

**K. Joel Berry, Ph.D., P.E.**  
**ASME Technical Fellow**

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**OVERVIEW**

High-impact Professor of Mechanical Engineering with a rich history of accomplishments, academic leadership, and an aggressive commitment to preparing students and faculty for global social-economic changes impacting 21<sup>st</sup> Century educational objectives.

**RESEARCH FOCUS**

- Fuel Cell Systems Integration Engineering and Product Development
- Fuel Cell Systems Hardware Controls and Software Development
- Computational Fluid Dynamics and MPD Thruster Development
- Catalytic Fuel Reforming, Modeling, and Systems Design
- High Temperature PEM Fuel Cell Stack Design and Systems Development
- Finite Elements and Engineering Mechanics

**COURSE INSTRUCTION**

- Fuel Cell Systems Integration Engineering and Laboratory
- Computational Heat and Mass Transfer
- Finite Element Analysis
- Advanced Engineering Mathematics
- Energy Systems Modeling and Simulation
- Heat Transfer
- Fluid Mechanics
- Thermodynamics
- Statics

**APPLIED RESEARCH & DEVELOPMENT**

- **2015/16**
  - System designer for development of hybrid fuel cell VW Bug, University of California-Irvine. Responsible for CAN Bus software development, data acquisition system design and software development for power flow control of fuel cells, battery energy storage, and power electronics.

**QUALIFICATIONS**

Department Head (1994-2012): Mechanical Engineering, Kettering University. Have extensive academic management experience with a large academic unit of over 1100 mechanical engineering students and 36 faculty and support staff including research post-docs with the following highlights:

- Experience includes academic resource development and fund raising resulting in over \$5 million invested in mechanical engineering laboratories and facilities over the last 5-years.

- Key in establishing international engineering exchange programs with universities abroad requiring extensive traveling to Germany, France, Switzerland, and the Czech Republic.
- Very knowledgeable regarding ABET and North Central accreditation assessment criteria. Department received 16 years of full accreditation over four visits.
- Extremely successful in developing strategic plans, establishing key partnerships, acquiring appropriate support and resources, and pursuing execution leading to a desired conclusion.
- Developed, marketed, and sold \$1 million advanced one year academic program to SAMSUNG (KOREA) in Automotive Engineering.
- Conceived vision and raised \$3 million for Kettering University research Center of Fuel Cell Systems Integration.
- Key team member for the overall design and construction over-sight for fuel cell research Center.
- Key team member for the overall design and construction for \$35 million Mott Science and Engineering Building.
- Conceived vision and raised \$2.7 million for Engineering and Science Incubator Building.
- Conceived and implemented innovative pre-college Alternative Energy program for 8'th-11'th grade students.
- Conceived and implemented state-wide high school science and math teacher Alternative Energy training program considered for adoption by Oakland University and Eastern University for secondary education students.
- Conceived and implemented minor in Fuel Cells and Hybrid Technology.
- Lead Kettering University Principal Instigator for Department of Labor, WIRED (Workforce, Innovation & Regional Economic Development) - \$1.53 Million, February 2006. (\$15 million proposal jointly with University of Michigan, Michigan State University, Mott Community College, Saginaw Valley University, Mott Foundation, and industry)
- Received Kettering University's first DOE research appropriation award (\$500,000) for fuel cell membrane development--2006.
- Received Kettering University 2nd DOE Research appropriation award (\$1.25 Million) for 21st Century Fuels, Energy, and Materials--2010.

## EDUCATION

<u>Carnegie Mellon University, Pgh., PA.</u>	1986
Major: Ph.D., Mechanical Engineering	
Minor: Artificial Intelligence	
<u>Michigan State University, East Lansing, MI.</u>	1981
Major: M.S., Engineering Mechanics	
Minor: Thermal Fluid Systems and Finite Elements	
<u>General Motors Institute, Flint, MI.</u>	1979
Major: B.S., Mechanical Engineering	
Minor: Automotive Engineering	

## WORK EXPERIENCE

### Kettering University, Flint, Michigan

Professor of Mechanical Engineering 2012-Present

Head, Department of Mechanical Engineering 1994-2012

Responsible for high-impact leadership for a major academic department requiring effective faculty leadership, management of budgets, development of department resources including fund raising and laboratory and curriculum development, curriculum and program assessment, and development of a common shared vision among department constituents.

During this tenure, Mechanical Engineering was the largest Kettering University academic department with over 1100 students, 32 faculty members, 6 technical support staff, and post-doc research staff.

