



International Bibliographies

Listing of selected articles in literature compiled by K. N. Reid, editor, M. Masubuchi, K. Fujii, D. Debeljkovic, and A. Barraud

COMPUTER METHODS

"Interactive Method of Solution of Systems of Linear Algebraic Equations by Stochastic Computers," V. V. Yakovlev, *Automation and Remote Control*, Vol. 40, No. 5, Part 2, May 1979, pp. 773-777.

"A Method for Adaptive Control Using a Minicomputer," T. Yahagi, *IEEE Transactions on Industrial Electronics and Control Instrumentation*, Vol. IECE-26, No. 1, Feb. 1979, pp. 16-22.

"Real-Time Control of a Multiple-Element Mechanical Linkage with a Microcomputer," C. A. Klein and J. J. Maney, *IEEE Transactions on Industrial Electronics and Control Instrumentation*, Vol. IECE-26, No. 4, Nov. 1979, pp. 227-234.

"Mikrorechnergesteuertes Statistik-Auswertegerät," Dr.-Ing. W. Schönberger/Dr.-Ing. K. Urbanski/Dipl.-Ing. J. Wahrburg, Messen + Prüfen (West Germany), No. 5, S. 373-376, 1979.

"Stand und Tendenzen der Mikroprozessor-Technologie," G. Färber, *Regelungstechnische Praxis* (West Germany), Vol. 21, No. 4, S. 89, 1979.

"Zur Lastregelung in Betriebssystemen von Timesharing-Anlagen," H. -P. Fricke, *Elektronische Rechenanlagen* (West Germany), Vol. 21, No. 3, S. 120-125, 1979.

"Simulation Methods in Research," Kogan B-Ya, Tetelbaum I. M. *Avt. Telem.* (USSR) No. 6, 1979, pp. 171-181.

"Programming Systems for Debugging and Solution of Hybrid Problems," Kogan B. I., *Ibid.*, No. 7, 1979, pp. 166-175.

"Throughput Estimation of a Computer Operation Conveyor," Kogan Ya. A., Signaevskiy V. A., *Ibid.*, No. 8, 1979, pp. 150-161.

"Difficulty of Information Search in Storage," Goryashko A. P., *Tekhnicheskay Kibernetika* (USSR), No. 3, 1979, pp. 109-117.

"Technical Systems Design by Use of Fuzzy Sets and Blurred Algorithms," Miroshnikov V. V., *Ibid.*, No. 3, 1979, pp. 124-136.

"Theory of Language Processors and Parallel Calculations," Glushkov V. M., Tseitlin G. E., and Yushchenko, E. L., *Kibernetika* (USSR), No. 1, 1979, pp. 1-19.

"Information - Logic Relations in Flow Charts Over Files," Nuriev, R. M., *Ibid.*, No. 1, 1979, pp. 78-86.

"Parallel Programming with Control Types," Kotov, V. E., *Ibid.*, No. 3, pp. 1-14.

"Some Problems of Planning the Computing Process in the Computation Centres Network," Kukhar, R. B., Lyntse, E. V., *Ibid.*, No. 3, 1979, pp. 96-98.

"On Means for Creating Software of Microprocessor Systems," Kornienko, G. I., and Barsuk, Ya. I., *Ibid.*, No. 4, 1979, pp. 41-47.

"On Some Algorithms of Output Signals Processing Under Statistical Control of Lapis Circuits," Bershtein, M. S., *Ibid.*, No. 4, 1979, pp. 49-53.

"Techniques Analogiques et numériques - Une étude comparative sur un système électromécanique," A. Husson, C. Lung, and J. F. Aubry, *Mesures Régulation et Automatisation*, Vol. 44, No. 10, Oct. 1979, pp. 69-80.

"Automatisme logique: Grafset ou réseau de Pétri?" M. Blanchard, *Le nouvel Automatisme*, No. 6, Mai 1979, pp. 45-52.

"Comment conduire des calculs statistiques de grande tailles par la méthode des éléments finis," F. Besnier, *Le Nouvel Automatisme*, No. 7, Juin/Juill. 1979, pp. 47-51.

CONTROL COMPONENTS

"A Multipoint Temperature-to-Frequency Transducer," J. L. Murgatroyd and J. D. Holder, *IEEE Transactions on Industrial Electronics and Control Instrumentation*, Vol. IECE-26, No. 1, Feb. 1979, pp. 27-29.

"Analog Sensing of Displacement Using Silicon Solar Cell," H. Shintani,

IEEE Transactions on Industrial Electronics and Control Instrumentation, Vol. IECE-26, No. 2, May 1979, pp. 70-78.

