

JIUN-SHYAN (J. S.) CHEN

Chancellor's Professor & Department Chair

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Department of Civil & Environmental Engineering
University of California, Los Angeles
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EDUCATION

- Ph.D. Theoretical and Applied Mechanics, Northwestern University, USA, 1986-1988 (official degree 1989)
M.S. Civil Engineering, Northwestern University, USA, 1984-1986 (official degree 1987)
B.S. Civil Engineering, National Central University, Taiwan, 1978-1982

WORK EXPERIENCE

- 7/2007 – present Chancellor's Professor & Chair, Dept. of Civil & Environmental Engineering, University of California, Los Angeles, California, USA
3/2007 – present Professor, Dept. of Mathematics, University of California, Los Angeles, California, USA
7/2006 – present Chancellor's Professor, University of California, Los Angeles, California, USA
9/2006 – present Professor, Dept. of Mechanical & Aerospace Engineering, University of California, Los Angeles, California, USA
7/2002 – 7/2006 Professor & Vice Chair, Dept. of Civil & Environmental Engineering, University of California, Los Angeles, California, USA
8/2001 – 6/2002 Associate Professor, Dept. of Civil & Environmental Engineering, University of California, Los Angeles, California, USA
8/1999 – 7/2001 Associate Professor, Dept of Mechanical Engineering, The University of Iowa, Iowa City, Iowa, USA
8/1994 – 7/1999 Assistant Professor, Dept. of Mechanical Engineering, The University of Iowa, Iowa City, Iowa, USA
1/1989 – 7/1994 Research Scientist, GenCorp Research Division, Akron, Ohio, USA
8/1984 – 12/1988 Research Assistant of Professor Ted Belytschko, Northwestern University, Evanston, Illinois, USA.

MAJOR RESEARCH AREAS

Finite element methods, meshfree methods, large deformation mechanics, inelasticity, contact problems, structural dynamics, computational material science, multi-scale computational methods, computational biomechanics

RESEARCH EXPERIENCES

- Finite Element and Meshfree Methods for nonlinear mechanics
- Accelerated Reproducing Kernel Particle Method for continuum, plates, shells, composites, and large deformation problems
- Extended meshfree method for linear and nonlinear continua and structures
- Multiscale homogenization and materials modeling
- Wavelet Galerkin method in multiscale homogenization of heterogeneous materials
- Mesoscopic modeling of grain growth and grain boundary migration
- Multiscale modeling of bio-systems with applications to DNA stretching
- Adaptive multiscale meshfree method for solving Schrödinger equation in quantum mechanics
- Modeling of microstructural evolution and local instability (such as wrinkling formation) in polycrystalline materials
- Nonconforming semi-Lagrangian meshfree formulation for problems with excessive particle motion
- Computational manufacturing in metal forming, stamping, and extrusion
- Application of meshfree method to fragment impact problems
- Computational damage mechanics and strain localization
- Computational geomechanics and earth moving simulation
- Computational methods for rubber-like incompressible materials
- Arbitrary Lagrangian Eulerian method for large deformation and contact problems
- Mixed finite element method based on multiple-field variational principle
- Probabilistic finite element method for acoustic-structure interaction

HONORS AND AWARDS

1. Outstanding Alumnus of National Central University, Taiwan, 2007
2. Chancellor's Professor Endowed Chair, UCLA, 2006 – present
3. Executive and General Councils Member, International Chinese Association for Computational Mechanics, 2007 – present.
4. Elected Treasurer (2006-2008), Vice President (2008-2010), President (2010-2012), US Association for Computational Mechanics
5. Editor-in-Chief, Interaction and Multiscale Mechanics, an International Journal, 2006 - present
6. Fellow, International Association for Computational Mechanics, 2006 (Citation: The International Association for Computational Mechanics by action of the Executive Council has elected Jiun-Shyan Chen Fellow in recognition of contributions to the field of computational mechanics)
7. Fellow, US Association for Computational Mechanics, 2005 (Citation: The United States Association for Computational Mechanics by action of the Board of Directors has elected J. S. Chen Fellow in recognition of contributions to the field of computational mechanics)
8. General Council member, International Association for Computational Mechanics, 2003 – present.
9. At-Large member of Executive Committee, US Association for Computational Mechanics, April 2002 – 2006.

10. James Lightners Faculty Fellowship, College of Engineering, The University of Iowa, 2001.
11. The University of Iowa Faculty Scholar Award, 2001.
12. Old Gold Fellowship, University of Iowa, 1997.
13. Excellence In Teaching Award, University of Iowa, 1996.
14. CARVER Scientific Research Initiation Award, University of Iowa, 1996.
15. Nominated by the University of Iowa for Presidential Faculty Fellows Award, 1996.
16. GenCorp Technology Achievement Award, GenCorp, 1991.
17. Cited in Strathmore's Who's Who, 2004-2005 Edition, 2004.
18. Cited in Who's Who in American Education, (6th Edition) 2003 edition.
19. Cited in Who's Who in Engineering Education, 2002 edition.
20. Cited in Lexington Who's Who, (Millennium Ed.), 2000.
21. Cited in Who's Who in the World, (17th Ed.), 1999.
22. Cited in Who's Who in Science and Engineering (4th Ed.), 1997.
23. Cited in Who's Who in Finance and Industry (30th Ed.), 1996.
24. Research Assistantship, Northwestern University, 1984 – 1988.

PROFESSIONAL SERVICES

(a) Editor-in-Chief:

Interaction and Multiscale Mechanics, an International Journal, 2006 – present

(b) Editorial Board:

Editorial Board:

ASCE Engineering Mechanics (Associate Editor), 2006 - present

International Journal for Numerical Methods in Engineering (Advisory Board), 2004 - present

Structural Engineering & Mechanics (Editorial Board), 2003 - present

International Journal of Computational Methods (Editorial Board), 2003 – present

Computational Methods in Engineering Science and Mechanics (Editorial Board), 2003 - present

Guest Editor:

Computational Mechanics, 2000

Computer Methods in Applied Mechanics and Engineering, 2004

(c) Paper Review

1. International Journal for Numerical Methods in Engineering
2. Computer Methods in Applied Mechanics and Engineering
3. International Journal of Solids and Structures
4. Journal of Applied Mathematics and Mechanics
5. International Association for Mathematics and Computers in Simulation
6. Journal of Computational Physics
7. Chemical and Biochemical Engineering Quarterly
8. Computational Mechanics
9. International Journal of Fracture
10. Computers and Structures
11. AIAA Journal

12. ASME Journal of Applied Mechanics
13. Engineering with Computers
14. ASME Journal of Pressure Vessel Technology
15. ASCE Journal of Engineering Mechanics
16. Mechanics of Structures and Machines
17. Finite Elements in Analysis and Design
18. Communications in Numerical Methods in Engineering
19. International Journal of Computer Integrated Design and Construction
20. Journal of Materials Processing Technology
21. Multiscale Modeling and Simulation
22. International Journal for Multi-scale Computational Engineering
23. Structural Engineering & Mechanics
24. International Journal of Computational Methods
25. Computational Methods in Engineering Science and Mechanics

