

Ilhyun Lee, Ph. D.

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EDUCATION:

- 1996 Illinois Institute of Technology, Chicago, Illinois
Ph. D. Computer Science
- 1991 Illinois Institute of Technology, Chicago, Illinois
M. S. Computer Science
- 1988 University of Minnesota, Minneapolis, Minnesota
B. A. Computer Science

TEACHING EXPERIENCE:

- 08/2007 – Present The University of Texas of the Permian Basin, Odessa, Texas
Associate Professor of Computer Science
- 2001 – 2007 The University of Texas of the Permian Basin, Odessa, Texas
Assistant Professor of Computer Science
Taught: ” Multimedia and Web Design, Operating Systems, Advanced Operating Systems and Real-Time Computing, Database Systems, Programming Algorithms, Data Communications, Discrete Math, Information Systems, Theory of Computation, Senior Research, Java I, Java II, Distributed Systems, Digital Computer Organization, Computers and Problem Solving”
- 2001 Triton College, River Grove, Illinois
Adjunct Instructor of Computer Science
Taught: “C programming Language”
- 1994 – 1996 Illinois Institute of Technology, Chicago, Illinois
Teaching Assistant of Computer Science: “Computer Organization and Assembly Language”

INDUSTRY EXPERIENCE:

- 1998 – 2001 UTEK Inc./Idea Integration, OakBrook, Illinois
Senior System Analyst
- Responsible for developing a feature converting a network protocol from X.25 to TCP/IP protocol.
 - Responsible for developing a SMS (Service Management System) provisioning system.
 - Responsible for developing a GUI application for loading customer records to NSMS (National Service Management System) database and receiving confirmation after the provisioning has been completed.
 - Responsible for developing a GUI application for managing a billing system.
- 1997 Lucent Technologies, Naperville, Illinois
System Analyst
- Responsible for reviewing requirements of the Over the Air Function (OTAF) feature, developing test plans, writing feature tests and executing the tests for a wide variety of call processing.

COMPUTER EXPERTISES:

- **Programming Languages:** C/C++, Visual BASIC, Power Builder, CORBA, HTML, XML, FORTRAN, PASCAL, JAVA, COBOL, PROLOG, LISP, SQL, ASSEMBLY Languages.
- **Operating Systems:** DOS, Windows 3.x/95/98/NT/XP/VISTA, VMS, UNIX, RTDB
- **Software:** Microsoft Office, LOTUS, Dbase, ORACLE
- **Mobil Networks** (Wireless Intelligent Network, CDMA, IS41 Signaling Network)
- **Communication Protocols** (TCP/IP, SS7, X.25)
- **Real-Time Systems** (Real-Time Scheduling, HARTS, HYDRA, CHAOS)
- **Distributed Systems** (Client/Server Systems)
- **Multimedia and Web Design** (Script Languages)

SELECTED PEER REVIEWED PUBLICATIONS:**Journal Publication**

- Ilhyun Lee, Haesun Lee, and Narayan Debnath, “**Overhead Elimination Mechanisms in Real-time Systems**”, Journal of Computational Methods in Science and Engineering, Volume 6, Numbers 5, 6, Supplement 2, pp 399-411, 2006