"Analog Measurement of Position Using Hall Effect," P. K. Sinha, *IEEE Transactions on Industrial Electronics and Control Instrumentation*, Vol. IECE-26, No. 3, Aug. 1979, pp. 196-198.

"Messen und Prüfen sichtbar gemachter Belastungen," Ing. (grad.) P. Lüdtkke, Messen und Prüfen (West Germany), No. 6, S. 461-462, 1979.

"Fréquence-limite de fonctionnement en commutation naturelle d'un moteur synchrone autopiloté," A. Abdel-Razek, J. P. Chassande, L. Pierrat, M. Poloujadoff, and A. Wiart, *Revue Générale de l'Electricité*, Tome 88, No. 9, Sept. 1979, pp. 690-696.

MAN-MACHINE SYSTEMS

"Modeling and Control of Constrained Dynamic Systems with Application to Biped Locomotion in the Frontal Plane," H. Hemami, and B. F. Wyman, *IEEE Transactions on Automatic Control*, Vol. AC-24, No. 4, Aug. 1979, pp. 526-535.

"Adaptive Anti-Swing Control of Unloader Using Human Operator Model," H. Taguchi and K. Fujii, *Trans. Inst. Electrical Engrs. of Japan*, Vol. 99-C, No. 3, 1979, pp. 55-62.

"Commande dynamiques de Robots," W. Khalil, A. Liegeois, and A. Fournier, *RAIRO Automatique*, Vol. 13, No. 2, pp. 171-202.

"Intelligence artificielle et robotique industrielle," J. C. Latombe and A. Lux, *Le Nouvel Automatisme*, No. 6, Mai 1979, pp. 37-44.

"Intelligence artificielle et robotique industrielle," 2ème partie, *Le Nouvel Automatisme*, No. 7, Juin/Juill. 1979, pp. 21-29.

"Interpréteur-éditeur Braille Automatique autonome avec clavier de machine à écrire," J. P. Dubus and F. Wattrelot, 2ème partie, *Le Nouvel Automatisme*, No. 7, Juin/Juill. 1979, pp. 31-35.

PROCESS CONTROL

"A New Liquid Level Sensor for Process-Control Applications," K. A. P. Menon and R. Hariharan, *IEEE Transactions on Instrumentation and Measurement*, Vol. IM-28, No. 2, June 1979, pp. 155-158.

"Design of Proportional-Plus-Integral Controllers for Multivariable Systems," H. Seraji, *Int. Journal of Control*, Vol. 29, No. 1, Jan. 1979, pp. 49-63.

"State Variables and Pseudo Bond Graphs for Compressible Thermofluid Systems," Dean Karnopp, *ASME Journal of Dynamic Systems, Measurement and Control*, Vol. 101, No. 3, Sept. 1979, pp. 201-204.

"Design of a Practical Controller for a Commercial Scale Fossil Power Plant," Asock Ray and D. A. Berkowitz, *ASME Journal of Dynamic Systems, Measurement and Control*, Vol. 101, No. 4, pp. 284-289.

"Robust Multivariable Controllers for a Tubular Ammonia Reactor," N. Viswanadham, L. M. Patnaik, and I. G. Sarma, *Ibid.*, pp. 290-298.

"Design of Multivariable Controllers for an Advanced Turbofan Engine by Zakian's Method of Inequalities," O. Taiwo, *Ibid.*, pp. 299-307.

"An Elastic Analysis of Multiroll Endless Web System," Tsai-Chen Soong and Chun Li, *Ibid.*, pp. 308-13.

"A Simple Digital Control Scheme for a Class of Multi-Input, Multi-Output Industrial Processes," M. Tomizuka, *Ibid.*, pp. 339-344.

"Erfahrungen beim Entwurf und Einsatz von Mehrgrößenregelungen an Rektifikations- und Reaktionskolonnen," U. Trilling and G. Kaibel, *Regelungstechnische Praxis* (West-Germany), Vol. 21, No. 5, S. 118, 1979.

"Prozessregelung in der Zementindustrie," B. Karl, *Regelungstechnische Praxis* (West-Germany), Vol. 21, No. 6, S. 117, 1979.

"Anwendung des Mehrgrößen-Nyquist-Verfahrens auf ein Dampferzeuger-Modell," H. Unbehauen and S. Engell, *Regelungstechnik* (West-Germany), Vol. 27, No. 8, S. 260, 1979.

"Mehrgößenregelungen mit elektrisch-analogen Bausteinsystemen," W. Kriesel, R. Schmidt, P. Schmidt, Messen-Steuern-Regeln (West-Germany), Vol. 22, No. 7, S. 377-380, 1979.

"Plant Identification," Rajbman, N. S., *Art. Telem (USSR)*, No. 7, 1979, pp. 80-94.