Director, Kettering Center for Fuel Cell Systems Integration 2003

As Director, responsible for overall research programs, resource development, and Center marketing. Conceived vision, and implemented plan to acquire initial \$5.7 million funding to establish Center which also includes commercialization incubator building. ([fuelcells.kettering.edu](http://fuelcells.kettering.edu), [kufuelcellcenter.info](mailto:kufuelcellcenter.info), [kurainmaker.com](http://kurainmaker.com))

### Promotions

Professor, Department of Mechanical Engineering 1994  
Associate Professor, Department of Mechanical Engineering 1990  
Assistant Professor, Department of Mechanical Engineering 1987

### Westinghouse Electric, Pgh., PA.

Project Engineer, Westinghouse Nuclear Center, Monroeville, PA, 1986  
Project engineer involved in a five-year plan to develop a series Expert Systems to aid in the **PLEX** (Plant Life Extension) research efforts.

Research Engineer, Westinghouse Research Laboratory, Pgh., PA. 1981-1986

Research engineer responsible for Finite Element Analysis (FEA) of engineering systems. Major projects include 3D thermal/structural/modal analysis of nuclear waste containment vessels, analysis of generator dove tails, analysis of DC motor commutator bars, analysis of steam turbine blades and the analysis of engine box beam bay compartments. Positions also required the development of a Finite Element post-processor for Creep damage evaluation and the development of software modules for the computer aided design of steam turbine blades.

Responsibilities also included finite element software update and maintenance. Acquired extensive experience on UNIX operating systems for CRAY, CDC and PRIME computers. Obtained an in-depth knowledge of FIGURES-the Westinghouse pre/post processor and WECAN-the Westinghouse FEA code.

Detroit Diesel Allison - General Motors Corporation, Detroit, MI.

1973-1981

Progressed from engineering co-op student to graduate research engineer in advanced engine design and development. While in advanced engine design, developed finite difference models to study turbocharger exhaust flow patterns. Also executed computer programs to model overall engine performance and fuel injector simulation studies. Provided studies to evaluate a new engine brake feature for inclusion in cycle simulation model. Investigated various heat transfer relationships for 2-cycle and 4-cycle diesel engines.

### **PROFESSIONAL ADMINISTRATIVE DEVELOPMENT**

Attended an intensive 2-week Management Development Program (MDP) for academic administrators sponsored by the Harvard University Institutes for Higher Education, June 2000.

### **TECHNOLOGY COMMERCIALIZATION**

Global Energy Innovations, Inc. (GEI)

2007

President, Founder, and CTO. High-tech Company formed as first Kettering University spin-off to commercialize patented technology related to high-temperature fuel cells and power electronics. Raised over \$3.5 million in seed capital for prototype development and marketing. ([www.geiglobal.com](http://www.geiglobal.com))

Geometrics, Inc.

1986

President, Founder, and CTO. High-tech Company formed to market advanced modeling and analysis software for finite elements and computational fluid dynamics.

### **SCIENTIFIC AND PROFESSIONAL SOCIETY MEMBERSHIPS**

- American Society of Mechanical Engineers
- FELLOW, American Society of Mechanical Engineers
- Sigma XI

### **HONORS, AWARDS, AND CERTIFICATIONS**

- ASME TECHNICAL FELLOW
- Michigan Professional Engineer (35442)
- GMI Outstanding Professor of the Year, 1994
- Charles L. Tutt Award for Innovative Teaching, 1993
- Automation Alley Emerging Leader Award, 2007

### **PATENTS**

- K. J. Berry, Josh Anzick (2007), Configurable Input High-Power DC-DC Converter, US 7843185.
- Fraser C. Henderson, K.J. Berry (2005) Computer Simulation Model for Determining Damage to the Human Central Nervous System, US 6980922.
- Susanta K. Das, J. Kavathe, P. Kolavennu and K. J. Berry, (2008) Novel design of fuel cell bipolar plate for optimal uniform delivery of reactant gases and efficient water removal, US 2010/0297535 A1.
- Susanta K. Das, J. Kavathe and K. J. Berry, (2014) Assembly of Bifurcation and Trifurcation Bipolar Plate To design Fuel Cell Stack, US 8623565.