Conference Publications

- Dusty Piper, Ilhyun Lee, and Haesun Lee, “**Establishment of System Security for UTPB-CLTS,**” Proceedings of the 20th Midwest Artificial Intelligence and Cognitive Science Conference (MAICS '09), pp 203 – 210, April 18 – 19, 2009, Fort Wayne, Indiana, USA
- Cheri Whalen, Ilhyun Lee, and Haesun Lee “**Design of Lab Assistant Module for UTPB-CLTS,**” Proceedings of the 24th ISCA International Conference on Computers and Their Applications (CATA '09), pp 174 – 178, April 8 – 10, 2009, New Orleans, Louisiana, USA
- Ilhyun Lee and Haesun Lee “**The UTPB Computer Lab Training System,**” Proceedings of the 21st ISCA (International Society for Computers and their Application) International Conference on Computers Applications in Industry and Engineering (CAINE '08), pp 239 – 243, November 12 – 14, 2008, Honolulu, Hawaii, USA
- Rekha Bhowmik and Ilhyun Lee “**Facility Design using Iterative Heuristic Algorithm,**” 17th International Conference on Software Engineering and Data Engineering (SEDE-2008), pp 79-84, June 30 - July 2, 2008, Los Angeles, California, USA
- S. Choudhury, D. Mukherjee, P. Chakraborty, N. Debnath, and Ilhyun Lee, “**An Agent Based Framework for Peer to Peer Distributed Computing**”, Proceedings of the 23rd ISCA International Conference on Computers and Their Applications (CATA '08), pp 252–257, April 9-11, 2008, Cancun, Mexico
- Narayan Debnath, Clay Smith, Tom Noll, Haesun K. Lee, Ilhyun Lee, and Mark Burgin, “**An Automated Test Generation and Execution System**”, Proceedings of the 20th ISCA (International Society for Computers and their Application) International Conference on Computers Applications in Industry and Engineering (CAINE '07), pp 162–167, November 7 - 9, 2007, San Francisco, California, USA
- Ramzi A. Haraty, Rabie Sadek, and Ilhyun Lee, “**BIRP: Bank Intra Routing Protocol**” Proceedings of the 7th IEEE (Institute of Electrical and Electronics Engineers) International Conference on Electro/Information Technology (IEEE EIT '07), pp 256-261, May 17-20, 2007, Chicago, Illinois, USA.

- Narayan Debnath, Nripendra Rai, Haesun K. Lee, and Ilhyun Lee **“Design and Description of a Tool towards a Software Engineering Experiment”** Proceedings of the 19th ISCA International Conference on Computers Applications in Industry and Engineering (CAINE '06), November 13- 15, 2006, Las Vegas, Nevada, USA
- Cherry Owen, Doug Hale, Ilhyun Lee, and Haesun Lee, **“The UTPB Computer Science Research Lab: Running on Student Power,”** Proceedings of the ACM SIGUCCS Fall 2006 Conference, pp. 309-315, November 5-8, 2006, Edmonton, Alberta, Canada.
- Haesun K. Lee and Ilhyun Lee **“Reusing OE-Scheduler in Aperiodic Environments,”** Proceedings of the 6th IEEE (Institute of Electrical and Electronics Engineers) International Conference on Electro/Information Technology (IEEE EIT '06), pp. 256 – 261, May 7-10, 2006, East Lansing, Michigan, USA.
- Ilhyun Lee, Cherry Owen, and Haesun K. Lee **“Object-Oriented Design and Implementation of the OE-Scheduler in Real-time Environments,”** Proceedings of the 21st ISCA (International Society for Computers and their Application) International Conference on Computers and Their Applications (CATA '06), pp. 254-258, March 23-25, 2006, Seattle, Washington, USA.
- McDonald, Haklin Kimm, Haesun K. Lee, and Ilhyun Lee **“Applying a Multi-level Security Mechanism to a Network Address Translation Scheduler,”** Proceedings of the 21st ISCA International Conference on Computers and Their Applications (CATA '06), pp. 350-355, March 23-25, 2006, Seattle, Washington, USA.
- Haklin Kimm, Haesun K. Lee, and Ilhyun Lee **“A Unified Hardware/Software Approach for Reducing Context Switching Time with Multiple Tasks,”** Proceedings of the ISCA 18th International Conference on Parallel and Distributed Computing Systems (PDCS '05), pp. 212-217, September 12-14, 2005, Las Vegas, Nevada, USA.
- Narayan Debnath, Ilhyun Lee, Haesun Lee, Sergiu Dascalu, John Ho, and Mary Yip **“Design and Implementation of a Reusable Software Tool with Application,”** Proceedings of the IEEE (Institute of Electrical and Electronics Engineers) International Conference on Information Reuse and Integration (IEEE IRI '05), pp. 579-584, August 15 - 17, 2005, Las Vegas, Nevada, USA.
- Haesun K. Lee, Ilhyun Lee, and Haklin Kimm **“Algorithm for Reducing the Complexity of Switching Time in Real-Time Multitask Environments,”** Proceedings of the ISCA 20th International Conference on Computers and Their Applications (CATA '05), pp. 429 – 434, March 16-18, 2005, New Orleans, Louisiana, USA.
- Ilhyun Lee, Haesun K. Lee, and Narayan Debnath **“Finding Minimal Overheads in Real-time Systems,”** Proceedings of the ISCA 3rd International Conference on Computer Science, Software Engineering, Information Technology, e-Business and Applications (CSITeA '04), pp. 1 – 4, December 27 - 29, 2004, Cairo, Egypt.