(d) Proposal Review

1. National Science Foundation
2. National Research Center
3. Served on NSF Review Panel
4. Army Research Office
5. Research Grants Council, Hong Kong

(e) External Services and Activities

1. External Reviewer of California State University, Los Angeles, 2008.
2. International Advisory Board, 8th World Congress on Computational Mechanics, Venice, Italy, June 30-July 4, 2008.
3. Scientific Committee, 10th US National Congress of Computational Mechanics, Columbus, Ohio, July, 2009.
4. International Advisory Committee, the 4th International Conference on Advances in Structural Engineering and Mechanics (ASEM'08), Jeju, Korea, 28-30 May 2008.
5. Scientific Advisory Board, Asian-Pacific Association for Computational Mechanics (APCOM'07, in conjunction EPMESC XI) Kyoto, Japan, December 3-6, 2007.
6. Scientific Advisory Board, 2007 International Symposium on Computational Mechanics, Changping, Beijing, Jiuhua Spa & Resort, July 30-August 1, 2007.
7. Scientific Committee, ECCOMAS Thematic Conference on Meshless methods, to be held in Porto, Portugal, July 9-11, 2007.
8. Scientific Committee, The European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS) Thematic Conference with the title: Composites with Micro- and Nano-Structure (CMNS) – Computational Modeling and Experiments, Liptovský Mikuláš, Slovakia, May 28 – 31, 2007.
9. International Advisory Committee, 2007 International Conference on Computational Methods (ICCM2007), Hiroshima, Japan, April 4-6, 2007
10. Technical Advisory Board, 9th US National Congress on Computational Mechanics, San Francisco, July 22-26, 2007
11. Scientific Advisory Board, The Tenth East Asia-Pacific Conference on Structural Engineering and Construction (EASEC-10), 3-5 August, 2006

12. Invited Judge, Robert J. Melosh Medal Competition for the Best Student Paper on Finite Element Analysis, Duke University, April 28, 2006
13. General Program co-chair, Technical Program Chair, Local Organizing Committee co-Chair, the 7th World Congress on Computational Mechanics, Los Angeles, July 16-22, 2006
14. At-large member of Executive Council, US Association for Computational Mechanics, April 2002 – present
15. General Council member, International Association for Computational Mechanics, 2003 – present
16. Chair, ASME Committee on Computing in Applied Mechanics (CONCAM), 2005-present
17. Vice Chair, ASME Committee on Computing in Applied Mechanics (CONCAM), 2003-2005
18. Scientific Advisory Board, ECCOMAS THEMATIC CONFERENCE ON MESHLESS METHODS - Lisbon/Portugal, July 11-14, 2005
19. Scientific Advisory Board, 8th US Congress on Computational Mechanics, 2005
20. Founding Chair, USACM Specialty Committee on Meshfree Methods, 2000 - 2004
21. Organizing Committee, Second International Conference on Multiscale Material Modeling, University of California Los Angeles, Los Angeles, October 11 - 15, 2004
22. Scientific Committee Member, International Conference on Computational Methods (ICCM2004) Hiroshima, 4-6 Apr 2007, 2004
23. Scientific Advisory Board, 7th US Congress on Computational Mechanics, 2003
24. Technical Program Chair, U. S. National Congress on Computational Mechanics, Dearborn, Michigan, August 1-4, 2001
25. Chair, Organizing Committee, Workshop on Meshfree Methods, , Chicago, IL, June 11-13, 2000
26. Member, American Society of Mechanical Engineering, 1994- present
27. Member, American Society of Civil Engineering, 1994- present
28. Member, U.S. Association for Computational Mechanics, 1994 - present
29. Fellow, U.S. Association for Computational Mechanics, 2005 - present
30. Member, International Association for Computational Mechanics
31. Member, Organizing Committee of McNU97 Conference (joint ASME/ASCE/SES 1997 summer meeting), June 29 – July 2, 1997, Evanston, IL
32. Member, Computational Mechanics Committee of ASCE Engineering Mechanics Division, 1997-present
33. Symposium and Workshop Organizer:
 - Symposium on Meshfree and Generalized/Extended Finite Element Methods, 8th World Congress on Computational Mechanics, June 30 – July 5, 2008, Venice, Italy
 - Symposium in Honor of Ted Belytschko, First American Academy of Mechanics Conference. June 17–20, 2008, New Orleans, Louisiana, USA
 - Symposium on Meshfree/Particle and Generalized/Extended Finite Element Methods, Asian-Pacific Association for Computational Mechanics (APACM), December 3-6, 2007, Kyoto, Japan.
 - Symposium on Recent Advances in Interaction and Multiscale Mechanics, Asian-Pacific Association for Computational Mechanics (APACM), December 3-6, 2007, Kyoto, Japan.

- Symposium on Discrete and continuum modeling and experiments on granular materials, powders, and soils, November 10-16, 2007, ASME Winter Annual Meeting (IMECE), Seattle, Washington
- Symposium on Meshfree Method and Particle Methods, 9th US Congress on Computational Mechanics, July 23-26, 2007, San Francisco
- Symposium on Mathematical and Computational Aspects of Multi-scale and Multi-physics, 9th US Congress on Computational Mechanics, July 23-26, 2007, San Francisco, CA
- Workshop on Computational Penetration Mechanics, January 18-19, 2006, US Army Engineer Research & Development Center, Vicksburg, Mississippi
- Symposium on Meshfree Method and Particle Methods, 7th World Congress on Computational Mechanics, July 16-22, 2006, Los Angeles, CA
- Symposium on Mathematical and Computational Aspects of Multi-scale and Multi-physics, 7th World Congress on Computational Mechanics, July 16-22, 2006, Los Angeles, CA
- TH Lin's 95th Birthday Symposium on Computational Mechanics and Materials, 7th World Congress on Computational Mechanics, July 16-22, 2006, Los Angeles, CA
- Symposium on Meshfree Methods in Solid and Structural Mechanics, McMat 2005, Joint ASME/ASCE/SES Mechanics and Materials Conference, Baton Rouge, Louisiana, June 1-3, 2005.
- Symposium on Meshfree Method and Particle Methods, 8th USNCCM, July 24-28, 2005, Austin, TX
- Symposium on Mathematical and Computational Foundations of Multi-scale Modeling, 8th USNCCM, July 24-28, 2005, Austin, TX
- Symposium on Mathematical and Computational Foundations of Multi-scale Modeling, Second International Conference on Multiscale Material Modeling, October 11 – 15, 2004, Los Angeles, CA.
- Symposium on Meshfree and Extended/Fictitious FEM, 6th World Congress on Computational Mechanics, September 5-10, 2004, Beijing, China
- Symposium on Meshfree Methods, 7th USNCCM, July 27-31, 2003, Albuquerque, NM
- Symposium on Micro and Nano Systems, 2002 IMECE, November 18-22, 2002, New Orleans
- Short Course on Meshfree Particle Methods, 6th USNCCM, August 1-4, 2001, Dearborn, MI
- Symposium on Meshfree Methods, 6th USNCCM, August 1-4, 2001, Dearborn, MI
- Workshop on Meshfree Methods, sponsored by NSF, 2001, Iowa City, IA
- Workshop on Meshfree Methods, sponsored by NSF, June 11-13, 2000, Chicago, IL
- Symposium on Meshfree Methods, 5th USNCCM, August 4-6, 1999, Boulder, CO
- Symposium on Meshfree Particle Methods, ICES, Oct. 6-7, 1998, Atlanta, Georgia
- Symposium on Meshfree Methods, ASME Summer Annual Meeting, August 1997, San Francisco, CA
- Symposium on Advances in Computational Engineering Mechanics (Meshless Methods), McNU97 Conference (joint ASME/ASCE/SES 1997 summer meeting), June 29 – July 2, 1997, Evanston, IL