## FUND RAISING

### STATE

- NextEnergy, Collaboration Agreement, \$117,020, May 2007.
- Michigan Economic Development Corporation, Advanced Technology & Alternative Energy Building, \$528,000, September 2005.
- NextEnergy, Fuel Cell Engineering Curriculum Development, \$100,000, May 2003.
- Michigan Economic Development Corporation, Center for Fuel Cell Systems & Powertrain Integration - \$500,000, September 2003.

### FEDERAL

- National Science Foundation – 2011/13, Great Lakes Fuel Cell Partnership, \$115,632 Sub-Award from Stark State College.
- Energy and Water - 2010/11 Appropriations, 21st Century Fuels, Energy, and Materials, \$1.25 Million, January 2010.
- Department of Labor, WIRED (Workforce, Innovation & Regional Economic Development) - \$1.53 Million, February 2006. (\$15 million proposal jointly with University of Michigan, Michigan State University, Mott Community College, Saginaw Valley University, Mott Foundation, and industry)
- Department of Commerce, Engineering and Science Incubator Building - \$2.7 Million, January 2006.
- Energy and Water – 2005/06 Appropriations, Fuel Cell Commercialization Incubator, \$500,000, November 2005.
- Department of Commerce, Center for Fuel Cell Systems & Powertrain Systems - \$1.8 Million, January 2004.
- U.S. Army National Automotive Center, Fuel Cell Engineering Curriculum Development & Fuel Cell Vehicle Development - \$100,000, April 2003.

### INDUSTRY

- DTE, Sustainable Energy Education Program, \$60,000, 2010.
- General Motors Corporation, Fuel Cell Test Stand - \$48,000, November 2005.
- General Motors Corporation, Fuel Cell Test Stand - \$48,000, November 2004.
- EATON Corporation, Fuel Cell Balance-of-Plant Research - \$40,000, December 2004.
- DELPHI Corporation, Center for Fuel Cell Systems & Powertrain Integration - \$100,000, March 2004.
- General Motors Corporation, Fuel Cell Test Stand - \$48,000, November 2003.
- Ford Motor Company, Center for Fuel Cell Systems & Powertrain Integration - \$100,000, November 2002.
- General Hydrogen, Center for Fuel Cell Systems & Powertrain Integration - \$13,000, September 2002.
- TRW Vehicle Durability Laboratory, 2011, \$400,000 with matching \$2.5 million grant from Michigan Economic Development Corporation (MEDC) 21st Century grant to Kettering and Michigan State University (MSU).

### PRIVATE

- Herrick Foundation, Fuel Cell Research, \$100,000, October 2002.

## WORKS-IN-PROGRESS

**Real-World FEA for Engineers and Scientist**, K. Joel Berry; A practical text written for engineers, scientist, and graduate students performing applied design and analysis research across multi-disciplinary domains. The focus is understanding the Finite Element Analysis method appropriately to solve engineering computing problems for cross-cutting phenomena. Software and solution modules are available through a website download.

## PUBLICATIONS

### 2020

Susanta K. Das, Abhijit Sarkar, and K. Joel Berry, Experimental Performance Evaluation of a Rechargeable Lithium-Air Battery with Hyper-Branched Polymer Electrolyte, *Frontiers in Energy Research Journal*, May 2020.

### 2018

Susanta K. Das, and K. Joel Berry, Experimental Performance Evaluation of a Rechargeable Lithium-Air Battery with Hyper-Branched Polymer Electrolyte, 16<sup>th</sup> International Conference on Power and Energy 2018, June 24-28, 2018, Lake Buena Vista, Florida.

### 2017

K. Joel Berry, A. Traore, P. Gangadhar, A. Krishna, A. Taylor, Power Systems Infrastructure of Hybrid Electric Fuel Cell Competition Go Kart, SAE 2017 International Powertrains, Fuels & Lubricants, Beijing, CHINA, October 2017.

### 2016

Susanta K. Das, and K. Joel Berry, Synthesis and Performance Evaluation of an S-POSS Based PBI Electrolyte for High Temperature PEM Fuel Cell Applications, Proceedings of the 14th International Conference on Power and Energy PowerEnergy2016, June 26-30, 2016, Charlotte, North Carolina, USA.

### 2014

Susanta K. Das, and K. Joel Berry, Experimental Performance Evaluation of a Catalytic Flat Plate Fuel Reformer for Fuel Cell Grade Reformate, ASME 2014 12th Fuel Cell Science, Engineering and Technology Conference, #6399, Boston, MA, June 2014.

