The 16th
Korean-American Scientists and Engineers
Association
South-Western Region

Annual Technology Conference

“Frontiers in Science & Technology”

With Experts in the Advanced Technologies:

8:30 AM - 5:00 PM
Saturday, March 4, 2006

University of California, Los Angeles
Los Angeles, California
# The 16th KSEA SC Technology Conference Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Rooms</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30-9:45</td>
<td>Registration/Reception</td>
<td></td>
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<tr>
<td>09:45-09:50</td>
<td>Welcoming address</td>
<td>Math Sciences 4000A</td>
</tr>
<tr>
<td>09:50-09:55</td>
<td>Welcoming address</td>
<td>Dr. C. Kim</td>
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<tr>
<td>09:55-10:00</td>
<td>Welcoming address</td>
<td>Dr. T. Hahn</td>
</tr>
<tr>
<td>10:00-10:30</td>
<td>Keynote speech</td>
<td>Dr. J. Chung, “STS-114 Space Shuttle Mission: Success through Winning Leadership Fundamentals”</td>
</tr>
<tr>
<td>10:30-11:00</td>
<td>Guest speech</td>
<td>Dr. J. Lee, “Stem cell research and Somatic Cell Nuclear Transfer”</td>
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<tr>
<td>11:00-11:30</td>
<td>Guest speech</td>
<td>Mr. Wayne Kim, LGE</td>
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<tr>
<td>11:30-12:40</td>
<td>Lunch</td>
<td></td>
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<tr>
<td></td>
<td>Parallel Session</td>
<td>Math Sci 3915A</td>
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<tr>
<td></td>
<td></td>
<td>Math Sci 3915D</td>
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<tr>
<td></td>
<td></td>
<td>Math Sci 3915G</td>
</tr>
<tr>
<td>12:40-1:00</td>
<td>MLS I</td>
<td>W. An</td>
</tr>
<tr>
<td>1:00-1:20</td>
<td></td>
<td>U. Lee</td>
</tr>
<tr>
<td>1:20-1:40</td>
<td></td>
<td>K. Fujiwara</td>
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<tr>
<td>1:40-2:00</td>
<td></td>
<td>J. Woo</td>
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<tr>
<td>2:00-2:20</td>
<td>MLS II</td>
<td>H. Lee</td>
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<tr>
<td>2:20-2:40</td>
<td></td>
<td>T. Wang</td>
</tr>
<tr>
<td>2:40-3:00</td>
<td>Coffee Break</td>
<td>J. Jeon (no break for ITA)</td>
</tr>
<tr>
<td>3:00-3:20</td>
<td>Parallel Session</td>
<td>Math Sci 3915A</td>
</tr>
<tr>
<td>3:20-3:40</td>
<td></td>
<td>Math Sci 3915D</td>
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<tr>
<td>3:40-4:00</td>
<td></td>
<td>Math Sci 3915G</td>
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<tr>
<td>4:00-4:20</td>
<td></td>
<td>Math Sci 3915H</td>
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<tr>
<td>4:40-5:00</td>
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</tbody>
</table>

ACC: Applied Chemistry and Chemical Engineering
AST: Aerospace Technology
BME: Biomedical Engineering
CEE: Civil and Environmental Engineering
CSIT: Computer and Information Technologies
PMS: Physical and Materials Science
MAS: Mathematics and Statistics
MEE: Mechanical Engineering
MLS: Medical and Life Sciences
WLS: Women in Life Science
ITA: Innovative Technologies and Applications
Math Sciences 4000A

General Session 9:45 – 11:30 AM

9:45 – 09:50 AM Welcoming Address
Dr. Choong-Hyun Kim, President of KSEA-SC Chapter
UC Irvine

09:50 – 09:55 AM Words of Encouragement
Prof. Thomas H. Hahn, UCLA

09:55 – 10:00 AM Words of Encouragement
Prof. Kane Kim, UCI, KSEA President

10:00 – 10:30 AM “STS-114 Space Shuttle Mission: Success Through Winning Leadership Fundamentals”
Dr. Jay Chung, President and CEO, Tayco Engineering