- Symposium on Meshless Methods, 3rd USNCCM, Dallas, TX, 1995
- Symposium on Computational Methods for Rubber-like Materials, 3rd USACM, Dallas, TX, 1995

UNIVERSITY SERVICES

University of California, Los Angeles

1. Supervising 9 Ph.D. students and 1 Postdoctoral Fellow
2. Graduated 13 Ph.D. students, 2 MS Students (thesis option), supervised 5 Postdoctoral Fellows
3. Served on 60 Ph.D. Thesis Committee
4. Member, Schoolwide Screening Committee, 2005- present
5. Chair, Space Committee, 2005-2006
6. Chair, Faculty Search Committee, 2005-2006
7. Member, Courses and Curricula Committee, 2005-2006
8. Chair, Space Committee, 2004-2005
9. Chair, 2004 Structure Engineering Search Committee, 2004-2005
10. Member, Courses and Curricula Committee, 2004-2005
11. Member, Merit Increase Committee, 2004-2005
12. Chair, Ad Hoc Committee for Dr. John Wallace's promotion to Professor, Step I, 2004-2005
13. Member, Ad Hoc Committee for Dr. Ertugrul Taciroglu's 4th year appraisal, 2004-2005
14. Chair, Merit Increase Committee, 2002-2003
15. Member, Courses and Curricula Committee, 2002-2003
16. Chair, Space Committee, 2003-2004
17. Vice Chair and Graduate Advisor, Department of Civil & Environmental Engineering, July 2002 – present
18. Member, 2002 Structural Engineering Faculty Search Committee
19. Ad Hoc Committee to propose rules for the Henry Samueli endowment, 2002
20. Ad Hoc Committee to review the status of resources and technical support for CEE laboratories, 2002

University of Iowa

1. VP Research Advisory Committee, Fall 1997 – Summer 2001
2. Engineering Faculty Council, Fall 1999 – Summer 2001
3. Chair, Mechanical Systems Search Committee, Fall 2000 – Summer 2001
4. Mechanical Engineering Graduate Committee, Fall 1994 - Spring 1996, Fall 1997 – Summer 2001
5. Mechanical Engineering Strategic Planning Committee, Fall 1997 – Summer 2001
Engineering Computations Committee, Fall 1995 - Spring 1996

RESEARCH FUNDING

1. Weidlinger Associates, Inc. Development and Implementation of Meshfree Technologies in Computational Mechanics, \$71,149, 1/1/2008 – 12/31/2008 (PI, 100%).
2. Army ERDC, Multi-scale Meshfree Approach for Modeling Fragment Penetration in Ultra High Strength Concrete, \$818,320, 2/2007 – 1/2011 (PI, 100%).

3. National Institute of Health, In-Vivo MR Tractography and FEM Study of Human Lower Leg, \$1,409,188, 1/2006 – 12/2009 (co-PI, 9%)
4. Caterpillar, Meshless Method for Earth-Moving Simulation, \$481,166, 1/2002 – 12/2008, with continuation (PI, 70%).
5. Lawrence Livermore National Laboratory, Improved Meshfree Methods for Computational Mechanics, \$125,000, 10/2004 – 3/2007 (PI, 100%).
6. US Army: Defense Treat Reduction Agency, Application of Meshfree Method for Fragment Impact Modeling, \$450,000, 7/2004 – 6/2007 (UCLA PI, 50%, contractor: K&C).
7. Alpha Star, Development of Meshfree Methods for Fracturing Modeling, \$20,000, 1/2004 – 12/2004 (PI, 100%).
8. Ford Motor Company, Simulation of Self-Piercing Rivets Using Meshfree Method, \$50,000, 8/2002 – 7/2003 (PI, 100%).
9. UCLA Travel Grant, \$1,200, July 2003.
10. NSF, Adaptive Multiple-scale Meshfree Method for Geo-Mechanics and Earth-Moving Simulation, \$114,072, 9/2000-8/2003 (PI, 100%).
11. NSF, Mechanical Modeling and Simulation of Ferromagnetic Fe Particle Reinforced Elastomer Composites for Automotive Applications, \$145,669, 9/2000-2/2003 (Co-PI, 50%).
12. NSF-DARPA, Optimized Meshless Algorithms for Seamless Integration of CAD, Simulation, and Design, \$1,600,169, 10/1998-9/2002 (Co-PI, 23%).
13. NASA, Development of Soil/Wheel Interaction Model Using an Adaptive Multi-Scale Meshfree Method, \$49,500, 11/2000-9/2002 (PI, 100%).
14. UCLA Travel Grant, \$1,200, July 2002.
15. Caterpillar, Meshless Method for Earth-Moving Simulation, \$252,638, 10/1996 – 12/2001, (PI, 100%).
16. Delphi, Meshless Analysis on the Dynamic Response of a Rubber Diaphragm in a Decoupler Mount, \$90,124, 6/1999 – 12/2001 (PI, 100%).
17. Delphi, Large Strain Constitutive Modeling and Numerical Methods for Viscohyperelastic Materials, \$101,771, 6/1999 – 5/2001 (PI, 100%).
18. NSF, Efficient Meshless Methods for Unsteady Lubricated Metal Forming Processes, \$250,000, 10/1997 – 9/2001 (PI, 50%).
19. NIH, Vascular Mechanics with Atheroma Progression, \$1,016,371, 1999-2001 (Co-PI, 8%).
20. Sandia National Laboratories, Accelerated Meshfree Methods for Transient Heat Conduction, \$100,000, 2/2000 – 1/2002 (PI, 100%).
21. Ford Motor Company, Large Deformation Simulation and Design Optimization of Automotive Structures Using Meshless Methods, \$150,000, 3/1998 – 2/2001 (PI, 50%).
22. General Motors, Meshfree Formulation, Design Sensitivity Analysis, and Optimization for 3-Dimensional Shell Structural Applications, \$ 313,639, 1/2000 – 12/2001 (Co-PI, 50%).
23. General Motors, Meshless Methods for Analysis of Elastomeric Components, \$49,919, 6/1998 – 5/1999 (PI, 100%).
24. US Association for Computational Mechanics Young Investigator Travel Grant, \$1,000, 1998 (PI, 100%).
25. Institute for Mechanics & Material Travel Grant, \$500, 1995.
26. UI Old Gold Fellowship, \$6,000, 5/1997 – 8/1997.

