



Sheri D. Sheppard

Richard W. Weiland Professor in the School of Engineering, Emerita
Mechanical Engineering

Bio

BIO

Sheri Sheppard teaches both undergraduate and graduate design-related classes, and conducts research on fracture mechanics and applied finite element analysis, and on how people become engineers. From 1999-2008 she served as a Senior Scholar at the Carnegie Foundation for the Advancement of Teaching, leading the Foundation's engineering study. In addition to publishing technical papers, reports, and textbooks, she has led or co-led several large, multi-institutional projects to build new educational research programs and related resources, such as the Center for the Advancement of Engineering Education (CAEE), The National Center for Engineering Pathways to Innovation (Epicenter), and a program on summer research experiences for high school teachers. Her industry experience includes engineering positions at Detroit's "Big Three" — Ford Motor Company, General Motors Corporation, and Chrysler Corporation. She earned her bachelors degree from the University of Wisconsin, and her PhD at the University of Michigan. At Stanford she has served a chair of the faculty senate, as associate vice provost for graduate education, and is the longtime faculty founder of and adviser to the graduate student group MEwomen. Her work has been recognized with numerous honors and awards, including the Walter J. Gores Award, Stanford University's highest award for excellence in teaching and the Chester F. Carlson and Ralph Coats Roe Awards of the American Society for Engineering Education in recognition of distinguished accomplishment in engineering education, and for outstanding teaching and notable contributions to the mechanical engineering profession.

ACADEMIC APPOINTMENTS

- Emeritus Faculty, Acad Council, Mechanical Engineering
- Member, Bio-X

HONORS AND AWARDS

- U.S. Professor of the Year-Doctorial and Research Universities, CASE and the Carnegie Foundation for the Advancement of Teaching (2014)
- Ralph Coats Roe Award, American Society for Engineering Education (2012)
- The Walter J. Gores Award, Stanford University (2010)
- Chester F. Carlson Award, American Society for Engineering Education (2004)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Advisory Board, Journal of Engineering Education (2014 - present)

PROFESSIONAL EDUCATION

- PhD, Michigan , Mechanical Engineering (1985)
- MS, Univ. of Michigan-Dearborn , Mechanical Engineering (1980)
- BS, Univ. of Wisconsin-Madison , Engineering Mechanics (1978)

LINKS

- Designing Education Lab (DEL): <http://del.stanford.edu>
- The MEWomen's Group Website: <http://stanfordmewomen.weebly.com/>

Teaching

COURSES

2025-26

- Science and Engineering Course Design: CTL 312, ENGR 312 (Win)

2024-25

- Science and Engineering Course Design: CTL 312, ENGR 312 (Win)

2023-24

- Science and Engineering Course Design: CTL 312, ENGR 312 (Win)
- Women's Perspectives: ENGR 311A (Win)

2022-23

- Discovering German Culture Through Engineered Products: OSPBER 33B (Spr)
- Intro to Solid Mechanics: ENGR 14 (Aut)
- Women's Perspectives: ENGR 311A (Win)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Alessandra Napoli, L'Nard Tufts

Doctoral Dissertation Advisor (AC)

Aya Mouallem

Doctoral (Program)

Fredrik Samdal Solberg

Publications

PUBLICATIONS

- **IncluSim: An Accessible Educational Electronic Circuit Simulator for Blind and Low-Vision Learners**
Mouallem, A., Pons, M., Malik, A., Rogando, T., Kim, G., Kulkarni, T., Chong, C., Fan, D., Patel, S., Shluzas, L., Chen, H. L., Sheppard, S. D., ACM ASSOC COMPUTING MACHINERY.2025
- **Redefining Engineering Work: How Recent Engineering Graduates Classify Their Roles, Occupations, and Competencies** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Brunhaver, S. R., Carrico, C., Matusovich, H. M., Kajfez, R. L., Sajadi, S., Sheppard, S. D.
2025; 41 (5): 1160-1173
- **"BARBED-WIRE BOUNDARIES": HIDDEN CURRICULUM, FIRST-GENERATION AND LOW-INCOME ENGINEERING STUDENTS AND INTERNSHIP ACQUISITION** *JOURNAL OF WOMEN AND MINORITIES IN SCIENCE AND ENGINEERING*
Yang, J. A., Towles, J. D., Sheppard, S. D., Atwood, S. A.
2024; 30 (5)
- **Strengthening the Link between Latine Communities and Engineering: Multicompetent Learners' Expansive Design Perspectives** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*

