

CURRICULUM VITAE

Name: Katsushi Ikeuchi
Citizenship: Japan
Born: Osaka, Japan, on May 29th, 1949
Business Institute of Industrial Science, The University of Tokyo
Address: 4-6-1 Komaba, Meguro-ku, Tokyo, 153-8505, JAPAN
Phone = 81-3-5452-6242; FAX= 81-3-5452-6244
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Education:

April 1975 - March 1978 The University of Tokyo, Tokyo, Japan
Ph.D. degree in Information Engineering, March 1978
Thesis Advisor: Prof. Shigeru Watanabe
April 1973 - March 1975 the University of Tokyo, Tokyo, Japan.
M. Eng. degree in Information Engineering, March 1975
Thesis advisor: Prof. Shigeru Watanabe
April 1969 - March 1973 Kyoto University, Kyoto, and Japan
B. Eng. degree in Mechanical Engineering, March 1973
Thesis Advisor: Prof. Hazime Akashi

Employment:

April 2006 – present
Department Chairman, Department of Interdisciplinary Information Studies
The University of Tokyo
April 2006 – present
Professor, National Institute of Informatics
April 2000 - present
Professor, Department of Interdisciplinary Information Studies
The University of Tokyo
April 1997 – March 2001, April 2005 - present
Professor, Center for Spatial Information Science
The University of Tokyo
April 1997-present
Professor, Department of Information Science, the University of Tokyo
April 1996 – present
Professor, Department of Electrical Engineering, the University of Tokyo

April 1996 - present

Professor, Institute of Industrial Science, the University of Tokyo.

July 1993 - March 1996

Principal Research Scientist, Computer Science, Carnegie Mellon Univ.

July 1987 - June 1993

Senior Research Scientist, Computer Science, Carnegie Mellon Univ.

April 1986 - June 1987

Visiting Sen. Res. Sci., Computer Science, Carnegie Mellon Univ.

October 1983 - March 1986

Senior Research Member, Electrotechnical Lab., Japanese Government.

September 1982 - September 1983

Research Scientist, the Artificial Intelligence Lab, MIT

April 1980 - September 1983

Research Member, Electrotechnical Lab., Japanese Government.

September 1978 - March 1980

Research Associate, Artificial Intelligence Lab, MIT

Professional Activities and Honors:

Awards

Best Vision Paper Award (2007)

“Marker-less Human Motion Estimation using Articulated Deformable Model,”

by Koichi Ogawara, Xiaolu Li, Katsushi Ikeuchi

2007 IEEE International Conference on Robotics and Automation (ICRA2007)

Fellow (2007)

The Institute of Electronics, Information and Communication Engineers (IEICE)

Best Heritage Paper Award (2005)

“Classification of Bayon faces using 3D models” by Mawo Kamakura, Takeshi Oishi,

Jun Takamatsu, and Katsushi Ikeuchi

11th International Conference on Virtual System and Multi Media (VSMM2005)

Best Transaction Paper Award (2005)

“Illumination color and intrinsic surface properties – Physics-based color analysis from a single image” by Robby T. Tan and Katsushi Ikeuchi

Transaction of Information Processing Society of Japan

Fellow (2005)

Information Processing Society of Japan (IPSJ)

Best Conference Paper Award (2004)

“Bayon digital archival project” by Katsushi Ikeuchi

10th International Conference on Virtual Systems and Multimedia (VSMM2004)

Honorary mention to The Best Vision Paper Award (2000)

“Robust localization for 3D object recognition using local EGI and 3D template matching with M-estimators” by Kentaro Kawamura, Kiminori Hasegawa, Yoshikazu Someya, Yoshi Sato, and Katsushi Ikeuchi

IEEE International Conference on Robotics and Automation (ICRA2000)

Best conference paper award (2000)

“The great buddha project: Modeling cultural heritage through observation” by Daisuke Miyazaki, Takeshi Oishi, Taku Nishikawa, Rusuke Sagawa, No Nishino, Takashi Tomomatsu, Yutaka Takase, and Katsushi Ikeuchi

6th International Conference on Virtual Systems and Multimedia (VSMM2000)

Best Conference paper award (2000)

“Realizing photometric consistency: high-speed rendering by linear combinations of basis images” by Imari Sato, Morihiro Hayashida, Ikuyo Kai, Yoichi Sato, and Katsushi Ikeuchi

Meeting on Image Recognition and Understanding (MIRU2000)

(Japanese domestic computer vision conference)

Best Transaction Paper Award (2000)

“Modeling from reality: photometric aspect” by Katsushi Ikeuchi, Yoichi Sato, Ko Nishino, and Imari Sato

