-1999.11, *3D Calibration Algorithm for Projective Moire Measurements*, Principal Investigator, Electronics and Telecommunications Research Institute (ETRI), \$15,000.
- [24] 1998.7-1999.6, *Feature-based 3D Mesh Morphing*, Principal Investigator, Ministry of Information and Communication, \$20,000.
- [25] 1998.3-1998.10, *Character Generation Using Free-form Deformation*, Principal Investigator, Electronics and Telecommunications Research Institute (ETRI), \$15,000.
- [26] 1997.3-1997.11, *Direct Manipulation Technique for Free-form Deformation*, Principal Investigator, Electronics and Telecommunications Research Institute (ETRI), \$20,000.
- [27] 1996.12-1997.11, *Image Morphing for Multiple Images*, Principal Investigator, POSTECH, \$37,065.

## Publications

### *International Journal Papers:*

- [1] Tae-Joon Kim, Yongyoung Byun, Yongjin Kim, Bochang Moon, Seungyong Lee, and Sung-eui Yoon, "HCCMeshes: Hierarchical-Culling oriented Compact Meshes," *Computer Graphics Forum (Eurographics 2010)*, vol. 29, no. 2, 2010.
- [2] Yongjin Kim, Cheolhun Jang, Julien Demouth, and Seungyong Lee, "Robust Color-to-gray via Nonlinear Global Mapping," *ACM Trans. Graphics (SIGGRAPH ASIA 2009)*, vol. 28, no. 5, article 161, 2009.
- [3] Sunghyun Cho and Seungyong Lee, "Fast Motion Deblurring," *ACM Trans. Graphics (SIGGRAPH ASIA 2009)*, vol. 28, no. 5, article 145, 2009.
- [4] Mincheol Yoon, Ioannis Ivrisimtzis, and Seungyong Lee, "Variational Bayesian Noise Estimation of Point Sets," *Computers & Graphics (Shape Modeling International 2009)*, vol. 33, no. 3, pp. 226-234, 2009.
- [5] Sungyul Choe, Junho Kim, Haeyoung Lee, and Seungyong Lee, "Random accessible mesh compression using mesh chartification," *IEEE Trans. Visualization and Computer Graphics*, vol. 15, no. 1, pp. 160-173, 2009.
- [6] Henry Kang, Seungyong Lee, and Charles K. Chui, "Flow-based image abstraction," *IEEE Trans. Visualization and Computer Graphics*, vol. 15, no. 1, pp. 62-76, 2009.
- [7] Yongjin Kim, Jingyi Yu, Xuan Yu, and Seungyong Lee, "Line-art illustration of dynamic and specular surfaces," *ACM Trans. Graphics (ACM SIGGRAPH Asia 2008)*, vol. 27, no. 5, article 156, 2008.
- [8] Henry Kang and Seungyong Lee, "Shape-simplifying image abstraction," *Computer Graphics Forum (Pacific Graphics 2008)*, vol. 27, no. 7, 2008.