Susanta K. Das, Claire Hartman-Thompson, Robert Bubeck, K. Joel Berry, et. al, Performance Evaluation of a Polymer Electrolyte Membrane Material for High Temperature PEM Fuel Cell Applications, ASME 2014 12th Fuel Cell Science, Engineering and Technology Conference, #6677, Boston, MA, June 2014.

Susanta K. Das, Salma Rahman, Jianfang Chai, et.al.; and K. Joel Berry, Experimental Performance Evaluation of a Rechargeable Lithium-Air Battery Operating at Room

Temperature, ASME International Mechanical Engineering Congress 2014, #39004, Montreal, Quebec, Canada, November 2014.

### **2013**

Susanta K. Das, and K. Joel Berry, Performance Evaluation of a Catalytic Flat Plate Fuel Reformer for Hydrogen-rich Reformate, ASME 2013 11th Fuel Cell Science, Engineering and Technology Conference, #18020, Minneapolis, MN, July 2013.

### **2010**

Susanta K. Das, K. Joel Berry, J. Hedrick, Ali, R. Zand, and L. Beholz, Synthesis and Performance Evaluation of a Polymer Mesh Supported Proton Exchange Membrane for Fuel Cell Applications, Journal of Membrane Science 350 (2010) 417-426.

Kranthi K. Gadde, P. Kolavennu, S. Das, and K. Joel Berry, CFD Modeling of a Catalytic Flat Plate Fuel Reformer for Hydrogen Generation, 8'th International Conference on Fuel Science, Engineering and Technology, June 14-16, 2010, Brooklyn, NY.

Susanta K. Das, E. Ubong, A. Resis, and K. Joel Berry, Experimental Performance Comparison of a Single Cell and Multi-Cell Stack of High Temperature PEM Fuel Cell Prototype, 8'th International Conference on Fuel Science, Engineering and Technology, June 14-16, 2010, Brooklyn, NY.

Henderson FC, Wilson WA , Berry, K. J., Vaccaro A, Benzel E: Deformative stress associated with an Abnormal Clivo-axial angle: a finite element analysis: Surgical Neurology International, July 2010.

Ming Q., Irving P., Berry K. J., Reis, A., Diesel Reformer – A key Component For a Truck Fuel Cell APU, Fuel Cell Bulletin, 2010.

### **2009**

Susanta K. Das, Antonio Reis and K. Joel Berry, Performance of a 1kW (16-Cell) High Temperature PEM Fuel Cell Stack Prototype: An Experimental Evaluation, *ASME International Mechanical Engineering Congress and Exposition 2009*, Lake Buena Vista, Florida, November 2009.

Panini Kolavennu, Susanta K. Das and, K. Joel Berry, Experimental Evaluation of a Control Strategy for Real-Time Optimization of Low Temperature PEM Fuel Cell Stack, *ASME International Mechanical Engineering Congress and Exposition 2009*, Lake Buena Vista, Florida, November 2009.

Susanta K. Das, Etim U. Ubong, Antonio Reis and K. J. Berry, Experimental Performance Evaluation of a High Temperature PEM Fuel Cell at Different Parametric Conditions, *Hydrogen and Fuel Cell Confeence 2009*, Vancouver, British Columbia, Canada, June 2009.

Panini Kolavennu, Susanta K. Das, Quamrul Mazumder and K. Joel Berry, Hydrogen Generation On-Site by Steam Reforming of Hydrocarbons for High Temperature PEM

Fuel Cell, *Hydrogen and Fuel Cell Conference 2009*, Vancouver, British Columbia, Canada, June 2009.

Susanta K. Das, Antonio Reis and K. Joel Berry, Experimental Evaluation of CO poisoning of a 5-Cell Stack High Temperature PEM Fuel Cell Prototype, *ASME 7<sup>th</sup> International Fuel Cell Conference 2009*, Newport Beach, California, USA, June 2009.

Susanta K. Das, Antonio Reis and K. Joel Berry, Experimental Performance Evaluation Of A 5-Cell Stack High Temperature PEM Fuel Cell Prototype, *The 17<sup>th</sup> International Conference on Solid State Ionics*, Toronto, Canada, July 2009.

Susanta K. Das, Panini Kolavennu, J. Hedrick, Ali R. Zand, L. Beholzand K. J. Berry, Synthesis and Characterization of a Composite Membrane for Polymer Electrolyte Fuel Cell, *ASME Journal of Fuel Cell Science and Technology* vol. 6, p. 011021-1 ~ 011021-6, 2009.

