

## Conference Papers

1. "Generalized inverse and dual networks--An extended definition," *IEEE International Convention Record*, Vol. 11, Part 2, New York, NY, March 1963, pp. 76-82, (with N. DeClaris and N. Herbst).
2. "Transfer function synthesis of tunnel-diode-RC networks," *Proc. First Allerton Conference on Circuit and System Theory*, Monticello, IL, November 1963, pp. 131-147, (with D. Losee).
3. "Polynomial decomposition in passive and active one-port synthesis," *Proc. Seventh Midwest Symposium on Circuit Theory*, University of Michigan, May 1964, pp. 172-176, (with J. Delansky).
4. "A new method for the determination of a network function from its even (odd) part," *Summaries of Papers, International Conference on Microwaves, Circuit Theory, and Information Theory*, Part 2, Tokyo, Japan, September 1964, pp. 23-24.
5. "An equivalent circuit for the operational amplifier," *Proc. 3rd Allerton Conference on Circuit and System Theory*, University of Illinois, October 1965, (with E. Butler).
6. "The reactive gyrator--A new concept and its application to active network synthesis," *IEEE International Convention Record*, Vol. 14, Part 7, New York, N.Y., March 1966, pp. 319-326, (with W. Howard).
7. "Transfer function realization using RC one-ports and grounded amplifiers," *Proc. First Annual Princeton Conference on Information Sciences and Systems*, Princeton University, March 1967, pp. 18-23.
8. "Nullator-norator equivalent circuits of linear active elements and their applications," *Proc. First Asilomar Conference on Circuits and Systems*, Pacific Grove, California, November 1967, pp. 267-276.
9. "Active RC filters employing a single operational amplifier," *Proc. Hawaii International Conference on System Sciences*, Honolulu, Hawaii, January 1968, pp. 433-436.
10. "Recent developments in active network synthesis and future promises," *Proc. 1968 Summer School on Circuit Theory*, (Czechoslovak Academy of Sciences), Prague, Czechoslovakia, June 1968, pp. 1-55 (Invited Paper).
11. "Generation of RC impedance functions and applications," *Proc. Second Asilomar Conference on Circuits and Systems*, Pacific Grove, California, November 1968, pp. 353-357, (with D.L. Larimer).
12. "Computer analysis of constrained networks," *Symposium Digest, 1968 IEEE International Symposium on Circuit Theory*, Miami Beach, Florida, December 1968, p. 5.

13. "Active RC filters," *Proc. First Houston Conference on Circuits, Systems, and Computers*, Houston, Texas, May 1969, pp. 147-159 (Invited Paper).
14. "Filter design using integrated operational amplifiers," *IEEE WESCON Convention Record*, San Francisco, California, August 1969, Session 4, pp. 1-11 (Invited Paper).
15. "A novel approach to computer-aided switching function minimization," *Proc. 1969 Joint Conference on Mathematical and Computer Aids to Design*, Anaheim, California, October 1969 (with R. Hamilton).
16. "Low sensitivity canonic active RC filter," *Symposium Digest, 1969 IEEE International Symposium on Circuit Theory*, San Francisco, California, December 1969, p. 24 (with M.A. Soderstrand).
17. "On minimizing root sensitivities of higher-order transfer functions," *Proc. Third Asilomar Conference on Circuits and Systems*, Pacific Grove, CA, December 1969, pp. 502-505 (with D.P. Leach).
18. "Fundamental limitations of active filters," *Proc. 4th Colloquium on Microwave Communication*, (Hungarian Academy of Sciences), Budapest, Hungary, April 1970, pp. CT 18/1 - CT 18/11 (with M.A. Soderstrand) - (Invited Paper).
19. "Design of active RC switched filter for PCM applications," *Proc. of the Kyoto International Conference on Circuit and System Theory*, Kyoto, Japan, September 1970, pp. 201-202 (with M.R. Aaron).
20. "Sensitivity analysis of resistive digital-to-analog conversion ladders," *Proc. Kyoto International Conference on Circuit and System Theory*, Kyoto, Japan, September 1970, pp. 207-208 (with K. Ramachandran).