Transaction of Japan Virtual Reality Society

K-S Fu Memorial Best Transaction Paper Award (1998)

“Toward automatic robot instruction from perception – mapping human grasps to manipulator grasps,” by Sing Bing Kang and Katsushi Ikeuchi

IEEE Transaction on Robotics and Automation

Best Transaction Paper Award (1997)

“Task-oriented generation of visual sensing strategies,” by Jun Miura and Katsushi Ikeuchi

Transaction of Robotics Society of Japan

Fellow (1998)

The Institute of Electrical and Electronics Engineers, Inc. (IEEE)

One of the Most Influential Papers that appeared in the Artificial Intelligence Journal in the last ten years (1992)

“Numerical shape from shading with occluding boundaries” by Katsushi Ikeuchi and

Berthold K.P. Horn

Artificial Intelligence Journal

IEEE Outstanding Paper Award (1991)

"Determining 3-D object pose using the complex extended Gaussian image"

by S.B. Kang and K. Ikeuchi

IEEE conference on Computer Vision and Pattern Recognition (CVPR91)

D. Marr Best Paper Award (1990)

"Shape from interreflections" by Shree K. Nayar, Katsushi Ikeuchi, and T. Kanade

3rd International Conference on Computer Vision (ICCV1990)

Patent

US Patent

- * (Disclosure No. AA-88-194, Case No. W.E. 54987): Surface Shape and Reflectance Extraction System (with S.K. Nayar and T. Kanade), February 7, 1989.

Japanese Patent

- * (Patent No. 1727454) (Disclosure No. S60-057076): Detector of Defects on Specular Surface (with S. Nagata), (application: March 20, 1985, public notice: September 22, 1986)
- * (Patent No. 1824200) (Disclosure No. S60-057077): Crack Detector for Specular Surface (with S. Nagata), (application: March 20, 1985, public notice: September 22, 1986)
- * (Disclosure 1708196): Distance Measurement Method based on a Pair of Photometric Stereo, (application: November 14, 1984, public notice: September 2, 1986)
- * (Patent No. 3589654) 2004.8.27 (Disclosure No.2003-263651): Volume rendering and its program. 2003.9.19, (with Shuntaro Yamazaki, Kei Kase)
- * (Patent No. 3740531) 2005.11.18 (Disclosure No. 2004-021496) Detection method for parking vehicles, 2004.1.22 (with Shunsuke Kamijo, Masakata Kagesawa, Kiyotaka Hirahara, Sintaro Ono, Akifumi Mori, Kazuhiko Makimura, Jun Mori.)
- * (Patent No. 3728508) 2005.10.14 (Disclosure No. 2004-248204) A method to generate panoramic images from multiple cameras 2004.9.2 (with Masao Sakauchi, Hiroshi Kawadaki)
- * (Patent No.3855053) 2006.9.22 (Disclosure No. 2004-234350) 2004.8.19 A display method of scene using micro bile-boarding (with Hiroshi Kawasaki, Ryusuke

Sagawa, Shuntaro Yamadaki)

Professional Society Committee:

IAPR, 2nd Vice President, 2007-2009
IEEE RA Society, Ad Com, 2006-2008
IEEE ITS Society, Board of Governors, 2006-2008
ITS Japan, Board of Directors, June 2002-
Robotics Society of Japan, Board of Trustee, 2002-2003
Robotics Society of Japan, Award Committee, 2002
IEICE, Info. Systems Society, Vice President, May 2000 –April 2001
IPSJ, SIG-CVIM, Chairman, Apr 1999 – March 2003
Robotics Society of Japan, Board of Directors, Apr 1999 – March 2000
IEEE Robotics and Automation Society, Ad Com, Jan 1998 – Dec 2004
Japanese Society of Art Intell, Board of Directors, Apr 1997-Mar 1999

Journal Editorial Board:

Editor-in-Chief:

Int. J. ITS Research, Jan 2003 -
Int. J. Computer Vision, Nov 2001-
Robotics Society of Japan, Transaction, 2000-2001
IPSJ Trans. CVIM, Founding EIC, 1994 – 2003

Guest Editor:

IJCV on Kanade's vision, November 2007
CVGIP on CAD-based Vision, August 1995
IEEE PAMI on Physics Based Vision, August 1991

Editorial Board:

Machine Vision & Application Journal, 2003-2006
IEICE Trans. DII, 2003-2004
IEEE Trans. Pattern Analysis and Machine Intelligence, 1998~1999
IEICE Trans. ED, 1997~2000
Journal of Robotics Society of Japan, Transaction, 1997~1999
Computer Vision Graphics Image Processing, 1996~
Journal of Optical Society of America, 1994~1998