- [9] Dongyeon Kim, Minjung Son, Yunjin Lee, Henry Kang, and Seungyong Lee, "Feature-guided image stippling," *Computer Graphics Forum (Eurographics Symposium on Rendering 2008)*, vol. 27, no. 4, pp. 1209-1216, 2008.
- [10] Kyuman Jeong, Dongyeon Kim, Soon-Yong Park, and Seungyong Lee, "Digital shallow depth-of-field adapter for photographs," *The Visual Computer*, vol.24, no.4, pp. 281-294, 2008.
- [11] Yunjin Lee, Lee Markosian, Seungyong Lee, and John F. Hughes, "Line drawings via abstracted shading," *ACM Trans. Graphics (ACM SIGGRAPH 2007)*, vol. 26, no. 3, article no. 18, 2007.
- [12] Mincheol Yoon, Yunjin Lee, Seungyong Lee, Ioannis Ivrisimtzis, and Hans-Peter Seidel, "Surface and normal ensembles for surface reconstruction," *Computer-Aided Design*, vol. 39, no. 5, pp. 408-420, 2007.
- [13] Yunjin Lee, Jong-Guk Im, Seungyong Lee, "Progressive images: Applying mesh processing to images," *International Journal of Shape Modeling*, vol. 12, no. 2, pp. 193-212, 2006.
- [14] Minsu Ahn, Igor Guskov, and Seungyong Lee, "Out-of-core remeshing of large polygonal meshes," *IEEE Trans. Visualization and Computer Graphics (IEEE Visualization 2006)*, vol. 12, no. 5, pp. 1221-1228, 2006.
- [15] Junho Kim, Sungyul Choe, and Seungyong Lee, "Multiresolution random accessible mesh compression," *Computer Graphics Forum (Eurographics 2006)*, vol. 25, no. 3, pp. 323-332, 2006.
- [16] Kyuman Jeong, Alex Ni, Seungyong Lee, and Lee Markosian, "Detail control in line drawings of 3D meshes," *The Visual Computer (Pacific Graphics 2005)*, vol. 21, no. 8, pp. 698-706, 2005.
- [17] Yunjin Lee, Seungyong Lee, Ariel Shamir, Daniel Cohen-Or, and Hans-Peter Seidel, "Mesh scissoring with minima rule and part salience," *Computer Aided Geometric Design*, vol. 22, no. 5, pp. 444-465, 2005.
- [18] Junho Kim, Seungyong Lee, and Leif Kobbelt, "View-dependent mesh streaming with minimal latency," *International Journal of Shape Modeling*, vol. 11, no. 1, pp. 63-89, 2005.
- [19] Lifeng Wang, Steve Lin, Seungyong Lee, Baining Guo, and Heung-Yeung Shum, "Light field morphing using 2D features," *IEEE Trans. Visualization and Computer Graphics*, vol. 11, no. 1, pp. 25-34, 2005.
- [20] Junho Kim and Seungyong Lee, "Transitive mesh space of a progressive mesh," *IEEE Trans. Visualization and Computer Graphics*, vol. 9, no. 4, pp. 463-480, 2003.
- [21] Sungmin Baek, Seungyong Lee, and Gerard Jounghyun Kim, "Motion retargeting and evaluation for VR-based training of free motions," *The Visual Computer*, vol. 19, no. 4, pp. 222-242, 2003.

- [22] Yunjin Lee, Hyung Seok Kim, and Seungyong Lee, "Mesh parameterization with a virtual boundary," *Computers & Graphics (Special Issue of the 3rd Israel-Korea Binational Conference on Geometric Modeling and Computer Graphics)*, vol. 26, no. 5, pp. 677-686, 2002.
- [23] Yunjin Lee and Seungyong Lee, "Geometric snakes for triangular meshes," *Computer Graphics Forum (Eurographics 2002)*, vol. 21, no. 3, pp. 229-238, 2002.
- [24] Gyuhwan Oh and Seungyong Lee, "Motif analysis of noisy regular textures," *Pattern Recognition Letters*, vol. 23, no. 10, pp. 1179-1190, 2002.
- [25] Yongchoel Choi and Seungyong Lee, "Injectivity conditions of 2D and 3D uniform cubic B-spline functions," *Graphical Models*, vol. 62, no. 6, pp. 411-427, 2000.
- [26] Seungyong Lee, "Interactive multiresolution editing of arbitrary meshes," *Computer Graphics Forum (Eurographics 1999)*, vol. 18, no. 3, pp. 73-82, 1999.
- [27] Gyuhwan Oh, Seungyong Lee, and Sung Yong Shin, "Fast determination of textural periodicity using distance matching function," *Pattern Recognition Letters*, vol. 20, no. 2, pp. 191-197, 1999.
- [28] Tae-Joon Park, Seungyong Lee, and Sung Yong Shin, "Optical flow rendering," *Computer Graphics Forum (Eurographics 1998)*, vol. 17, no. 3, pp. 75-85, 1998.
- [29] Seungyong Lee, George Wolberg, and Sung Yong Shin, "Polymorph: Morphing among multiple images," *IEEE Computer Graphics and Applications*, vol. 18, no. 1, pp. 60-73, 1998.
- [30] Seungyong Lee, George Wolberg, and Sung Yong Shin, "Scattered data interpolation with multilevel B-splines," *IEEE Trans. Visualization and Computer Graphics*, vol. 3, no. 3, pp. 228-244, 1997. **(Cited 348 times according to Google Scholar as of June, 2010.)**
- [31] Seungyong Lee, George Wolberg, Kyung-Yong Chwa, and Sung Yong Shin, "Image metamorphosis with scattered feature constraints," *IEEE Trans. Visualization and Computer Graphics*, vol. 2, no. 4, pp. 337-354, 1996.
- [32] Seungyong Lee, Kyung-Yong Chwa, James Hahn, and Sung Yong Shin, "Image morphing using deformation techniques," *The Journal of Visualization and Computer Animation*, vol. 7, no. 1, pp. 3-23, 1996.
- [33] Seungyong Lee, Kyung-Yong Chwa, Sung Yong Shin, and George Wolberg, "Image metamorphosis using snakes and free-form deformations," *Computer Graphics (ACM SIGGRAPH 1995)*, pp. 439-448, 1995.