- Perez, G., Sheppard, S.
2024; 40 (6): 1539-1551
- **Early-Career Assignments and Workforce Inequality in Engineering** *ENGINEERING STUDIES*
Gilmartin, S. K., Brunhaver, S. R., Jordan-Bloch, S., Gall Rosa, G., Simard, C., Sheppard, S. D.
2023
 - **Moments that Matter: Early-Career Experiences of Diverse Engineers on Different Career Pathways** *ENGINEERING STUDIES*
van der Marel, F., Bjorklund, T., Sheppard, S.
2023
 - **Objects of Collaboration: Roles and Sequences of Objects in Spanning Knowledge Group Boundaries in Design** *JOURNAL OF MECHANICAL DESIGN*
Brubaker, E. R., Sheppard, S. D., Hinds, P. J., Yang, M. C.
2023; 145 (3)
 - **The dynamics of innovation efforts in the early career** *CREATIVITY AND INNOVATION MANAGEMENT*
Bjorklund, T. A., Gilmartin, S. K., Sheppard, S. D.
2022
 - **The confidence gap predicts the gender pay gap among STEM graduates.** *Proceedings of the National Academy of Sciences of the United States of America*
Sterling, A. D., Thompson, M. E., Wang, S., Kusimo, A., Gilmartin, S., Sheppard, S.
2020
 - **MANUFACTURING VULNERABILITY: HOW RESOURCE SCARCITY HINDERS TEAM COORDINATION DURING MANUFACTURING IN NIGERIAN FACTORIES**
Kusimo, A. C., Sheppard, S., ASME
AMER SOC MECHANICAL ENGINEERS.2020
 - **Connecting People and Ideas: Making Sense of a Research Lab through Creating a Shared Frame** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Sheppard, S. D., Bjorklund, T., Chen, H. L., Gilmartin, S. K., Atwood, S., Brubaker, E., Chew, K. J., Christov, P., Cuan, C., Danner, P., Karanian, B., Kusimo, A., Luehmann, et al
2020; 36 (2): 796–813
 - **Entrepreneurial intent of engineering and business undergraduate students** *JOURNAL OF ENGINEERING EDUCATION*
Gilmartin, S. K., Thompson, M. E., Morton, E., Jin, Q., Chen, H. L., Colby, A., Sheppard, S. D.
2019; 108 (3): 316–36
 - **Internships and engineering: beliefs and behaviors of academics** *EDUCATION AND TRAINING*
Matusovich, H., Carrico, C., Harris, A., Sheppard, S., Brunhaver, S., Streveler, R., McGlothlin Lester, M. B.
2019; 61 (6): 650–65
 - **Exploring the Relationships between Engineering Internships and Innovation Interests and Likelihood of Accepting a Job Offer**
Trego, M., Chen, H. L., Prasad, K., Sheppard, S. D., IEEE
IEEE.2019
 - **Expanding Engineering Limits-A Concept for Socially Responsible Education of Engineers** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Steuer-Dankert, L., Gilmartin, S. K., Muller, C. B., Dungs, C., Sheppard, S., Leicht-Scholten, C.
2019; 35 (2): 658–73
 - **Integrating a Digital Textbook into a Statics Course**
Anagnos, T., Sheppard, S. D., Billington, S. L., IEEE
IEEE.2018
 - **Meet the Engineering Education Pioneers - Panel & Roundtable**
Brunhaver, S., Carberry, A., London, J., Yasuhara, K., Allendoerfer, C., Atman, C., Case, J., Finelli, C., McKenna, A., Newstetter, W., Sheppard, S., Smith, K., Turns, et al
IEEE.2018