### **2008**

Susanta K. Das and K. J. Berry, CFD Analysis of a Two-Phase Flow Model for a Low Temperature Proton Exchange Membrane Fuel Cell, *ASME 6<sup>th</sup> International Fuel Cell Science, Engineering & Technology Conference*, to be held on June 16-18, Denver, Colorado, USA, Paper No. 65212, Section: Cell, Stack and System Modeling, P. 1-10., 2008.

### **2007**

Susanta K. Das, and K. J. Berry, Two-cell theory to measure resistance of proton exchange membrane based on proton flow: Theory development and experimental validation, *Journal of Power Sources*, 173, p. 909-916, 2007.

Susanta K. Das and K. Joel Berry, Proper Flow Channel Design for Uniform Distribution of Gas in PEM Fuel Cell Stacks, *The Second European International Fuel Cell Technology and Applications Conference 2007*, held on December 11-14, Rome, Italy, p. 197-198., 2007.

Panini Kolavennu, Susanta K. Das and K. Joel Berry, Control Oriented Model with Improved Membrane Hydration of PEM Fuel Cell Stacks, *The Second European International Fuel Cell Technology and Applications Conference*, held on December 11-14, Rome, Italy, p. 199-200, 2007.

Susanta K. Das, Beholz, L., Hedrick, J., Ali R. Zand and K. Joel Berry, Advanced Proton Exchange Membrane for Fuel Cell Applications, *Proc. Fuel Cell Seminar*, October 15-19, San Antonio, Texas, 2007.

Susanta K. Das, Panini Kolavennu, J. Hedrick, K. Joel Berry and Etim U. Ubong, Improved Performance of Proton Exchange Membrane Materials for Fuel Cell Applications, *5<sup>th</sup> ASME International Fuel Cell Conference*, held on June 18-20, New York, 2007.



F Henderson, K. J. Berry, “*Stress Measurement in TBI with the Spinal Cord Stress Injury Analysis*”: Dept of Defense Product Line Review: Fort Dietrich, MD, Sept 2007.

### **2006**

Sanja Slijivar, T. Cameron, K. J. Berry, and Brenda Lemke, Hybrid Fuel Cell Energy Systems Model Simulation and Experimental Validation, *Fuel Cell Seminar*, November 2006.

Brenda Lemke, K. Joel Berry, and Sanja Slijiva, Development of a Hybrid Energy Systems Test Bench Incorporating Fuel cells, Ultra capacitors, and Batteries, *Fuel Cell Seminar*, November 2006.

### **2005**

M. El-Sayed, M.Zgorzelski, K. Joel Berry, P.H. Zang, Lean Thinking and Quality Control Strategies for improving Engineering Educational Processes, *ASEE Engineering Education Conference*, Portland, June 2005.

Ryan Van Tiem, Craig Hoff, K. Joel Berry, Modeling of a Fuel Cell Hybrid Vehicle, *ASME Third International Conference of Fuel Cell Science*, Engineering and Technology, Ypsilanti, MI., May 2005.

Henderson, F.C.; Geddes, J.F.; Vaccaro, A.R.; Woodard, E.; Berry, K. J.; Benzel, E.C., “*Stretch- Associated Injury in Cervical Spondylotic Myelopathy: New Concept and Review*” *Neurosurgery* 56, pp 1101-1113, May 2005.

### **2004**

K. Nasr, Jason Pennington, K. Joel Berry, Integrating Practice into Undergraduate Engineering Education Through a Senior Thesis Experience, 2004 National Conference on “Integrating Practice into Engineering Education”, Dearborn Michigan, October 2004.

K. Nasr, K. Joel Berry, Project-Based Integration of Fuel Cell Applications into Engineering Thermodynamics, *National Conference on “Integrating Practice into Engineering Education”*, Dearborn Michigan, October 2004.

Josh Anzicek, K. Joel Berry, et. al., *Fuel Cell Hybrid Vehicle Development at Kettering University*, EMCWA, Indianapolis, Indiana, September 2004.

### **2003**

Etim U. Ubong and K. Joel Berry, Mass Transportation Regulations Governing Portable Fuel Cell Devices and Systems, *ASME International Conference on Fuel Cell Science, Engineering and Technology*, Rochester, NY, April 2003.

