

11/6/834
Engineering
Electrical Engineering
Biological Computer Laboratory Publications, 1951-1978

Box 1

Publication Lists

1. Publications List, 1971-1981

Notices

2. Notices, 1967
 - a. Report on Education Simulation. Gordon Pask. May 24, 1967
 - b. Report on Education Simulation II, July 20, 1967

Proposals

3. Nonr Contract 1834(21). Proposal and Revised Budget. June 6, 1960
4. The National Science Foundation. Proposal for the Continuation of a Comprehensive Study of the Theory and Circuitry of Property Detector Fields and Nets. February 28, 1962.
5. Proposal for the Continuation of a Comprehensive Study of the Theory and Circuitry of Systems with Mind-Like Behavior. Department of Electrical Engineering; University of Illinois. 10 June 1963
6. Air Force Office of Scientific Research. Proposal for a Study Toward the Integration of Anatomical, Neurophysiological and Theoretical Knowledge of Vision into a Unified Concept of Visual Perception. March 15, 1965
7. Proposal for a study entitled: Theory and Application of Computational Principles in Biological Systems. Department of Electrical Engineering; University of Illinois. August 1, 1965.
8. AF-OSR. Theory and Applications of Computational Principles in Complex, Intelligent Systems. Sept. 15, 1966.
9. NASA. Toward the Mechanization of Cognitive Processes. May 1, 1967.
10. AF-OSR. Theory and Application of Computational Principles in Cognitive System. June 1, 1967.
11. Proposal for a study entitled: Notation of Movement. Department of Electrical Engineering; University of Illinois. December 15, 1967
12. OEC Grant. 2 Cognitive Memory: A Computer-Oriented Epistemological Approach to Information Storage and Retrieval, March 1, 1969.
13. AF-OSR. Analysis and Synthesis of Cognitive Processes and Systems, June 20, 1969
14. AF-OSR. Toward Direct Access Intelligent Systems. Aug. 1, 1970. 52 pp.
15. AF-OSR. Toward Direct Access Intelligent Systems. June 1, 1971. 104 pp.
16. NSF. Cognitive Technology: A Citizen-Society Problem Solving Interface. The Committee for Cognitive Studies. 15 February 1972.
17. AF-OSR. Beyond Numerical Computers: Technology for Information Processing in Higher Order Representations. June 1, 1972.

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18. TR NO. 2: Constraint Analysis of Many-Dimensional Relations, Ross Ashby. May, 1964.
19. Cognitron Theory. Ronald J. Swallow, June 1964
20. Neural Networks. Section 2, Chapter 6 in The Biological Basis of Pediatric Practice. Heinz Von Foerster, September 30, 1963.
21. Final Report on Direct Access Intelligence Systems. Heinz von Foerster. October 1, 1972.

AF Grant 7-64

22. TR No. 4: On Classification and Superposition Principles for Nonlinear Operators, Alfred Inselberg, May 1965
23. TR No. 5: A Study of a Family of Complex Systems, an Approach to the Investigation of Organisms' Behavior. Crayton C. Walker. June, 1965.
24. TR No. 6: Table of the Stirling Numbers of the Second Kind, Alex M. Andrew, December 1965 (Digital Surrogate)
25. TR No. 8: Automatic Adjustment in a Continuous Environment, Alex M. Andrew, September 1965 (Digital Surrogate)

AF Grant 7-66

26. TR No. 9: A Method of Decoding Speech. Jenö Gazdag. June 1966.

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27. TR No. 10: The Significance of the Second Format in Speech Intelligibility, Ian Bryce Thomas, July 1966
28. TR No. 11: The Visual Image Processor, John K. Russell, June 1967
29. TR No. 12: Classification and Enumeration of Autonomous Sequential Machines, Hollis F. Ryan, June 1967
30. TR No. 13: Information Transfer in Complex Systems, With Applications to Regulation, Roger C. Conant, January 1968
31. TR No. 14: On The Realization of Linear Automata, Thomas J.C. Wey, June 1969
32. TR No. 15: Towards a Systematic Method of Behavior, Russell D. Stinaff, June 1969
33. TR No. 16: The Analysis and Synthesis of a Learning Teaching System, Gerald F. Brieske, June 1969
34. Final Report: Analysis and Synthesis of Cognitive Processes and Systems, December 15, 1969
35. Annual Inventory of Research for AF-OSR 767 and AF-OSR 70-1865, December 15, 1969

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36. TR No. 1: On Structural Analysis of Many-Valued Logic. H.S. NA. H. Von Foerster. G. Gunther. 1964.