- **Reflective Design Practice: A Novel Assessment of the Impact of Design-based Courses on Students**
Royalty, A., Chen, H., Sheppard, S., IEEE
IEEE.2018
- **A Mixed Methods Approach to Understanding How Colleges, Universities, and Employers Prepare and Support Undergraduates in Engineering Internships**
Chen, H. L., Powers, K., Prasad, K., Anderson, M., Royalty, A., Gilmartin, S. K., Sheppard, S. D., IEEE
IEEE.2018
- **A Closer Look at Campus-Community Partnerships in Engineering Education**
Brubaker, E., Trego, M., Taha, K., Sheppard, S. D., IEEE
IEEE.2018
- **Measuring Curricular Impact using an ABET-based Engineering Self-Efficacy Scale**
Schar, M., Brackin, P., Chew, K. J., Sheppard, S., IEEE
IEEE.2018
- **Panel: Student Self-Perceptions Regarding Their First Position After Graduation: What Are They and How Do We Help?**
Carrico, C., Matusovich, H., Brunhaver, S., Rhee, J., Sheppard, S., Chen, H. L., IEEE
IEEE.2018
- **ABET Criterion 3 as a Measure of Engineering Self-Efficacy: Comparing the New Criteria (3.1-7) to the Previous Criteria (3a-k)**
Schar, M., Brackin, P., Chew, K. J., Sheppard, S., IEEE
IEEE.2018
- **Exploring Alignment Between Engineering Students' Job Plans and Post-Graduation Outcomes**
Rude, L., Harris, A., Gilmartin, S., Sheppard, S., IEEE
IEEE.2018
- **Supporting Student Career Development of Undergraduate Engineering**
Rhee, J., Sheppard, S., Brunhaver, S., Carrico, C., Streveler, R., IEEE
IEEE.2017
- **Entrepreneurial Career Choice and Characteristics of Engineering and Business Students** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Jin, Q., Gilmartin, S. K., Chen, H. L., Johnson, S. K., Weiner, M. B., Lerner, R. M., Sheppard, S.
2016; 32 (2): 598-613
- **Investigating Entrepreneurship Program Models in Undergraduate Engineering Education** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Gilmartin, S. K., Shartrand, A., Chen, H. L., Estrada, C., Sheppard, S.
2016; 32 (5): 2048-2065
- **(Mis)Interpretations of Organizational Socialization: The Expectations and Experiences of Newcomers and Managers** *HUMAN RESOURCE DEVELOPMENT QUARTERLY*
Korte, R., Brunhaver, S., Sheppard, S.
2015; 26 (2): 185-208
- **Feedback from In-class Worksheets and Discussion Improves Performance on the Statics Concept Inventory** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Steele, K. M., Brunhaver, S. R., Sheppard, S. D.
2014; 30 (4): 992-999
- **What Does It Take to Become a Good Engineer? Identifying Cross-National Engineering Student Profiles According to Perceived Importance of Skills** *International Journal of Engineering Education*
Haase, S., Chen, H. L., Sheppard, S., Kolmos, A., Meljgaard, N.
2013; 29 (3): 698-713
- **What Does It Take to Become a Good Engineer? Identifying Cross-National Engineering Student Profiles According to Perceived Importance of Skills** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Haase, S., Chen, H. L., Sheppard, S., Kolmos, A., Meljgaard, N.