21. "Soil characterization by electrical networks," *Proc. Fourth Asilomar Conference on Circuits and Systems*, Pacific Grove, California, November 1970, pp. 480-485 (with K. Arulanandan).
22. "Sensitivity analysis of third order filters," *Proc. Mexico 1971 International Conference on Circuits, Systems, and Computers*, Oaxtepec, Mexico, January 1971 (with M.A. Soderstrand) - (Invited Paper).
23. "Computer-aided design of active inductorless filters using frequency dependent amplifiers," *Proc. 1971 Region Six Conference*, Sacramento, California, May 1971, Paper 3c-2, pp. 1-7 (with R. Hamilton) - (Invited Paper).
24. "Current trends in inductorless filters," *1971 IEEE WESCON Convention Record*, San Francisco, California, August 1971, Session 8, pp. 1-3.

25. "Active RC filters using non-ideal amplifiers having frequency dependent gain characteristics," *1971 IEEE International Symposium on Electrical Network Theory*, London, England, September 1971 (with B.H. Shanta Pai) - (Invited Keynote Paper).
26. "Active RC networks in microelectronic technologies," *Proc. 1971 Summer School on Circuit Theory*, (Czechoslovak Academy of Sciences), Tale, Czechoslovakia, September 1971, pp. 18-1 to 18-5 (Invited Paper).
27. "On canonic realizations of digital filters," *Proc. 8<sup>th</sup> Allerton Conference on Circuit and System Theory*, University of Illinois, October 1971 (with R.J. Sherwood) - (Invited Paper).
28. "Computer-aided design of digital filters with finite wordlength," *Symp. Digest, 1972 IEEE International Symposium on Circuit Theory*, Los Angeles, California, April 1972, pp. 270-274 (with M. Suk).
29. "Active RC filters with zero gain-sensitivity product," *Symp. Digest, 1972 IEEE International Symposium on Circuit Theory*, Los Angeles, California, April 1972, pp. 340-344 (with M.A. Soderstrand).
30. "Current status of active RC filters," *Proc. International Filter Symposium*, Santa Monica, California, April 1972 (Invited Paper).
31. "Computer-aided sensitivity analysis of higher order filters," *Proc. Second International Symposium on Network Theory*, Herceg-Novvi, Yugoslavia, July 1972, pp. 240-247 (with M.A. Soderstrand) - (Invited Paper).
32. "Analysis of interconnected multi-terminal digital filters," *Proc. Sixth Asilomar Conference on Circuits and Systems*, Pacific Grove, California, November 1972, pp. 467-471.
33. "A new approach to digital filter realization," *Proc. Sixth Asilomar Conference on Circuits and Systems*, Pacific Grove, California, November 1972, pp. 472-476 (with R.J. Sherwood).
34. "Estimation of pole-zero displacements of a digital filter due to coefficient quantization," *Digest, 1973 IEEE International Symposium on Circuit Theory*, Toronto, Canada, April 1973 (with R.J. Sherwood).
35. "Some recent work in digital filter structure," *Digest, 1973 IEEE International Symposium on Circuit Theory*, Toronto, Canada, April 1973 (Invited Paper).
36. "Transfer matrix realization using generalized impedance converters," *Proc. Midwest Symposium on Circuit Theory*, Waterloo, Canada, April 1973 (Invited Paper).

37. "A simple method of computing the input quantization and the multiplication round-off errors in digital filters," *Proc. Seventh Asilomar Conference on Circuits, Systems, and Computers*, Pacific Grove, California, November 1973, pp. 275-279 (with K. Hirano and H. Sakaguchi) - (Invited Paper).
38. "A two-step procedure for designing active RC filters using frequency dependent amplifiers," *Proc. Seventh Asilomar Conference on Circuits, Systems, and Computers*, Pacific Grove, California, November 1973, pp. 363-367 (with A. Bhumiratana and B.A. Shanta Pai) - (Invited Paper).
