

THEORY AND TECHNIQUES FOR DESIGN OF ELECTRONIC DIGITAL COMPUTERS

Lectures given at the Moore School of Electrical Engineering:

University of Pennsylvania, Philadelphia, Pennsylvania.

8 July 1946 - 31 August 1946

- 1 George Stibitz Introduction to the Course on Electronic Digital Computers
- 2 Irven Travis The History of Computing Devices
- 3 J.W. Mauchly **Digital and Analogy** Computing Machines
- 4 D.H. Lehmer **Computing Machines for Pure Mathematics**
- 5 D.R. Hartree Some General Considerations in the Solutions of **Problems in Applied Mathematics**
- 6-7 H.H. Goldstine **Numerical Mathematical Methods I e II**
- 8 A.W. Burks **Digital Machine** Functions
- 9 J.W. Mauchly **The Use of Function Tables with Computing Machines**
- 10 J.P. Eckert A Preview of a Digital **Computing Machine**
- 11 C.B. Sheppard Elements of a Complete **Computing System**
- 12 H.H. Goldstine **Numerical Mathematical Methods III**
- 13 H.H. Aiken The **Automatic Sequence Controlled Calculator**
- 14 H.H. Aiken Electro-Mechanical Tables of the Elementary Functions
- 15 J.P. Eckert Types of Circuit -- General
- 16 T.K. Sharpless Switching and Coupling Circuits
- 17-18 A.W. Burks, H.H. Goldstine Numerical Mathematical Methods IV e V
- 19 Hans Rademacher On the Accumulation of Errors in **Numerical Integration** on the ENIAC
- 20 J.P. Eckert Reliability of Parts
- 21 C.B. Sheppard **Memory Devices**
- 22 J.W. Mauchly Sorting and Collating
- 23 J.P. Eckert & C.B. Sheppard **Adders** e 24 J.P. Eckert **Multipliers**
- 25 J.W. Mauchly Conversions between Binary and Decimal Number Systems
- 26 H.H. Goldstine **Numerical Mathematical Methods VI**
- 27 Chuan Chu Magnetic Recording
- 28 J.P. Eckert Tapetypers and Printing Mechanisms
- 29 J.H. Curtiss A Review of Government Requirements and Activities in the Field of **Automatic Digital Computing Machinery**
- 30 H.H. Goldstine **Numerical Mathematical Methods VII**
- 31 A.W. Burks **Numerical Mathematical Methods VIII** Input and Output Variables
- 32 Perry Crawford Application of **Digital Computation Involving Continuous**
- 33 J.P. Eckert Continuous Variable Input and Output Devices
- 34 S.B. Williams Reliability and Checking in Digital Computing Systems
- 35 J.P. Eckert Reliability and Checking
- 36 C.B. Sheppard Code and Control I
- 37 J.W. Mauchly Code and Control II Machine Design and Instruction Codes
- 38 C.B. Sheppard Code and Control III
- 39 C.N. Mooers Code and Control IV Examples of a **Three-Address Code** and the Use of 'StopOrder Tags'
- 40 John von Neumann New Problems and Approaches**
- 41 J.P. Eckert Electrical Delay Lines e 42 J.P. Eckert A Parallel-Type EDVAC
- 43 Jan Rajchman The Selectron Computing Machine
- 44 C.N. Mooers Discussion of Ideas for the Naval Ordnance Laboratory
- 45 J.P. Eckert A Parallel Channel Computing Machine
- 46 C.B. Sheppard A Four-Channel Coded-Decimal Electrostatic Machine
- 47 T.K. Sharpless Description of Serial Acoustic Binary EDVAC
- 48 J.W. Mauchly Accumulation of Errors in Numerical Methods.