M. El-Sayed, T. Sun, K. Joel Berry, Shape Optimization With Computational Fluid Dynamics Simulation, OPTI 2003, Dearborn, MI., 2003. (Advances in Engineering Software, Volume 36, Issue 9 September 2005, pg. 607-613)

### **2002**

Subrata Roy, Karim J. Nasr, and K. Joel Berry, Development of a Project-Based and Design-Driven Thermodynamics Course, *Proceedings of the 2002 ASEE Conf.*, Montreal, Canada.

K. Nasr, G. Taylor, K. Joel Berry, W. Webster, R. Echempati, and R. Chandran, "Global Engineering Education Through Study-Abroad Experiences: Assessment and Lessons Learned", *ASEE/SEFI International Colloquium*, Berlin, Germany, Oct. 1-4, 2002.

### **2001**

K. Joel Berry and S. Roy, Least Square Finite Element Based MPD Algorithm for Practical Magneto-plasma Applications, *39<sup>th</sup> AIAA Aerospace Sciences Meeting*, AIAA-2001-0200, Reno, January 2001.

K. Joel Berry and S. Roy, Development of a Loosely Coupled Galerkin and Least Squares Finite Element Algorithm for Magnetoplasma dynamic Applications, *ASME Fluids Engineering Division Summer Meeting*, New Orleans, May 2001.

### **2000**

R. Echempati, W. Riffe, and K. Joel Berry, Virtual and Real Forming of Sheet Metal – A Classroom Scenario, *ASEE Annual Conference*, St. Louis, MO., 2000.

B. Alzahabi, and K. Joel Berry, Curriculum Attributes: A Road Map for Educational Outcomes Implementation and Assessment, *ASEE 2000 Spring Conference*, East Lansing Michigan, 2000.

K. Joel Berry, M. El-Sayed, B. Alzahabi, & B. Ross, "SIMULATION-BASED EDUCATION: DEVELOPING TOMORROW'S AUTOMOTIVE ENGINEER," *MSC.Software 2<sup>nd</sup> World Wide Automotive Simulation Conference*, Dearborn Michigan, October, 2000.

### **1999**

T. R. Chandrupatla and K. Joel Berry, Frontal Program For PC Based Solution of Unsymmetric Matrices Using Buffered Pivot Search, *Advances in Engineering Software*, Vol. 27, 1996.

J. Mariappan and K. Joel Berry, Mechatronics at GMI, *Proceedings of Mechatronics*, San Francisco, pp. 78-83, 1996.

J. Mariappan, T. Cameron and K. Joel Berry, Multidisciplinary Undergraduate Mechatronics Experiments at GMI, *1996 Frontiers in Engineering Conferences*, Salt Lake City, November, 1996.

R. Lundstrom, J. Mariappan and K. Joel Berry, Improving Teaching Quality Through Total Quality Management, *ASEE Annual Conference*, Washington, DC, 1996.

### **1993**

K. Joel Berry and T. M. Cameron, *Finite Element Analysis of Magnetohydrodynamic Pump Flow*, International Computers in Engineering Conference & Exposition, San Diego, CA., 1993.

**1992**

W. Webster and K. Joel Berry, A Novel Approach to Computational Fluid Dynamics, *Thirteenth Symposium on Turbulence*, University of Missouri - Rolla, 1992.

**1991**

K. Joel Berry and J. Heist, Thermal Characteristics of Kickless Welding Cables Using Finite Element Analysis, *International Computers in Engineering Conference & Exposition, Santa Clara, CA.*, 1991.

K. Joel Berry and Paul Zang, The Application of CHAOS For Exhaust Flow Analysis, *ASME Winter Annual Meeting, Atlanta GA.*, 1991.

Paul Zang and K. Joel Berry, A Computer Algebra Approach to Fundamental Heat Transfer Problems, *ASME Winter Annual Meeting, Atlanta GA.*, 1991.

**1990**

K. Joel Berry, Parametric Finite Element Contour Mapping, *Computers & Structures*, Vol. 35, No. 3, 1990.

K. Joel Berry, An Efficient C Based Wave Front Solver for PC Finite Element Applications, *Journal of Mechanical Engineering Systems*, Vol. 1, No. 3, 1990.

**1989**

K. Joel Berry, Parametric 3-D Finite Element Mesh Generation, *Computers & Structures*, Vol. 33, No. 4, 1989.

**1988**

K. J. Joel Berry, Theoretical Assessment of Dual Effect Solar-Driven Absorption Chillers, *ASME Winter Annual Meeting, Chicago*, 1988