

11/15/21  
Engineering  
Computer Science  
Wolfgang J. Poppelbaum Papers, 1955-1989

Box 1:

Correspondence, 1954-1989  
    Chronological files (17 folders), 1977-1989  
    Task 15 (Circuit Research Program), 1965  
    University of Illinois, 1954-1991  
Biographical Materials  
Articles and Papers (2 folders), 1950-1987

Box 2:

Manuscripts, 1972, 1981  
    Computer Hardware Theory, 1972  
        Class Notes for CC 393 and CS 293  
        Comments, 1969-1970  
        Correspondence, 1970-1972  
        Transparencies of Figures (1-1 through 12-25)  
        2nd. edition Proposal, 1973  
    Stochastic and Determinants Averaging Processors, 1981  
Reports, 1954-1967  
    Electrical Engineering Research Laboratory, 1954  
    Digital Computer Laboratory, 1955-1963  
    ATRIX (hybrid, analog, and digital graphical processing system (AEC Contract 1469 - Poppelbaum) (2 folders), 1967

Box 3:

Reports, 1967-1989  
    Department of Computer Science (5 folders), 1967-1989  
Subject Files  
    American Federation of Information Processing Societies, Joint Computer Conference, 1967  
    Advances in Computers Correspondence, 1974  
    American Federation of Information Processing Societies. Joint Computer Conference, 1967  
    Application of Laser Technology to Information Processing (Symposium), 1964-1965  
    Atomic Energy Commission (Contract AT(11-1) - 1469) 1965-1966  
    Bibliographies  
    Braille Touchpanel, 1975  
    Burst  
        Advertising, 1974  
        Ideas, 1974  
    Capricious Grading Committee, 1974-1978  
    Circuit Research Guidelines, 1966-1968  
    College of Engineering Faculty Meetings, 1979-1980  
    College Policy and Development Committee, 1982-1984  
    COMCON '73 (Slides), 1974  
    Committee on Educational Innovation, 1977  
    Computer Graphics Conference, 1968-1969  
    Department of Computer Science Proposals, 1965-1981  
    Department of Computer Science Publicity Brochure, 1977  
    Digital Computer Laboratory Building Committee, 1963-1965  
    Eastern Joint Computer Conference (EJCC), 1959  
    Educational Innovation Committee, 1980  
    Educational Model Paper (Photographs), 1972  
    Efficient Technical Education Presentation, 1975

Electrical Engineering Faculty Notes, 1979-1980  
Electrical Engineering Graduate Committee, 1972-1981  
Electrolytic Transistors - Some Remarks, 1970  
Flip-Flops (circuits), 1956  
Flossie (display system), 1975  
Gaines and Poppelbaum - Probabilistic and Deterministic Averaging Processors, 1975  
General Exam - Hardware, 1980  
Graduate Students, 1984  
Graphics Conference News Article, ca. 1970  
Gravitational Communications, 1972  
G.T.E., 1973-1974

Box 4:

Subject Files

HAL Equipment, 1975  
Hardware Research Guidelines (4 folders), 1972-1976  
Hardware Subcommittee CS Course Revision, 1970-1982  
Hardware Syllabus, 1974  
Houghton Mifflin Co., 1971  
IEEE (Institute of Electrical and Electronics Engineers)  
    Computer Elements Committee, 1967  
    International Convention, 1967-1968  
    Solid State Circuit Subcommittee, 1964-1981  
Illinois Group (Consulting Group including UIUC Senior Faculty), 1975  
Industrial Affiliates Programs, 1980  
Information Engineering Laboratory, 1974-1975  
    Proposal, 1975  
    Quarterly Technical Progress, 1974-1975  
International Conference on Information Processing, 1959  
Irwin, Arlyle, 1965-1968  
Kubitz, William Activities, 1981  
Lake Arrowhead Workshop Reprint, 1973  
Large Scale Biomedical Information System (NLM Grant), 1979-1984

LASL (Los Alamos Scientific Laboratory), 1971-1977  
     Organization Chart and Staff Photographs, 1971  
     Research Plans, 1972  
     Security, 1972, 1976, 1977  
 Little Computer (INTELEC), 1979  
 Long Range Planning Committee, 1976-1977  
     Los Alamos  
     Correspondence, 1972-1973  
     Stochastic Work, 1974  
 Medical Electronics Project, 1973-1974  
     Cardalert, ca. 1973  
     Correspondence, 1973-1974  
     Micromobile, ca. 1973  
     Poppelbaum's Contribution, ca. 1978  
     Proposal, 1973  
 Michalski, Ryszard - Papers, 1973, 1977-1978  
 Moss, Randy, 1978  
 MSB Theory (Simplified Modifier) - Plan  
 National Science Foundation (NSF) Proposal: Pulse and Pulse-Train - Correspondence, 1978  
 New Courses, 1982  
 "A Non-Weighted Binary Structure for Speech Applications" - Correspondence and Models for  
     Paper, 1979  
 Office of Naval Research (ONR) - Circuit Research Program (Contract No. Nonr-1834(15)) (6  
     folders), 1961-1963

