


Stanford



Larry John Leifer

Professor of Mechanical Engineering

 Curriculum Vitae available Online

CONTACT INFORMATION

- **CDR Manager**

Crystal Pennywell - Manager, Center for Design Research (CDR) at Stanford University

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Tel 650-498-9887

Bio

BIO

Leifer's engineering design thinking research is focused on instrumenting design teams to understand, support, and improve design practice and theory. Specific issues include: design-team research methodology, global team dynamics, innovation leadership, interaction design, design-for-wellbeing, and adaptive mechatronic systems. We are now using the intersection of two critical paradigms, Neuroscience Analytics and Design Synthesis, to advance NeuroDesign

ACADEMIC APPOINTMENTS

- Professor, Mechanical Engineering
- Member, Bio-X
- Affiliate, Stanford Woods Institute for the Environment
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Founding Director, Stanford Center for Innovation and Design Research (SCIDR), (2019- present)
- Founding Director, Leifer NeuroDesignScience Program, (2018- present)
- Founding co-director, Hasso Plattner Design Thinking Research Program (HPDTRP), (2007- present)
- Founding Director, Center for Design Research at Stanford University, (1984- present)
- Founding Director, Stanford University Learning Lab, (1997-2001)
- Founding Director, Stanford Rehabilitation Engineering Research and Development Center at the Palo Alto VA, (1978-1989)

HONORS AND AWARDS

- Visiting Professor, Norwegian Institute of Systems Engineering, Kongsberg, Norway (2016)
- Visiting Professor, Swiss Federal Institute of Technology, Zurich (ETHZ), Switzerland (2011-2012)
- Visiting Professor, University of Saint Gallen, Switzerland (2011-2012)
- Honorary Fellow, Design Society (2011)

- Hedersdoktor (Honorary Doctorate), Royal Institute of Technology, Stockholm (2009)
- Visiting Professor and ASEE Transactions Fellow, University of Tokyo, Japan (2007)
- Teaching Innovation Award, ASME (1997)
- Pre-Doctoral Fellowship, National Academia of Engineering (1965)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Founding Member, Design Society (DS) (1987 - present)
- Founding Member, Rehabilitation Engineering Society of North America (RESNA) (1976 - present)
- Member, American Society of Mechanical Engineers (ASME) (1969 - present)
- Member, American Society for Engineering Education (ASEE) (1980 - present)
- Member, Association for Computing Machinery (ACM) (1980 - present)
- Member, American Association for the Advancement of Science (AAAS) (1978 - present)

PROFESSIONAL EDUCATION

- BS, Stanford University , Engineering Science (1962)
- MS, Stanford University , Product Design - Art (1963)
- PhD, Stanford University , Biomedical Engineering - Neuroscience (1969)

PATENTS

- Adegboyega Mabogunje, Neeraj Sonalkar, Larry J. Leifer, Shashikant Khandelwal. "United States Patent United States Patent 9710787 Systems and Methods for Representing, Diagnosing, and Recommending Interaction Sequences", Leland Stanford Junior University, Jul 18, 2017
- Toye, G, and Leifer, L.. "United States Patent U.S. Patent Application No. 14,557,205 Television Systems Incorporating Separate A/V Processing Systems and Television Displays", Leland Stanford Junior University, Oct 15, 2014
- Yen, S., Fruchter, R., and Leifer, L.. "United States Patent 7,458,013 Concurrent Voice to Text and Sketch Processing with Synchronized Replay", Leland Stanford Junior University, Nov 25, 2008
- Yen, S., Fruchter, R., and Leifer, L.. "United States Patent 6,724,918 System and Method for Indexing, Accessing and Retrieving Audio/Video with Concurrent Sketch Activity", Leland Stanford Junior University, Apr 20, 2004
- Steele, R., Gonsalves, R., and Leifer, L.. "United States Patent 5,973,694 Method of Communication Using Sized Icons, Text, and Audio", Lingraphicare America, Inc., Nov 26, 1999
- Steele, R., Gonsalves, R., and Leifer, L.. "United States Patent 5,169,342 Method of Communicating with a Language Deficient Patient", Lingraphicare America, Inc., Dec 8, 1992
- Jameson, J., and Leifer, L.. "United States Patent 4,756,655 The direct link manipulator glove for space suit applications", none, Jul 2, 1986