2013; 29 (3): 698-713

- **From freshmen engineering students to practicing professionals: Changes in beliefs about important skills over time.**
Winters, K., E., Matusovich, H., M., Brunhaver, S., Chen, H., L., Yasuhara, K., Sheppard, S.
2013
- **Research-Informed Practices for Inclusive Science, Technology, Engineering, and Math (STEM) Classrooms: Strategies for Educators to Close the Gender Gap**
Scutt, H. I., Gilmartin, S. K., Sheppard, S., Brunhaver, S.
2013
- **Not all the same: A look at early career engineers employed in different sub-occupations.**
Brunhaver, S., Gilmartin, S., K., Chen, H., L., Grau, M., M., Warner, M., Sheppard, S.
2013
- **Bending Moments to Business Models: Integrating an Entrepreneurship Case Study as Part of Core Mechanical Engineering Curriculum.**
Schar, M., F., Sheppard, S., Brunhaver, S., Cuson, M., Grau, M., M.
2013
- **Fostering an Enterprising Learning Ecology for Engineers** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Brunhaver, S. R., Lande, M., Sheppard, S. D., Carryer, J. E.
2012; 28 (2): 355-363
- **The Center for the Advancement of Engineering Education: A Review of Results and Resources** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Atman, C. J., Sheppard, S. D., Turns, J., Adams, R. S., Yasuhara, K., Lund, D.
2012; 28 (5): 1095-1108
- **Educating Engineering Entrepreneurs: A Multi-Institution Analysis** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Yasuhara, K., Lande, M., Chen, H. L., Sheppard, S. D., Atman, C. J.
2012; 28 (2): 436-447
- **Work in Progress - Engineering Pathways Study: The College-Career Transition** *41st Annual Frontiers in Education Conference (FIE)*
Sheppard, S., Matusovich, H. M., Atman, C., Streveler, R. A., Miller, R. L.
IEEE.2011
- **Outcomes of a Longitudinal Administration of the Persistence in Engineering Survey** *JOURNAL OF ENGINEERING EDUCATION*
Eris, O., Chachra, D., Chen, H. L., Sheppard, S., Ludlow, L., Rosca, C., Bailey, T., Toye, G.
2010; 99 (4): 371-395
- **Comparing the Undergraduate Experience of Engineers to All Other Majors: Significant Differences are Programmatic** *JOURNAL OF ENGINEERING EDUCATION*
Lichtenstein, G., McCormick, A. C., Sheppard, S. D., Puma, J.
2010; 99 (4): 305-317
- **Exploring the Engineering Student Experience: Findings from the Academic Pathways of People Learning Engineering Survey (APPLES) (CAEE-TR-10-01).** *Seattle, WA: Center for the Advancement for Engineering Education.*
Sheppard, S., Gilmartin, S., Chen, H., L., Donaldson, K., Lichtenstein, G., Eriş, Ö.
2010
- **Cost of an Engineering Major** *JEE Selects in Prism*
Lichtenstein, G., McCormick, A., Sheppard, S.
2010: 47
- **Students Improving: Identifying Factors That Seem to Matter.**
Otto, E., Chen, Helen, L., Sheppard, Sheri, D.
2010
- **Students Improving: Identifying Factors That Seem to Matter.**
Otto, E., Chen, Helen, L., Sheppard, Sheri, D.
2010

- **Enabling Engineering Student Success: The Final Report for the Center for the Advancement of Engineering Education.**
Atman, C., Sheppard, et al., S.
San Rafael CA: Morgan & Claypool Publishers.2010
- **ENABLING ENGINEERING STUDENT SUCCESS: The Final Report for the Center for the Advancement of Engineering Education CAEE-TR-10-02**
Atman, Cynthia, J., Sheppard, Sheri, D., Turns, J., Adams, Robin, S., Fleming, Lorraine, N., Stevens, R.
2010
- **An Overview of the Academic Pathways Study: Research Processes and Procedures** *Technical Report #CAEE-TR-09-03 Summer 2003 – Fall 2008*
Sheppard, S., Atman, C., Fleming, L., Miller, R., Smith, K., Stevens, R.
2010
- **An Engineering Major Does Not (Necessarily) an Engineer Make: Career Decision Making Among Undergraduate Engineering Majors** *JOURNAL OF ENGINEERING EDUCATION*
Lichtenstein, G., Loshbaugh, H. G., Claar, B., Chen, H. L., Jackson, K., Sheppard, S. D.
2009; 98 (3): 227-234
- **A General Methodology to Predict Fatigue Life in Lead-Free Solder Alloy Interconnects** *JOURNAL OF ELECTRONIC PACKAGING*
Pierce, D. M., Sheppard, S. D., Vianco, P. T.
2009; 131 (1)
- **Does Major Matter? A Look at what Motivates Engineering Students in Different Majors.**
Parikh, S., Chen, H., Donaldson, K., Sheppard, S.
2009
- **Educating Engineers: Designing for the Future of the Field**
Sheppard, S., Macatangay, K., Colby, A., Sullivan, W.
Jossey-Bass.2009
- **More to Say: Analyzing Open-ended Student Responses to the Academic Pathways of People Learning Engineering Survey.**
Lande, M., Parikh, S., Sheppard, S., Toye, G., Chen, H., Donaldson, K.
2009
- **Persistence, Engagement, and Migration in Engineering Programs** *JOURNAL OF ENGINEERING EDUCATION*
Ohland, M. W., Sheppard, S. D., Lichtenstein, G., Eris, O., Chachra, D., Layton, R. A.
2008; 97 (3): 259-278
- **On Becoming a 21st Century Engineer Foreword** *JOURNAL OF ENGINEERING EDUCATION*
Sheppard, S. D., Pellegrino, J. W., Olds, B. M.
2008; 97 (3): 231-234
- **Development of the damage state variable for a unified creep plasticity damage constitutive model of the 95.5Sn-3.9Ag-0.6Cu lead-free solder** *JOURNAL OF ELECTRONIC PACKAGING*
Pierce, D. M., Sheppard, S. D., Fossum, A. F., Vianco, P. T., Neilsen, M. K.
2008; 130 (1)
- **Validation of a general fatigue life prediction methodology for sn-ag-cu lead-free solder alloy interconnects** *JOURNAL OF ELECTRONIC PACKAGING*
Pierce, D. M., Sheppard, S. D., Vianco, P. T., Regent, J. A., Grazier, J. M.
2008; 130 (1)
- **Panel Session - Improving Learning and Retention in Introductory Statics** *IEEE Frontiers in Education Conference 2008*
Valle, C., Newstetter, W. C., Anderson, E. E., Litzinger, T. A., Sheppard, S. D.
IEEE.2008: 897–898
- **Moving From Pipeline Thinking to Understanding Pathways: Findings from the Academic Pathways Study of Engineering Undergraduates.**
Atman, C., Sheppard et al., S.
2008