10:30 – 11:00 AM “Stem cell research and Somatic Cell Nuclear Transfer”
Dr. Jang Won Lee, Director of Stem Cell Lab.
CHARegenerative Medicine Institute, Los Angeles, CA
CHA Research Institute, Pochon, CHA University, Seoul, Korea

11:00 – 11:30 AM LG Electronics
Mr. Wayne Kim

LUNCH 11:30AM – 12:40 PM
Math Sciences 3915 A

Medical and Life Sciences I (MLS I) 12:40 – 2:00 PM
Chair: Prof. Jang H. Youn, USC

12:40 – 1:00 PM  “Histone acetylation and methylation: crucial “marks” for gene regulation”
Dr. Woojin An, Department of Biochemistry & Molecular Biology
USC/Norris Comprehensive Cancer Center

1:00 – 1:20 PM  “Novel Function of NFAT1 on long-range chromatin capturing”
Dr. S. Kim¹,³, D. Lee², A. Rao¹
¹Department of Pathology, Harvard Medical School;
²Peptide Biology Laboratory, Salk Institute, La Jolla, USA;
³Department of Pharmacology, UCSD, La Jolla, CA

1:20 – 1:40 PM  “Investigating the function of a transcription factor and its co-activator using chemical genetics”
Dr. Dong Uk Lee and Marc Montminy
Salk Institute for Biological Studies, La Jolla, CA

1:40 – 2:00 PM  “Interaction of Bcr/Abl P190 with Spa-1, a GTPase activating protein for the small GTPase Rap1, suppressed adhesion and migration of Ph⁺ derived leukemia cells”
Mr. Hyung T. Lee, City of Hope

Medical and Life Sciences II (MLS II) 2:00 – 3:40 PM
Chair: Prof. Jang H. Youn, USC

2:00 – 2:20 PM  “The role of skeletal muscle inALS”
Ms. Young-eun Yoo
Program in Neuroscience, University of Southern California

2:20 – 2:40 PM  “Regulation of slow-muscle-fiber-specific genes by plasma free fatty acids”
Dr. Jang H. Youn, Dept. of Physiology and Biophysics, USC

Coffee Break 2:40 – 3:00 PM
3:00 – 3:20 PM  “PK/PD Modeling and Simulation of Proton Pump Inhibitor”
Dr. Dongwoo Kang, Pfizer Global R&D, San Diego, CA

3:20 – 3:40 PM  “Segmentation Methodology for Automated Classification and Differentiation of Soft Tissues in Multi-Band Images of High-Resolution Ultrasonic Transmission Tomography”
Dr. Jeong-Won Jeong,
Alfred E. Mann Institute for Biomedical Engineering,
Dept. of Biomedical Engineering, USC

Woman in Life Sciences (WLS)  3:40 – 5:00 PM
Chair: Dr. Haejung An, USC

3:40 – 4:00 PM  “JCSG-2: Large-scale Effective Production Center for Structural Genomics”
Dr. Gye Won Han, The Scripps Research Institute, La Jolla, CA

4:00 – 4:20 PM  “Characterization Of Soluble Nsf Attachment Protein Receptors That Participate In Apical Exocytosis In Rabbit Lacrimal Gland Acinar Cells”
Dr. Eunbyul Sou, University of Southern California

4:20 – 4:40 PM  “Photocatalytic H₂ generation from Water on Nanocomposites CdS/NiKNbO₃“
Dr. Su Young Ryu,
W.M. Keck Laboratories, California Institute of Technology

4:40 – 5:00 PM  “Detection of Chloramphenicol in Seafood Imports and the overview of Liquid Chromatography-Mass Spectrometry Systems”
Dr. Haejung An,
University of Southern California, School of Pharmacy
### Math Sciences 3915 D

**Computer Science and Information Technologies (CSIT)  12:40 – 2:20 PM**  
Chair: Dr. Jane Oh, JPL, California Institute of Technology