*Refereed International Conference Papers:*

- [1] Jongseok Lee, Sungyul Choe, and Seungyong Lee, "Mesh Geometry Compression for Mobile Graphics," In *Proc. of the 7th Annual IEEE Consumer Communications and Networking Conference (CCNC 2010)*, Las Vegas, January 2010.
- [2] Sunghyun Cho, Hanul Choi, Yasuyuki Matsushita, and Seungyong Lee, "Image Retargeting Using Importance Diffusion," In *Proc. of Int'l Conf. Image Processing (ICIP)*, Cairo, Egypt, November 2009.

- [3] Mincheol Yoon, Ioannis Ivrissimtzis, and Seungyong Lee, "Self-organising maps for implicit surface reconstruction," In *Proc. of Theory and Practice of Computer Graphics 2008*, Manchester, UK, June 2008.
- [4] Minjung Son, Henry Kang, Yunjin Lee, and Seungyong Lee, "Abstract line drawings from 2D images," In *Proc. of Pacific Graphics 2007*, pp. 333-342, Maui, USA, October 2007.
- [5] Sunghyun Cho, Yasuyuki Matsushita, and Seungyong Lee, "Removing non-uniform motion blur from images," In *Proc. of IEEE International Conference on Computer Vision (ICCV) 2007*, Rio de Janeiro, Brazil, October, 2007.
- [6] Henry Kang, Seungyong Lee, and Charles K. Chui, "Coherent line drawing," In *Proc. of the 5th Int'l Symposium on Non-Photorealistic Animation and Rendering (NPAR)* , pp. 43-50, San Diego, USA, August 2007.
- [7] Kyuman Jeong, Dongyeon Kim, Soon-Yong Park, and Seungyong Lee, "Digital shallow depth-of-field adapter," In *Proc. of the the 7th Israel-Korea Binational Conference on Geometric Modeling and Computer Graphics*, pp. 135-142, Seoul, Korea, January 2007.
- [8] Mincheol Yoon, Yunjin Lee, Seungyong Lee, Ioannis Ivrissimtzis, and Hans-Peter Seidel, "Ensembles for normal and surface reconstructions," *Springer Lecture Note in Computer Science (Geometric Modeling and Processing 2006)*, pp. 17-33, Boston, USA, July 2006.
- [9] Sungyul Choe, Minsu Ahn, and Seungyong Lee, "Feature sensitive out-of-core chartification of large polygonal meshes," *Springer Lecture Note in Computer Science (Computer Graphics International 2006)*, pp. 518-529, Hangzhou, China, June 2006.
- [10] Yunjin Lee, Seungyong Lee, Ioannis Ivrissimtzis, and Hans-Peter Seidel, "Overfitting control for surface reconstruction," In *Proc. of fourth Eurographics Symposium on Geometry Processing (SGP) 2006*, pp. 231-235, Sardinia, Italy, June 2006.
- [11] Hyunjun Lee, Sungtae Kwon, and Seungyong Lee, "Real-time pencil rendering," In *Proc. of the 4th Int'l Symposium on Non-Photorealistic Animation and Rendering (NPAR)*, pp. 37-45, Annecy, France, June 2006.
- [12] Alex Ni, Kyuman Jeong, Seungyong Lee, and Lee Markosian, "Multi-scale line drawings from 3D meshes," In *Proc. of the 2006 Symposium on Interactive 3D Graphics and Games (I3D)*, pp. 133-137, Redwood City, USA, March 2006.
- [13] Yunjin Lee, Jong-Guk Im, Seungyong Lee, "Progressive images: Applying mesh processing to images," In *Proc. of the 6th Israel-Korea Binational Conference on New Technologies and Visualization Methods for Product Development*, pp. 73-77, Haifa, Israel, November 2005.
- [14] Yunjin Lee, Mincheol Yoon, Seungyong Lee, Ioannis Ivrissimtzis, and Hans-Peter Seidel, "Ensembles for surface reconstruction," In *Proc. of Pacific Graphics 2005*, pp. 115-117, Macao, China, October 2005.
- [15] Hitoshi Yamauchi, Seungyong Lee, Yunjin Lee, Yutaka Ohtake, Alexander Belyaev, and Hans-Peter Seidel, "Feature sensitive mesh segmentation with mean shift," In *Proc. of Int'l*