Box 5:

Subject Files

Office of Naval Research (ONR), 1955-1978  
     Contracts and Correspondence (2 folders), 1973-1978  
     Final Report (ILLIAC II and Uncommon Forms of Information Processing), 1955-1973  
     Philosophy of Computers, 1972-1973  
     Proposals (3 folders) 1974-1978  
     Statistical Processor Workshop, 1976  
     Stochastic Processing Workshop, 1977  
     Technical Reports, 1955-1956  
 On-line Optical Data Processing System, ca. 1969  
 On-line Recognition (OLREC), 1978, 1980  
 Patents, 1953-1979  
 Patents - Burst, 1974-1976  
 Pattern Recognition Society, 1967-1974  
 The Phastor (analog storage unit)  
 Princeton - Correspondence, 1972  
 Privacy Research, 1978-1979  
 "Probable Trends in Computer Technology from 1965-1970," ca. 1966  
 Proposal for a Five-year Hardware Research Program  
 Proposed Naval Applications of Stochastic and Burst Processing, 1974  
 Prospects (students), 1977-1978  
 Robinson, Colan Michael, 1978  
 Robotics, ca. 1972  
 Seminar on Transistor, 1955  
 Shop File, 1977  
 Solid State Circuits Review Board (IEEE), 1974  
 Space Committee, 1971, 1980  
 "Statistical Processors" Reprint and Photographs, 1976

- Stochastic Computing, 1967-1974
- Students Abroad Office, 1973
- Task 15 Reports (Circuit Research Program), 1960
- Teaching Evaluations and Improvement Committee, 1976
- Transistor Data Tabulation, 1967
- Trip Reports, 1957-1966
  - IEEE 4-10 Solid States Circuit Committee, 1965-1966
  - Symposium on Large Capacity Memory Techniques for Computing Systems, 1961
  - Western Joint Computer Conference, 1957-1958
- Votrax (Vocal Interface Synthesizer), 1975
- VLSI (Very Large Scale Integrated Circuits), 1980
- Willis Ware, 1971-1972
- X - or Clock (Electronic Clock), 1964
- ILLIAC (History 1952-1962)
- ILLIAC I
  - Blueprints (2 folders) 1956-1962
  - Design Techniques, 1955

Box 6:

- ILLIAC I, 1954-1977
  - New Transistorized Computer Logical Diagrams and Circuits, 1960
  - Trance: A Direct Couple, Asynchronous Computer-Model
    - Using ..., ca. 1961
  - Trace Circuits, 1956
  - Transistor Circuits Built at the Digital Computer Laboratory ..., 1954-1955
- ILLIAC II, 1961-1964
  - Annual Report and Proposal (AEC Contract AT(11-1)-415), 1964
  - Circuit Design for the New Illinois Computer, 1959
  - Manual, 1963
  - Reports, 1961-1964
  - System Manual, 1964
- ILLIAC III, 1969-1973
  - Dynamic Focusing and Pincushion Correction Circuit..., 1969
  - ILLIAC III Computer System Manual: Arithmetic Units - Volume 2, 1973

## ILLIAC V - Proposal Ideas, 1977

## Course-Related Materials, 1959-1985

## Lecture Notes, Problems and Course Evaluations

- CS 281 - Computer Hardware Theory (3 folders), 1972, 1975, 1982-1985
- CS 293 - Introduction to Computer Hardware, 1973
- CS 381 - Advance Computer Hardware Theory, 1972
- CS 385 - Theory of Semiconductor Computer Devices, 1969
- CS/EE 485 - Special Topics in Computer Hardware, 1973-1974
- CS/EE 581 - Digital Circuits and Machines, 1977
- D.C.S. 385 - Digital Computer Electronics, ca. 1959
- E.E 393 - Digital Computer Electronics (2 folders), ca. 1960
- E.E. 485 - Probabilistic and Deterministic Averaging Processors, 1976

Box 7:

## Course-Related Materials, 1956-1985

## Lecture Notes, Problems and Course Evaluations

- Math 385 - Digital Computer, ca. 1960
- Math and E.E. 294 - Introduction to the Theory of Digital Machines, ca. 1960
- Math and E.E. 384 - Logical Design of Automatic Digital Circuits, 1956