"Diagnostic System Indices," Zhukov, M. V., and Karibskiy, V. V., *Ibid*, No. 7, 1979, pp. 137-146.

"Functional Diagnosis of Linear Dynamic Systems," Mironrskiy, L. A., *Ibid*, No. 8, 1979, pp. 120-129.

"A Recurrent Method for Random Flow Parameters Estimation," Kuleshov, E. L., and Yudin, V. V., *Technicheskaya Kibernetika (USSR)*, No. 3, 1979, pp. 148-154.

"Systeme modulaire multitaches pour commande de processus," J. P. Musse, J. P. Drapier, and O. Dauchin, *Le Nouvel Automatisme*, No. 8, Sept./Oct. 1979, pp. 51-58.

"Influence de la frequence d'echantillonnage sur le gain statique et la reponse transitoire d'une command numerique," A. Peitteman, *L'Onde Electrique*, Vol. 59, No. 5, Mai 1979, p. 75.

SYSTEMS AND CONTROL THEORY

"Eine einfache Herleitung der Frequenzbereichs-Darstellung der algebraischen Riccati-Gleichung für das Kalman-Bucy-Filter," C. Landgraf, *Regelungstechnik (West-Germany)*, Vol. 27, No. 8, S. 260, 1979.

"A Class of Discrete Kalman Filtering Algorithms," M. M. Simkin, *Automation and Remote Control*, Vol. 40, No. 3, Part 1, Mar. 1979, pp. 363-370.

"Pole Assignment by Piecewise Constant Output Feedback," A. B. Chammas and C. T. Leondes, *Int. Journal of Control*, Vol. 29, No. 1, Jan. 1979, pp. 31-38.

"A Note on Parametric Stability," *Int. Journal of Control*, Vol. 29, No. 2, Feb. 1979, pp. 261-266.

"Characteristic Frequency - Gain Design Study of an Automatic Flight Control System," B. Kouvaritakis, W. Murray, and A. G. J. MacFarlane, *Ibid*, pp. 325-358.

"Stability Limits of a Smith Controller in Simple Systems Containing a Time Delay," A. C. Loannides, G. J. Rogers, and V. Latham, *Int. Journal of Control*, Vol. 29, No. 4, Apr. 1979, pp. 557-563.

"State-Variable Design Methods May Produce Unstable Feedback Controllers," C. D. Johnson, *Ibid*, pp. 607-619.

"A Synthesis Theory for Multiple-Loop Oscillating Adaptive Systems," I. Horowitz and A. Shapiro, *Int. Journal of Control*, Vol. 29, No. 6, June 1979, pp. 963-979.

"Performance of State Regulator Systems with Floating-Point Computation," R. E. Rink and H. Y. Chong, *IEEE Transactions on Automatic Control*, Vol. AC-24, No. 3, June 1979, pp. 411-420.

"Uncertain Dynamical Systems - A Lyapunov Min-Max Approach," *Ibid*, pp. 437-443.

"On the Finite Solution of Nonlinear Inequalities," E. Polak and D. Q. Mayne, *Ibid*, pp. 443-445.

"A Double Integral Quadratic Cost and Tolerance of Feedback Nonlinearities," W. H. Kwon and A. E. Pearson, *Ibid*, pp. 445-449.

"A Practical Solution to the Minimal Design Problem," L. V. Foster, *Ibid*, pp. 449-454.

"Triangularization Technique for the Design of Multivariable Control Systems," N. T. Hung and B. D. O. Anderson, *Ibid*, pp. 455-460.

"Output Regulation and Tracking in Linear Multivariable Systems," W. A. Wolovich and P. Ferreira, *Ibid*, pp. 460-465.

"Regulator Design with Modal Insensitivity," J. W. Howze and R. K. Cavin, *Ibid*, pp. 466-469.

"Finite Spectrum Assignment Problem for Systems with Delays," A. Manitius and A. Olbrot, *IEEE Transactions on Automatic Control*, Vol. AC-24, No. 4, Aug. 1979, pp. 541-553.

"Generalized Quadratic Weights for Asymptotic Regulator Properties," G. Stein, *Ibid*, pp. 559-556.

"Tests for Stability and Instability of Interconnected Systems," P. J. Moyland and D. Hill, *Ibid*, pp. 574-575.

"New Passivity - Type Criteria for Large-Scale Interconnected Systems," M. Vidyasagar, *Ibid*, pp. 575-579.

"Design of Restricted Complexity Adaptive Regulators," G. Goodwin and P. Ramadge, *Ibid*, pp. 584-588.

"Unification of Some Continuous-Time Adaptive Control Schemes," B. Egardt, *Ibid*, pp. 588-592.

"Computation of the Abscissa of Stability by Repeated Use of the Routh Test," V. Zakian, *Ibid*, pp. 604-606.