LINKS

- ME310ABC-Global Course: http://web.stanford.edu/group/me310/me310_2014/
- CDR Lab: <https://centerfordesignresearch.stanford.edu/>
- d.school @ Stanford: <http://dschool.stanford.edu>
- Hasso Plattner Design Thinking Research Program PARTNER: <http://hpi.de/dtrp/publikationen/buecher>
- CDR designX-lab: https://web.stanford.edu/group/designx_lab/cgi-bin/mainwiki/index.php/Main_Page
- Stanford Center for Innovation and Design Research: <https://scidr.org>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Our "designXlab" at the Stanford Center for Design Research (CDR) has long (30+ years) been focused on Engineering Design Team dynamics at global collaboration scale working with corporate partners in my graduate course ME310ABC. In our most recent studies we have added Neuroscience visualization of brain activity using fMRI and fNIRS. In doing so we have launched "NeuroDesign" as a professional discipline.

Teaching

COURSES

2021-22

- Engineering Design Theory in Practice: ME 306A (Aut)
- Engineering-Design Capital-Formation Theory in Practice: ME 306B (Spr)
- Global Engineering Design Thinking, Innovation, and Entrepreneurship: ME 310A (Aut)
- Global Engineering Design Thinking, Innovation, and Entrepreneurship: ME 310B (Win)
- Global Engineering Design Thinking, Innovation, and Entrepreneurship: ME 310C (Spr)

2020-21

- Engineering Design Theory in Practice: ME 306A (Aut)
- Engineering-Design Capital-Formation Theory in Practice: ME 306B (Spr)
- Global Engineering Design Thinking, Innovation, and Entrepreneurship: ME 310A (Aut)
- Global Engineering Design Thinking, Innovation, and Entrepreneurship: ME 310B (Win)
- Global Engineering Design Thinking, Innovation, and Entrepreneurship: ME 310C (Spr)

2019-20

- Engineering Design Entrepreneurship and Innovation: exploring the problem space: ME 310A (Aut)
- Engineering Design Entrepreneurship and Innovation: exploring the solution space: ME 310B (Win)
- Engineering Design Entrepreneurship and Innovation: make it REAL: ME 310C (Spr)
- Engineering Design Theory in Practice: ME 306A (Aut)
- Engineering-Design Capital-Formation Theory in Practice: ME 306B (Win)
- Food, Design & Technology: ME 195A (Aut, Win)

2018-19

- Engineering Design Entrepreneurship and Innovation: exploring the problem space: ME 310A (Aut)
- Engineering Design Entrepreneurship and Innovation: exploring the solution space: ME 310B (Win)
- Engineering Design Entrepreneurship and Innovation: make it REAL: ME 310C (Spr)
- Engineering Design Theory in Practice: ME 306A (Aut)
- Engineering-Design Capital-Formation Theory in Practice: ME 306B (Win)
- Food, Design & Technology: ME 195A (Aut, Win)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Summer Jung, Joseph Makokha

Postdoctoral Faculty Sponsor

Chandrayee Basu, Veronika Domova, Didem Guerduer Broo

Doctoral Dissertation Advisor (AC)

Lawrence Domingo, Chris Ford, Xiao Ge, Summer Jung, Fred Krynen, Okkeun Lee, Joseph Makokha, Rachel Olney, So Yeon Park