39. "Time-sharing realization of digital Butterworth filters," *Proc. Meeting of the Circuits and Systems Group, Institute of Electronics & Communication Engineers (Japan)*, Okinawa, Japan, December 1973, (with K. Hirano, S. Nishimura, and T. Saito).
40. "An alternate approach to digital ladder realization," *Proc. Princeton Conference on Information Sciences and Systems*, Princeton, N.J., March 1974, pp. 115-119 (with D.C. Huey).
41. "Realization of digital filters in coupled bilinear form," *Proc. Fifth Colloquium on Microwave Communication*, Budapest, Hungary, July 1974, pp. CT 169-CT 179 (with A.D. Sagar) - (Invited Paper).
42. "Roundoff noise of digital filters employing floating-point arithmetic," *Proc. Meeting of the Circuits and Systems Group, Institute of Electronics and Communication Engineers (Japan)*, Osaka, Japan, CST 73-87, 1974, pp. 43-48 (with K. Hirano and Y. Ito).
43. "Recursive digital filter realization methods," *1974 Conference on Decision and Control*, Phoenix, Arizona, November 1974, (Invited Paper).
44. "Design of maximally-flat recursive digital filters via potential analogy," *Proc. Meeting of the Circuits and Systems Group, Inst. of Electronics and Communication Engineers (Japan)*, Tokyo, Japan, CST 74-71, November 1974, pp. 35-42 (with K. Hirano and T. Saito).
45. "Digital filter realization using successive multiplier extraction approach," *Proc. Second Interamerican Conference on Systems and Informatics*, Mexico City, Mexico, November 1974 (with J. Szczupak) - (Invited Paper).
46. "Detection, location, and removal of delay-free-loops in a digital filter configuration," *Proc. Eighth Asilomar Conference on Circuits, Systems, and Computers*, Pacific Grove, California, December 1974, pp. 302-307 (with J. Szczupak) - (Invited Paper).
47. "Digital sinusoidal oscillators and quantization errors," *Proc. Meeting of the Circuits and Systems Group, Inst. of Electronics and Communication Engineers (Japan)*, Osaka, Japan, CST 74-106, January 1975, pp. 79-84 (with K. Hirano and Y. Ito).

48. "Transfer functions of low-order digital filters," *Proc. Meeting of the Circuits and Systems Group, Inst. of Electronics and Communication Engineers (Japan)*, Osaka, Japan, CST 74-107, January 1975, pp. 85-90 (with K. Hirano and H. Sakaguchi).
49. "Approximation of recursive digital filters," *Convention Record for Inst. of Electronics and Communication Engineers (Japan)*, Tokyo, Japan, March 1975 (with K. Hirano and H. Sakaguchi).
50. "Design of digital sinusoidal oscillators with absolute periodicity," *Proc. 1975 IEEE International Symposium on Circuits and Systems*, Boston, MA, April 1975, pp. 64-67 (with K. Furuno, K. Hirano, and Y. Ito).
51. "Potential analogy approach to recursive digital filter design," *Proc. 1975 IEEE International Symposium on Circuits and Systems*, Boston, MA, April 1975, pp. 179-182 (with K. Hirano, T. Saito, and Y. Tanno).
52. "Spectral transformations for two-dimensional digital filters," *Proc. 1975 IEEE International Symposium on Circuits and Systems*, Boston, MA, April 1975, pp. 455-458 (with N.A. Pendergrass and E.I. Jury).
53. "Design of digital sine-cosine generator," *Proc. Second Florence Conference on Digital Signal Processing*, Florence, Italy, September 1975, pp. 142-149 (with K. Hirano and K. Furuno) - (Invited Paper).
54. "Computer-aided design of separable two-dimensional digital filters," *Proc. Asilomar Conference on Circuits, Systems, and Computers*, Pacific Grove, California, November 1975, pp. 125-130 (with R.E. Twogood).
55. "Design of variable digital filters," *Proc. Meeting of the Circuits and Systems Society, Inst. of Electronics and Communication Engineers (Japan)*, January 1976, pp. 31-36 (with S. Nishimura and K. Hirano).
