

Adams, R. D., Cawley, P., Pye, C. J. and Stone B. J. 1978 "A Vibration Technique for Non-Destructively Assessing the Integrity of Structures," *Journal of Mechanical Engineering Science*, 20 93-100.

Ayres, J., Lalande, F., Chaudry, Z. and Rogers, C. A. 1996 "Qualitative Health Monitoring of a Steel Bridge Structure via Piezoelectric Actuator/Sensor Patches," *Proceedings, SPIE Nondestructive Evaluation Techniques for Aging Infrastructure and Manufacturing*, Vol. 2946, 211-218.

Bacon, B. J. and Ostroff, A. J. 2000 "Reconfigurable Flight Control Using Nonlinear Dynamic Inversion With a Special Accelerometer Implementation," AIAA Guidance, Navigation, and Control Conference and Exhibit, 14-17 August, Denver, CO

Banks, H. T., Inman, D. J., Leo, D. J. and Wang, Y. 1996 "An Experimentally Validated Damage Detection Theory in Smart Structures," *Journal of Sound and Vibration*, Vol. 191, 859-880.

Baz, A., Poh, S. and Gilheany, J. 1993 "A Multi-Mode Distributed Sensor for Vibrating Beams," *Journal of Sound and Vibration*, Vol. 165:3, 481-495.

Beards, C. F. and Williams, J. L. 1977 "The Damping of Structural Vibration by Rotational Slip in Joints," *Journal of Sound and Vibration*, Vol. 53, No 3. 333-340

Canudas de Wit, C., Ollson, H., Astrom, K. J., and Lischinsky, P. 1995 "A New Model for Control of Systems with Friction," *IEEE Transactions on Automatic Control*, Vol. 40, No. 3, 419-425.

Castanien, K. E. and Liang, C. 1996 "Application of Active Structural Health Monitoring Technique to Aircraft Fuselage Structures," *Proceedings of SPIE Smart Structure Conference*, Vol. 2721, 38-50.

Cattarius, J. and Inman, D. J. 1997 "Time Domain Analysis for Damage Detection in Smart Structures," *Mechanical Systems and Signal Processing*, Vol. 11, 409-423.

Chaudry, Z., Lalande, F., Ganino, F., Rogers, C. A., and Chung, J. 1995 "Monitoring the Integrity of Composite Patch Structural Repair Via Piezoelectric Actuator/Sensors," *Proceedings of AIAA/ASME/ASCE/AHS/ASC 36th Structures, Structural Dynamics and Materials Conference, Adaptive Structures Forum*, 2243-2248.

Chenm H. M. 1999 "Design of Self-Healing Magnetic Bearing," *Failure Analysis: A foundation for Diagnosis and Prognostics Development*, 283-292.

Crawley, E. F. and Anderson, E. H. 1990 "Detailed Models of Piezoceramic Actuation of Beams," *Journal of Intelligent Material Systems and Structures*, Vol. 1, 4-25.

Dahl, P. 1976 "Solid Friction Damping of Mechanical Vibrations," *AIAA Journal*, Vol. 14, No. 12, 1675-1682.

Doebling, S. W., Farrar, C. R. and Prime, M. B. 1998 "A Summary Review of Vibration-Based Damage Identification Methods," *The Shock and Vibration Digest*, Vol. 30, 2.

Dosch, J. J., Inman, D. J., and Garcia, E. 1992 "A Self-Sensing Piezoelectric Actuator for Collocated Control," *Journal of Intelligent Material Systems and Structures*, Vol. 3:1, 166-185.

Eidinger, J. M. 1999 "Girth Joints in Steel Pipelines subjected to Wrinkling and Owalling," *Proceedings, 5th U.S. Conference on Lifeline Earthquake Engineering*, pp. 100-109.

Esteban, J., 1996 "Modeling of the Sensing Region of a Piezoelectric Actuator/Sensor," Ph.D. Dissertation, Virginia Polytechnic Institute and State University, Blacksburg, VA.

Farrar, C. R., Baker, W. E., Bell, T. M., Cone, K. M., Darling, T. W., Duffey, T. A., Eklund, A. and Migliori, A. 1994 "Dynamic Characterization and Damage Detection in the I-40 Bridge Over the Rio Grande," Los Alamos National Laboratory Report LA-12767-MS.

Farrar, C. R. and Doebling, S. W. 1998 "A Comparison Study of Modal Parameter Confidence Intervals Computed Using the Monte Carlo and Bootstrap Techniques," *Proceedings of the 16th International Modal Analysis Conference*, 936-944.

Friswell, M. I., and Penny, J. E. 1997 "The Practical Limits of Damage Detection and Location using Vibration Data," *Proceedings, 11th VPI&SU Symposium on Structural Dynamics and Control*, Blacksburg, VA, 1-10.

Gaul, L. and Nitsche, R. 2001 "The Role of Friction in Mechanical Joints," *Applied Mechanics Reviews* Vol. 54, No. 2, 93-106.