Master's Program Advisor

Blake Biskner, Joaquin Castillo, Adrian Piedra, Junnan Yu

Undergraduate Major Advisor

Xiao Ge

Publications

PUBLICATIONS

- **Design Teaching beyond design education with product-based-learning, electronic-learning-portfolios and global teams**
Leifer, L.
- **Proceedings of ICED'09**
Leifer, L.
edited by Leifer, L., Skogstad, P., Seering, W.
: 473–484
- **Task-Specific Assessment of Robot Effectiveness: enhancing the independence of quadriplegics in the workplace**
Van der Loos, H., M., H., F., Hammel, J., Leifer, L.
- **Cost-Performance Management through Knowledge Reuse in Large Scale Defense Projects: vision and proposed system architecture**
Feland, J., M., Nowak, M., L., Leifer, L., J.
- **Situated emotion and its constructive role in collaborative design: A mixed-method study of experienced designers** *Design Studies*
Ge, X., Leifer, L., Shui, L.
2021; 75
- **Meaningful Age-Friendly Design. Case Studies on Enabling Assistive Technology**
Zallio, M., Berry, D., Leifer, L. J., Ahram, T., Falcao, C.
SPRINGER INTERNATIONAL PUBLISHING AG.2020: 779–90
- **When Tough Times Make Tough Designers: How Perplexing Experiences Shape Engineers' Knowledge and Identity** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Ge, X., Leifer, L.
2020; 36 (2): 650–63
- **Regenerative Learning: A Process Based Design Approach** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Mabogunje, A., Sonalkar, N., Leifer, L., Parasker, N., Beam, M.
2020; 36 (2): 732–48
- **Investigating the Influence of Designers' Cognitive Characteristics and Interaction Behaviors in Design Concept Generation** *JOURNAL OF MECHANICAL DESIGN*
Jablokow, K. W., Sonalkar, N., Edelman, J., Mabogunje, A., Leifer, L.
2019; 141 (9)
- **Introduction: Reflections on Working Together-Through and Beyond Design Thinking** *DESIGN THINKING RESEARCH: MAKING DISTINCTIONS: COLLABORATION VERSUS COOPERATION*
Leifer, L., Meinel, C., Plattner, H., Meinel, C., Leifer, L.
2018: 1–12
- **What If We Have Become Trees?**

Mabogunje, A., Sonalkar, N., Leifer, L.
TEMPUS PUBLICATIONS.2018: 686–94

- **DESIGN THINKING AT THE CORE: LEARN NEW WAYS OF THINKING AND DOING BY REFRAMING**
Ge, X., Leifer, L., ASME
AMER SOC MECHANICAL ENGINEERS.2017
- **BEYOND DESIGN THINKING - WHOSE PERSPECTIVE IS DRIVING THE PEOPLE-CENTRIC APPROACH TO CHANGE?**
Berglund, A., Leifer, L., Berg, A., Bohemia, E., Buck, L., Gulden, T., Kovacevic, A., Pavel, N.
DESIGN SOC.2017: 613–18
- **DESIGN WHODUNIT: THE RELATIONSHIP BETWEEN INDIVIDUAL CHARACTERISTICS AND INTERACTION BEHAVIORS IN DESIGN CONCEPT GENERATION**
Sonalkar, N., Jablokow, K., Edelman, J., Mabogunje, A., Leifer, L., ASME
AMER SOC MECHANICAL ENGINEERS.2017
- **Smartphone-Based System for Learning and Inferring Hearing Aid Settings** *JOURNAL OF THE AMERICAN ACADEMY OF AUDIOLOGY*
Aldaz, G., Puria, S., Leifer, L. J.
2016; 27 (9): 732-749
- **Visualising professional vision interactions in design reviews** *CODESIGN-INTERNATIONAL JOURNAL OF COCREATION IN DESIGN AND THE ARTS*
Sonalkar, N., Mabogunje, A., Leifer, L., Roth, B.
2016; 12 (1-2): 73-92
- **Understanding driver responses to voice alerts of autonomous car operations** *INTERNATIONAL JOURNAL OF VEHICLE DESIGN*
Koo, J., Shin, D., Steinert, M., Leifer, L.
2016; 70 (4): 377-392
- **Design Thinking: A New Foundational Science for Engineering** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Mabogunje, A., Sonalkar, N., Leifer, L.
2016; 32 (3): 1540-1556
- **Developing a Design Thinking Curriculum for Venture Creation in Resource-Constrained Environment** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Sonalkar, N., Mabogunje, A., Leifer, L.
2016; 32 (3): 1372-1384
- **Hands-Free Image Capture, Data Tagging and Transfer Using Google Glass: A Pilot Study for Improved Wound Care Management** *PLOS ONE*
Aldaz, G., Shluzas, L. A., Pickham, D., Eris, O., Sadler, J., Joshi, S., Leifer, L.
2015; 10 (4)
- **Empirical Studies of Designer Thinking: Past, Present, and Future** *JOURNAL OF MECHANICAL DESIGN*
Dinar, M., Shah, J. J., Cagan, J., Leifer, L., Linsey, J., Smith, S. M., Hernandez, N. V.
2015; 137 (2)
- **Hands-free image capture, data tagging and transfer using Google Glass: a pilot study for improved wound care management.** *PloS one*
Aldaz, G., Shluzas, L. A., Pickham, D., Eris, O., Sadler, J., Joshi, S., Leifer, L.
2015; 10 (4)
- **The insight-value-perception (iVP) model for user-centered design** *TECHNOVATION*
Shluzas, L. M., Leifer, L. J.
2014; 34 (11): 649-662
- **User, Use & Utility Research The Digital User as New Design Perspective in Business and Information Systems Engineering** *BUSINESS & INFORMATION SYSTEMS ENGINEERING*
Brenner, W., Oesterle, H., Petrie, C., Uebernickel, F., Winter, R., Karagiannis, D., Kolbe, L., Krueger, J., Plattner, H., Leifer, L., Lamberti, H., Leimeister, J. M., Schwabe, et al
2014; 6 (1): 55-61
- **User Experience in Training a Personalized Hearing System** *3rd International Conference on Design, User Experience, and Usability (DUXU)*
Aldaz, G., Haydell, T., Szafer, D., Steinert, M., Leifer, L.