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker/Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:40 – 1:00 PM</td>
<td>“Understanding pollution dynamics in P2P file sharing”</td>
<td>Mr. Uichin (Eugene) Lee, Computer Science Department, UCLA</td>
</tr>
<tr>
<td>1:00 – 1:20 PM</td>
<td>“TMO Turtle with a 90-mile Long Joystick”</td>
<td>Dr. Keizo Fujiwara, University of California, Irvine</td>
</tr>
<tr>
<td>1:20 – 1:40 PM</td>
<td>“The Introduction of Java Content Repository (JCR)”</td>
<td>Dr. Jongwook Woo, Computer Information Systems Department, California State University, Los Angeles</td>
</tr>
<tr>
<td>1:40 – 2:00 PM</td>
<td>“Code Generator in the J2EE Environment”</td>
<td>Dr. Taehyung Wang and Wenbin Xiang, Department of Computer Science, California State University Northridge</td>
</tr>
<tr>
<td>2:00 – 2:20 PM</td>
<td>”Model-based Software Assurance”</td>
<td>Dr. Jane Oh, Jet Propulsion Laboratory (NASA/JPL), California Institute of Technology</td>
</tr>
</tbody>
</table>

**Innovative Technologies and Applications (ITA)  2:20 – 4:00 PM**  
Chair: Prof. Hyung-Min “Michael” Chung, California State University, Long Beach  
Dr. H. Anthony Kim, Inno-Tech Associates

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>2:20 – 2:40 PM</td>
<td>“Healthcare and U.S. Business Venture”</td>
<td>Dr. Henry Yoo, DVM MSc MBA President, Infinity Medical Consulting</td>
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**No Coffee Break**
2:40 – 3:00 PM  “A Primer in Patent Law”  
Mr. Jun-Young E. Jeon, Attorney at Law,  
Christie, Parker & Hale, LLP

3:00 – 3:20 PM  “Inventions and Entrepreneurship”  
Dr. Joseph H. Kim, Attorney at Law,  
JHK Law

3:20 – 3:40 PM  “Internet and Real Estate”  
Mr. Kyoung-seop Shin  
President, NIT eConsulting Group

Mathematics and Statistics (MAS)  
Chair: Prof. HeeJeong Lim, California State University, Fullerton

3:40 – 4:00 PM  “Multivariate Time Series Model For Pollutant Transport Using Environmental Monitoring Data”  
Dr. SungEun Kim,  
Department of Mathematics and Statistics,  
California State University, Long Beach

4:00 – 4:20 PM  “Semiparametric Analysis of Longitudinal Data with Informative Observation Times”  
Dr. Do-Hwan Park,  
Department of Mathematics and Statistics,  
University of Nevada, Reno

Dr. Hyun-Joo Kim  
Department of Mathematics,  
Truman State University
Math Sciences 3915 G

Civil Engineering (CEE I)  
Chair: Prof. Uksun Kim, California State University, Fullerton

12:40 – 1:00 PM  “Experimental and Numerical Earthquake Simulation of Multi Story Office Building Structures”  
Dr. Thomas Hyun-Koo Kang, UCLA

1:00 – 1:20 PM  “Blast-Related Research for Progressive Collapse Prevention”  
Dr. Kyungkoo Lee, Analyst / Design Engineer, Myers, Houghton & Partners

1:20 – 1:40 PM  “Seismic Behavior of Steel Joist Girder Structures”  
Dr. Uksun Kim, California State University at Fullerton

Environmental Engineering (CEE II)  
Chair: Mr. Jin Kim, Orange County Sanitation District  
Dr. Youn Sim, Los Angeles County

1:40 – 2:00 PM  “Using the information content of high frequency environmental monitoring data to identify pollution events in the coastal ocean”  
Youngsul Jeong, Ph.D. Candidate  
Department of Chemical Engineering and Materials Science, University of California, Irvine