- **Graduate School or Not: Engineering Students Consider Continuing Their Education in Co-terminal Programs.**
Jackson, K., Bailey, T., Sheppard, S., Chen, H.
2008
- **Socioeconomic Status and the Undergraduate Experience: Preliminary Findings from Four American Universities.**
Donaldson, K., Lichtenstein, G., Sheppard, Sheri, D.
2008
- **From PIE to APPLES: The Evolution of a Survey Instrument to Explore Engineering Student Pathways.**
Sheppard, S., Chen, H., L, Donaldson, et al., Krista
2008
- **From PIE to APPLES: The Evolution of a Survey Instrument to Explore Engineering Student Pathways.**
Chen, H., Donaldson, K., Eriş, O., Chachra, D., Lichtenstein, G., Sheppard, Sheri, D.
2008
- **Being and Becoming: Gender and Identity Formation of Engineering Students.**
Sheppard, S., Chachra, D., Kilgore, D., Loshbaugh, H., McCain, J., Chen, H.
2008
- **Analyzing Large, Free-response Qualitative Data Sets: A Novel Quantitative-qualitative Hybrid Approach.**
Sheppard, S., Light, J., Yasuhara, K.
2008
- **Academic Pathways Study: Processes and Realities.**
Clark, M., Sheppard et al., Sheri, D.
2008
- **Academic Pathways Study: Processes and Realities.**
Clark, M., Sheppard, Sheri, D., Atman, Cynthia, J., Fleming, L., Miller, R., Stevens, R.
2008
- **Conceptualizing Engagement: Contributions of Faculty to Student Engagement in Engineering.** *Journal of Engineering Education.*
Sheppard, Sheri, D., Chen et al., Helen, L.
2008
- **Scaling Up: Taking the Academic Pathways of People Learning Engineering Survey (APPLES) National** *IEEE Frontiers in Education Conference 2008*
Donaldson, K. M., Chen, H. L., Toye, G., Clark, M., Sheppard, S. D.
IEEE.2008: 1078–1083
- **Special Session - Linking Research Findings on Engineering Student Learning and Engineering Teaching: Implications for Engineering Education** *IEEE Frontiers in Education Conference 2008*
Atman, C., Fleming, L., Kilgore, D., Miller, R., Sheppard, S., Smith, K., Stevens, R., Streveler, R., Turns, J.
IEEE.2008: 784–785
- **When understanding follows 'experiencing': A report from research in the field** *6th Mudd Design Workshop*
Hariharan, B., Shariq, S., Sheppard, S.
TEMPUS PUBLICATIONS.2008: 434–42
- **Targeting undergraduate students for surveys: Lessons from the Academic Pathways of People Learning Engineering Survey (APPLES)** *37th Annual Frontiers in Education Conference*
Donaldson, K. M., Chen, H. L., Toye, G., Sheppard, S. D.
IEEE.2007: 1116–1122
- **Correlates of Persistence in Engineering Education: Preliminary Results from the Academic Pathways Study.**
Chachra, D., Eriş, O., Donaldson, K., Sheppard, S., Rosca, C., Ludlow, L.
2007
- **Targeting Undergraduate Students for Surveys: Lessons from the Academic Pathways of People Learning Engineering Survey (APPLES).**