56. "A novel approach to recursive digital filter realization with low roundoff noise," *Proc. 1976 IEEE International Symposium on Circuits and Systems*, Munich, Germany, May 1976, pp. 299-302 (with K. Mondal, K. Hirano, and H. Sakaguchi).
57. "New results on the block implementation of recursive digital filters," *Proc. 13<sup>th</sup> Allerton Conference on Circuit and System Theory*, University of Illinois, September 1976, pp. 243-252 (with R. Gnanasekaran) - (Invited Paper).
58. "On the implementation of two-dimensional FIR digital filters by sectioning," *Proc. 1977 IEEE International Symposium on Circuits and Systems*, Phoenix, Arizona, April 1977, pp. 670-673 (with R.E. Twogood and M.P. Ekstrom).

59. "An algorithm for multivariable polynomial factorization," *Proc. 1977 IEEE International Symposium on Circuits and Systems*, Phoenix, Arizona, April 1977, pp. 678-683 (with S. Chakrabarti).
60. "A general realization scheme for 2-D digital transfer functions," *Proc. 1977 IEEE International Conference on Acoustics, Speech, and Signal Processing*, Hartford, Conn., May 1977, pp. 539-542 (with S. Chakrabarti).
61. "Hardware implementation of two-dimensional digital filters using ROM," *Proc. 1977 IEEE International Conference on Acoustics, Speech, and Signal Processing*, Hartford, Conn., May 1977, pp. 519-522 (with R. Gnanasekaran and K. Mondal).
62. "State-structures and minimal state-structures for arbitrary digital filters," *Proc. 1978 IEEE International Conference on Acoustics, Speech, and Signal Processing*, Tulsa, Oklahoma, April 1978, pp. 55-57 (with K. Mondal and S. Chakrabarti).
63. "Realization of digital transfer functions using cascaded normalized two-pairs," *Proc. 1978 IEEE International Conference on Acoustics, Speech, and Signal Processing*, Tulsa, Oklahoma, April 1978, pp. 47-50 (with K. Mondal).
64. "Maximal independent node sets in digital filter configurations and design of low noise filters," *Proc. 1978 IEEE International Symposium on Circuits and Systems*, New York, May 1978, pp. 1009-1013 (with K. Mondal and S. Chakrabarti).
65. "Continuously equivalent digital filters with low roundoff noise," *Proc. Congresso Internacional de Processamento de Sinais*, Rio de Janeiro, Brazil, July 1978, pp. 71-79 (with T. Sugahara and J. Szczupak).
66. "Some equivalences of block implementation techniques," *Proc. 12th Asilomar Conference on Circuits, Systems, and Computers*, Pacific Grove, California, November 1978, pp. 618-621 (with R. Gnanasekaran) - (Invited Paper).
67. "A microprocessor based digital filter laboratory station for an undergraduate signal processing laboratory," *Proc. 1979 IEEE International Conference on Acoustics, Speech, and Signal Processing*, Washington, D.C., April 1979, pp. 876-879 (with J. Howard and Y. Gal).
68. "A flexible architecture for the single multiplier-accumulator implementation of FIR and IIR digital filters," *Proc. 1979 Joint Automatic Control Conference*, Denver, Colorado, June 1979, pp. 173-177 (with J. Howard and W. Hughes) - (Invited Paper).
69. "Upper bounds on the variance of round-off noise for the cascade realization of digital filters," *Proc. 1979 International Symposium on Circuits and Systems*, Tokyo, Japan, July 1979, pp. 173-176 (with K. Mondal).

70. "Design and implementation of half-plane two-dimensional digital filters," *Proc. 1979 International Colloquium on Circuits and Systems*, Taipei, Taiwan, July 1979, pp. 73-76 (with K. Mondal and R.E. Twogood) - (Invited Paper).
71. "Block-state recursive digital filters with minimum roundoff noise," *Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing*, Denver, Colorado, April 1980, pp. 81-84 (with P. Ananthakrishna).