- Conference on Shape Modeling and Applications (SMI) 2005*, pp. 236-243, Cambridge, USA, June 2005.
- [16] Sungyul Choe, Junho Kim, Haeyoung Lee, Seungyong Lee, and Hans-Peter Seidel, "Mesh compression with random accessibility," In *Proc. of the 5th Israel-Korea Binational Conference on Geometric Modeling and Computer Graphics*, pp. 81-86, Seoul, Korea, October 2004.
- [17] Yunjin Lee, Seungyong Lee, Ariel Shamir, Daniel Cohen-Or, and Hans-Peter Seidel, "Intelligent mesh scissoring using 3D snakes," In *Proc. of Pacific Graphics 2004*, pp. 279-287, Seoul, Korea, October 2004.
- [18] Ioannis Ivrisimtzis, Yunjin Lee, Seungyong Lee, Won-Ki Jeong, and Hans-Peter Seidel, "Neural mesh ensembles," In *Proc. of Int'l Symposium on 3D Data Processing, Visualization & Transmission (3DPVT)*, Thessaloniki, Greece, September 2004.
- [19] Minsu Ahn, Seungyong Lee, and Hans-Peter Seidel, "Connectivity transformation for mesh metamorphosis," In *Proc. of Symposium on Geometry Processing (SGP) 2004*, pp. 77-84, Nice, France, July 2004.
- [20] Ioannis Ivrisimtzis, Won-Ki Jeong, Seungyong Lee, Yunjin Lee, and Hans-Peter Seidel, "Surface reconstruction based on neural meshes," In *Proc. of Mathematical Methods for Curves and Surfaces 2004*, pp. 223-242, Tromso, Norway, July 2004.
- [21] Junho Kim, Seungyong Lee, and Leif Kobbelt, "View-dependent streaming of progressive meshes," In *Proc. of Int'l Conference on Shape Modeling and Applications (SMI) 2004*, pp. 209-220, Genova, Italy, IEEE Computer Society Press, June 2004.
- [22] Eunhee Jeong, Minchoel Yoon, Yunjin Lee, Minsu Ahn, Seungyong Lee, and Baining Guo, "Feature-based surface light field morphing," In *Proc. of Pacific Graphics 2003*, pp. 215-223, Canmore, Canada, IEEE Computer Society Press, October 2003.
- [23] Dongsik Cho, Jihe Park, Gerard Junghyun Kim, Sangwoo Hong, Sungho Han, Seungyong Lee, "Dichotomy of presence elements: Where and What," In *Proc. of 2003 IEEE VR Conference*, pp. 273-274, LA, USA, March 2003.
- [24] Junho Kim, Sungyul Choe, and Seungyong Lee, "Shape interpolation with multiresolution analysis," In *Proc. of the 4th Israel-Korea Binational Conference on Geometric Modeling and Computer Graphics*, pp. 51-56, Tel-Aviv, Israel, February 2003.
- [25] Minsu Ahn and Seungyong Lee, "Mesh metamorphosis with topology transformation," In *Proc. of Pacific Graphics 2002*, pp. 481-482, Beijing, China, October 2002.
- [26] Yunjin Lee, Hyoung Seok Kim, and Seungyong Lee, "Parameterization of triangular meshes with virtual boundaries," In *Proc. of the 3rd Israel-Korea Binational Conference on Geometric Modeling and Computer Graphics*, pp. 105-113, Seoul, Korea, October 2001.
- [27] Junho Kim and Seungyong Lee, "Truly selective refinement of progressive meshes," In *Proc. of Graphics Interface 2001*, pp. 101-110, Ottawa, Canada, 2001.