- Donaldson, K., Chen, Helen, L., Toye, G., Sheppard, Sheri, D.
2007
- **Portraying the Academic Experiences of Students in Engineering: Students' Perceptions of Their Educational Experiences and Career Aspirations in Engineering.**
Sheppard, S., Korte, R., Smith, K.
2007
 - **Exploring the Not-So-Talked-About Undergraduate Pathway: Migrating Into Engineering.**
Donaldson, K., Sheppard, Sheri, D.
2007
 - **A Preliminary Analysis of Correlates of Engineering Persistence: Results from a Longitudinal Study.**
Eriş, Ö., Chachra, D., Chen, H., Rosca, C., Ludlow, L., Sheppard, Sheri, D.
2007
 - **Special session - Academic Pathways Study: Special interactive session on findings and implications for engineering education and practice 37th Annual Frontiers in Education Conference**
Atman, C., Kilgore, D., Eris, O., Fleming, L., Miller, R. L., Sheppard, S. D., Smith, K., Stevens, R., Streveler, R., Amos, D. M., Bailey, T., Chachra, D., Chen, et al
IEEE.2007: 933–935
 - **The National Engineering Education Research Colloquies JOURNAL OF ENGINEERING EDUCATION**
Adams, R., Aldridge, D., Atman, C., Barker, L., Besterfield-Sacre, M., Bjorklund, S., Bransford, J., Breslow, L., Brophy, S., Burrows, V., Busch-Vishniac, I., Carlson, M., Carlson, et al
2006; 95 (4): 257-258
 - **Customer value chain analysis RESEARCH IN ENGINEERING DESIGN**
Donaldson, K. M., Ishii, K., Sheppard, S. D.
2006; 16 (4): 174-183
 - **What is engineering practice? 5th Mudd Design Workshop**
Sheppard, S., Colby, A., Macatangay, K., Sullivan, W.
TEMPUS PUBLICATIONS.2006: 429–38
 - **Work in progress: Is engineering for me? A qualitative case study of first-year students 36th Annual Frontiers in Education (FIE 2006)**
Bailey, T. L., Sheppard, S. D.
IEEE.2006: 1537–1538
 - **Pedagogies of engagement: Classroom-based practices JOURNAL OF ENGINEERING EDUCATION**
Smith, K. A., Sheppard, S. D., Johnson, D. W., Johnson, R. T.
2005; 94 (1): 87-101
 - **Development of the Persistence in Engineering (PIE) Survey Instrument.**
Sheppard, S., Eriş, Ö., Chen, H., Bailey, T., Engerman, K., Loshbaugh, H.
2005
 - **A new Journal for a field in transition JOURNAL OF ENGINEERING EDUCATION**
Felder, R. M., Sheppard, S. D., Smith, K. A.
2005; 94 (1): 7-10
 - **Relationships between engineering student and faculty demographics and stakeholders working to affect change Frontiers in Education Conference**
Johnson, M. J., Sheppard, S. D.
AMER SOC ENGINEERING EDUCATION.2004: 139–51
 - **On designing engineering education: Lessons learned at Mudd Design Workshop IV 4th Mudd Design Workshop**
Dym, C. L., Rossmann, J. S., Sheppard, S. D.
TEMPUS PUBLICATIONS.2004: 470–74
 - **Studying the Engineering Experience: Design of a Longitudinal Study.**
-

Sheppard, S., Atman, Cynthia, J., Stevens, R., Fleming, L., Streveler, R., Adams, Robin, S.
2004