72. "Block adaptive filtering," *Proc. IEEE International Symposium on Circuits and Systems*, Houston, Texas, April 1980, pp. 384-387 (with G.A. Clark and S.R. Parker).
73. "Realization of low-noise digital filters with reduced number of multipliers," *Proc. IEEE International Symposium on Circuits and Systems*, Houston, Texas, April 1980, pp. 585-588 (with J. Fadavi-Ardekani).
74. "Topological considerations in the implementation of a digital filter using microprocessors," *Digital Signal Processing - Proc. 1980 International Conference on Digital Signal Processing*, Florence, Italy, V. Cappellini and A. G. Constantinides, Eds., Academic Press, New York, NY, September 1980, pp. 123-133 (with J.P. Brafman and J. Szczupak) - (Invited Paper).
75. "Extended state-space representation of discrete-time systems - Properties and applications," *Proc. 1980 European Conference on Circuit Theory and Design*, Warsaw, Poland, September 1980, pp. 242-248 (with J. Fadavi-Ardekani) - (Invited Paper).
76. "Design of FIR digital filters using tapped cascaded FIR subfilters," *Proc. IEEE International Conference on Circuits and Computers*, Port Chester, New York, October 1980, pp. 1176-1179 (with S. Nakamura) - (Invited Paper).
77. "Digital lattice and ladder block structures," *Proc. 14th Asilomar Conference on Circuits, Systems, and Computers*, Pacific Grove, CA, November 1980, pp. 234-238 (with P. Ananthakrishna and B.D.O. Anderson) - (Invited Paper).
78. "Design of switched-capacitor filter networks with minimum capacitor ratio and total capacitance," *Proc. IEEE International Symposium on Circuits and Systems*, Chicago, IL, April 1981, pp. 326-329 (with P.P. Vaidyanathan).
79. "Block Kalman filtering," *Proc. 1981 European Conference on Circuit Theory and Design*, The Hague, The Netherlands, September 1981, pp. 723-731 (with N. Ramesh and B.D.O. Anderson) - (Invited Paper).
80. "Two-dimensional digital filter identification and synthesis," *Proc. International Conference on Communication Circuits and Systems*, Jadavpur University, Calcutta, India, December 1981 (with K. Mondal and S.K. Jain) - (Invited Paper).

81. "Linear compensator design using block processing constraints," *Proc. IFAC Symposium on Theory and Applications of Digital Control*, New Delhi, India, January 1982, pp. 31-35 (with J. Kolanek and B.D.O. Anderson) - (Invited Paper).
82. "A general theory of block state digital filters," *Proc. IEEE International Symposium on Circuits and Systems*, Rome, Italy, May 1982, pp. 1025-1028 (with P. Ananthakrishna) - (Invited Paper).
83. "Block adaptive equalization," *Proc. IEEE International Symposium on Circuits and Systems*, Rome, Italy, May 1982, pp. 686-689 (with N.S. Ramesh) - (Invited Paper).
84. "Efficient realization of adaptive digital filters in the time and frequency domain," *Proc. 1982 IEEE Conference on Acoustics, Speech, and Signal Processing*, Paris, France, May 1982, pp. 1345-1348 (with G.A. Clark and S.R. Parker).
85. "FIR digital filters for VLSI implementation," *Proc. 1982 IEEE International Conference on Circuits and Computers*, New York City, September 1982 (with Y. Neuvo).
86. "FIR digital filters with reduced number of multipliers," *Proc. 7th Colloquium on Microwave Communication*, Budapest, Hungary, September 1982, pp. 187-190 (with C-Y Dong and Y. Neuvo).
87. "A new approach to the synthesis of low sensitivity digital filter structures based on lossless building blocks," *Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing*, Boston, MA, April 1983, pp. 615-618 (with P.P. Vaidyanathan).
88. "A general theory of low sensitivity digital filters," *Proc. 1983 IEEE International Symposium on Circuits and Systems*, Newport Beach, CA, May 1983, pp. 266-269 (with P.P. Vaidyanathan).