SPRINGER-VERLAG BERLIN.2014: 3–14

- **Design Thinking Research: Measuring the Impact of the Curriculum** *in the Series: Understanding Innovation, Springer*
Leifer, L.
edited by Plattner, H., Meinel, C., Leifer, L.
Springer.2013: 1
- **Preliminary Considerations on Shikake Design Process** *Conference on Technologies and Applications of Artificial Intelligence (TAAI)*
Matsumura, N., Leifer, L.
IEEE.2013: 324–328
- **'Finding One's Way': Re-Discovering a Hunter-Gatherer Model based on Wayfaring** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Steinert, M., Leifer, L. J.
2012; 28 (2): 251-252
- **Applying bioinformatics analysis principles to CADdata to better characterize and improve the design process**
Nguyen, P., T., Steinert, M., Carroll, A., Leifer, L.
2012
- **EAGER: Analyzed - Analyzing Engineering Design Activities, poster presentation at the 2012 NSF Engineering Research and Innovation Conference, sponsored by the National ScienceFoundation's Division of Civil Mechanical and Manufacturing Innovation (CMMI)**
Steinert, M., Jablokow, K., Leifer, L.
2012
- **Redefining customer value in Lean Product Development.** *Journal of Engineering, Design and Technology (JEDT)*
Gudem, M., Steinert, M., Welo, T., Leifer, L.
2012; 10: 1726-0531
- **Dancing with Ambiguity: causality behavior, design thinking, and triple-loop learning". international management journal: Information, Knowledge, Systems Management (IKSM) Special Issue one Complex Socio-Technical Systems, ISSN**
Leifer, L., Steinert, M.
2012: 1389-1995
- **Applying Bioinformatics Analysis Principles to CAD Data to Better Characterize and Improve the Design Process**
Nguyen, P., Steinert, M., Carroll, A., Leifer, L.
2012
- **Leveraging Team-Information Interactions to Reveal Project Workflows** *in Measuring and Increasing Productivity of Knowledge Workers, Media X Research Report*
Senescu, R., Fischer, M., Steinert, M., Head, A., Schwegler, B., Leifer, L.
2012
- **"Finding One's Way" Re-Discovering a Hunter-Gatherer Model based on Wayfaring,International Journal of Engineering Education (IJEE), Special Issue on Design Education: Innovation and Entrepreneurship**
Steinert, M., Leifer, L.
2012; 28: 1932-2008
- **Design Thinking Research: Measuring Performance in the Field** *in the Series: Understanding Innovation, Springer*
Springer.2012: 1
- **DESIGNING TO MAXIMIZE VALUE FOR MULTIPLE STAKEHOLDERS: A CHALLENGE TO MED-TECH INNOVATION** *18th International Conference on Engineering Design (ICED)*
Shluzas, L. A., Steinert, M., Leifer, L. J.
DESIGN SOC.2011: 159–166
- **CUSTOMER VALUE IS NOT A NUMBER - INVESTIGATING THE VALUE CONCEPT IN LEAN PRODUCT DEVELOPMENT** *18th International Conference on Engineering Design (ICED)*
Gudem, M., Steinert, M., Welo, T., Leifer, L.
DESIGN SOC.2011: 167–177
- **Designing to Maximize Value for Multiple Stakeholders: A Challenge toMed-Tech Innovation**