27. UI CARVER Foundation, Adaptive Meshless Method for Metal Forming Analysis, \$14,648, 6/1996 – 7/1997 (PI, 100%).
28. Army TACOM, Automotive Research Center
Body and Component Flexibility in Virtual Prototyping, \$219,000, 2/1995- 5/1998 (Co-PI, 50%).
Fatigue Life Prediction Methods, \$213,000, 2/1995 – 5/1998 (Co-PI, 50%).

TEACHING

University of California, Los Angeles (September 2001 – present)

1. **Finite Element Methods** (undergraduate, CEE 135C)
To introduce basic concepts of finite element methods and their applications to structural mechanics, structural engineering, and thermal science: direct approach for truss analysis, strong form and weak form. approximation functions for finite element methods, weighted residual methods, Ritz method, variational method, convergence criteria and rate of convergence, natural coordinates and shape functions, isoparametric finite elements, finite element formulation of multi-dimensional heat flow and elasticity, numerical integration and approximation properties, finite element formulation of beam.
2. **Finite Element Analysis of Structures** (graduate, CEE 235B)
To introduce fundamental theory of finite element methods and their applications to mechanics of structures and solids: Temporal discretization, explicit and implicit time integrations of parabolic and hyperbolic systems, stability of temporal discretization by energy method and Von Neumann method, convergence and consistency, numerical dissipation and dispersion.
3. **Computational Solid Mechanics** (graduate, CEE 238)
To introduce advanced finite element and meshfree methods for computational solid mechanics. Meshfree methods: approximation theories (moving least-squares, reproducing kernel, partition of unity), Galerkin meshfree methods, collocation meshfree methods, imposition of boundary conditions, domain integration, stability. Advanced computational methods for large deformation mechanics. Multi-field variational principles for constrained problems. Arbitrary Lagrangian Eulerian method.

The University of Iowa (August 1994 – August 2001)

1. **Engineering I** (undergraduate core course): A major goal of this course is to introduce basic engineering concepts consist of elements common to all disciplines, and fundamental approaches to engineering problem solving and communication.
2. **Finite Element Techniques in Engineering I** (undergraduate/graduate): Strong form, weak form, Galerkin approximation, finite element discretization, linear elasticity and heat transfer, shape functions, isoparametric elements, Gauss integration, beam formulation.
3. **Mathematical Methods in Engineering** (undergraduate/graduate): Linear ordinary differential equations, series solution of differential equations, special functions, Laplace transforms, Fourier series, linear algebra, eigenvalue problems, second-order partial differential equations.
4. **Topics in Solid Mechanics** (graduate): Multiple-field variational principles and mixed finite element method, Arbitrary Lagrangian-Eulerian formulation, explicit and implicit time integration, stability in time integration, linearized buckling problems, advection-diffusion problems, Petrov-Galerkin formulation.

5. **Computational Solid Mechanics** (graduate): Moving least-squares and reproducing kernel approximation theories, meshfree methods, computational hyperelasticity, computational inelasticity, contact problems, plates and shells.

STUDENT ADVISING

1. Currently supervising 9 Ph.D. students and 1 Postdoctoral Fellow.
2. Graduated 13 Ph.D. students and 2 M.S. students.
3. Postdoctor Fellows: Iulian Grindeanu (August 1999 – July 2000), Cheng-Teng Wu (August 1999, February 2001), Hongsheng Lu (August 2001 – May 2002), Sangpil Yoon (August 2001 – December 2002), Shafigh Mehraeen (September 2004 – January 2005), Wei Hu (September 2007 – present).
4. Visiting Scholars: Prof. Jin Chen (China, January 1995 – January 1996), C. M. O. L. Roque (Brazil, August 1996 – August 1997), Prof. J. C. Sung (Taiwan, June – August 1999), Prof. Kyu-Taek Han (August 2000 – August 2001), Prof. Ta-Peng Chang (Taiwan, July – October 2003), Dr. Tae-Yeol Lee (Korea, October 2002 - February 2004), Chen Cheng Lee (Taiwan, May 2004 - April 2005), Prof. Hsin-Yun Hu (Taiwan, March 2006)
5. Four of J. S. Chen's former Ph.D. students have been selected among the 6 finalists of the 13th, 14th, 15th (years 2001, 2002, 2003) Robert J. Melosh Medal Competition for the Best Student Paper on Finite Element Analysis.

PUBLICATIONS

Journal Special Issues Edited

1. Chen, J. S. and Liu, W. K. (Guest Editor), special issue on Meshfree Particle Methods, Computational Mechanics, Vol. 25, 2000.
2. Chen, J. S. and Liu, W. K. (Guest Editor), special issue on Meshfree Particle Methods, Computer Methods in Applied Mechanics and Engineering, Vol. 193, Issues 12-14, 2004.

Book Chapters

1. Chen, J. S., Hu, W., “Orbital HP-Clouds for Quantum Systems,” Meshless Method, [Eds. A. Ferreira, E. Kansa, V. Leitão, G. Fasshauer], accepted, Springer, 2007.
2. Chen, J. S., Hu, W., Hu, H. Y., “Localized Radial Basis Functions with Partition of Unity Properties,” Meshless Method, [Eds. A. Ferreira, E. Kansa, V. Leitão, G. Fasshauer], accepted, Springer, 2007.
3. Chen, J. S. and Wu, Y., “Stability in Lagrangian and Semi-Lagrangian Reproducing Kernel Discretizations Using Nodal Integration in Nonlinear Solid Mechanics,” Computational Methods in Applied Sciences, [Eds. V. M. A. Leitao, C. J. S. Alves, C. A. Duarte], Springer, pp. 55-77, 2006.
4. Chen, J. S., Kim, N. H., “Meshfree Method and Application to Shape Optimization,” World Scientific Publishing/Imperial College Press, 2006.
5. Chen, J. S. and Mehraeen, S. “A Coupled Meso-Macro Scale Formulation for Modeling of Microstructure Evolution and Wrinkling Formation in Polycrystalline Materials”, Multiscaling in Molecular and Continuum Mechanics: Biology, Electronics and Material Science, Springer, 2006.
6. Chen, J. S., Liu, W. K. and Belytschko, T. “Arbitrary Lagrangian Eulerian Methods for Material with Memory and Friction,” Recent Development in Computational Fluid

Dynamics [eds: T. Tezduyar and T. J. R. Hughes], ASME-AMD, Vol. 95, pp. 11-32, 1988.