89. "Two-dimensional interpolated finite-impulse-response filters," *Proc. IEEE International Symposium on Circuits and Systems*, Newport Beach, CA, May 1983, pp. 904-906 (with M. Thomas and Y. Neuvo).
90. "Low sensitivity active RC filters: Fundamental properties and synthesis procedures," *Proc. Midwest Symposium on Circuits and Systems*, Puebla, Mexico, August 1983, pp. 1-5 (with P.P. Vaidyanathan and B.D.O. Anderson) - (Invited Keynote Paper).
91. "Design and analysis of switched-capacitor filters using a single operational amplifier," *Proc. Midwest Symposium on Circuits and Systems*, Puebla, Mexico, August 1983, pp. 435-439 (with P.P. Vaidyanathan).
92. "Generalized mean filters: A new class of nonlinear filters for image processing applications," *Proc. 6th European Conference on Circuit Theory and Design*, Stuttgart, West Germany, September 1983, pp. 185-188 (with A. Kundu and P.P. Vaidyanathan) - (Invited Paper).



93. "All digital N-path filter," *Proc. 6th European Conference on Circuit Theory and Design*, Stuttgart, West Germany, September 1983, pp. 358-361 (with K. Hirano).
94. "Allpass based digital filter structures implemented with lossless building blocks," *Proc. 2nd European Signal Processing Conference*, Erlangen, West Germany, September 1983, pp. 103-106 (with P.P. Vaidyanathan).
95. "Spectral transformations in switched-capacitor filters," *Proc. 17th Asilomar Conference on Circuits, Systems, and Computers*, Pacific Grove, CA, November 1983, pp. 505-509 (with P.P. Vaidyanathan).
96. "A new class of very low sensitivity cascade-form digital filters based on 'passive' second-order signal-input single-output building blocks," *Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing*, San Diego, CA, March 1984, pp. 11.1.1-11.1.4 (with P.P. Vaidyanathan).
97. "Structurally passive FIR digital filters," *Proc. IEEE International Symposium on Circuits and Systems*, Montreal, Canada, May 1984, pp. 33-36 (with P.P. Vaidyanathan).
98. "Complementary IIR digital filters," *Proc. IEEE International Symposium on Circuits and Systems*, Montreal, Canada, May 1984, pp. 234-237 (with Y. Neuvo).
99. "Analysis of linear digital filters containing periodically operated switches," *Proc. IEEE International Symposium on Circuits and Systems*, Montreal, Canada, May 1984, pp. 523-526 (with H-S Pyi).
100. "Implementation of digital filters based on lossless synthesis of allpass filters," *Proc. IEEE International Symposium on Circuits and Systems*, Montreal, Canada, May 1984, pp. 1013-1017 (with P.P. Vaidyanathan).
101. "Passivity properties of low sensitivity digital filter structures," *Proc. 27th Midwest Symposium on Circuits and Systems*, Morgantown, WV, June 1984, pp. 619-622 (with P.P. Vaidyanathan).
102. "Network interpretation of stability tests," *Proc. 1st Latin-American Conference on Automatic Control/5th Brazilian Conference on Automatic Control*, Campina Grande, Paraiba, Brazil, September 1984, pp. 362-372 (with Y. Neuvo) - (Invited Paper).
103. "A computationally efficient approach to the removal of impulse noise from digitized speech," *Digital Signal Processing-84, Proc. 1984 International Conference on Digital Signal Processing*, Florence, Italy, V. Cappellini and A. G. Constantinides, Eds., Elsevier Science Publishers B.V., Amsterdam, The Netherlands, September 1984, pp. 389-394 (with A. Kundu) - (Invited Paper).

104. "Generalized running sum digital filters," *Proc. 5th International Symposium on Network Theory*, Sarajevo, Bosnia-Herzegovina, September 1984, pp. 357-364 (with G. Rajan and Y. Neuvo) - (Invited Paper).