## Student Papers and Projects, 1969-1989

Department of Computer Science - Student-Guided Research Projects, 1969, 1972, 1975-1978

## Student Papers, 1983-1984, 1988-1989

- CS 281 - Introduction to Computer Circuits, 1985
- CS 290, 1964
- CS 293 - Introduction to Computer Hardware
  - Includes index, descriptions and photographs for Experiments 1-1 through 14-8 (3 folders)
- CS 381 - Computer Memories and I/O
  - General (5 folders), 1981, 1988-1989
  - "Memory Presentation Series," (6 folders), 1985
    - Includes index to papers
- CS 485 - Special Topics in Computer Hardware, 1976
- CS 490 - Student Papers, 1980
- EE 296 - Student Papers, 1974

Box 8:

## Doctoral Degree Theses, 1963-1987

## List of Theses

Ph.D. Theses Submitted to the Department of Computer Science under the Direction of Professor Poppelbaum, 1963-1987 (some under ONR contracts).

Box 9:

Master's Degree Theses, 1964-1989

List of Theses

Master's These Submitted to the Department of Computer Science under the Direction of Professor Poppelbaum, and under ONR contracts, 1964-1989.

Burst I (38-35mm slides), 1975-1976

Burst II (11-35mm slides), 1975-1976

Color Modulation - Spectrum Sample Transmission (28-35mm slides)

Negative Resistance Modulation (6 lantern slides)

Office of Naval Research - Presentation in Washington (17-35mm slides), 1978

Unifield (35-35mm slides)

Box 10

Proposals and Projects - Blueprints and Diagrams

Circuits, UNIVAC, ENIAC, Replica of Pascal's, Babbage's and Neumann's Machines (2 folders of negatives), 1968

Stochastic Meter, Burst, Logituner (12 containers of 35 mm slides)

Flow-gating Principle, Circuits, Opto-Electric Switching Matrix, Storage Systems,

Monitor Optics and Transistors (10 containers of lantern slides)

Box 11:

Projects

Index

Overview of Projects

Project Diagrams (46 folders of transparencies and photographs)

Includes projects of various faculty including projects in which Poppelbaum was involved.

"In Memoriam Memories, 1952-1973"

"30 Years of I.E.L.," 1988

Includes manuscript and photographs

Box 12:

Projects - Diagrams

Biburst: Compressor/Encoder (transparencies)

Bundle Processing (negatives)

Burft: Processing (transparencies)

Burst Processing (transparencies)

Burstcomp: Processing (transparencies, negatives)

Cardalert: Arrhythmia/Cardio Monitor (transparencies)

Driad: Synchronous Sampling (transparencies)

Ergodic, Sabuma, Transmatrix (transparencies, negatives)

Flossie: Display System (negatives)

Instrument Panels (transparencies, negatives)

INTELEC, Pact Station

Locoburst (transparencies)

Longituner

Marvel Report (transparencies)

Micromobile

OLEF: Bundle Multiplier (Stochastic)

ONR Language Plans: Indicator Processing, Generalized Burst, 1976

Optocomp: Optical Logic (transparencies)

Pace Maker  
 Rascel (transparencies), 1976  
 Stereotronic, Hologram, Thermoplastic, Ardenne Tube, Projection CRT, Life Panel, Plasma Panel, Blast, Who Wants What in Displays, Volumatrix: Monitor (transparencies, negatives)  
 Unipulse: Address System  
 Walshstore: Storage (negatives)  
 Weighted Binary: Averaging Systems (transparencies)  
Far Out (16mm film) Film profiling research and development of display systems in the Department of Computer Science- ONR Contract NOOO 14-67-A-0305-007, 1969  
 Contents  
 First and Fourth Printings (16mm film), 1969, 1973  
 Computer Hardware Theory - Diagrams (35mm slides), Chapters 1-5

Box 13:

Computer Hardware Theory - Diagrams (35mm slides), Chapters 6-14

Box 14:

Files Accessioned February 19, 2009

*Computer Hardware Theory*\_- text book

SUBJECT FILES

Grant Proposals- To National Science Foundation,  
 "Stochastic Processing and On-line coding for Communication", 1973-1975  
 "Correlation Modulation, Bandwidth Compression and Failsoft Computers,  
 1974-1975  
 Grant Proposal -To Naval Research  
 "The Control of Semi-Autonomous Robots Over Very Large Distances, 1978  
 Lecture Notes  
 "Introduction to the Theory of Digital Media"  
 Publications-Summary of Work/Information Engineering Library, 1974-1978  
 Letter from John Bardeen, June 2, 1954.

Box 15:

PHOTOS

Illiac II  
 Photos used in production of *Computer Hardware Theory*