- Aquino Shluzas, L., Steinert, M., Leifer, L.
2011
- **A framework for reflection in innovation design**
Currano, R., Steinert, M., Leifer, L.
2011
 - **Customer value is not a number – Investigating the value concept in Lean Product Development**
Gudem, M., Steinert, M., Welo, T., Leifer, L.
2011
 - **Preparing tomorrow’s medical device designers and entrepreneurs.**
Aquino Shluzas, L., Leifer, L., J.
2011
 - **Customer value is not a number – Investigating the value concept in Lean Product Development**
Gudem, M., Steinert, M., Welo, T., Leifer, L.
2011
 - **What designers can learn from artists and architects about the philosophy within conceptualization**
Petersen, S., Steinert, M., Leifer, L.
2011
 - **A Method to Study Affective Dynamics and Performance in Engineering Design Teams**
Jung, M., F., Leifer, L., J.
2011
 - **A Unified Innovation Process Model for Engineering Designers and Managers**
Skogstad, P., Leifer, L.
edited by Meinel, C., Leifer, L., Plattner, H.
2011
 - **A Unified Innovation Process Model for Engineering Designers and Managers** *In Design Thinking*
Skogstad, P., Leifer, L.
edited by Meinel, C., Leifer, L., Plattner, H.
Springer Berlin Heidelberg.2011: 19–43
 - **Design Loupes: A bifocal study to improve the management of engineering design innovation by co-evaluation of the design process and information sharing activity** *Design Thinking Research - Studying Co-Creation in Practice*
Currano, B., Steinert, M., Leifer, L.
edited by Plattner, H., Meinel, C., Leifer, L.
Springer.2011: 91–107
 - **Engineering team performance and emotion affective interaction dynamics as indicators of design team performance.** *Dept. of Mechanical Engineering*
Jung, M. F., Leifer, L. J., Gross, J. J., Hinds, P., Steinert, R.
2011
 - **Designing to Maximize Value for Multiple Stakeholders: A Challenge to Med-Tech Innovation**
Aquino Shluzas, L., Steinert, M., Leifer, L.
2011
 - **Design Thinking Research: Studying Co-Creation in Practice** *in the Series: Understanding Innovation, Springer*
Leifer, L.
edited by Plattner, H., Meinel, C., Leifer, L.
Springer.2011: 1
 - **Design Thinking Understand -Improve - Apply.**
Christoph, M., Leifer, L., Plattner, H.
Berlin Heidelberg New York: Springer Berlin Heidelberg.2011

- **Dancing with Ambiguity: Causality Behavior, Design Thinking, and Triple-loop-learning.** *Information, Knowledge, Systems Management*
Leifer, Jarry, J., Steinert, M.
2011; 1 (10): 151-173
- **Dancing with Ambiguity: Causality Behavior, Design Thinking, and Triple-loop-learning** *Information, Knowledge, Systems Management*
Leifer, Larry, J., Steinert, M.
2011; 1 (10): 151–173
- **Engineering team performance and emotion affective interaction dynamics as indicators of design team performance** *Dept. of Mechanical Engineering.2011*
Jung, M. F., Leifer, Larry, J., Gross, James, J., Hinds, P., Steinert, R.
2011
- **Determining the effect of tangible business processmodeling.** *Design Thinking –Studying Co-Creation in Practice*
Leifer, L., Luebbe, A., Weske, M.
edited by Plattner, H., Meinel, C., Leifer, L.
2011: 1
- **CHARACTERIZING REFLECTIVE PRACTICE IN DESIGN - WHAT ABOUT THOSE IDEAS YOU GET IN THE SHOWER?** *18th International Conference on Engineering Design (ICED)*
Currano, R. M., Steinert, M., Leifer, L. J.
DESIGN SOC.2011: 374–383
- **A METHOD TO STUDY AFFECTIVE DYNAMICS AND PERFORMANCE IN ENGINEERING DESIGN TEAMS** *18th International Conference on Engineering Design (ICED)*
Jung, M. F., Leifer, L. J.
DESIGN SOC.2011: 244–253
- **MONITORING DESIGN THINKING THROUGH IN-SITU INTERVENTIONS** *18th International Conference on Engineering Design (ICED)*
Lande, M., Sonalkar, N., Jung, M., Han, C., Banerjee, B., Leifer, L.
DESIGN SOC.2011: 384–393
- **A framework for design engineering education in a global context** *AI EDAM-ARTIFICIAL INTELLIGENCE FOR ENGINEERING DESIGN ANALYSIS AND MANUFACTURING*
Wodehouse, A. J., Grierson, H. J., Breslin, C., Eris, O., Ion, W. J., Leifer, L. J., Mabogunje, A.
2010; 24 (3): 367-378
- **Scrutinizing Gartner's Hype Cycle Approach** *Portland International Center for Management of Engineering and Technology (PICMET 10)*
Steinert, M., Leifer, L.
IEEE.2010
- **Scrutinizing Gartner's hype cycleapproach.**
Steinert, M., Leifer, L., J.
2010
- **Scrutinizing Gartner's Hype Curve approach**
Steinert, M., Leifer, L.
2010
- **Designing a tangible approach to business processmodeling.** *Design Thinking –Understand,, Improve, Apply. Springer*
Leifer, L., Luebbe, A., Weske, M.
edited by Plattner, H., Meinel, C., Leifer, L.
2010: 1
- **Design thinking implementedin software engineering tools.**
Luebbe, A., Edelman, J., Steinert, M., Leifer, L., Weske, M.
2010
- **Open Education Resource I: Empirical Results on its Demand from an Economics and Management Faculty**
Steinert, M., Leifer, L.
2010

