

Dale H. Petty

Washtenaw Community College, TI 122

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EDUCATION

Master of Science in Clinical Engineering, Case Western Reserve University, Cleveland, Ohio, June, 1976. Master's Project: "Special Purpose Timer To Aid In Closed Circuit Anesthesia Delivery"

Bachelor of Science in Electrical Engineering, cum laude, State University of New York at Buffalo, January, 1974. Specialization: Electronic Instrumentation, Control Systems

EMPLOYMENT

Full time instructor – Washtenaw Community College, Ann Arbor, Michigan (1994 – present)

Electricity for HVAC – developed and taught course

Introduction to Programmable Logic Controllers – developed and taught course

PLC Applications, – developed and taught course

Motors and Controls – developed and taught course

Motion Control - developed and taught course

Practical Geometry and Trigonometry

PC Troubleshooting and Repair

Part time instructor – Washtenaw Community College, Ann Arbor, Michigan (1992 – 1994)

Introduction to Telecommunications

Basic Semiconductor Electronics

Instructor – Gitfiddler Music Store and Ann Arbor Public Schools (1991 – 1993)

Gave individual and group instruction on playing the Appalachian mountain dulcimer

Instructor – Leslie Science Center (1990 - 1991)

Gave nature education classes to groups of children

Clinical Engineer, part time –William Beaumont Hospital, Royal Oak, Michigan (1991-1992)

Facilitated medical equipment selection for major construction projects. Prepared Request for Proposal for critical care physiologic monitoring system. Coordinated evaluation of fetal monitoring archiving system. Investigated medical device accidents involving electrosurgery, heart lung bypass and IV lines. Developed policies on equipment purchases and engineering work requests. Trained new clinical engineers.

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Manager, Medical Engineering – William Beaumont Hospital, Royal Oak, Michigan (1983 – 1990)

Supervised engineers and engineering interns. Responsible for evaluation and approval of all patient care equipment requests including: pre-purchase evaluation, testing, request for proposal, and assisting in clinical evaluation. Coordinated accident investigations involving patient equipment including: collecting, analyzing and reporting data. Developed or assisted in developing hospital policies on Operator Training, Accident Investigation and Equipment Purchasing. Designed custom instrumentation and assisted with medical research including: peripheral nerve conduction stimulation, esophageal motility, and underwater weighing. Taught electrical safety and instrumentation principles to nurses, technicians and doctors.

Clinical Engineer – William Beaumont Hospital, Royal Oak, Michigan (1976 – 1983)

Conducted pre-purchase evaluation and testing of patient care equipment. Designed, built and tested custom instrumentation. Repaired equipment and consulted with technicians on repair problems. Developed equipment safety and purchasing policies. Taught medical instrumentation principles to Biomedical Equipment Technicians, Taught introductory physics, electricity and magnetism to Xray technician students.

PROFESSIONAL ASSOCIATIONS

Great Lakes Renewable Energy Association
Association for the Advancement of Sustainability in Higher Education
Instrumentation Society of America
American Society for Engineering Education
Washtenaw Community College Education Association

PUBLICATIONS

Peripheral Nerve Conduction Stimulation: Its Effect on Cardiac

Pacemakers, Myron M. LaBan, M.D., Dale H. Petty, M.S., C.C.E., Andrew M. Hauser, M.D., Ronald S. Taylor, M.D., Archives of Physical Medicine and Rehabilitation, Vol. 69, 385-362, May 1988.

Spontaneous Noncardiac Chest Pain, Evaluation by 24-Hour Ambulatory Esophageal Motility and pH Monitoring, L. Peters, L. Maas, D. Petty, C. Dalton, D. Penner, W. Wu, D. Castell, J. Richter, Gastroenterology, Vol. 94, 878-886, 1988.

A Portable Esophageal pH Tape Recorder, David A. Penner and Dale H. Petty, *Esophageal Disorders: Pathophysiology and Therapy*, edited by T.R. DeMeester and D.B. Skinner. Raven Press, 1985, 535-537.

24-hour Ambulatory Manometry in Diagnosis of Esophageal Motor Disorders Causing Chest Pain, L.C. Maas, R.K. Gordon, D. Penner, D. Barkel, S. Gordon, D. Linert & D.H. Petty. Southern Medical Journal, Vol. 78, No. 7, 810-813, 1985.

Special Purpose Timer to Aid in Closed Circuit Anesthesia Delivery, Dale H. Petty, Edward A. Ernst & G. Blackwell. IEEE Transactions on Biomedical Engineering, BME-26, No. 8, 493-495, 1979.

Clinical Device Note: A Versatile Optical Stimulator for Analysis of Abnormal Eye Movements, Dale H. Petty, M.S.C.E. & Jaime T. Benitez, M.D. Medical Instrumentation, (JAAMI), Vol. 13, No. 5, 306-7, 1979.

PRESENTATIONS Session chairperson: *SMDA Device Tracking - Roundtable Discussion*. Michigan Society for Clinical Engineering Biomedical Engineering Symposium, February 1994.

Technology Management, Variance Management, Safe Medical Device Act of 1990 - Tracking, Michigan Society for Clinical Engineering Biomedical Engineering Symposium, February 1993.

Clinical Engineers Are Prepared For The "Safe Medical Devices Act of 1990" At William Beaumont Hospital, J.W. Hall and D. Petty, Proceedings of the AAMI 26th Annual Meeting, May 1991.

Setting Priorities in a Multiple Clinical Engineer Department, Dale Petty and Rodney Hasler, Proceedings of the AAMI 25th Annual Meeting, p. 73, May 1990.

An Operator Education Program Based On 1989 JCAHO PTSM Standards, Dale Petty, Proceedings of the AAMI 25th Annual Meeting, p. 73, May 1990.

24 Hour Ambulatory Combined Esophageal Motility/pH Monitoring in Evaluation of Non-cardiac Chest (CP), L.J. Peters, L.C. Maas, C.B. Dalton, D.H. Petty, W.C. Wu, D.O. Castell & J.E. Richter. Digestive Disease Week, American Gastroenterological Association, 1986, 292.

Comparison of 24 Hour Ambulatory Motility/pH System with Conventional Tests in Evaluation of Non-cardiac Chest Pain, J.E. Richter, L.J. Peters, D.H. Petty, D.O. Castell. 51st Annual Scientific Meeting, American College of Gastroenterology, 1986.

Esophageal Tape Recorder: Old Technique, New Questions, D.H. Petty D.A. Penner, M.D. & J.A. VanDenBerghe. Proceedings of the 37th Annual Conference on Engineering in Medicine and Biology, 1984. Vol. 26, 366.

Total Body Plethysmography for Body Volume Determination, D.H. Petty, R. Iwanski, C.X. Gao, R.H. Dressendorfer. IEEE 1984, Frontiers of Engineering and Computing in Health Care, 316.

PATENTS

Esophageal Function and EKG Monitor. Inventors: Dale H. Petty, David A. Penner, James A. VanDenBerghe. Patent No. 4,503, 859.