"Point-Transformation Analysis of Relay Control Systems," K. Onogi and M. Matsubara, *IEEE Transactions on Automatic Control*, Vol. AC-24, No. 5, Oct. 1979, pp. 730-735.

"Approximate Solutions of High-Order Differential Equations," M. Nakano, *IEEE Transactions on Industrial Electronics and Control Instrumentation*, Vol. IECI-26, No. 2, May 1979, pp. 83-88.

"Analysis and Design of Pulse Ratio Modulated Feedback Control Systems," G. D. Maria and L. Sciavico, *IEEE Transactions on Industrial Electronics and Control Instrumentation*, Vol. IECI-26, No. 3, Aug. 1979, pp. 166-172.

"Nonparametric Model Matching of Linear Time-Invariant Multivariable Systems," P. N. Paraskevopoulos, *IEEE Transactions on Industrial Electronics and Control Instrumentation*, Vol. IECI-26, No. 4, Nov. 1979, pp. 234-237.

"Indirect Control of the Forces of Constraint in Dynamic Systems," H.

Hemami and B. F. Wyman, *ASME Journal of Dynamic Systems, Measurement and Control*, Vol. 101, No. 4, Dec. 1979, pp. 355-360.

"An Adaptive Control Policy of Discrete-Time Linear Systems With Random Parameters," Toshio Yoshimura, Masanori Kiyota and Takashi Soeda, *Ibid*, pp. 361-363.

"Compensation of the Speed Governor of a Water Turbine by the Method of Inequalities, C. A. D. Coelho, *ASME Journal of Dynamic Systems, Measurement and Control*, Vol. 101, No. 3, Sept. 1979, pp. 205-211.

"Guaranteed Asymptotic Stability for Some Linear Systems With Bounded Uncertainties," G. Leitmann, *Ibid*, pp. 212-216.

"Optimal Design of Recursive Digital Filters in the Time Domain," T. Yahagi, *Systems and Control*, Vol. 23, No. 4, 1979, pp. 239-246.

"On Zeroing the Output of Linear Stochastic System," T. Nakamizo and M. Ohshiro, *Ibid*, Vol. 23, No. 6, 1979, pp. 323-329.

"Simulation d'une commande automatique de gain de type homomorphe," M. Bernheim, *L'onde Electrique*, Vol. 59, No. 10, Juin/Juillet 1979, pp. 69-74.

"Stabilisation d'un système linéaire en présence de contraintes sur la commande," M. Mouradi, *RAIRO-Automatique*, Vol. 13, No. 2, pp. 127-148.

"Convergence vers zéro de l'erreur de comportement dans un algorithme de commande adaptative," M. Solatoreff, *Compte-rendu Académie des Sciences*, Paris, Tome 288, No. 17, 7 Mai 1979, pp. 859-862.

"Un contre exemple en théorie de la commande en temps minimal des systèmes paraboliques," J. Henry, *Compte-rendu Académie des Sciences*, Paris, Tome 289, No. 2, 9 Juillet 1979, pp. 87-90.

"A Study on Jump Phenomenon of Nonlinear Dynamical Systems Subjected to Narrow-Band Random Input," Y. Sunahara and T. Asakura, *Trans. of the Japan Soc. of Mech. Engrs.*, Vol. 45, No. 392, 1979, pp. 431-440.

"A Design of Discrete Adaptive Observer Based on Lyapunov's Stability Theorem," Y. Yonezawa and F. Ohkawa, *Trans. of the Soc. of Inst. and Control Engrs.*, Vol. 15, No. 2, 1979, pp. 141-146.

"Observer Construction Methods for a Class of Bilinear Systems," T. Hinamoto, *Ibid*, pp. 147-152.

"State Observer for Bilinear Systems Using Derivative of Output," Y. Funahashi and Y. Adachi, *Ibid*, pp. 153-158.

"On the Improvement of Convergence Characteristics for an Adaptive Observer," K. Kanai and T. Noguchi, *Ibid*, pp. 159-164.

"Reachability of Discrete Bilinear Systems," M. Inagaki and Y. Funahashi, *Ibid*, pp. 165-170.

"On the Moment Stability of the Second Order Linear Systems With Colored Noise Coefficients," S. Sugimoto, K. Ito and H. Sugiyama, *Ibid*, pp. 171-177.

"Realization Theory of Discrete Time Systems," T. Matsuo and Y. Hasegawa, *Ibid*, pp. 178-185.

"Eigenvalue Placement in Linear Periodic Discrete-Time Systems," M. Kono, *Ibid*, pp. 186-192.

"Stable Output Deadbeat Controller With State Feedback in Discrete Time Linear Multivariable Systems," H. Akashi and H. Imai, *Ibid*, pp. 193-198.