- **Taking stock: An analysis of the publishing record as represented by the Journal of Engineering Education** *JOURNAL OF ENGINEERING EDUCATION*
Whitin, K., Sheppard, S.
2004; 93 (1): 5-12
- **Stress intensity factors in spot welds** *ENGINEERING FRACTURE MECHANICS*
Pan, N., Sheppard, S. D.
2003; 70 (5): 671-684
- **E-pals to enhance mechanics learning** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Donaldson, K., Sheppard, S.
2003; 19 (6): 836-846
- **Spot welds fatigue life prediction with cyclic strain range** *INTERNATIONAL JOURNAL OF FATIGUE*
Pan, N., Sheppard, S.
2002; 24 (5): 519-528
- **Towards a science of engineering design teams** *13th International Conference on Engineering Design (ICED 01)*
Mabogunje, A., Carrizosa, K., Sheppard, S., Leifer, L.
PROFESSIONAL ENGINEERING PUBLISHING LTD.2001: 465-472
- **The compatibility (or incompatibility) of how we teach engineering design and analysis** *Mudd Design Workshop II, Designing Design Education for the 21st Century*
Sheppard, S. D.
TEMPUS PUBLICATIONS.2001: 440-45
- **Modification of a methodological design tool for the developing country scenario - A case study in product definition** *13th International Conference on Engineering Design (ICED 01)*
Donaldson, K. M., Sheppard, S. D.
PROFESSIONAL ENGINEERING PUBLISHING LTD.2001: 505-512
- **Design education for the 21st century - Introduction and overview** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Dym, C. L., Sheppard, S. D.
2001; 17 (4-5): 322-323
- **Design as cornerstone and capstone** *MECHANICAL ENGINEERING*
Sheppard, S. D.
1999: 44-47
- **Fatigue life prediction of resistance spot welds under variable amplitude loads** *29th National Symposium on Fatigue and Fracture Mechanics*
Pan, N., Sheppard, S. D., Widmann, J. M.
AMER SOCIETY TESTING AND MATERIALS.1999: 802-814
- **Motor workshop: The role of interactivity in promoting learning** *28th Annual Frontiers in Education Conference on Moving from Teacher-Centered to Learner-Centered Education*
Reamon, D., Sheppard, S.
IEEE.1998: 672-675
- **Reality brings excitement to engineering education** *Symposium on Computing Futures in Engineering Design*
Leifer, L., Sheppard, S.
CAMBRIDGE UNIV PRESS.1998: 83-86
- **Reality brings excitement to engineering education** *Symposium on Computing Futures in Engineering Design*
Leifer, L., Sheppard, S.
CAMBRIDGE UNIV PRESS.1998: 83-86
- **Examples of Freshman Design Education** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Sheppard, S., Jenison, R.

1997; 13 (4): 248-261

- **A model for peer and student involvement in course assessment** *27th Annual Conference on Frontiers in Education - Teaching and Learning in an Era of Change (FIE 97)*
Sheppard, S., Johnson, M., Leifer, L.
I E E E.1997: 193–200
- **Thoughts on freshman engineering design experiences** *26th Annual conference on Frontiers in Education - Technology-Based Re-Engineering Engineering Education (FIE 96)*
Sheppard, S. D., Jenison, R.
IEEE.1996: 909–913
- **Analytic problem solving methodology** *26th Annual conference on Frontiers in Education - Technology-Based Re-Engineering Engineering Education (FIE 96)*
Reamon, D., Sheppard, S.
IEEE.1996: 484–488
- **The explicit approximation method for design optimization problems with implicit constraints** *ENGINEERING OPTIMIZATION*
Hsu, Y. L., Sheppard, S. D., WILDE, D. J.
1996; 27 (1): 21-42
- **FATIGUE AND FRACTURE ESTIMATION FOR METALLIC COMPONENTS - SOME CURRENT METHODS AND FUTURE-DEVELOPMENTS** *JOURNAL OF MECHANICAL DESIGN*
Nelson, D. V., Sheppard, S. D.
1995; 117: 121-127
- **THE CURVATURE FUNCTION-METHOD FOR 2-DIMENSIONAL SHAPE OPTIMIZATION UNDER STRESS CONSTRAINTS** *COMPUTERS & STRUCTURES*
Hsu, Y. L., Sheppard, S. D., WILDE, D. J.
1995; 55 (4): 647-657
- **DETERMINING THE CONSTITUTIVE PROPERTIES OF THE HEAT-AFFECTED ZONE IN A RESISTANCE SPOT WELD** *MODELLING AND SIMULATION IN MATERIALS SCIENCE AND ENGINEERING*
Zuniga, S. M., Sheppard, S. D.
1995; 3 (3): 391-416
- **Students connecting engineering fundamentals and hardware design: Observations and implications for the design of curriculum and assessment methods** *25th Annual Conference on Frontiers in Education - Engineering Education for the 21st-Century*
Brereton, M., Sheppard, S., Leifer, L.
I E E E.1995: 950–956
- **A KNOWLEDGE-BASED APPROACH TO MODEL IDEALIZATION IN FEM** *10th Conference on Artificial Intelligence for Applications*
Prabhakar, V., Sheppard, S. D.
I E E E, COMPUTER SOC PRESS.1994: 488–490
- **ELECTRICAL CONTACT RESISTANCE UNDER HIGH LOADS AND ELEVATED-TEMPERATURES** *WELDING JOURNAL*
Vogler, M., Sheppard, S.
1993; 72 (6): S231-S238
- **FATIGUE CRACK-GROWTH IN NOTCHED AND PLAIN SHAFTS SUBJECTED TO TORSION AND AXIAL LOADING** *ENGINEERING FRACTURE MECHANICS*
Thompson, K. D., Sheppard, S. D.
1992; 43 (1): 55-71
- **GROWTH OF SHEAR LIPS IN SURFACE CRACKED SHAFTS SUBJECTED TO FATIGUE LOADING** *ENGINEERING FRACTURE MECHANICS*
Thompson, K. D., Sheppard, S. D.
1992; 43 (1): 73-82
- **STRESS INTENSITY FACTORS IN SHAFTS SUBJECTED TO TORSION AND AXIAL LOADING** *ENGINEERING FRACTURE MECHANICS*
Thompson, K. D., Sheppard, S. D.
1992; 42 (6): 1019-1034