- **Design Thinking – Understand, Improve, Apply**
Luebbe, A., Weske, M.
edited by Plattner, H., Meinel, C., Leifer, L.
Springer.2010
- **Pair Programming Performance: An emotional dynamics point of view from marital pair counseling.** *Electronic Colloquium on Design Thinking Research (ECDTR)*
Jung, M., Chong, J., Leifer, L.
2010
- **Design thinking implemented in software engineering tools**
Luebbe, A., Edelman, J., Steinert, M., Leifer, L., Weske, M.
2010
- **Designing Perception-Action Theories – Theory-Building for Design Practice.**
Jung, M., Sonalkar, N., Mabogunje, A., Benerjee, B., Lande, M., Han, C., Leifer, L. J.
2010
- **Incubating Engineers and Hatching Design Thinkers: Mechanical Engineering Students Learning Design Through Ambidextrous Ways of Thinking**
Lande, M., Leifer, L.
2010
- **Design Thinking Research: Understand – Improve – Apply in the Series: Understanding Innovation, Springer**
Leifer, L.
edited by Plattner, H., Meinel, C., Leifer, L.
Springer.2010: 1
- **PHYSICIAN-DEVELOPER INTERACTION IN MEDICAL DEVICE DESIGN** *5th Frontiers in Biomedical Devices Conference and Exposition*
Shluzas, L. A., Leifer, L. J.
AMER SOC MECHANICAL ENGINEERS.2010: 45–46
- **The Systemic Correlation Between Mental Models and Sustainable Design: Implications for Engineering Educators** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Vanasupa, L., Burton, R., Stolk, J., Zimmerman, J. B., Leifer, L. J., Anastas, P. T.
2010; 26 (2): 438-450
- **Difficulties Student Engineers Face Designing the Future** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Lande, M., Leifer, L.
2010; 26 (2): 271-277
- **NAVIGATING THE BARRIERS TO INTERDISCIPLINARY DESIGN EDUCATION: LESSONS LEARNED FROM THE NSF DESIGN WORKSHOP SERIES** *ASME International Design Engineering Technical Conferences / Computers and Information in Engineering Conference*
Simpson, T. W., Parkinson, M., Celento, D., Chen, W., McKenna, A., Colgate, E., Norman, D., Papalambros, P., Gonzalez, R., Roth, B., Leifer, L.
AMER SOC MECHANICAL ENGINEERS.2010: 627–637
- **Coaching product development teams: a conceptual foundation for empirical studies** *RESEARCH IN ENGINEERING DESIGN*
Reich, Y., Ullmann, G., Van der Loos, M., Leifer, L.
2009; 19 (4): 205-222
- **ANALYSIS OF VIRTUAL DESIGN COLLABORATION WITH TEAM COMMUNICATION NETWORKS** *17th International Conference on Engineering Design*
Uflacker, M., Skogstad, P., Zeier, A., Leifer, L.
DESIGN SOC.2009: 275–286
- **Why a universal design project outcome performance measurement metric is needed – a discussion based on empirical research**
Stkogstad, P., Steinert, M., Gumerlock, K., Leifer, L.
edited by NorellBergendahl, M., Grimheden, M., Leifer, L.
2009
- **Stanford's ME310 Course as an Evolution of Engineering Design.**