Giurgiutiu, V. and Rogers, C. A. 1998 "Recent Advancements in the Electro-Mechanical (E/M) Impedance Method for Structural Health Monitoring and NDE," *Proceedings, SPIE Conference on Smart Structures and Integrated Systems*, Vol. 3329, 536-547.

Haessing, D. A., Friedland, B. 1991 "On the Modeling and Simulation of Friction," *Journal of Dynamic Systems, Measurement and Control*.

Incropera, F. P. and DeWitt, D. P. 1996 *Fundamentals of Heat and Mass Transfer*, John Wiley & Sons, Inc., New York.

Johnson, A. D. 1992 "Non-explosive separation device," U.S. Patent Number 5,119,555.

Johnson, A. D., Kramer, J. 1998 "State-of-The-Art of Shape Memory Actuators," *Proceedings of the 6th International Conference on New Actuators Bremen, Germany, June 17-19.*

Juvinall, R. and Marshek, K. 1991 *Fundamentals of Machine Component Design, 2nd ed.* John Wiley and Sons, Inc., New York.

Kabeya, K. 1998 "Structural Health Monitoring Using Multiple Piezoelectric Sensors and Actuators," Master's thesis, Virginia Polytechnic Institute and State University.

Keymeulen, D., Zebulum, R. S., Jin, Y., and Stoica, A. 2000 "Fault-Tolerant Evolvable Hardware Using Field-Programmable Transistor Arrays," *IEEE Transactions on Reliability*, Vol. 49, No. 3, 305-316.

Koseki, J. Matsuo, O. and Tanaka, S. 1998 "Uplift of Sewer Pipes Caused by Earthquake-induced Liquefaction of Surrounding Soil," *Soils and Foundations*, Vol. 38, 75-87.

Krstulovic-Opara, N., Uang, C. M., and Hagayeghi, A. 1994 "The Use of High Performance Cement Composites for Seismic Repair and Rehabilitation," *Proceedings of the ASCE Materials Engineering Conference on Infrastructure: New Materials and Methods for Repair*, November 14-16, 1994, San Diego, CA, 812-819.

Lifshitz, J. M., Rotem, A. 1969 "Delamination of Reinforcement Unbonding of Composites by a Vibration Technique," *Journal of Composite Materials*, Vol. 3, 412-423.

Lopes, V., Park, G., Cudney, H., Inman, D. J. 2000. "A Structural Health Monitoring Technique Using Artificial Neural Network and Structural Impedance Sensors," *Journal of Intelligent Material Systems and Structures*, Vol. 11, No. 3, pp. 206-214.

Lovell, P. A. and Pines, D. J. 1998 "Damage Assessment in a Bolted Lap Joint," *5th Annual SPIE Smart Materials and Structures Symposium: Smart Buildings, Bridges and Highways*, 112-126.

Liang, Sun, C. F. and Rogers, C. A. 1994 "Coupled Electromechanical Analysis of Adaptive Material System: Determination of Actuator Power Consumption and System Energy Transfer," *Journal of Intelligent Material Systems and Structures*, Vol. 5, 12-20.

Lin, C. S. 1994 "Unity Check Method for Structural Damage Detection," *Proceedings of 35th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics and Materials Systems*, Vol. 35, 441-448.

Muntges, D. E., Park, G., Inman, D. J. 2001 "Investigation of a Self-Healing Bolted Joint Employing a Shape Memory Actuator," *Proceedings of the 7th SPIE Conference on Smart Structures and Materials, March 4-8, 2001*, Newport Beach, CA.

O'Rourke, T. D., and Palmer, M. C. 1996 "Earthquake Performance of Gas Transmission Pipelines," *Earthquake Spectra*. Vol. 20, 493-527.

Osegueda, R. A, Dsouza, P. D. and Qiang, Y. 1992 "Damage Evaluation of Offshore Structures Using Resonant Frequency Shifts," *Serviceability of Petroleum, Process and Power Equipment, ASME PVP 239/MPC*, Vol. 33, 31-37

Pabst, U. and Hagedorn, P. 1993 "On the Identification of Localized Losses of Stiffness in Structures," *Structural Dynamics of Large Scale and Complex Systems*, Vol. 59, 99-104.

Pandy, A. K., Biswas, M. and Samman, M. M. 1991 "Damage Detection from Changes in Mode Shapes," *Journal of Sound and Vibration*, Vol. 145, 321-332.

Pardo de Vera, C. and Guemes, J. A. 1997 "Embedded Self-Sensing Piezoelectric for Damage Detection," *Proceedings of the International Workshop on Structural Health Monitoring, September 18-20, 1997*, Stanford, CA 445-455.

Park, G. 2000 "Assessing Structural Integrity using Mechatronic Impedance Transducers with Applications in Extreme Environments," Doctoral dissertation, Virginia Polytechnic Institute and State University.

Park, G., Cudney, H. and Inman, D. J. 2000 "Impedance-based Health Monitoring of Civil Structural Components," *ASCE/Journal of Infrastructure Systems*, Vol. 6(4), 153-160.