- **FATIGUE LIFE ESTIMATION IN RESISTANCE SPOT WELDS - INITIATION AND EARLY GROWTH-PHASE** *FATIGUE & FRACTURE OF ENGINEERING MATERIALS & STRUCTURES*
Sheppard, S. D., Strange, M.
1992; 15 (6): 531-549

- **VERIFICATION OF FRACTURE PARAMETER FOR UNCOUPLED THERMOINELASTICITY** *ENGINEERING FRACTURE MECHANICS*
Wagner, D. A., Sendekyj, G. P., Sheppard, S. D.
1992; 42 (3): 461-478

- **FIELD EFFECTS IN FATIGUE CRACK INITIATION - LONG LIFE FATIGUE-STRENGTH** *JOURNAL OF MECHANICAL DESIGN*
Sheppard, S. D.
1991; 113 (2): 188-194

- **RESIDUAL-STRESSES IN RESISTANCE SPOT WELDS** *CONF ON DESIGN AND MANUFACTURING SYSTEMS*
Sheppard, S., Strange, M., Vogler, M., Wood, J., SCHOEPFEL, A., Murphy, T.
SOC MANUFACTURING ENGINEERS.1990: 599-606

- **THE INFLUENCE OF CRACK FACE FRICTION AND TRAPPED FLUID ON SURFACE INITIATED ROLLING-CONTACT FATIGUE CRACKS** *JOURNAL OF TRIBOLOGY-TRANSACTIONS OF THE ASME*
Tallian, T. E., Farris, T. N., Sheppard, S. D.
1989; 111 (2): 396-399

- **SUBSURFACE CRACKS UNDER CONDITIONS OF SLIP, STICK, AND SEPARATION CAUSED BY A MOVING COMPRESSIVE LOAD** *JOURNAL OF APPLIED MECHANICS-TRANSACTIONS OF THE ASME*
Sheppard, S. D., Barber, J. R., COMNINOU, M.
1987; 54 (2): 393-398

- **AN ANALYSIS OF FRETTING CRACKS .2. UNLOADING AND RELOADING PHASES** *INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES*
Sheppard, S. D., Hills, D. A., Barber, J. R.
1986; 22 (4): 387-396

- **SHORT SUBSURFACE CRACKS UNDER CONDITIONS OF SLIP AND STICK CAUSED BY A MOVING COMPRESSIVE LOAD** *JOURNAL OF APPLIED MECHANICS-TRANSACTIONS OF THE ASME*
Sheppard, S., Barber, J. R., COMNINOU, M.
1985; 52 (4): 811-817

- **THE SUBSURFACE CRACK UNDER CONDITIONS OF SLIP AND STICK CAUSED BY A SURFACE NORMAL FORCE** *JOURNAL OF APPLIED MECHANICS-TRANSACTIONS OF THE ASME*
Chang, F. K., COMNINOU, M., Sheppard, S., Barber, J. R.
1984; 51 (2): 311-316