"Steady State Characteristics of Process-Model Control for Systems with Time Delay," K. Watanabe and M. Ito, *Ibid*, pp. 199-204.

"A Unified Approach to Adaptive Observers," K. Tamura, N. Sakata and K. Okamura, *Ibid*, pp. 213-220.

"Reduction Method of Periodic Control Systems by Kautz Orthonormal Function System and its Application to Systemic Circulation," T. Kitamura and H. Akashi, *Ibid*, pp. 221-227.

"On an Optimization of Sensor's Allocation in Distributed Parameter Systems," Y. Nakamori, S. Ikeda and Y. Sawaragi, *Trans. of the Soc. of Inst. and Control Engrs.*, Vol. 15, No. 3, 1979, pp. 277-283.

"A Design Method for Multivariable Discrete Model Reference Adaptive Control System," T. Suzuki and T. Nakamura, *Ibid*, pp. 284-290.

"Minimal Realization of a Class of Nonlinear Discrete-Time Systems," T. Nomura and K. Furuta, *Ibid*, pp. 291-297.

"Realization Theory of Discrete Time Linear Representation Systems," Y. Hasegawa and T. Matsuo, *Ibid*, pp. 298-305.

"Realization of Inhomogeneous Bilinear Systems," M. Inagaki and Y. Funahashi, *Ibid*, pp. 306-312.

"Reduced System and Minimal Order Inverse System for Linear Time-Invariant System," S. Kamiyama, *Ibid*, pp. 313-319.

"Sequential Least-Squares Estimation of Frequency Responses," S. Mizuguchi and R. Tagawa, *Ibid*, pp. 320-325.

"Hessian Matrices of Multiplier Functions and Their Condition Numbers," Y. Kameyama, H. Sayama, K. Inaba and T. Murakami, *Ibid*, pp. 339-344.

"State Estimation of Linear Stochastic Systems with Coefficients Depending on a Markov Chain—Case of Observation Noise with Random Statistics—," Y. Takeuchi and H. Akashi, *Ibid*, pp. 345-352.

"Interpretive Preference Structural Modeling (IPSM) for Multiobjective Systems," H. Tamura and O. Narai, *Ibid*, pp. 360-365.

SYSTEM MODELING AND IDENTIFICATION

"Estimation of Variables and Parameters in Discrete-Time Nonlinear Systems," V. S. Pugachev, *Automation and Remote Control*, Vol. 40, No. 4, Part 1, Apr. 1979, pp. 512-521.

"An Approximation Approach to the Identification of Non-Linear Systems Based on Frequency Response Measurements," E. M. Wysocki and W. J. Rugh, *Int. Journal of Control*, Vol. 29, No. 1, Jan. 1979, pp. 113-123.

"Consistent Estimation of System Order," T. L. Fine and W. G. Hwang, *IEEE Transactions on Automatic Control*, Vol. AC-24, No. 3, June 1979, pp. 387-402.