2:00 – 2:20 PM  “Offline Land Surface Simulations for the Energy and Water Fluxes, Toward better Climate Prediction and Weather Forecast”  
Gi-Hyeon Park, Ph.D. Candidate  
Department of Civil and Environmental Engineering, University of California, Irvine

2:20 – 2:40 PM  “Implication of a Kinematic Wave Model for First Flush Treatment Design”  
Dr. Joohyon Kang, Department of Civil and Environmental Engineering, UCLA
3:00 – 3:20 PM  “Approach for Water Quality Prediction with Artificial Neural Networks”
Hun Kyun Bae, Ph.D. Candidate
Department of Civil and Environmental Engineering, University of California, Irvine

3:20 – 3:40 PM  “Design Challenges for Biosolids Dewatering and Drying Processes”
Mr. Han Gil Kang
Carollo Engineers, Fountain Valley, CA

Physical and Material Sciences
Chair: Dr. Jeong-Sun Moon, Hughes Research Lab.

3:40 – 5:00 PM
Applied Chemistry and Chemical Engineering 12:40 – 2:00 PM
Chair: Dr. Chan S. Park, UCR
Dr. Kwang W. Won, Fluor Daniel, Inc.

12:40 – 1:00 PM  “Desulfurization of Hydrogasifier Product Gas by Metal Oxide Sorbents”
Dr. Kiseok Kim, School of Chemical Engineering and Technology Yeungnam University, Gyeongsan, 712-749, Korea

1:00 – 1:20 PM  “Metabolic Engineering of Yeast for Bioaccumulation of Arsenic”
Wonkyu Lee, Chemical Engineering, Bourns College of Engineering, University of California, Riverside

1:20 – 1:40 PM  “Synthetic Diesel Fuel Production from Carbonaceous Feed Stocks”
Dr. Chan Seung Park, Center for Environmental Research and Technology, University of California, Riverside

1:40 – 2:00 PM  “Solar Grade Silicon Manufacturing Process”
Dr. Ray Won, Fluor Daniel, Inc.

Mechanical Engineering 2:00 – 4:00 PM
Chair: Dr. Daniel Choi, Jet Propulsion Laboratory/NASA

2:00 – 2:20 PM  “A Microfluidic Chip for High-Throughput Cell/Beads Analysis”
Dr. Kwang-Seok Yun
Mechanical and Aerospace Engineering, UCLA, LA, CA

2:20 – 2:40 PM  “A Mega Scale Fabrication Technology”
Dr. Dooil Hwang
USC Information Sciences Institute, LA, CA

Coffee Break 2:40 – 3:00 PM
3:00 – 3:20 PM  “Silicon Nanotips Antireflection Surface for Micro Sun Sensor”  
Dr. Choonsup Lee  
California Institute of Technology, Pasadena, CA

3:20 – 3:40 PM  “Magnetic Nanodiscs Fabricated by Electrodeposition For Microfluidic Applications”  
Kevin Park  
Pasadena College, Pasadena, CA

3:40 – 4:00 PM  “Data-Driven Robust Control Design: Unfalsified Control”  
Shin-Young Cheong  
Department of Electrical Engineering, USC, LA, CA
Conference Organizing Members