- Ilhyun Lee, Haesun K. Lee, and Narayan C. Debnath “**Object Oriented Mixed Scheduling Algorithm in Real Time Systems,**” Proceedings of the ISCA 17th International Conference on Parallel and Distributed Computing Systems (PDCS '04), pp. 416 - 420, September 15-17, 2004, San Francisco, California, USA.
- Haesun K. Lee and Ilhyun Lee “**Nearly Dynamic Task Model Scheduling with Aperiodic Tasks**” Proceedings of the ISCA 19th International Conference on Computers and Their Applications (CATA '04), pp. 313 – 316, March 18- 20, 2004, Seattle, Washington, USA.
- Haesun K. Lee, Ilhyun Lee, and Narayan C. Debnath “**Object-Oriented Approach of Bounded Predictable (BP) Task Scheduler,**” Proceedings of the ISCA 16th International Conference on Computers Applications in Industry and Engineering (CAINE '03), pp. 306 – 309, November 11- 13, 2003, Las Vegas, Nevada, USA.
- Narayan Debnath, EricThiemann, Ilhyun Lee, Haesun Lee, and Waleed Smari “**Object Design and Development of Testing Tools,**” Proceedings of the ISCA 12th International Conference on Intelligent and Adaptive Systems and Software Engineering (IASSE '03), pp. 261-265, July 9 - 11, 2003, San Francisco, California, USA.
- Ilhyun Lee, Haesun K. Lee, and Narayan C. Debnath “**Scheduling Bounded predictable (BP) and Soft Aperiodic Tasks,**” Proceedings of the ISCA 18th International Conference on Computers and Their Applications (CATA '03), pp. 244 - 247, March 26-28, 2003, Honolulu, Hawaii, USA.
- Haesun K. Lee, Ilhyun Lee, and Narayan C. Debnath “**Scheduling Algorithm for Minimizing Context Switches of Periodic and Bounded Predictable Tasks,**” Proceedings of the ISCA 15th International Conference on Computers Applications in Industry and Engineering (CAINE '02), pp. 134 – 137, November 7-9, 2002, San Diego, California, USA.
- Ilhyun Lee and Haesun K. Lee “**Java Implementation of Bounded Predictable (BP) Task Scheduler,**” 18th International Conference on Advanced Science and Technology (ICAST '02), pp. 74-77, August 17, 2002, Chicago, Illinois, USA.
- Ilhyun Lee, “**Joint Scheduling of Bounded Predictable (BP) and Periodic Tasks,**” Proceedings of the ISCA 17th International Conference on Computers and Their Applications (CATA '02), pp. 331 – 334, April 4-6, 2002, San Francisco, California, USA.
- Haesun Kang Lee, Ilhyun Lee, and Martha Evens “**Mixed Scheduling of Periodic and Soft Aperiodic Tasks with Reduced Context Switches,**” Proceedings of the ISCA 16th International Conference on Computers and Their Applications (CATA '01), pp. 171-174, March 28-30, 2001, Seattle, Washington, USA.