- "Linear System Identification from Nonstationary Cross-Sectional Data," Ibid, pp. 403-411.
- "Existence of Limit Cycle and Stabilization of Induction Motor via New Nonlinear State Observer," Ibid, pp. 421-428.
- "Observer Design for Large-Scale Linear Systems," A. Arbel and E. Tse, Ibid, pp. 469-476.
- "A General Martingale Approach to Discrete-Time Stochastic Control and Estimation," K. Hsu and S. Marcus, *IEEE Transactions on Automatic Control*, Vol. AC-24, No. 4, Aug. 1979, pp. 580-583.
- "Parameter Adaptive Identification and Control," H. Elliott and W. A. Wolovich, Ibid, pp. 592-599.
- "Identification of MIMO Systems With Partially Decoupled Parameters," A. E. Pearson and Y. K. Chin, Ibid, pp. 599-604.
- "Robustness With Observers," J. C. Doyle and G. Stein, Ibid, pp. 607-611.
- "Disturbance Localization and Output Deadbeat Control Through and Observer in Discrete-Time Linear Multivariable Systems," H. Akashi and H. Imai, Ibid, pp. 621-627.
- "Transformation of a Nonlinear System Into an Augmented Linear System," H. Takata, *IEEE Transactions on Automatic Control*, Vol. AC-24, No. 5, Oct. 1979, pp. 736-741.
- "Model Reduction by Chebyshev Polynomial Techniques," Y. Bistriz and G. Langholz, Ibid, pp. 741-748.
- "Identification of Two-Dimensional Transfer Functions from Finite Input-Output Data," C. T. Chen and Y. S. Kao, Ibid, pp. 748-752.
- "System Identification via Membership Set Constraints With Energy Constrained Noise," E. Fogel, Ibid, pp. 752-758.
- "A Characterization of Consistent Estimators," F. Nakajima and F. Kozin, Ibid, pp. 758-765.
- "On the Nonstationary Covariance Realization Problem," R. L. Goodrich and P. E. Caines, Ibid, pp. 765-770.
- "Fast Time-Invariant Implementations for Linear Least-Squares Smoothing Filters," Ibid, pp. 770-774.
- "Observer Design for the Minimum-Time State Reconstruction of Linear-Discrete-Time Systems," John O'Reilly, *ASME Journal of Dynamic Systems, Measurement and Control*, Vol. 101, No. 4, Dec. 1979, pp. 350-354.
- "Parameter Identification of Bilinear Systems Using Model Reference Adaptive Techniques," T. Soeda, T. Yoshimura and K. Konishi, *Trans. of the Soc. of Inst. and Control Engrs.*, Vol. 15, No. 2, 1979, pp. 205-212.
- "Identification of a Nonlinear System by Model Reference Adaptive Approaches," T. Yoshimura, K. Konishi and T. Soeda, *Trans. of the Soc. of Inst. and Control Engrs.*, Vol. 15, No. 3, 1979, pp. 326-331.
- "Identification of a Multivariate AR Model," Y. Monden and S. Arimoto, Ibid, pp. 332-338.
- "Modélisation de grands systèmes par agrégation," C. Michalesco, J. M. Siret and P. Bertrand, *RAIRO-Automatique*, Vol. 13, No. 2, pp. 159-170.
- "Décharge couronne identification du processus et optimisation du correcteur pour la régulation du courant," J. F. Aubry and J. P. L'Huilier, *Mesures Régulation et Automatisme*, Vol. 44, No. 6/7, Juin/Juillet 1979, pp. 51-59.
- "Identification de paramètres répartis dans les équations aux dérivées partielles," *RAIRO-Automatique*, Vol. 13, No. 2, pp. 115-126.
- MACHINE TOOL CONTROL**
- "Position and Feed-Rate Control for Contouring Numerical-Control Systems," R. Hariharan and P. A. Sastry, *IEEE Transactions on Electronics and Instrumentation*, Vol. IECI-26, No. 2, May 1979, pp. 79-82.
- "On the Suppression of Self-Excited Chatter by Servodamper," N. Tanaka, M. Miyashita, N. Suzuki, Y. Iwata and A. Kanai, *Trans. of the Japan Soc. of Mech. Engrs.*, Vol. 45, No. 394, 1979, pp. 653-662.
- OPTIMIZATION TECHNIQUES**
- "Toward a Computationally Efficient Optimal Solution to the LQG Discrete-Time Dual Control Problem," A. Sebald, *IEEE Transactions on Automatic Control*, Vol. AC-24, No. 4, Aug. 1979, pp. 535-540.
- "Multiple-Objective Optimization by a Multiplies Method of Proper Equality Constraints - Part I: Theory," J. G. Lin, Ibid, pp. 567-573.
- "The Optimal Linear-Quadratic Time-Invariant Regulator with Cheap Control," B. Francis, Ibid, pp. 616-621.
- "A Chebyshev System Approach to Optimal Input Design," M. B. Zarrop, *IEEE Transactions on Automatic Control*, Vol. AC-24, No. 5, Oct. 1979, pp. 687-698.
- "An Optimal Control Problem With Design Parameter Variables," K. Tamura, K. Ichikawa, and M. Kamiya, Ibid, pp. 775-779.
- "Some Connections Between Modern and Classical Concepts," A. E. Bryson, *ASME Journal of Dynamic Systems, Measurement and Control*, Vol. 101, No. 2, June 1979, pp. 91-98.
- "Computational Techniques in Optimal State-Estimation - A Tutorial Review," Willi Kortum, Ibid, pp. 99-107.
- "Experience With Experimental Applications of Multivariable Computer Control," D. E. Seborg and D. G. Fisher, Ibid, pp. 108-116.
- "Optimal Control of Turbine Engines," R. L. DeHoff and W. Earl Hall, Jr., Ibid, pp. 117-126.
- "Optimal Control Concepts for the Characterization and Design of Highway Vehicle-Trailer Systems," M. A. Townsend, A. B. Shapiro, and K. T. A. Ho, Ibid, pp. 127-137.