Park, G., Cudney, H., and Inman, D.J., 2001. "Feasibility of Using Impedance-based Damage Assessment for Pipeline Systems" *Earthquake Engineering & Structural Dynamics Journal*, Vol. 30, No. 10, pp. 1463-1474.

Peairs, D. M., Park, G., and Inman, D. J. 2001 "Self-monitoring and Self-healing Bolted Joint", *Proceedings of 3rd International Workshop on Structural Health Monitoring, September 12-14, 2001*, Stanford, CA, 430-439.

Raju, V., 1998 "Implementing Impedance-Based Health Monitoring," Master's thesis, Virginia Polytechnic institute and State University, Blacksburg, VA.

Raju, V., Park, G. and Cudney, H. 1998 "Impedance-based Health Monitoring Technique of Composite Reinforced Structure," *Proceedings, 9th International Conference on Adaptive Structures and Technologies*, 448-457.

Waram, T. 1993 "Actuator Design Using Shape Memory Alloys" Raychem Corp.

Rickles, J. M. and Kosmatka, J. B. 1992 “Damage Detection in Elastic Vibratory Structures Using Residual Forces and Weighted Sensitivity,” *AIAA Journal*, Vol. 30, 2310-2316.

Rogers, C. A. and Lalande, F., 1996 “Solid-State Active Sensing for In-Situ Health Monitoring,” *Proceedings of the Society for Machinery Failure Prevention Technology 50th Meeting Technical Showcase*, Mobile, AL, 301-307.

Rogers, C. A., Liang, C., and Li, S., 1991 “Active Damage Control of Hybrid Material Systems using Induced Strain Actuators,” *Proceeding of AIAA 32nd Structure, Structural Dynamics, and Materials Conference*, Paper No. AIAA 91-1145-CP.

Salawu, O. S. 1997 “Detection of Structural Damage through Changes in Frequency: a Review,” *Engineering Structures*, Vol. 19, 718-723.

Siochi, E. J., Anders, J. B., Cox, D. E., Jegley, D. C., Fox, R. L. Katzberg, S. J. 2002 “Biomimetics for NASA Langley Research Center: Year 2000 Report of Findings From a Six-Month Survey,” NASA Technical Report, Langley Research Center, Hampton, Virginia, NASA/TM-2002-211445.

Spillman, W, Huston, D., Fuhr, P., and Lord, J., 1993. “Neural Network Damage Detection in a Bridge Element,” *SPIE Smart Sensing, Processing, and Instrumentation*, V. 1918, pp. 288-295.

Staszewski, W. J. 1999 “Structural and Mechanical Damage Detection Using Wavelets,” *Shock and Vibration Digest*, Vol. 12-27.

Sun, F., Chaudry, Z., Liang, C., and Rogers, C. A. 1995 “Truss Structure Integrity Identification Using PZT Sensor-Actuator,” *Journal of Intelligent Material Systems and Structures*, Vol. 6. 134-139.

Sun, F., Liang, C. and Rogers, C. A. 1994 “Structural Modal Analysis Using Collocated Piezoelectric Actuators/Sensors: An Electromechanical Approach,” *Proc. Smart Structures and Materials 1994: Smart Structures and Intelligent Systems*, Vol. 2190, 238-249.

Tsou, P., and Shen, M. H., 1993. “Structural Damage Detection and Identification using Neural Networks,” *Proceedings of 34th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics and Materials Conference*, pp. 3551-3560.

Valanis, K. C. 1980 “Fundamental Consequences of a New Intrinsic Time Measure: Plasticity as a Limit of the Endochronic Theory,” *Archive of Mechanics*, Vol. 32, 171-191.

Ware, J. S., Lin, J. K., Cadogan, D. P. 2001 “Self Sealing Bladder for use in Pressurized Inflatable Structures,” NASA Bioastronautics Investigators’ Workshop, Galveston, TX, 17-19 Jan.

West, W. M. 1984 “Illustration of the Use of Modal Assurance Criterion to Detect Structural Changes in an Orbiter Test Specimen,” *Proceedings of the Air Force Conference on Aircraft Structural Integrity*, 1-6.

White, S. R., Sottos, N. R., Geubelle, P. H., Moore, J. S. Kessler, M. R., Sriram, S. R., Brown, E. N., Viswanathan, S. 2001 “Autonomic Healing of Polymer Composites,” *Nature* Vol. 409, 794-797.

Worden, K., Ball, A., and Tomlinson, G. 1993. “Neural Networks for Fault Location,” *Proceedings of the 11th International Modal Analysis Conference*, pp. 47-54.

Zagrai, A. and Giurgiutiu, V. 2002 “Health Monitoring of Aging Aerospace Structures Using the Electro-mechanical Impedance Method,” *Proceedings of SPIE’s 7th Annual International Symposium on NDE for Health Monitoring and Diagnostics*, March 17-21, San Diego, CA.

Zako, M. and Takano, N 1999 “Intelligent Systems Using Epoxy Particles to Repair Microcracks and Delamination Damage in GFRP,” *Journal of Intelligent Material Systems and Structures*, Vol 10, 836-841.