- Ilhyun Lee, Haesun Kang Lee, and James Kenevan **“Scheduling Bounded Predictable (BP) Tasks,”** International Conference on Software Engineering Applied to Networking & parallel/Distributed Computing (SNPD '00), pp. 458-463, May 18-21, 2000, Champagne-Ardenne, France.
- Haesun Kang Lee, Ilhyun Lee, and Martha Evens **“Scheduling Periodic Tasks with Reduced Context Switches,”** International Conference on Software Engineering Applied to Networking & parallel/Distributed Computing (SNPD '00), pp. 209-215, May 18-21, 2000, Champagne-Ardenne, France.

GRANT/ SCHOLARSHIP FUNDED

- 2006: **Computer Science Faculty Improvement Grant (\$2,000)**
New Media, New Technology and Management Review
<http://www.new-media.co.kr>
- 2002: **Midland Korean Church Scholarship (\$1,000)**

AWARDS:

- 2009: Finalist of “UTPB, The President’s Teaching Award”
- 2006: Who’s Who Among America’s Teachers
- 1997: LUCENT and 4A: Synergy for Excellence

ACTIVITIES:**Selected University and community activities:**

- Member of the Graduate Council
- Member of the Intellectual Property Committee
- Member of the Institutional Data Committee
- Member of the International Education Grant Committee
- Faculty Advisor in Computer Science
- Supervisor of the Computer Science Lab
- Member of the Computer Science Faculty Search Committee
- Member of the Art Faculty Search Committee
- Member of the Kinesiology Faculty Search Committee
- College Previews
- Freshmen Orientations
- Moderator for the 9th Annual University of Texas System Conference on ITDE
- The Learning Community Workshop
- Judge at the Permian Basin Regional Science Fair

Selected Professional Activities***Program Committee:***

- 03/2008 23rd International Conference on Computers and Their Applications (CATA '08)
- 03/2007 22nd International Conference on Computers and Their Applications (CATA '07)
- 03/2004 19th International Conference on Computers and Their Applications (CATA '04)
- 03/2003 18th International Conference on Computers and Their Applications (CATA '03)
- 03/2002 17th International Conference on Computers and Their Applications (CATA '02)

Session Chair:

- 09/2004 Chaired **“Frameworks and Middleware for Parallel and Distributed Computing” Session** at the 19th ISCA (International Society for Computers and their Application) International Conference on Parallel and Distributed Computing Systems.
- 03/2004 Chaired **“Computing Practice & Application II” Session** at the 19th ISCA (International Society for Computers and their Application) International Conference on Computers and Their Applications (CATA '04)
- 03/2004 Chaired **“Information System” Session** at the 19th ISCA (International Society for Computers and their Application) International Conference on Computers and Their Applications (CATA '04)

Program Reviewer:

- 2005 The 2005 IEEE International Conference on Information Reuse and Integration (IEEE IRI-2005, Knowledge Acquisition and Management)
- 2005 18th ISCA International Conference on Computers Applications in Industry and Engineering (CAINE '05)
- 2004 19th International Conference on Computers and Their Applications (CATA '04)
- 2004 4th IEEE Symposium on Signal Processing and Information Technology (ISSPIT '04)
- 2003 18th International Conference on Computers and Their Applications (CATA '03)
- 2003 16th ISCA International Conference on Computers Applications in Industry and Engineering (CAINE '03)
- 2002 17th International Conference on Computers and Their Applications (CATA '02)

Other Professional Activities:

- IEEE Communications Society
- ACM Special Interest Group on Communications (ACM-SIGCOM)
- ACIS (Association for Computer and Information Science) Communications Society
- ISCA(International Society for Computers and their Applications) Communications Society

REFERENCES

- Dr. Douglas F. Hale, Professor of Mathematics and Computer Science, The University of Texas of the Permian Basin, 4901 E. University Blvd. Odessa, Texas 79762, (432) 552-2873
- Dr. Cherry Keahey Owen, Area Coordinator in Computer Science, The University of Texas of the Permian Basin, 4901 E. University Blvd. Odessa, Texas 79762, (432) 552-2257
- Dr. Narayan C. Debnath, President of International Society for Computers and their Application (ISCA), Professor, Computer Science Department, Winona State University, Winona, Minnesota 55987, (507) 457-5261