7. Liu, W. K., Chen, J. S. and Belytschko, T. "Arbitrary Lagrangian Eulerian Stress Update Procedures," Advances in Inelastic Analysis [eds: S.Nakazawa, N.Robelo], ASME-AMD, Vol. 88, pp. 153-175, 1987.
8. Liu, W. K., Chen, J. S. and Lu, Y. Y. "Probabilistic Analysis of a Fluid-Shell System with Random Imperfection," Computational Mechanics of Probabilistic and Reliability Analysis [edt: W. K. Liu and T. Belytschko], Elmeppress International, pp. 554-577, 1989.

Journal Articles

1. Chen, J. S. and Hu, W., "Multiscale Method for Quantum Mechanics," Lecture Notes in Computational Science and Engineering, invited, 2007.
2. Zhang, X., Chen, J. S., and Osher, S., "A Multiple Level Set Method for Modeling Grain Boundary Evolution of Polycrystalline Materials," in press, Interaction and Multiscale Mechanics, 2007.
3. Hu, H. Y. and Chen, J. S., "Radial basis collocation method and quasi-Newton iteration for nonlinear elliptic problems", Numerical Methods for Partial Differential Equations, in press, 2007.
4. Chen, J. S., Hu, W., Hu, H. Y., "Reproducing Kernel Enhanced Local Radial Basis Collocation Method," International Journal for Numerical Methods in Engineering, DOI: 10.1002/nme.2269, 2007.
5. Puso, M. Chen, J. S., Zywick, E., Elmer, W., "Meshfree and Finite Element Nodal Integration Methods," International Journal for Numerical Methods in Engineering, DOI: 10.1002/nme.2181, 2007.
6. Wang, D. and Chen, J. S., "A Hermite Reproducing Kernel Approximation for Thin Plate Analysis with Sub-domain Stabilized Conforming Integration," International Journal for Numerical Methods in Engineering, DOI: 10.1002/nme.2175, 2007.
7. Chen, J. S., Hu, W., Puso, M., "Orbital HP-Cloud for Schrödinger Equation in Quantum Mechanics", Computer Methods in Applied Mechanics and Engineering, Vol. 196, pp. 3693-3705, 2007.
8. Hu, H. Y., Chen, J. S., and Hu, W., "Weighted Radial Basis Collocation Method for Boundary Value Problems," International Journal for Numerical Methods in Engineering, Vol. 69, pp. 2736-2757, 2007.
9. Chen, J. S., Teng, H., and Nakano, A. "Wavelet Based Multi-scale Coarse Graining Approach for DNA Molecules," Finite Elements in Analysis and Design, Vol. 43, pp. 246-260, 2007.
10. Chen, J. S., Hu, W., Puso, M., Wu, Y., Zhang, X., "Strain Smoothing for Stabilization and Regularization of Galerkin Meshfree Method," Lecture Notes in Computational Science and Engineering, Vol. 57, pp. 57-76, 2006.
11. Puso, M., Zywick, E., Chen, J. S., "A New Stabilized Nodal Integration Approach," in Lecture Notes in Computational Science and Engineering, Vol. 57, pp. 207 - 218, 2006.
12. Wang, D., Chen, J.S., "A Locking-free Meshfree Curved Beam Formulation with the Stabilized Conforming Nodal Integration", Computational Mechanics, Vol. 39, pp. 83-90, 2006.

13. Tae-Yeol Lee, J.S. Chen, Modeling of Grain Growth Using Voronoi Discretization and Natural Neighbour Interpolants, International Journal for Computational Methods in Engineering Science and Mechanics, Vol. 7, pp. 475-484, 2006.
14. Chen, J. S. and Wang, D. D., "A Constrained Reproducing Kernel Particle Formulation for Shear Deformable Shell in Cartesian Coordinate" International Journal for Numerical Methods in Engineering, Vol. 68, pp. 151-172, 2006.
15. Zhang, X., Mehraeen, S., Chen, J. S., and Ghoniem, N. "Multiscale Total Lagrangian Formulation for Modeling Dislocation-Induced Plastic Deformation in Polycrystalline Materials", International Journal for Multiscale Computational Engineering, Vol. 4, pp. 29-46, 2006.
16. Mehraeen, S., and Chen, J. S., "Wavelet Galerkin Method in Multiscale Homogenization of Heterogeneous Materials," International Journal for Numerical Methods in Engineering, Vol. 66, pp. 381-404, 2006.
17. Yin, H.M., Sun, L.Z., and Chen, J.S., "Magneto-elastic modeling of composites containing chain-structured magnetostrictive particles" Journal of the Mechanics and Physics of Solids, Vol. 54, pp. 975-1003, 2006.
18. Wang, D., Dong, S. B., and Chen, J. S., "Extended Meshfree Analysis of Transverse and Inplane Loading of a Laminated Anisotropic Plate of General Planform Geometry," International Journal of Solids and Structures, Vol. 43, pp. 144-171, 2006.
19. Kim, Y., Swan, C. C., and Chen, J. S., "Performance of Parallel Conjugate Gradient Solvers in Meshfree Analysis of Nonlinear Continua," in press, Computational Mechanics, 2005.
20. Chen, J. S., Wang, D., "Extended Meshfree Method for Elastic and Inelastic Media," Lecture Notes in Computational Science and Engineering, Vol. 43, pp. 17-38, 2005.
21. Chen, J. S. and Mehraeen, S. "Multi-scale modeling of heterogeneous materials with fixed and evolving microstructures," Modeling and Simulation of Materials Science and Engineering, Vol. 13, pp. 95-121, 2005.
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76. Chen, J. S. and Wang D., "Extended Meshfree Method for Elastic and Inelastic Media," Proceeding, Forum on Advanced Engineering Computation, National Taiwan University, Taiwan, February 17-18, 2004.
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SHORT COURSE LECTURES, INVITED LECTURES, AND SEMINARS

A. Short Course Lectures

1. Short Course, February, 2004, Forum on Advanced Engineering Computation, Taiwan, National Taiwan University, Extended Meshfree Method, and Multiscale Materials Modeling
2. Short Course, December, 2001, Taiwan, National Cheng-Kung University, Short Course on Meshfree Methods
3. Short Course, August, 2001, Detroit, MI, US National Congress on Computational Mechanics, Short Course on Meshfree Particle Methods
4. Short Course, May 2001, Houston, TX, Baker Hughes, Short Course on Meshfree Methods
5. Short Course, June, 2000, Taiwan, National Cheng-Kung University, Short Course on Meshfree Methods and Applications

B. Plenary and Keynote Lectures

1. Keynote, January 3-8, 2008, Sheraton Keahou Bay Resort & Spa, International Symposium on Plasticity and its Current Applications, On the Stability of Lagrangian and semi-Lagrangian Meshfree and Particle Methods.
2. Plenary Lecture, December 7-9, 2007, Japan Association of Nonlinear CAE, Adaptive and Multiscale Meshfree Methods for Large Deformation Analysis in Automotive Applications
3. Plenary Lecture, December 3-6, 2007, Kyoto, Japan, Third Asian-Pacific Congress on Computational Mechanics in conjunction with Eleventh International Conference on