Journal of Manufacturing Systems, 1993 ~1994
Int. Journal of Computer Vision, 1993~2001
IEEE Trans. Robotics and Automation, 1992~1995

Conference committee

General chair or general co-chair

Int. Conf. Computer Vision (ICCV1007), Rio de Janeiro, 2007
11th ITS World Congress (ITSW2004), Nagoya, 2004
IEEE Multisensor Fusion and Integration (MFI2003), Tokyo, July 2003.
IEEE Intelligent Vehicle Conf (IV2001), Tokyo, June 2001
IJSP Meeting Image Recognition and Understanding (MIRU2000), July 2000
IAPR Machine Vision and Application (MVA2000), Tokyo, Nov 2000
IEEE Intelligent Transport System Conf (ITSC1999), Tokyo, October 1999
IEEE Int. Conf. Intelligent Robots and Systems (IROS1995), Pittsburgh, August 1995
IEEE Workshop CAD based Vision, February, 1994

Program Chair or program co-chair

13th ITS World Congress (ITSW2007), Beijing, 2007
IEEE Intelligent Vehicles Symposium (IV2005), Las Vegas, June 2005
IEEE Int. Conf. Computer Vision (ICCV2003), Beijing, Oct 2003
IEEE Intelligent Vehicles Symposium (IV2002), Versailles, June 2002
IEEE Intelligent Vehicle Symposium (IV2000), Dearborn, Oct 2000
Asian Conf. Computer Vision (ACCV2000), Taipei, Jan 2000
IAPR Machine Vision and Application (MVA1998), Makuhari, Nov 1998
IPJS Meeting Image Recognition and Understanding, Ogaki, July 1998.
IEEE Computer Vision and Pattern Recognition (CVPR1996), San Francisco, June 1996

Advisory Committee

Asian Conf. Computer Vision (ACCV 2006) Hyderabad, Jan. 2006
IEEE Robot and Human Interactive Communication (ROMAN2002), Berlin, Sep 2002
IEEE ITS Conf (ITSC2002), Singapore, Sep 2002
Asian Conf. Computer Vision (IACCV2002), Melbourne, Jan 2002

Program Committee:

ITSW06, IROS96, ITSW05, ICRA05, CVPR2005(AREA), ICCV2005(AREA), 3DIM05,
MVA05, ITSW04, CVPR2004(AREA), IROS04, ICRA04, MVA04, OTCBVS04, ITSW03,

IROS03, ICRA03, ICCS03, IV03, ACVA03, ICRA03, 3DIM03, ITSW02, IROS02, ICRA02, ISMAR02, CVPR02, MVA02, ICPR02, SI2002, ITSW01, ICCV01, ICRA01, ISMR01, ITSW00, CVPR00, ICRA00, ITSC00, ACCV00, IVS00, IROS00, ITSW99, CVPR99, SIGGRAPH99, ICCV99, IROS99, WACV98, CVPR98, ACCV98, IROS98, MIRU98, MVA98, WPBV95, ICPR94, IROS94, ICCV93, CVPR93, WACW92, WCAD91, CVPR91, ICCV90, ICPR90, WI3D89

Invited Talk

Keynote and Plenary

IEEE Int. Conf. Robotics and Automation, Rome, April 2007
Asian DHX (Digital Heritage Exchange) Forum, Seoul, Dec 2006
4th Mexican Int. Conf. Artificial Intelligence, Monterrey, Nov 2005
Int. Symp GeoInformatics for Spatial-Infrastructure 2004, Hanoi, Sep 2004
IAPR Int. Conf. Pattern Recognition, Cambridge, August 2004
ICC Int. Symp on Safeguarding Angkor Ruin, Siem Reap, Feb 2004
Symp. of Digital Life and Internet Technologies, Tainan, June 2004
IEEE/ACM Int. Symp Mixed and Augmented Reality, Tokyo, Oct 2003
Int. Conf. Electronics Packaging, Nara, Oct 2002
IEEE Int. Sym on Signal Processing and Info. Tech., Cairo, Egypt, Dec 2001
IEEE Multi Sensor Fusion and Info. Conf. Baden-Baden, Germany, Aug 2001
Int. Conf 3-D Digital Imaging and Modeling, Quebec City, Canada, May 2001
IEEE Conf. Intelligent Robot and Systems, Takamatsu, Nov 2000
First Int. Conf on Image and Graphics, Peking, Aug 2000.
IEEE Conf Image Processing, Tokyo, Nov 1999
Indian Conf. Graphics, Vision, and Image Processing, Delhi, Dec 1998
IEEE Conf Roman, Takamatsu Japan, Sep 1998
Japan-France Cong. Mechatronics, Takamatsu Japan, Nov 1994
Int. Symp. Measurement Control in Robotics, Tsukuba Japan, Nov 1992
Int. Soc. of Photogrammetry Remote Sensing, Stuttgart, Germany, Sept 1987
World Conf. Robotics Research, Scottsdale, AZ, Aug 1986.

