

## PUBLICATIONS IN ARCHIVAL JOURNALS

Xiaochu Xu and M.S.P. Lucas, "Variable Sampling Rate Sigma-Delta Modulator for Instrumentation and Measurement". T-IM Oct 95 929-932.

M.S.P. Lucas, "Expert Opinion," IEEE Spectrum, p. 38, February 1990.

M.F. Wagdy and M.S.P. Lucas, "A Phase-Measurement Offset Compensation Technique Suitable for Automation," IEEE Trans. on Instrum. and Meas., Vol. IM-36, No. 3, Sept. 1987.

M.F. Wagdy and M.S.P. Lucas, "A Phase Measurement Offset Compensation Technique Suitable for Automation," IEEE Trans. on Instrum. and Meas., Vol. IM-36, No 3, Sept. 1987.

M.F. Wagdy and M.S.P. Lucas, "A Phase Measurement Error Compensation Technique Suitable for Automation," IEEE Trans. on Instrum. and Meas., Vol. IM-35, No 1, March, 1986.

M.F. Wagdy and M.S.P. Lucas, "Errors in Sampled Data Phase Measurement," IEEE Trans. on Instrum. and Meas., Vol. IM-34, No. 4, Dec. 1985.

M.S.P. Lucas and T.J. Sobering, "Low Power Operation of the SBP9989 16 Bit I2L Processor," IEEE Trans. on the Instrum. and Meas., Vol. IM-32, No. 4, Dec. 1983.

J.L. Schmalzel, L.J. D'Luna, M.S.P. Lucas, and R.R. Gallagher, "A Versatile Easily Assimilated Microcomputer for 9Instrumentation Development Applied to Direct Photographic Mask Generation," IEEE Trans. on Industrial Electronics and Control Instr., Vol. ICEI-24, No. 3, August 1977.

M.S.P. Lucas, L.E. Stephens, W.H. Dawes, and M.R. Casey, "Thick-film Sensors for Agriculture Applications," J. Agric. Engg. Res., Vol. 21, pp. 1-8, 1976.

M.S.P. Lucas, "Thick Film Technology," (Part II) NZ Electron, August/September, 1975.

M.S.P. Lucas, "Thick Film Technology," (Part I) NZ Electron, June/July 1975.

M.S.P. Lucas and W. H. Dawes, "A Thick Film Microcircuit Laboratory," IEEE Trans. on Education, Vol. E-16, No. 3, pp. 130-137, August 1973.

M. R. Casey, R. K. Blocksome, W. H. Dawes, "Thick Film Moisture Sensors", Electrical Components Conference, Washington, DC 1973.

R.C. Eberhart and M.S.P. Lucas, "Crop Thinning Operations Analysis," J.of Agric. Eng. Res., Vol. 17, pp. 309-314, 1972.

M.S.P. Lucas, "Size Effects in Double-Layer Metallic Films," Thin Solid Films, Vol. 7, Sec. 6, pp. 435-445, 1971.

M.S.P. Lucas, "The Effects of Surface Layers on the Conductivity of Gold Films," Thin Solid Films, Vol. 2, pp. 337-352, 1968.

M.S.P. Lucas, "The Effect of Dielectric Losses on the Characteristics of a Distributed RC Null Network," Microelectronics and Reliability, Vol. 7, pp. 105-106, 1968.

M.S.P. Lucas, "Distributed Effects in Thin-Film Capacitors," Microelectronics and Reliability, Vol. 6, pp. 269-276, 1967.

M.S.P. Lucas, "Electrical Conductivity of Thin Metallic Films with Unlike Surfaces," Journal of Applied Physics, Vol. 36, Sec. 5, pp. 1632-1635, May 1965.

M.S.P. Lucas, "Surface Scattering of Conduction Electrons in Gold Films," Applied Physics Letters, Vol. 4, p. 73, 1964.

M.S.P. Lucas, "Some Characteristics of Tantalum Films," (Invited Paper) Materials Science Research, Volume I, Ed. H.H. Stadelmaier and W.W. Austin, Plenum Press, 1963.

M.S.P. Lucas, "The Deposition of Superconducting Tantalum, Niobium and Vanadium Films," M.S. Thesis, Duke University, June 1962.

M.S.P. Lucas and D.T. Meyer, "Production of Superconducting Niobium Films by Vacuum-Arc Deposition," Nature, Vol. 193, p. 4817, February 24, 1962.

W.C. Stewart, H. A. Owen, M.S.P. Lucas, and C.R. Vail, "Persistent- Current Memory Circuit," Proc. of the IRE, Vol. 49, pp. 11, November 1961.

M.S.P. Lucas, H.A. Owen, W.C. Stewart, and C.R. Vail, "Vacuum-Arc Evaporation of Refractory Metals," Review of Scientific Instruments, Vol. 32, p. 2, February 1961.

C.R. Vail, M.S.P. Lucas, H.A. Owen, and W.C. Stewart, "An Approach to the Experimental Study of Persistent-Current Devices," Solid-State Electronics, Vol. 1, p. 4, 1960.