- "An Optimal Standard for Solar Heating Systems," D. M. Auslander, M. Tomizuka, and H. Lee, Ibid, pp. 138-149.
- "Time Optimum Control of a Two Capacity Thermal Environmental System With Louvers," Yucel Ercan, Ibid, pp. 150-156.
- "Optimal Control of Sun Tracking Solar Concentrators," R. O. Hughes, Ibid, pp. 157-161.
- "Application of Optimal Preview Control to Power Plant Cooling Systems," D. R. Gunewardana, M. Tomizuka, and D. M. Auslander, Ibid, pp. 162-171.
- "On the Optimal Digital State Vector Feedback Controller with Integral and Preview Actions," Masayoshi Tomizuka and Dan E. Rosenthal, Ibid, pp. 172-178.
- "Parameter Optimization for Two-Player Zero-Sum Differential Games," J. Dolezal, *ASME Journal of Dynamic Systems, Measurement and Control*, Vol. 101, No. 4, Dec. 1979, pp. 345-349.
- "Adaptive Optimization Algorithms with A priori Uncertainty," Tsybkin Ya. Z. Avt. Telem. (USSR), No. 6, 1979, pp. 94-109.
- "Optimal Decomposition into Subsystems," Moiseenko, G-Ye., Ibid, No. 7, 1979, pp. 103-113.
- "Optimization of Parameters for Pynamic Systems with Discontinous Right - Hand Parts," Ashchepkov, L. T., and Badam, U., Ibid, No. 8, 1979, pp. 103-113.
- "A Theory and Algorithms for an Optimization Satisfactions Problem Under Uncertainty," K. Shimizu and E. Aiyoshi, *Trans. Inst. Electronics Comm. Engrs. of Japan*, Vol. J62-A, No. 5, 1979, pp. 278-285.
- "Sensitivity Approach to Measurement Optimization in Distributed Parameter Systems," Y. Nakamori, S. Miyamoto, S. Ikeda and Y. Sawaragi, *Systems and Control*, Vol. 23, No. 4, 1979, pp. 247-255.
- POWER SYSTEMS**
- "Integrated Control System for a Turbogenerator," R. T. Pullman and B. W. Hogg, *Int. Journal of Control*, Vol. 29, No. 3, Mar. 1979, pp. 505-521.
- "A Direct Approach to Jump Detection in Linear Time-Invariant Systems with Application to Power System Perturbation Detection," *IEEE Transactions on Automatic Control*, Vol. AC-24, No. 3, June 1979, pp. 428-434.
- "Hydrogenerating Station Integrated Computer Control-Design Features and Operating Experience," R. H. Tawa, C. T. Nguyen, and P. Lalonde, *IEEE Transactions on Industrial Electronics and Instrumentation*, Vol. IECI-26, No. 1, Feb. 1979, pp. 6-10.
- "Transistorschalter im Bereich hoher Leistungen und Frequenzen," A. Boehringer und Helmut Knöll, etz, *Electronische Zeitschrift (West-Germany)*, Vol. 100, No. 13, S. 664-670, 1979.
- "An Optimization Method for Electric Generation Expansion Planning by Non-Linear Programming, part 1. KWH Model," N. Uchida and Y. Sekine, *Trans. Inst. Electrical Engrs. of the Japan*, Vol. 99-B, No. 3, 1979, pp. 153-161.
- FLUIDICS AND FLUID POWER CONTROL**
- "Programmed Control System for a Loaded Hydraulic Drive," V. V. Volosov, L. I. Voronova, I. F. Radchenko, and Y. N. Chekhovoy, *Soviet Automatic Control*, Vol. 11, No. 3, May-June 1978, pp. 43-47.
- "Study of Kinetics and Dynamics of Conductive Drying of Dispersed Materials," Kornaraki, V. V., *Journal of Engineering Physics*, (USSR), No. 6, 1979, pp. 1004-1012.
- "Liquid Jet Vacuum Gate," Grigoriev, V. N., Ibid, No. 6, 1979, pp. 1040-1044.
- "Finite - Element Solution of the Unsteady - State Transfer Problem," AniKeenko, A. M. and Litvin, O. N., Ibid, No. 6, 1979, pp. 1080-1088.
- "On Stationary Trausfer in Fibrous Composite Materials," Buevich Yu A, Markov V. G., Ibid, No. 5, 1979, pp. 828-835.
- "Sphere Radiometer," Shcherbina, D. M., Ibid, No. 5, 1979, pp. 896-901.
- "Application of Heat Pipes for Ground Freezing," Vaaz, S. L., Ibid, No. 5, 1979, pp. 910-914.
- BIOENGINEERING**
- "An Investigation Into the Uses of a Microcomputer in the Control of a Manipulator for Tetraplegics," D. J. Todd, *Engineering in Medicine*, Vol. 8, No. 4, Oct. 1979, pp. 193-200.
- "UCL Hydraulic Arm Dynamics," D. R. Broome, *Engineering in Medicine*, Vol. 8, No. 2, Apr. 1979, pp. 87-93.
- "Modeling and Parameter Identification of the Human Respiratory System," D. M. Wiberg, et. al., *IEEE Transactions on Automatic Control*, Vol. AC-24, No. 5, Oct. 1979, pp. 716-720.
- "Blood Flowmetry in the Micro Circulation -Pressure-Flow Relationships in the Microvessels of Rat Mesentery," N. Ohshima and M. Sato, *Japan J. Medical Electronics and Biol. Engng.*, Vol. 17, No. 2, 1979, pp. 120-126.
- "The Effects of Pulsatile Flow Upon the Impedance of Blood," K. Sakamoto and H. Kanai, Ibid, Vol. 17, No. 2, 1979, pp. 127-133.
- "Data Processing of Vertical Foot-Forces for the Clinical Assessment of Pathological Gait," S. Miyazaki, T. Takeuchi, H. Iwakura and T. Kubota, Ibid, Vol. 17, No. 2, 1979, pp. 134-140.
- "Driving Energy of Time-Varying Capacitance Model of Left Ventricle and Cardiac Oxygen Consumption," Ibid., Vol. 17, No. 2, 1979, pp. 141-146.
- SPACE SYSTEMS**
- "A Singular Perturbation Analysis of Optimal Aerodynamic and Thrust Magnitude Control," A. J. Calise, *IEEE Transactions on Automatic Control*,