Invited talk:

Sweden/Japan Automotive Forum, Tokyo, March 2007
CMU Symp on celebrating Kanade's vision, Pittsburgh, March 2007
CC-Society Symp, Tokyo, Feb 2007
IEICE SIG-PRMU, Nara, Jan 2007

Nagoya Int. Tech, 100th Anniversary Symp, Nov 2006
Kochi Pref ITS seminar, Nov 2006
3D Forum, Tokyo, Nov 2006
Int. Workshop on Current Trends in Computer Vision, Tibet, Aug 2006
15th ICC safeguarding and development of Angkor ruin, Siem Reap, June 2006
12th Sump Sensing via Image Information, Yokohama, June 2006
Tokyo Branch meeting of Japan Physical Education Society, March 2006
Agency for Cultural Affairs-Japan Media Art Plaza, Tokyo, Feb 2006
Korea-Japan Robotics/Mechatronics workshop, Seoul, Oct 2005
EPFL/U. Tokyo ITS Symp, Lausanne, Oct 2005
Tokyo Metropolitan Museum of Photography-Gallery Talk, August 2005
Digital Heritage Exchange Forum, Seoul, Sept 2005
ICCV-AREA Workshop, Leuven, June 2005
KAIST/U. Tokyo Robot Vision Workshop, Deajon, April 2005
Nagoya Univ. ITS EXPO symp, Nagoya, July 2005
Tsukuba Univ. COE Symp, Tsukuba, March 2005
CVPR-AREA Workshop, Los Angels, Feb 2005
Ritsumeikan Univ. COE symp, Kyoto, Jan 2005
Service Robotics and Intelligent System Development workshop, Beijing, Jan 2005.
National Institute of Informatics-Karuisawa Forum, May 2005
MSRA 21st Century Computer Conference, Beijing, Nov 2004
First International Robot Week, Seoul, Dec 2004
JST Basic Science Symp. Sennri, March 2004
CVPR-AREA, Atlanta, Feb 2004
Somma symp, Tokyo, Jan 2004
Bayon Int. Symp, Tokyo, October 2003
CREST regional Symp, Tokyo, October 2003
NSF/INRIA Vision Workshop, Taormina, Sept 2003
6th Int. Symp of National Museum of Japanese History, Sakura, Feb 2003.
Electronic Art Talent (eat03), Kanazawa, Feb 2003
CREST Int. Symp, NAIST, Nara, March 2003
IPSJ, SIG-CVIM, Tokyo, March 2003.
Annual meeting of Visualization Society of Japan, July 2002
Annual meeting of the Institute of Image Electronics Engineer of Japan, June 2002
IEEE Distinguished Lecture, IEEE Victoria Chapter, Melbourne, June 2002
2nd Int. Conf. on Image and Graphics (ICIG2002), Hefei, August 2002.

IEEE Distinguished Lecture, IEEE ACT Chapter, Canberra, May 2002.
 Int. Conf. Virtual Reality Art and Design Tech., Palace Museum, Taipei, May 2002
 AIR 02, Tsukuba, Jan 2002.
 IEEE Distinguished Lecture, Bogazici University, Istanbul, Dec 2001.
 Japan-Korea Mechatronics Workshop, Sendai, Nov 2001.
 ITS Symp. UC San Diego, San Diego, Oct 2001
 Inauguration Talk for Korean Machine Vision Society, Taejon, May 2001.
 IEEE Distinguished Lecture, Howard Univ., Washington DC April 2001
 Korea-Japan Techtronic's Workshop, Taejon, Nov 2000
 Workshop on Computer Vision, Graphics, and Image Processing, Green bay, Aug 1999.
 Workshop on Computer Vision, Seoul Korea, Nov 1998.
 Int. Sym. On AI and CS, Carnegie Mellon Univ, Pittsburgh, June 1998.
 Academia Sinica Workshop on Computer Vision, Taipei, Taiwan, May 1998
 IEEE Symp Elect Manuf Tech, Omiya, Japan, Dec 1995
 IEEE Hong Kong Chapter Distinguished Lecture, November 1995
 Sixth Int Symp Robotics Research, Munchen, Germany, Oct 1995
 NSF/ARPA Workshop Object Rep, New York, NY, Dec 1995
 5th Int Symp Robotics Research, Hidden Valley, PA, Oct 1995
 Workshop Physics-based Vision Urbana-Champaign, IL, June 1992
 Workshop Active Vision Urbana-Champaign, IL, June 1992
 NSF Workshop on Cognitive Vision Ann Arbor, MI, June 1988
 Workshop Machine Vision, New Brunswick, NJ, April 1988.
 4th Int Symp Robotics Research, Santa Cruz, CA, Aug 1987
 1st Int Symp Robotics Research, Bretton Woods, NH, Aug 1983
 Society of Instrumentation and Control Engineer, Japan, January 1986

