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LANCE E. REWERTS, Ph.D.
SENIOR CONSULTANT

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Dr. Rewerts is a Senior Consultant at Engineering Systems Inc. (ESi). He has over 20 years of experience in computer-generated 2D and 3D animations and other graphics for scientific illustration. He has created hundreds of compelling and educational graphics, tutorials, and animations covering a broad range of technical areas.

Prior to joining ESi, Dr. Rewerts served as a Senior Project Manager at Demonstratives, Inc. for over 10 years. During that time, he worked on projects ranging from intellectual property disputes to product liability cases. He also has experience in ground vehicle accident visualizations and has covered technologies ranging from hay balers to medical devices to internet-based technologies.

Areas of Specialization

3D Animations
Demonstrative Aids and Exhibits
Flash and PowerPoint Presentations
Litigation Graphics

Education

Ph.D., Mechanical Engineering, Iowa State University, 1994
M.S., Mechanical Engineering, Iowa State University, 1991
B.S., Mechanical Engineering, Iowa State University, 1989

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Positions Held

Engineering Systems Inc., Ames, Iowa

Senior Consultant, 2014 – Present

Demonstratives, Inc., Ames, Iowa

Senior Project Manager, 2001 – 2014

Engineering Animation, Inc., Ames Iowa

Project Manager, 1998 – 2000

Iowa State University, Ames, Iowa

Temporary Assistant Professor, Departments of Mechanical and Aerospace Engineering, 1998

Center for Non-Destructive Evaluation, Ames, Iowa

PostDoctoral Research Assistant, 1995 – 1997

Patents

US Patent 6,138,512, "Method and Apparatus for Determining Source Location of Energy Carried in the Form of Propagating Waves Through a Conducting Medium"

Publications

- "The Effect of Noncondensables on the Condensation of R-123 on Enhanced Tube Geometries," **L.E. Rewerts**, J.B. Huber, M.B. Pate, ASHRAE Transactions, Vol. 103, Part 1, 1997
- "The Role of Propagation Characteristics in Acoustic Emission Pipeline Leak Location," **L.E. Rewerts**, R. Roberts, M.A. Clark, Review of Progress in Quantitative Non-Destructive Evaluation, Vol. 17, Part A, 1997
- "Dispersion Compensation in Acoustic Emission Pipeline Leak Location," **L.E. Rewerts**, R. Roberts, M.A. Clark, Review of Progress in Quantitative Non-Destructive Evaluation, Vol. 16, Part A, 1996
- "Experimental Studies on the Role of Backfill and Pipeline Characteristics in the Application of Acoustic Leak Location to Underground Pipelines," **L.E. Rewerts**, M.A. Clark, R. Roberts, Review of Progress in Quantitative Non-Destructive Evaluation, Vol. 16, Part A, 1996
- "New Work in Acoustic Leak Location in Underground Pipelines," **L.E. Rewerts**, M.A. Clark, R. Roberts, Review of Progress in Quantitative Non-Destructive Evaluation, Vol. 15, Part B, 1996

- "The Effect of Liquid Inundation and Vapor Shear on the Condensation of R-123 on Enhanced Tube Geometries," **L.E. Rewerts**, J.B. Huber, M.B. Pate, ASHRAE Transactions, Vol. 102, Part 2, 1996
- "The Effect of Liquid Inundation on the Condensation of R-134a on Enhanced Tube Geometries," **L.E. Rewerts**, J.B. Huber, M.B. Pate, ASHRAE Transactions, Vol. 102, Part 2, 1996
- "Shell-Side Condensation Heat Transfer of HFC-134a, Part I: Finned Tube Performance," **L.E. Rewerts**, J.B. Huber, M.B. Pate, ASHRAE Transactions, Vol. 100, Part 2, 1994
- "Shell-Side Condensation Heat Transfer of HFC-134a, Part II: Enhanced Tube Performance," **L.E. Rewerts**, J.B. Huber, M.B. Pate, ASHRAE Transactions, Vol. 100, Part 2, 1994
- "Shell-Side Condensation Heat Transfer of HFC-134a, Part III: Comparison of HFC-134a and CFC-12," **L.E. Rewerts**, J.B. Huber, M.B. Pate, ASHRAE Transactions, Vol. 100, Part 2, 1994
- "Assessments of Microcomputer Based Methodologies for Performing Technical Analyses of Energy Conservation Projects in Buildings, **L.E. Rewerts**, H.N. Shapiro, R.M. Nelson, Final Report, Energy Bureau of the Iowa Department of Natural Resources, 1991