Vol. AC-24, No. 5, Oct. 1979, pp. 720-730.

"A Distributed System Adaptive Control Strategy," C. R. Johnson and R. C. Montgomery, *IEEE Transactions on Aerospace and Electronic Systems*, Vol. AES-15, No. 5, Sept. 1979, pp. 601-612.

"Preliminary Evaluation of GPS Performance of Low-Cost General Aviation," A. N. Joglekar and G. G. Wong, *Ibid*, pp. 666-671.

"Digital Flight Control Research Using Microprocessor Technology," R. G. Stengel, *IEEE Transactions on Aerospace and Electronic Systems*, Vol. AES-15, No. 3, May 1979, pp. 397-404.

ROBOTICS AND PROGRAMMABLE ASSEMBLY

"Analysis of Massless Elastic Chains With Servo Controlled Joints," W. J. Book, *ASME Journal of Dynamic Systems, Measurement and Control*, Vol. 101, No. 3, Sept. 1979, pp. 187-192.

"The Application of Model-Referenced Adaptive Control to Robotic Manipulators," S. Dubowsky and D. T. DesForges, *Ibid*, pp. 193-200.

"Simulation and Control Synthesis of Manipulator in Assembling Technical Parts," D. Stokic and M. Vukobratovic, *Ibid*, pp. 332-338.

TRANSPORTATION SYSTEMS

"Controlled Dynamic Characteristics of Ferromagnetic Vehicle Suspensions Providing Simultaneous Lift and Guidance," D. A. Limbert, H. H. Richardson, and D. N. Wormley, *ASME Journal of Dynamic Systems, Measurement*

and Control, Vol. 101, No. 3, Sept. 1979, pp. 217-222.

"A Dynamics Simulation for a High Speed Magnetically Levitated Guided Ground Vehicle," D. B. Cherchas, *Ibid*, pp. 223-229.

"Nonlinear Analysis of Rail Vehicle Forced Lateral Response and Stability," J. Karl Hedrick and A. V. Arslan, *Ibid*, pp. 230-237.

"Nonlinear Wheelset Forces in Flange Contact Part 1: Steady State Analysis and Numerical Results," L. M. Sweet and J. A. Sivak, *Ibid*, pp. 238-246.

"Nonlinear Wheelset Forces in Flange Contact Part 2: Measurements Using Dynamically Scaled Models, L. M. Sweet, J. A. Sivak, and W. F. Putman, *Ibid*, pp. 247-255.

"Steering and Stability of Unsymmetric Articulated Rail Vehicles," A. H. Wickens, *Ibid*, pp. 256-262.

"Comparative Study of the Linear and Non-Linear Locomotive Response," E. H. Chang, V. K. Garg, C. H. Goodspeed, and S. P. Singh, *Ibid*, pp. 263-271.

"Application of Sensitivity Analysis to Car-Trailer Stability," E. C. Mikulcik, *Ibid*, pp. 272-274.

"Vehicle-Follower Control for Dynamic Entrainment of Automated Guideway Transit Vehicles," S. E. Shladover, *ASME Journal of Dynamic Systems, Measurement and Control*, Vol. 101, No. 4, Dec. 1979, pp. 321-331.

"Two-Dimensional Dynamics of Tracked Ram Air Cushion Vehicles With Fixed and Variable Winglets," L. M. Sweet, H. C. Curtiss, Jr., and R. A. Luhrs, *Ibid*, pp. 321-331.