Seminars:

Aisin-Tech, Tokyo, September 2006, MIT-CAIL, Cambridge, Aug 2006; CMU Robotics, Pittsburgh, Aug 2006; Tsinghua Univ, Beijing, Jan 2006; KAIST, Deajon, April 2005; Tsukuba U. March 2005; Kyoto U-Alumni, Tokyo, Jan 2005; Biotech, Bangkok, Dec 2004, Oxford Univ., August 2004, World Heritage Workshop, San Francisco, June 2004; Hitach-Hitach Lab, Omika, April 2004; Mapmaster, Nagoya, April 2004; Tsinghua Univ, Beijing, November 2003; Gifu Research Lab, Ogaki, Oct 2003; University of Southern California (Distinguished Lecture), Oct 2003; KAIST, Taejon, Dec 2002; UIUC, Urbana, Oct 2002; FIT, Tokyo, Sept 2002; Univ. of Tokyo-VR Lab, August 2002; Univ. of Tokyo (Informatics Seminar) July 2002; CMU-VASC May 2002; KAIST, Deajon, May 2001;

Toyohasi Institute of Technology, Toyohashi, Nov 1998; University of California, Berkeley, October 1998; University of British Columbia, October 1998; University of Southern California, October 1998; Academia Sinica, Taipei, Taiwan, May 1998; Okayama University, May 1998; University of Illinois, Urbana-Champaign, March 1996; KAIST, Deajon, January 1996; Chinese University of Hong Kong, Hong Kong, November 1995; University of California, Riverside, May 1995; Stanford University, March 1995; University of California, Berkeley, March 1995; Purdue University December 1994; Kyushu University, Japan, November 1994; NTT, Japan, October 1994; Carnegie Mellon University (Robotics seminar), October 1994; University of Washington, May 1994; Columbia University, March 1993; University of Rochester, February 1993; Kyoto University, Japan, November 1992; University of Tokyo, Japan, November 1992; Bell Laboratory, August 1992; NTT, Japan, March 1992; University of Pennsylvania, December 1991; KAIST, Taejon, December 1990; Pohang Institute of Technology, Korea, December 1990; University of Massachusetts, November 1990; Massachusetts Institute of Technology, November 1990; University of Maryland, October 1990; University of Toronto, Canada, February 1990; Osaka University, Japan, August 1989; University of Southern California, June 1989; Columbia University, December 1988; Carnegie Mellon University (AI seminar), January 1987; University of Tsukuba, Japan, November 1985; Massachusetts Institute of Technology, May 1983; Osaka University, January 1981; Massachusetts Institute of Technology, August 1977

Consulting Activity

Microsoft (IJARC Director) 2005 - present

Martin Marietta 1990 - 1993

Educational Activities:

Course Taught:

UT: Computer Vision [Spring 1997 -]

CMU: Computer Vision 15-385 [spring 1988 – spring 1995]

CMU: Advanced Perception 16-721 (Object Recognition Session)

[Fall 1988 - fall 1995]

Ph.D. Dissertations Supervised:

EE department, University of Tokyo

Takaaki Shiratori (2007), Atsuhiko Banno (2005), Shintaro Ono (2005), Ryusuke Sagawa (2002)

Hiroshi Kawasaki (2002), Yasuyuki Matsushita (2002), Koishi Ogawara (2001)

CS department, University of Tokyo

Shin'ichiro Nakaoka (2005), Tomohito Masuda (2005), Shunsuke Kudo (2004)
Daisuke Miyazaki (2004), Jun Takamatsu (2003), Shuntaro Yamazaki (2003),
Robby T. Tan (2003), Ko Nishino (2001)

III department, University of Tokyo

Takeshi Oishi (2004), Imari Sato (2004)

Robotics department, Carnegie Mellon University

George Paul (1997), Youichi Sato (1997), Fredric Solomon (1996), Harry Shum (1996)
Sing Bing Kang (1994)

CS department, Carnegie Mellon University

Mark D. Wheeler (1996)

ECE department, Carnegie Mellon University

Shree K. Nayar (1990)