- Enhancement and Promotion of Computational Methods in Engineering and Science, Galerkin and Collocation Meshfree Methods: From Continuum to Quantum
4. Semi-Plenary Lecture, July 30-August 1, 2007, Changping, Beijing, Jiu Hua Spa & Resort, 2007 International Symposium on Computational Mechanics, Reproducing Kernel Partition of Unity: From Continuum to Quantum.
 5. Plenary Lecture, September 5-7, 2007, Barcelona, Spain, ECCOMAS Thematic Conference 9th International Conference on Computational Plasticity - COMPLAS 2007, Multiscale Formulation for Modeling Grain Boundary Migration and Dislocation Induced Plastic Deformation in Polycrystalline Materials.
 6. Keynote Lecture, 9-11 July, 2007, Porto, Portugal, ECCOMAS Thematic Conference on Meshless methods, Reproducing Kernel Partition of Unity for Solving Schrödinger Equation in Quantum Mechanics.
 7. Keynote Lecture, July 22-26, 2007, San Francisco, 9th US National Congress on Computational Mechanics, Orbital HP-Clouds for Solving Schrödinger Equation in Quantum Mechanics.
 8. Keynote Lecture, April 4-6, 2007, Hiroshima, Japan, 2007 International Conference on Computational Methods (ICCM2007), Reproducing Kernel Partition of Unity for Solving Schrödinger Equation in Quantum Mechanics.
 9. Keynote lecture, December 21-22, 2006, Taipei, Taiwan, Forum on Advanced Engineering Computations, Reproducing Kernel Partition of Unity: From Continuum to Quantum.
 10. Keynote Lecture, July 25, 2005, Austin, Texas, The 8th National Congress on Computational Mechanics, A Coupled Meso-scale Formulation for Modeling of Wrinkling Formation in Polycrystalline Materials
 11. Keynote Lecture, July 13, 2005, Lisbon, Portugal, , European Congress on Computational Methods in Applied Science and Engineering (ECCOMAS) Thematic Congress on Meshless Methods, Multi-scale Formulation for Modeling Dislocation Induced Plastic Deformation in Polycrystalline Materials
 12. Keynote Lecture, October 11-15, 2004, the 2nd International Conference on Multiscale Materials Modeling, UCLA, Los Angeles, CA, A Coupled Meso-Macro Scale Formulation for Modeling of Microstructure Evolution and Wrinkling Formation in Polycrystalline Materials
 13. Keynote Lecture, September, 2004, Beijing, China, 6th World Congress on Computational Mechanics, Extended Meshfree Methods
 14. Plenary Lecture, May, 2004, Japan, Japan Society of Computational Engineering and Science, Accelerated and Adaptive Meshfree Method
 15. Keynote Lecture, July, 2003, Albuquerque, NM, Symposium on Meshfree Methods, 7th US Congress on Computational Mechanics, Meshfree Formulation Coupled with Particular Solution for Boundary Value Problems
 16. Keynote Lecture, July 27-31, 2003, Albuquerque, NM, Symposium on Multiscale Modeling and Simulation of Material Behavior, 7th US Congress on Computational Mechanics, Multiscale Modeling and Homogenization of Stressed Grain Growth
 17. Keynote Lecture, March, 1997, Akron, OH, Elastomer FEA97 Conference, Finite Element and Meshless Methods for Analysis of Rubber-like Materials

C. Invited Lectures

1. Invited Lecture, January 17, Idaho National Laboratory, Meshfree Approaches for Modeling Grain Structure Evolution.
2. Invited Lecture, October 8, 2007, Northwestern University, Evanston, Galerkin and Collocation Meshfree Methods: From Continuum to Quantum.
3. Invited Lecture, August 2, Shanghai Jiao-Tong University, Shanghai, China, Meshfree and Multi-scale Computational Methods for Mechanics and Materials.
4. Invited Lecture, August 3, 2007, Tongji University, Shanghai, China, Meshfree and Multi-scale Computational Methods for Mechanics and Materials.
5. Invited Lecture, August 3, 2007, Xiamen University, Xiamen, China, Meshfree and Multi-scale Computational Methods for Mechanics and Materials.
6. Invited Lecture, April 27, 2007, Weidlinger Associates, Inc., Mounterview, CA, Recent Advances in Meshfree Methods
7. Invited Lecture, January 31, 2007, General Motors Research Division, Warren, MI, Semi-Lagrangian Galerkin Meshfree Formulation for Damage, Failure, and Extremely Large Deformation in Materials and Structures.
8. Invited Lecture, January 31, 2007, USCAR (Consortium of big-3 Auto Companies), Southfield, MI, A Meshfree Approach for Modeling Braided Textile Composites.
9. Invited Lecture, January 30, 2007, Ford Motor Company, Tech Center, Dearborn, MI, Semi-Lagrangian Galerkin Meshfree Formulation for Damage, Failure, and Extremely Large Deformation Analysis.
10. Invited Lecture, December 20, 2006, Tunghai University, Taichung, Taiwan, Recent Advances in Meshfree Methods.
11. Invited Lecture, December 18, 2006, Chung-Hsing University, Taichung, Taiwan, HP Partition of Unity for Solving Schrodinger Equation in Quantum Mechanics.
12. Invited Lecture, December 19, 2006, Feng-Chia University, Taichung, Taiwan, Recent Advances in Meshfree Methods.
13. Invited lecture, April 28, 2006, Duke University, Melosh Symposium, HP Partition of Unity for Solving Schrodinger Equation in Quantum Mechanics
14. Invited lecture, February 24, 2006, Applied Mathematics Department, National University of Kaushiong, Taiwan, Extrinsic and Intrinsic Adaptive Meshfree Formulation for Schrodinger Equation in Quantum Mechanics
15. Invited lecture, February 23, 2006, Applied Mathematics Department, National Sun Yat-sen University, Taiwan, Adaptive Multi-scale Galerkin Meshfree Method for Mechanics and Materials
16. Invited lecture, February 22, 2006, Civil & Environmental Engineering Department, National Taiwan University, Taiwan, Reproducing Kernel Particle Method for Multiscale Modeling in Mechanics and Materials
17. Invited lecture, February 20, 2006, Mechanical Engineering Department, Korean Advanced Institute of Science & Technology (KAIST), South Korea, Stabilized and Regularized Galerkin Meshfree Method
18. Invited lecture, January 30, 2006, University of Southern California, Multi-scale Computational Methods and Application to Modeling of DNA Molecules