- Carleton, T., Leifer, L.
2009
- **Introducing a “Ways of Thinking” Framework for Student Engineers Learning to Do Design**
Lande, M., Leifer, L.
2009
 - **Why a universal design project outcome performance measurement metric is needed – a discussion based on empirical research**
Skogstad, P., Steinert, M., Gumerlock, K., Leifer, L.
edited by Norell-Bergendahl, M., Grimheden, M.
2009
 - **SpiderWebbing: A Paradigm for Engineering Design Conversations during Concept Generation.**
Mabogunje, A., Eris, O., Sonalkar, N., Jung, N., Leifer, L.
edited by McDonnell, J., Lloyd, P.
2009
 - **Stanford’s ME310 Course as an Evolution of Engineering Design.** *Rajkumar Roy, Essam Shehab*
Carleton, T., Leifer, L.
2009
 - **Work in progress-student representations and conceptions of design and engineering.**
Lande, M., Leifer, L.
2009
 - **Analysis of virtual design collaboration with team communication networks**
Uflacker, M., Skogstad, P., Zeier, A., Leifer, L.
2009
 - **We need a universal design project outcome performance measurement metric: a discussion based on empirical research.**
Skogstad, P., Steinert, M., Gumerlock, K., Leifer, L.
2009
 - **Hidden in Plain Sight: Affordances of Shared Models in Team Based Design**
Edelman, Antonio, J., Leifer, L., Banerjee, B., Sonalkar, N., Jung, M.
2009
 - **Classifying Student Engineering Design Project Types**
Lande, M., Leifer, L.
2009
 - **Work In Progress – Student Representations and Conceptions of Design and Engineering**
Lande, M., Leifer, L.
2009
 - **Prototyping to Learn: Characterizing Student Prototyping Activities**
Lande, M., Leifer, L.
2009
 - **Spider Webbing: A Paradigm for Engineering Design Conversations during Concept Generation** *About: Designing; Analysing Design Meetings*
Mabogunje, A., Eris, O., Sonalkar, N., Jung, M., Leifer, L.
2009: 49-65
 - **Analysis of Virtual Design Collaboration with Team Communication Networks**
Uflacker, M., Skogstad, P., Zeier, A., Leifer, L.
2009
 - **Classifying Student Engineering Design Project Types**
Lande, M., Leifer, L., J.
2009

- **Stanford ME310 course as an evolution of engineering design.**
Carleton, T., Leifer, L.
2009
- **TANGIBLE BUSINESS PROCESS MODELING: A NEW APPROACH** *17th International Conference on Engineering Design*
Edelman, J., Grosskopf, A., Weske, M., Leifer, L.
DESIGN SOC.2009: 485–493
- **LOWERING BARRIERS TO DISTRIBUTED DESIGN RESEARCH COLLABORATION** *17th International Conference on Engineering Design*
Sirkin, D. M., Sonalkar, N., Jung, M., Leifer, L. J.
DESIGN SOC.2009: 279–285
- **UNDERSTANDING IDEALOGGING: THE USE AND PERCEPTION OF LOGBOOKS WITHIN A CAPSTONE ENGINEERING DESIGN COURSE** *17th International Conference on Engineering Design*
Currano, R., Leifer, L.
DESIGN SOC.2009: 323–331
- **HIDDEN IN PLAIN SIGHT: AFFORDANCES OF SHARED MODELS IN TEAM-BASED DESIGN** *17th International Conference on Engineering Design*
Edelman, J. A., Leifer, L., Banerjee, B., Jung, M., Sonalkar, N., Lande, M.
DESIGN SOC.2009: 395–405
- **STUDENT FACEBOOK CONNECTIONS IN A GLOBAL PROJECT BASED ENGINEERING DESIGN COURSE** *17th International Conference on Engineering Design*
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