POLSKIE TOWARZYSTWO INFORMATYCZNE

Mathematical Machine? What really is it?

History of early computing in Poland

Marek Holynski
Polish Information Processing Society

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The beginning

Thursday, December 23, 1948. First seminar on electronic calculating machines.

Organizer: prof. Kazimierz Kuratowski, director of the Institute of Mathematics of the Polish Academy of Sciences. He just returned from the U.S. and saw ENIAC.

Result: the decision to set up a research team named later Mathematical Apparatuses Group at the Institute.

First working machine:
Differential Equations Analyzer
in 1953.

Analog; 400 vacuum tubes.

It was solving complex differential equations with very high accuracy.
Used for a number of practical applications, including the design of turbines and aircrafts.

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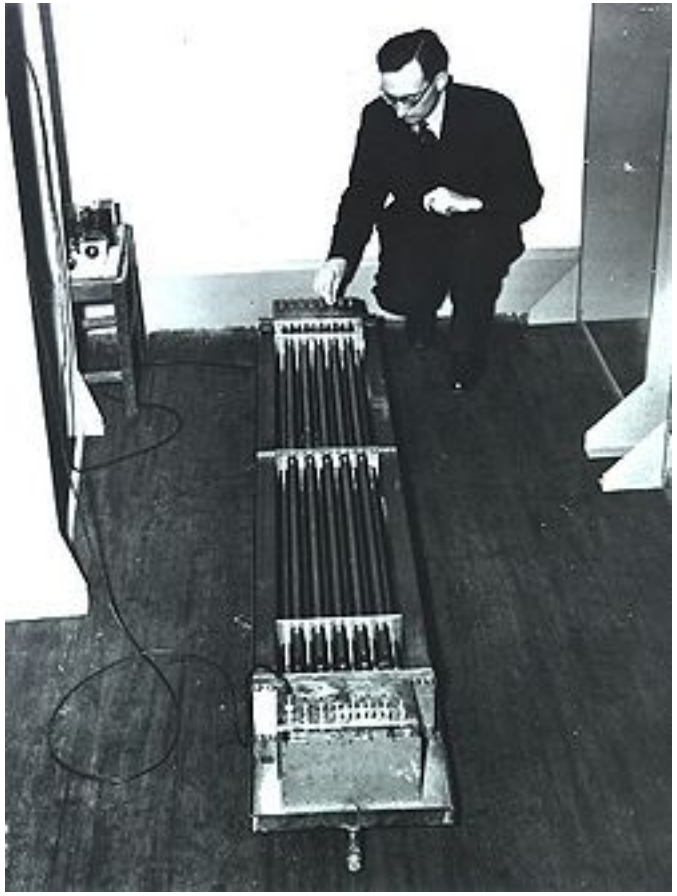
Electronic Machine for Automatic Calculations 1955

2000 additions / subtractions,
450 multiplications and 230 divisions per second.

Still analog; 1000 vacuum tubes.

Fast memory on mercury filled tubes.



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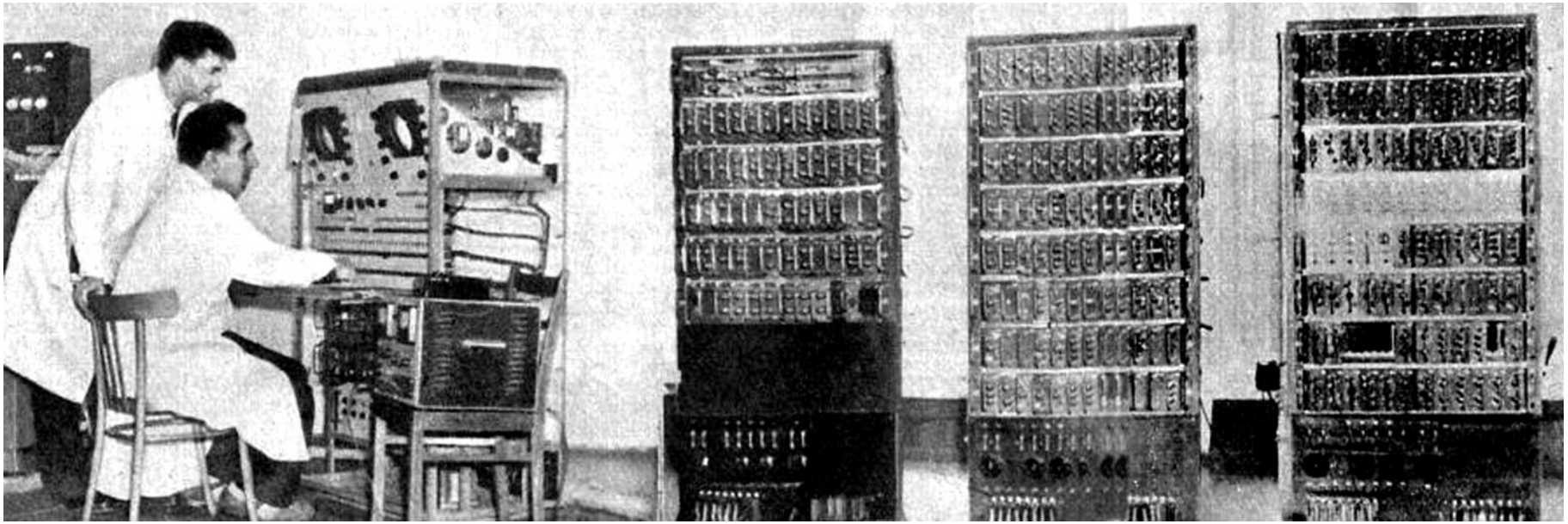
To consolidate existing research and design efforts in 1957 independent Mathematical Apparatuses Division (Zakład Aparatów Matematycznych – ZAM) within Polish Academy of Sciences was established.