19. Invited Lecture, January 18-19, 2006, Vicksburg, Mississippi, US Army Engineer Research & Development Center, Stabilized and Regularized Meshfree Methods, Advances in Computational Penetration Mechanics Workshop.
20. Invited Lecture, September 12, 2005, University of Bonn, Germany, The Third International Workshop on Meshfree Methods for Partial Differential Equations, Stabilized and Regularized Galerkin Meshfree Method
21. Invited Lecture, June 30, 2005, , Lawrence Livermore National Laboratory, Multiscale Computational Methods and Application to Modeling of DNA Molecules
22. Invited Lecture, March 11, 2005, University of Maryland Workshop on Meshless Methods, Generalized Finite Element Methods, and Related Approaches, Stabilization of Nodal Integration in Galerkin Meshfree Methods
23. Invited Lecture, November, 2004, Tokyo, Japan, International Workshops on Advances in Computational Mechanics, A Semi-Lagrangian Meshfree Formulation for Extremely Large Deformation Analysis
24. Invited Lecture, September, 2004, Dalian, China, US-China Workshop on Multi-scale Model-based Simulation in Mechanics and Material Engineering , Multi-scale Formulation for Modeling of Microstructural Evolution and Local Instability in Polychrystalline Materials
25. Panelist and Invited Lecture, September, 22, International Meshing Roundtable, Williamsburg, Virginia, Overview of Meshfree Methods Williamsburg, Virginia
26. Invited Lecture, February, 2004, Taiwan, LS-DYNA User's Conference, Accelerated and Adaptive Meshfree Methods for Mechanics and Materials
27. Invited Lecture, September, 2003, Bonn, Germany, Universtat Bonn, International Workshop on Meshfree Methods for Partial Differential Equations, Extended Meshfree Method for Elastic and Inelastic Media
28. Invited Lecture, July 2003, Thousand Oaks, CA, Rockwell Scientific, Meshfree Methods for Mechanics and Materials
29. Invited Lecture, December, 2002, Livermore, CA Sandia National Laboratories, Multiscale Materials Modeling
30. Invited Lecture, December, 2002, Livermore, CA, Lawrence Livermore National Laboratory, Recent Advances in Meshfree Methods
31. Invited Lecture, December, 2002, Livermore, CA, Lawrence Software Technology Corporation, Recent Advances in Meshfree Methods
32. Invited Lecture, October, 2002, Albuquerque, NM, Sandia National Laboratories, Multiscale Materials Modeling
33. Invited Lecture, September, 2002, Chicago, Argonne National Laboratory, Multiscale Materials Modeling
34. Invited Lecture, September 11, 2002, Dearborn, MI, Ford Motor Company, Recent Advances in Meshfree Methods
35. Invited Lecture, September, 2002, Peoria, ILL, Caterpillar, Inc., Recent Advances in Meshfree Methods
36. Invited Lecture, September 23, 2002, Dearborn, MI, Ford Motor Company, Meshfree Methods for Large Deformation Analysis
37. Invited Lecture, July, 2002, the 5th World Congress on Computational Mechanics, Vienna, Austria, Mesoscale Modeling of Grain Boundary Migration Under Stress Using Coupled Finite Element and Meshfree Methods

38. Invited Lecture, July, 2002, the 5th World Congress on Computational Mechanics, Vienna, Austria, A Double-Grid Method for Modeling of Microstructure Evolution
39. Invited Lecture, September 2001, Bonn, Germany, Universtat Bonn, International Workshop on Meshfree Methods for Partial Differential Equations, Accelerated and Adaptive Meshfree Method
40. Invited Lecture, August, 2001, Peoria, IL, Caterpillar Inc, Recent Advances in Meshfree Methods
41. Invited Lecture, October, 2000, Albuquerque, Sandia National Laboratories, Accelerated and Adaptive Galerkin Based Meshfree Method
42. Invited Lecture, January, 2000, Los Alamos ,Los Alamos National Laboratory, Accelerated Galerkin Based Meshfree Method
43. Invited Lecture, September, 2000, Barcelona, ECCOMAS, Nonlinear Version of Stabilized Conforming Nodal Integration
44. Invited Lecture, August, 2000, Barcelona, Spain European Conference on Computational Mechanics and Sciences, Nonlinear Version of Stabilized Conforming Nodal Integration for Galerkin Meshfree Methods
45. Invited Lecture, August, 2000, Peoria, Caterpillar, Advances in Meshfree Simulation of Earth Moving Processes
46. Invited Lecture, June, 2000, Chicago, Argonne National Laboratory, Overview of Meshfree Methods
47. Invited Lecture, May, 2000, Moline, ILL, John Deere Research New Advances in Meshfree Methods
48. Invited Lecture, April, 2000, Troy, Delphi R&D, New Advances in Meshfree Methods
49. Invited Lecture, January, 2000, Albuquerque, Sandia National Laboratories, Accelerated Galerkin Based Meshfree Method
50. Invited Lecture, November, 1999, Troy, GM R&D, New Advances in Meshfree Methods
51. Invited Lecture, November, 1999, Dearborn, Ford Scientific Lab, Accelerated Adaptive Meshfree Methods for Large Deformation Analysis
52. Invited Lecture, May, 1999, Troy, MI, Delphi R&D, Recent Advances in Meshless Methods for Large Deformation Analysis
53. Invited Lecture, February, 1999, Troy, MI, GM R&D, Meshless Methods and Application to Elastomers
54. Four Invited Lectures, December, 2001, Taiwan, National Central University, Forum on Advanced Computational Mechanics, Accelerated and Adaptive Meshfree Methods (I, II, III, IV)
55. Invited Lecture, January, 1998, Albuquerque, Sandia National Lab, Meshfree Methods for Nonlinear Solids
56. Invited Lecture, May, 1997, Warren, MI, GM R&D, Meshless Methods for Large Deformation Analysis of Nonlinear Structures
57. Invited Lecture, March, 1997, Akron, OH, Bridgestone/Firestone, Computational Methods for Elastomers
58. Invited Lecture, June, 1996, Peoria, IL, Caterpillar, Earth Moving Simulation Using Meshless Methods
59. Invited Lecture, May, 1996, Dearborn, Ford Motor Company, Meshless Methods for Large Deformation Analysis of Structures

60. Invited Lecture, March, 1996, Akron, OH, GoodYear, Computational Methods for Rubber Materials
61. Invited Lecture, March, 1996, Akron, OH, Bridgestone/Firestone, Computational Methods for Rubber Materials
62. Invited Lecture, September, 1995, Dearborn, Ford Motor Company, Computational Methods for Rubber Hyperelasticity
63. Invited Lecture, May, 1995, Chicago, Argonne National Laboratory, Computational Methods for Rubber Hyperelasticity

