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Bill Grimmell received a B.S. in Electrical Engineering from MIT, masters degrees in Electrical Engineering and Mathematics and a Ph.D. in Electrical Engineering from the University of Michigan. He is currently a Senior Research Staff Member at the Oak Ridge National Laboratory (ORNL), which he joined at the beginning of 1994. He lead ORNL's participation in the DAMA project of the DOE sponsored Amtex program from 1995 until its completion in 2000.

From 1982 through 1993 he was Corporate Director of Engineering Innovation for the Warner Lambert Company where he oversaw developments in a variety of fields including advanced vision systems, industrial robotics, novel material processing, artificial intelligence and integrated computer monitoring and control systems for production and laboratory operations. From 1968 to 1982 he was a member of the Advanced Technology Department of Hoffmann LaRoche where he led a multidisciplinary group in the development of computer and microprocessor based instrumentation, implementation of computer process control systems, networking of data acquisition and business computer systems, and explorations of applicability of emerging technologies. He also managed the final years of a new pharmaceutical dose form development project involving novel continuous coating technologies and web material developments. From 1966 to 1968 he was a member of the Technical Staff of Bell Telephone Laboratories engaging in control systems research, antiballistic missile systems analysis and antisubmarine signal processing and command and control systems studies. In this position he extended a fundamental result (of LaSalle) concerning minimum time "bang-bang" control systems to "fuel optimal" control systems.

Dr. Grimmell's research interests include (i) network protocols and algorithms including those for self organizing ad hoc networks (ii) automated object tracking (iii) control theory applications to materials and other processing (iv) code generating software (v) sensitivity analysis (vi) biologically informed machine learning (vii) integrated supply chain management. He holds 5 U.S. patents one of which was featured in a New York Times article on promising new recently patented technologies

#### Recent Publications

W.C. Grimmell and N.S.V. Rao., "Computing Path-Tables of Quickest Paths Under Different Routing Mechanisms", In *Proc. IEEE Int. Conf. on Communications* (2002).

W.C. Grimmell and N.S.V. Rao., "Generation of Quickest Multipath Path-Tables" (*in press*).

N.S.V. Rao, W.C. Grimmell, S. Radhakrishnan, and Y.C. Bang., "Quickest paths for different network router mechanisms". In *Proc Int. Conf. on Advanced Computing and Communications*, (2001).

B. Grimmell, R. Lee, S. Petrov, "DAMA National Sourcing Database System Description", *DAMA-G-6-98*, (September 1998).

#### Patents

W. Grimmell and G. Kaetzel, "Multichannel Fiber Optic Light Guide for Capsule Inspection", *U.S. Patent # 4,371,784* (February 1, 1983).

W. Grimmell et al., "Method and Apparatus for Color Recognition and Defect Detection of Objects Such as Capsules", *U.S. Patent # 4,371,770* (March 13, 1979).

W. Grimmell et al., "Apparatus for Color Recognition and Defect Detection of Objects Such as Capsules", *U.S. Patent # 4,082,188* (April 4, 1978).

J. Adams and W. Grimmell, "Random Flow Counter", *U.S. Patent # 3,760,162* (September 18, 1973).

J. Adams and W. Grimmell, "Machine Color Recognition", *U.S. Patent # 3,737,239* (June 5, 1973).

#### Recent Invited Presentations

W. C. Grimmell, "Marketing, the Internet and Computer Systems", American Apparel Manufacturers Association Bobbin Show, Atlanta Ga. (September 30, 1999).

W.C. Grimmell, "Current Information Technology Needs of Small to Medium Sized Apparel Manufacturers and Contractors", SEAMS Annual Fall Meeting, Ashville, North Carolina (October 17, 1998).