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37. Progress Report # 2: Research on Information Processing Capability of the University of Illinois Signal Analysis System. August 1, 1965.

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38. Monthly Progress Reports 1-14. June 10, 1965 – June 28, 1967.
39. Monthly Progress Reports 15- 25. August 3, 1967 – June 15, 1968.

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1. Monthly Progress Reports 26-36. June 15, 1968 – March 31, 1969
2. Cybernetics Research. Technical Reports 1-6. July 1966-October 1967.
3. Cybernetics Research. Technical Reports 7-11. December 1967-January 1969.
4. Cybernetics Research. Final Report. May 1969.

AF 33 (616)-6428

5. Monthly Progress Reports nos. 7-10. Progress Report on the Research on the Analyzing Principles of the Mammalian Auditory System. March 31, 1960 - July 1, 1961
6. Final Report: Analyzing Principles of the Mammalian Auditory System. July 1962
7. TR no. 1: Computation of Invariants in Continuous and Discrete Manifolds, S. Cheng et. al., July 1962, May 1963
8. TR no. 2: Determination of Equivalence Classes by Orthogonal Properties, H.S. Hsieh, G.W. Zopf, Jr., February 1962
9. TR No. 3-1: A Dynamic Signal Analyzer, M.L. Babcock et. al., January 1962
10. Technical Documentary Report No. AMRL-TDR-63-40: Computation of Invariants in Continuous and Discrete Manifolds. May 1963

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11. Monthly Progress Reports Nos. 1-5: Progress Report on the Research on Information Processing Capability of the University of Illinois Signal Analysis System. Ian B. Thomas. August 1963

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12. Annual Report: Between Logical Structure Time and Natural Numbers. Gotthard Gunter. C. 1960s
13. Natural Numbers in Transclassical Systems. Gotthard Gunter. C. 1968-1969.
14. Final Report: Investigation of a Mathematical System for Decision-Making Machines. Gotthard Gunther. 15 January 1971.

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15. Interim Technical Report: Toward Direct Access Intelligence Systems. December 15, 1970
16. Interim Technical Report: Toward Direct Access Intelligence Systems. December 10, 1971
17. TR No. 17: Functional Organization of the Tectum of the Tiger Salamander, Edward R. Gruberg, October 1969

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18. TR No. 18: Cylinders: A Relational Data Structure, Paul E. Weston, February 1970
19. TR No. 19: Neural Modelling: Methodology, Techniques and a Multilinear Model for Information Processing, Michael G. Wilkins, November 1970
20. TR No. 20: Real-Time Display Techniques for the Neurophysiological Laboratory, Kenneth J. Kokjer, October 1970
21. TR No. 21: A Measure of Dimensional Complexity for Multidimensional Systems, Robert F. Madden, October 1970
22. TR No. 22: Pulse Interval Representations of Speech Events, J.W. Atwood, October 15, 1970
23. TR No. 23: To Approach Music, Robert John Martin Jr., May 1972

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24. Some Remarks on Changing Populations, Heinz von Foerster, Undated
25. Report No. 3: Mitotic Indices of Dividing and Differentiating Cells, Heinz von Foerster, February 1961
26. Report No. 4: Label Incorporation and Label Appearance in White Blood Cells, Alfred Inselberg et. al., December 31, 1963

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27. Report R-398: An Interactive Document Retrieval System. D.R. Carroll, R.T. Chien, K.C. Kelly, F.P. Preparata, P. Reynolds, S.R. Ray, & F.A. Stahl. December 1968.
28. Report R-456: Design Considerations of On-line Document Retrieval Systems. J.T. Cordaro, Jr., R.T. Chien. February 1970.
29. Report R-463: Pattern Classification with a Partitioned Training Set. James Cheh-Min Chow. April 1970.
30. Report R-469: A Relational Structure for Document Retrieval in Coding Theory. Nicholas Matthew Esser, Jr. May 1970.
31. Report R-390: An Association Processor for Information Retrieval. August 1978

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32. Final Report: Notation of Movement. 15 February 1970

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33. TR No. 1: Electrolytic Growth of Silver Dendrites, William M. Ainsworth, March 1964
34. TR No. 2: Life Span and Self-Repair in Complex Systems. Shih-me Cheng, May 1964

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35. TR No. 3: Optimizing Reproduction in a Risky Environment. Dr. Dan Cohen. July 1965
36. TR No. 4: Optimizing Reproduction in a Risky Environment with Communication. Dan Cohen, November 1965
37. TR No. 5: Significance Feedback in Neural Nets. A.M. Andrew, September 1965 (*Digital Surrogate*)
38. TR No. 6: A Technique for the Analysis of Musical Instrument Tones. Morris David Freedman, October 1965