**General Chair**
Choong Hyun Kim, University of California, Irvine, (949) 824-6778, chkim@uci.edu

**Program Chair**
Tae-wan Ryu, California State University, Fullerton, (714) 278-7231, tryu@fullerton.edu

**Organizing Committee Members**
Thomas H. Hahn, University of California, Los Angeles, (310) 825-2383, hahn@seas.ucla.edu
Kwang W. Won, Fluor Enterprises, Inc. (949) 349-5312, ray.won@fluor.com
Kwang-Hae Kane Kim, University of California, Irvine, khkim@uci.edu
Jay Hoon Chung, Tayco Engineering, (714) 952-2240, jchung@taycoeng.com
Hyung-Min Chung, Cal. State University, Long Beach, (362) 985-7691, hmchung@csulb.edu
Young Ho Park, Jet Propulsion Laboratory, (818) 354-5170, young.h.park@jpl.nasa.gov
Jang Hyun Yoon, University of Southern California, (323) 442-3260, youn@usc.edu
Chong Do Lee, Leedco Engineers, (818) 448-7870, leedcoedl@aol.com
Jong Hyun Jung, Department of Defense, (714) 758-4091, john.jung@dcma.mil
H. Anthony Kim, Inno-Tech Associates, (310) 766-2998, hongmook@ieee.org
Seik Oh, Baxter Healthcare Corporation, (949) 474-6482, seik_oh@baxter.com
Woonsup Park, Aerospace Corp., (310) 336-2480, woonsup.park@aero.org
Chan Ho Lee, Boeing Co., (310) 678-4421, Chanho.lee@boeing.com
Gye Won Han, Scripps Research Institute, (858) 784-7189, gyewon@scripps.edu
Jin Kim, Orange County Sanitation District, (714) 593-7329, jkim@ocsd.com
Youn Sim, LA County Dept. of Public Works, (626) 281-5440, younsim@hotmail.com
Kwang-il Lee, California EPA/RWQCB, (213) 620-2269, klee@rb4.swrcb.ca.gov
Chan S. Park, University of California, Riverside, (951) 781-5771, cspark@cert.ucr.edu
Haejung An, University of Southern California, (626) 616-6524, haejung@pharmacy.usc.edu
Uksun Kim, California State University, Fullerton, (714) 278-2805, ukim@fullerton.edu
Jane Oh, Jet Propulsion Laboratory, (818) 354-0705, jane.oh@jpl.nasa.gov
Hee-Jeong Lim, California State University, Fullerton, (714) 278-7025, heejonglim@fullerton.edu
Daniel Choi, Jet Propulsion Laboratory, (818) 354-0515, Daniel.S.Choi@jpl.nasa.gov
Jeong-sun Moon, Hughes Research Lab., (310) 317-5461, jsmoon@hrl.com
Noo Li Jeon, University of California, Irvine, (949) 824-9032, njeon@uci.edu

**Operations, Liaison, Publicity, and Publication:**
Lee Jong Yoo, Orange County Water District, (714) 378-3347, lyoo@ocwd.com
John Lee, Northrop Grumman, jchlee@pacbell.net

**Registration and Information**
Min S. Kong, Personable Inc, (310) 938-3299, kongdol@gmail.com

**Exhibit (Audio & Visual)**
Hyun Sung Cho, University of California, Irvine. (818) 823-8011, hyun_sung@hotmail.com
Min Geun Lee, KT, minguen@gmail.com

**Local Arrangement**
Erica Shim, University of California, Los Angeles, ericashim@gmail.com
Chang Suk Pak, University of California, Irvine, cpak@uci.edu
Driving Directions to UCLA
   Locate UCLA by Zip code (90095) or by street address (405 Hilgard Avenue). Call 310-825-4321 for recorded directions. Visit http://www.ucla.edu/map/driving.html.

405 freeway:
  exit on Wilshire East
  Left turn on Westwood
  Parking information booth on Westwood
  Park @ structure 6 or 8
The only freeway to get to UCLA is **405** freeway.

- From **Valley area**, take 101 or 118 freeway and then connect to 405.
- From **LA area**, take I-10 and then connect to 405.
- From **LAX or South area**, take the 405 Freeway north to the Wilshire Blvd. East exit. Continue east on Wilshire for several blocks, moving into the left lane. Make a left turn on Westwood Blvd. and follow it into campus. UCLA's main campus is bounded by Sunset Blvd. on the north and Le Conte Ave. on the south; the east border is Hilgard Ave. and the west border is Gayley Ave.

**Conference Room Location**

Park in either structure 6 or 8
Walk up the stairs next to Engineering 1 building
At the top of the stairs, walk straight up the street to see the conference room to the right.
(Signs will be posted to guide the way from the parking structures)
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