- [28] Kyuman Jeong and Seungyong Lee, "Motion adaptation with self-intersection avoidance," In *Proc. of Int'l Workshop on Human Modeling and Animation 2000*, pp. 77-85, Seoul, Korea, 2000.
- [29] Yongcheol Choi and Seungyong Lee, "Local injectivity conditions of 2D and 3D uniform cubic B-spline functions," In *Proc. of Pacific Graphics '99*, pp. 302-311, Seoul, Korea, IEEE Computer Society Press, 1999.
- [30] Seungyong Lee, Kyung-Yong Chwa, James Hahn, and Sung Yong Shin, "Image morphing using deformable surfaces," In *Proc. of the 7th Int'l Conference on Computer Animation*, pp. 31-39, Geneva, Switzerland, IEEE Computer Society Press, 1994.

*Book Chapters:*

- [1] Seungyong Lee and Sung Yong Shin, "Warp generation and transition control in image morphing," *Interactive Computer Animation*, pp. 127-142, monograph, N. Thalmann and D. Thalmann (ed.), Prentice-Hall, 1996.

*Refereed Presentations:*

- [1] Minsu Ahn and Seungyong Lee, "Feature-based topological mesh metamorphosis," *ACM SIGGRAPH Sketches and Applications*, 2001.
- [2] Yunjin Lee and Seungyong Lee, "3D plenoptic functions with cylindrical maps," *ACM SIGGRAPH Sketches and Applications*, 2000.
- [3] Kyuman Jeong and Seungyong Lee, "Motion adaptation with self-intersection avoidance," *ACM SIGGRAPH Sketches and Applications*, 2000.

**Patents**

*International Patents:*

- [1] Sunghyun Cho and Seungyong Lee, "Motion Deblurring of Images," US Patent applied, 12/580,975, October 16, 2009.
- [2] Sunghyun Cho and Seungyong Lee, "Motion Deblurring of Images," Japan Patent applied, 2009-239797, October 16, 2009.
- [3] Sunghyun Cho and Seungyong Lee, "Motion Deblurring of Images," PCT Patent applied, PCT/KR2009/005825, October 12, 2009.
- [4] Yongjin Kim, Cheolhun Jang, and Seungyong Lee, "Color-to-Gray Image Conversion," PCT Patent applied, PCT/KR2009/007876, December 29, 2009.
- [5] Hokyung Kim, Seungyong Lee, Jongseok Lee, and Sungyul Choe, "Random Accessible Mesh Compression," US Patent applied, 2008.
- [6] Hokyung Kim, Seungyong Lee, Jongseok Lee, and Sungyul Choe, "Random Accessible Mesh Compression," PCT Patent applied, 2008.

- [7] Hokyung Kim, Seungyong Lee, Jongseok Lee, and Sungyul Choe, “Mesh Vertex Geometry Compression for Mobile Devices,” US Patent applied, 2008.
- [8] Hokyung Kim, Seungyong Lee, Jongseok Lee, and Sungyul Choe, “Mesh Vertex Geometry Compression for Mobile Devices,” PCT Patent applied, 2008.

*Korean Patents:*

- [1] Seungyong Lee, Young-Su Han, Mincheol Yoon, Yongjin Kim, “3 Dimensional Shape Reconstruction Method using 2 Dimensional Images and Rendering Method for Reconstructed Shapes,” Korean Patent 10-0837818, June 2008.
- [2] Jaewoo Ahn, Samchung Hwang, and Seungyong Lee, “Character input technique using extended character buttons,” Korean Patent 0371869, January 2003.
- [3] Sunghyun Cho and Seungyong Lee, “Motion Deblurring of Images,” Korean Patent applied, December 2008.
- [4] Minjung Son and Seungyong Lee, “Image Feature Extraction,” Korean Patent applied, December 2008.
- [5] Sunghyun Cho, Dongyeon Kim, and Seungyong Lee, “Image Retargeting Using Importance Diffusion,” Korean Patent applied, December 2008.
- [6] Yongjin Kim and Seungyong Lee, “Color-to-Gray Image Conversion,” Korean Patent applied, December 2008.
- [7] Hyunjun Lee and Seungyong Lee, “Image Texture Filtering,” Korean Patent applied, December 2008.
- [8] Hokyung Kim, Seungyong Lee, Jongseok Lee, and Sungyul Choe, “Random Accessible Mesh Compression,” PCT Patent applied, 2008.
- [9] Hokyung Kim, Seungyong Lee, Jongseok Lee, and Sungyul Choe, “Mesh Vertex Geometry Compression for Mobile Devices,” US Patent applied, 2008.