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39. Report No. 1: Search and Evaluation of Significant Event Sequences in Automated Speech Analysis. M.L. Babcock, J.W. Atwood, J.R. Cohen, M.P. Hoffman. April 1, 1969.
40. Report No. 2: An Automatic Process for the Extraction of Pitch Periods of Speech. J.R. Cohen, June 15, 1970
41. Report No. 3: A Study of the Free Response Distortion in Speech Processing. M. P. Hoffman, June 30, 1970
42. Report No. 4: Pulse Interval Representations of Speech Events. J.W. Atwood, October 15, 1970
43. Report No. 5: An Omnidirectional Loudspeaker System. J.M. Struhar, Jr., April 15, 1971

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44. Quarterly Progress Reports Nos. 1-3: The Realization of Biological Computers. April 15, 1958 – Oct. 15, 1958
45. Annual Report and Quarterly Progress Report No. 4: The Realization of Biological Computers. January 15, 1959.
46. Quarterly Progress Report No. 5: The Realization of Biological Computers. January 15, 1959.
47. Quarterly Progress Reports Nos. 6-9: The Realization of Biological Computers. July 15, 1959 – May 15, 1960
48. Infallible Nets of Fallible Neurons, Warren S. McCulloch; Natural History of Networks, Gordon Pask; and Self Organizing Systems and their Environment, Heinz von Foerster, July 1, 1959.
49. Some Aspects in the Design of Biological Computers. Heinz von Forster. March 20, 1959.
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51. TR No. 2: Some Principles of Preorganization in Self-Organizing Systems, M. L. Babcock, et. al., June 1960
52. TR No. 3: The Present Theory of Switching and Some of Its Future Trends, A.A. Mullin, July 1960
53. TR No. 4: A Predictive Model for Self-Organizing Systems. Gordon Peck and Heinz von Foerster, June 1960
54. TR No. 5: Some Logico-Philosophical Comments on Self-Organizing Systems. A.A. Mullin, November 1960
55. TR No. 6: Qualitative Limits for Authomatic Error Correction Self-Repair. Lars Lofgren, June 1961
56. TR No. 7: Structure of Switching Nets. Lars Lofgren, October 1961
57. The Realization of Biological Computers. Heinz Von Foerster; Transcript of a paper presented at the Second International Conference of Cybernetics on September 5, 1958 in Namur, Belgium. March 20, 1959

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1. TR No. 8: Kinematic and Tessellation Models of Self-Repair. Lars Lofgren. December 1, 1961
2. Final Report: Toward Realization of Biological Computers. Heinz Von Foerster. December 31, 1963.

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3. TR No. 1: Philosophical Comments on the Philosophies of Charles Sanders Pierce and Ludwig Wittgenstein, A. A. Mullin, August 1, 1961
4. TR No. 2: Linear Property Filters, Alfred Inselberg and Heinz von Foerster, July 1, 1962
5. TR No. 3: Threshold and Stability in Large Networks. W.R. Ashby, H. Von Foerster, C.C. Walker. December 1, 1962.
6. TR No. 4: Cybernetic Ontology. Gotthard Günther, April 1, 1962
7. TR No. 5: Discrete Two Dimensional Property Detectors. Douglas H. Taylor, April 15, 1962
8. TR No. 6: A Theory of Uniform Switching Nets. Lars Lofgren, May 1, 1962

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9. TR No. 7: The Set Theory of Mechanism and Homeostasis. W. Ross Ashby, September 1962
10. TR No. 8: Manually Operated Robot or Network. W. Ross Ashby and John K. Russell, July 1963 (*Digital Surrogate*)

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15. Quarterly Technical Progress Report Nos. 10-11: Cognitive Memory. June 15, 1970

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16. TR No. 3: Conduction Calorimeter Power Meter. April 27, 1951.

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17. BCL Publications 3-33, 1958-1960
 3. Günther, G.: "Die aristotelische Logik des Seins, und die nich-aristotelische Logik der Reflexion," Zeitschrift f. Philos. Forschung, 12, 360-407 (1958).
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12. Mullin, A.A.: "The Present Theory of Switching and Some of its Future Trends," Industrial mathematics, 10 (2), 23-44, 1959-1960.
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18. 33,37. Self-Organizing Systems, M.C. Yovits & S. Cameron (eds.), Pergamon Press, London, 31-50 (1960).
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