105. "Fast computation of Jacobian and inverse Jacobian of robot manipulators," *Proc International Conference on Intelligent Robots and Computer Vision*, Cambridge, MA, November 1984, pp. 235-242 (with A. Mahalanobis).
106. "Multiplier reduction techniques in FIR filter design," *Proc. International Conference on Computers, Systems, and Signal Processing*, Bangalore, India, December 1984, pp. 805-823 (with G. Rajan and Y. Neuvo) - (Invited Paper).
107. "Efficient FIR filter design using differential coding of filter coefficients," *Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing*, Tampa, FL, March 1985, pp. 45-48 (with W.Y. Sung).
108. "Complementary IIR digital filter banks," *Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing*, Tampa, FL, March 1985, pp. 529-532 (with Y. Neuvo and P.P. Vaidyanathan).
109. "Design of canonic active RC crossover filters with tunable characteristics," *Proc. 1985 International Symposium on Circuits and Systems*, Kyoto, Japan, June 1985, pp. 307-310 (with N. Fujii, Y. Neuvo, and A.J. Damonte).
110. "Design of computationally efficient FIR filters using the singular value decomposition," *Proc. 1985 China International Conference on Circuits and Systems*, Beijing, People's Republic of China, June 1985, pp. 268-271 (with M. Grosen and Y. Neuvo) - (Invited paper).
111. "Discrete version of Richard's theorem and application to lattice realization of digital transfer matrices and functions," *Proc. 1985 International Symposium on Circuits and Systems*, Kyoto, Japan, June 1985, pp. 71-74 (with P.P. Vaidyanathan).
112. "Efficient interpolated FIR filters," *Proc. 1985 International Symposium on Circuits and Systems*, Kyoto, Japan, June 1985, pp. 1145-1149, (with T. Saramäki and Y. Neuvo).
113. "Variable cutoff frequency IIR digital filters," *Proc. IASTED International Symposium on Applied Signal Processing and Digital Filtering*, Paris, France, June 1985, pp. 5-8, (with Y. Neuvo and H. Roivainen).
114. "Generation of lowpass and bandpass window sequences by cascaded running sums," *Proc. IASTED International Symposium on Applied Signal Processing and Digital Filtering*, Paris, France, June 1985, pp. 168-171, (with H. Babic and G. Rajan).

115. "Design of fault-tolerant 1-D FIR digital filters using outer product decomposition," *Proc. European Conference on Circuit Theory and Design*, Prague, Czechoslovakia, September 1985, pp. 545-548 (with M. Grosen and Y. Neuvo).
116. "Efficient multiprocessor implementation of recursive digital filters," *Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing*, Tokyo, Japan, April 1986, pp. 257-260, (with W. Sung).
117. "Design of doubly-complementary IIR digital filters using a single complex allpass filter," *Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing*, Tokyo, Japan, April 1986, pp. 2547-2550, (with P.P. Vaidyanathan and P.A. Regalia).
118. "Image enhancement via transform amplitude sharpening," *Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing*, Tokyo, Japan, April 1986, pp. 2463-2466, (with T-H Yu).
119. "A new class of uniform filter banks based on recursive N-th band filters," *Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing*, Tokyo, Japan, April 1986, pp. 2555-2558, (with M. Renfors and Y. Neuvo).
120. "Linear phase FIR notch filter design," *Proc. IEEE-Academia Sinica Workshop on Acoustics, Speech, and Signal Processing*, Beijing, China, April 1986, pp. 183-186, (with T-H Yu and H. Babic).
121. "Fast adaptive filtering using vector-processors and multi-processors," *Proc. 1986 IEEE-Academia Sinica Workshop on Acoustics, Speech, and Signal Processing*, Beijing, China, April 1986, pp. 147-150, (with W.Y. Sung).
122. "A universal active RC crossover network," *Proc. IEEE International Symposium on Circuits and Systems*, San Jose, CA, May 1986, pp. 174-177, (with P.A. Regalia, N. Fujii, and Y. Neuvo).