In autumn of 1958 Polish first electronic digital machine named XYZ was launched.

XYZ

Up to 1000 arithmetic operations per second.

400 tubes and 2000 diodes.

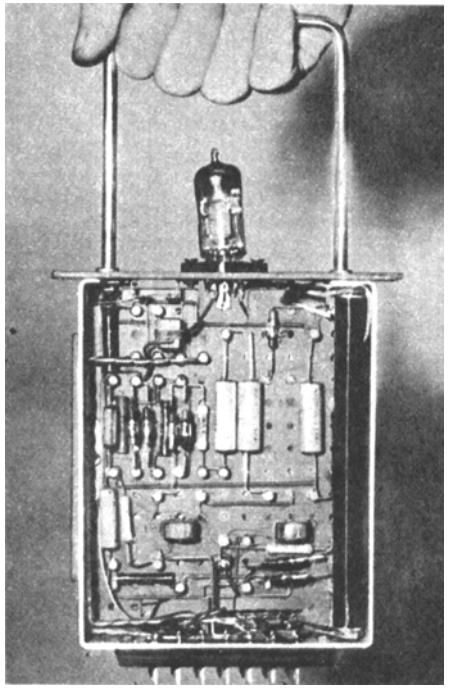
Basic logic: flip-flops on one triode.

Internal binary language with symbolic addressing.

Memory on nickel wires.

Input/output with punched cards.

It was commercially used!



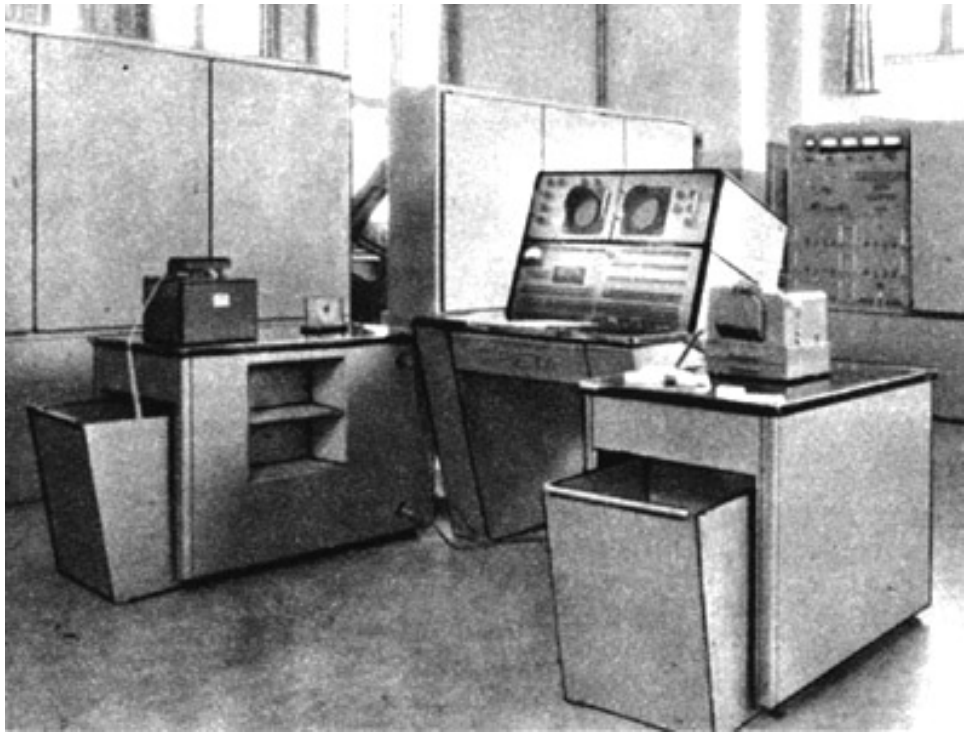
ZAM-2

Improved and suitable to mass production XYZ version.

Drum memory 600 kb.

Teletype and paper card reader.

The first unit was built in 1960.



Mathematical Apparatuses Division was transformed in 1962 into the **Institute of Mathematical Machines** (Intytut Maszyn Matematycznych – IMM).

The word „computer” appeared Polish language in mid 70’s. However, to maintain the tradition Institute still operates under the old name, despite the burden of facing continuous inquiries about what mathematical machines really are.

IMM continued with ZAM series (numbered 3, 21, 41), then minicomputers (MOMIK 8b, MERA-300, K-202, MERA-400 MAZOVIA 1016 and 1032) and various peripheral devices.

In the late 60's numerous other centers involved in designing, producing and using computers for different applications were established in Poland.

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Detailed information on IT history in Poland (unfortunately only in Polish – you may use Google translate) can be found at: http://www.historiainformatyki.pl

This portal is maitained by Historical Section of Polish Information Processing Society (Polskie Towarzystwo Informatyczne). It gathers documents, photos and digitizes old computer magazines.

Based on these resources, public television has recently completed a miniseries about past achievements of Polish IT.