D. Seminars

1. Seminar, January 25, 2007, Civil and Environmental Engineering, UC Irvine, Multiscale Reproducing Kernel Particle Method for Mechanics and Materials
2. Seminar January 15, 2007, Civil and Environmental Engineering, Vanderbilt University, Reproducing Kernel Partition of Unity for Multiscale Modeling in Mechanics and Materials
3. Seminar, April 12, 2006, Mathematics Department, UCLA, Reproducing Kernel Particle Method for Multiscale Modeling in Mechanics and Materials
4. Seminar, April 6, 2006, Mechanical & Aerospace Engineering Department, UCLA, Reproducing Kernel Particle Method for Multiscale Modeling in Mechanics and Materials
5. Seminar, November 21, 2005, UC San Diego, Department of Structural Engineering, Multiscale Computational Methods and Application to Modeling of DNA Molecules
6. Seminar, August 30, 2005, University of Illinois at Urbana Champaign, Multiscale Computational Methods and Application to Modeling of DNA Molecules
7. Seminar, August 24, 2005, Kio University, Japan, Recent Advances in Meshfree Methods
8. Seminar, June 17, 2005, UCLA, Biochemistry Department, Multiscale Computational Methods and Application to Modeling of DNA Molecules
9. Seminar, October 1, 2004, University of Southern California, Los Angeles, Multi-scale and Adaptive Modeling of Mechanics and Materials
10. Seminar, September, 2004, China, Tsinghua University, Accelerated and Adaptive Meshfree Methods for Mechanics and Materials
11. Seminar, February, 2004, Taiwan, National Taiwan University of Science & Technology, Accelerated and Adaptive Meshfree Methods for Mechanics and Materials
12. Seminar, February, 2004, Taiwan, Chung-Yuang Christian University, Accelerated and Adaptive Meshfree Methods for Mechanics and Materials
13. Seminar, October, 2003, Lincoln, NB, University of Nebraska- Lincoln, Recent Advances in Meshfree Methods
14. Seminar, September, 2003, Baton-Rouge, LA, Louisiana State University, Recent Advances in Meshfree Methods & Application to Multiscale Materials Modeling
15. Seminar, December, 2001, Japan, Keio University, Recent Advances in Meshfree Particle Methods.
16. Seminar, December, 2001, Korea, Korea Advanced Institute of Science and Technology, Recent Advances in Meshfree Particle Methods
17. Seminar, December, 2001, Hong Kong, The University of Hong Kong, Recent Advances in Meshfree Particle Methods

18. Seminar, December, 2001, Singapore, Nanyang Technological University, Recent Advances in Meshfree Particle Methods.
19. Seminar, March, 2001, Los Angeles, CA, UCLA, Accelerated and Adaptive Meshfree Methods
20. Seminar, June, 2000, Taiwan, Feng-Chia University, Meshfree Methods and Applications
21. Seminar, June, 2000, Taiwan, National Central University, Meshfree Methods and Applications
22. Seminar, November, 1998, University of Iowa, Mechanical Eng., Meshless Methods and Their Applications
23. Seminar, October, 1998, Evanston, Northwestern University, Meshfree Methods for Nonlinear Continuum
24. Seminar, 1998, Department of Mechanical Engineering, University of Iowa, Iowa City, Recent Advances in Meshfree Methods
25. Seminar, May, 1998 Dearborn, Ford, Recent Advances in Meshless Methods for Large Deformation Analysis and Shape Optimization
26. Seminar, February, 1997, Evanston, Northwestern University, Computational Methods for Incompressible Materials
27. Seminar, April, 1994, Department of Mechanical Engineering, University of Iowa, Iowa City, Advanced Computational Mechanics for Incompressible Materials
28. Seminar, April, 1994, Department of Mathematics, University of Iowa, Iowa City, Advanced Computational Mechanics for Incompressible Materials

Student Supervision

Name	Degree	Degree Completion	Role
Lihua Wang	1 st Year PhD		Thesis/Research Advisor
Hanzhong Luo	1 st Year PhD		Thesis/Research Advisor
Aiai Dong	1 st Year PhD		Thesis/Research Advisor
Rani Harb	1 st Year PhD		Thesis/Research Advisor
Chung-Hao	1 st Year PhD		Thesis/Research Advisor
Sheng-Wei Chi	3 rd Year PhD		Thesis/Research Advisor
Yan Han	3 rd Year PhD		Thesis/Research Advisor
Pai-Chen Guan	5 th Year PhD		Thesis/Research Advisor
Hailong Teng	5 th Year PhD		Thesis/Research Advisor
Wei Hu	PhD Completed	June 2007	Thesis/Research Advisor
Xinwei Zhang	PhD Completed	June 2006	Thesis/Research Advisor
Youcai Wu	PhD Completed	Jan 2006	Thesis/Research Advisor
Shafiqh Mehraeen	PhD Completed	Jan 2005	Thesis/Research Advisor
Dongdong Wang	PhD Completed	July 2003	Thesis/Research Advisor
Viswanath Kotta	MS Thesis Plan Completed	July 2003	Thesis/Research Advisor
Hongsheng Lu	PhD Completed	June 2001	Thesis/Research Advisor
Sangpil Yoon	PhD Completed	June 2001	Thesis/Research Advisor
Yang You	PhD Completed	July 2001	Thesis/Research Advisor
Hui-Ping Wang	PhD Completed	July 2000	Thesis/Research Advisor
Nam-Ho Kim	PhD Completed	July 1999	Thesis/Research Co-Advisor

Iulian Grindeanu	PhD Completed	July 1999	Thesis/Research Co-Advisor
Cheng-Tang Wu	PhD Completed	July 1999	Thesis/Research Advisor
Sangpil Yoon	MS Thesis Plan Completed	July 1997	Thesis/Research Advisor
Chunhui Pan	PhD Completed	July 1996	Thesis/Research Advisor

Postdoctoral Fellow & Visiting Scholar Supervision

Name	Position	Role	Begin Time	End Time
Dr. Wei Hu	Postdoctoral Fellow	Supervisor	September, 2007	
Prof. Tadashi Hasebe	Visiting Progegessor	Supervisor	June 2007	September 2007
Prof.. Hsin-Yun Hu	Visiting Professor	Supervisor	June 29, 2007	July 12, 2007
Prof. Tadashi Hasebe	Visiting Progegessor	Supervisor	March 2006	September 2006
Prof.. Hsin-Yun Hu	Visiting Scholar	Supervisor	March 9, 2006	March 30, 2006
Chen Cheng Lee	Visiting Scholar	Supervisor	May 2004	April 2005
Prof. Ta-Peng Chang	Visiting Professor	Supervisor	July 2003	October 2003
Dr. Tae-Yeol Lee	Visiting Scholar	Supervisor	October 2002	February 2004
Dr. Sangpil Yoon	Postdoctoral Fellow	Supervisor	August 2001	December 2002
Dr. Hongsheng Lu	Postdoctoral Fellow	Supervisor	August 2001	May 2002
Prof. Kyu-Taek Han	Visiting Scholar	Supervisor	August 2000	August 2001
Dr. Cheng-Tang Wu	Postdoctoral Fellow	Supervisor	August 1999	February 2001
Dr. Iulian Grindeanu	Postdoctoral Fellow	Supervisor	August 1999	February 2001
Dr. Nam-Ho Kim	Postdoctoral Fellow	Supervisor	August 1999	July 2000
Prof. J.C. Sung	Visiting Professor	Supervisor	June 1999	August 1999
Christina Rogue	Visiting Scholar	Supervisor	August 1996	August 1997
Prof. Jin Chen	Visiting Professor	Supervisor	January 1995	January 1996