123. "Complex coefficient digital filters," *Proc. IEEE International Symposium on Circuits and Systems*, San Jose, CA, May 1986, pp. 1109-1112, (with P.A. Regalia and J. Fadavi-Ardekani) - (Invited Paper).
124. "Very low sensitivity realization of IIR digital filters using a cascade of complex allpass filters," *Proc. IEEE International Symposium on Circuits and Systems*, San Jose, CA, May 1986, pp. 1113-1116, (with T. Saramäki and T-H Yu) - (Invited Paper).
125. "Bounded complex transfer functions and its application to the realization of low sensitivity IIR digital filters," *Proc. IEEE International Symposium on Circuits and Systems*, San Jose, CA, May 1986, pp. 452-455, (with P.A. Regalia and P.P. Vaidyanathan) - (Invited Paper).

126. "A complex Kalman filter for a class of real discrete-time systems," *Proc. 1986 American Control Conference*, Seattle, WA, June 1986, pp. 2020-2021, (with S. Shellhammer and R.A. Iltis).
127. "Design of computationally efficient interpolated FIR filters," *Proc. 2nd Nordic Symposium on VLSI in Computers and Communications*, Linköping, Sweden, June 1986, pp. 306-320 (with T. Saramäki and Y. Neuvo).
128. "An efficient FIR structure for adaptive line enhancers," *Proc. European Signal Processing Conference - EUSIPCO'86*, The Hague, The Netherlands, September 1986, pp. 93-96 (with M. Grosen and Y. Neuvo).
129. "Design of computationally efficient narrowband FIR bandpass filters," *Proc. European Signal Processing Conference - EUSIPCO'86*, The Hague, The Netherlands, September 1986, pp. 135-138 (with Y. Neuvo and G. Rajan).
130. "Multiplierless structures based on running sum and cyclotomic polynomials," *Proc. European Signal Processing Conference - EUSIPCO'86*, The Hague, The Netherlands, September 1986, pp. 159-162 (with H. Babic and G. Rajan).
131. "Efficient beamforming based on interpolation over the array elements," *Proc. European Signal Processing Conference - EUSIPCO'86*, The Hague, The Netherlands, September 1986, pp. 1161-1164 (with P. Jarske and Y. Neuvo).
132. "A new local search method for finite wordlength FIR digital filter design," *Proc. 20th Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, California, November 1986, pp. 175-180 (with C-Y Tseng) - (Invited Paper).
133. "On frequency domain least squares adaptive algorithms," *Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing*, Dallas, Texas, April 1987, pp. 411-414 (with J. Lee).
134. "An efficient method for computing very high resolution DFT of a short sequence," *Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing*, Dallas, Texas, April 1987, pp. 1819-1822 (with J. Baumgartner and H. Babic).
135. "Realization of structurally LBR digital allpass networks," *Proc. IEEE International Symposium on Circuits and Systems*, Philadelphia, Pennsylvania, May 1987, pp. 633-636 (with J. Szczupak and J. Fadavi-Ardekani).
136. "Computationally efficient uniform single rate DFT filter banks for audio applications," *Proc. International Symposium on Signal Processing and Its Applications*, Brisbane, Australia, August 1987, pp. 120-125 (with G. Rajan, P. P. Vaidyanathan and Y. Neuvo) - (Invited Paper).

137. "A multiprocessor scheduling method for real-time signal processing applications," *Proc. TENCON'87 - IEEE Region 10 Conference*, Seoul, South Korea, August 1987, pp. 801-805 (with W-Y Sung).
138. "Theory of magnitude complementary transfer functions, with application to loud-speaker crossover systems," *Proc. European Conference on Circuit Theory & Design*, Paris, France, September 1987, pp. 169-174 (with P. A. Regalia).
139. "Quadrature mirror Hilbert transformers," *Digital Signal Processing-87, Proc. 1987 International Conference on Digital Signal Processing*, Florence, Italy, V. Cappellini and A. G. Constantinides, Eds., Elsevier Science Publishers B.V., Amsterdam, The Netherlands, September 1987, pp. 775-782 (with P. A. Regalia) - (Invited Paper).
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