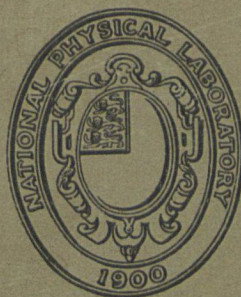


NATIONAL PHYSICAL LABORATORY

SYMPOSIUM No. 10

# Mechanisation of Thought Processes

VOLUME I



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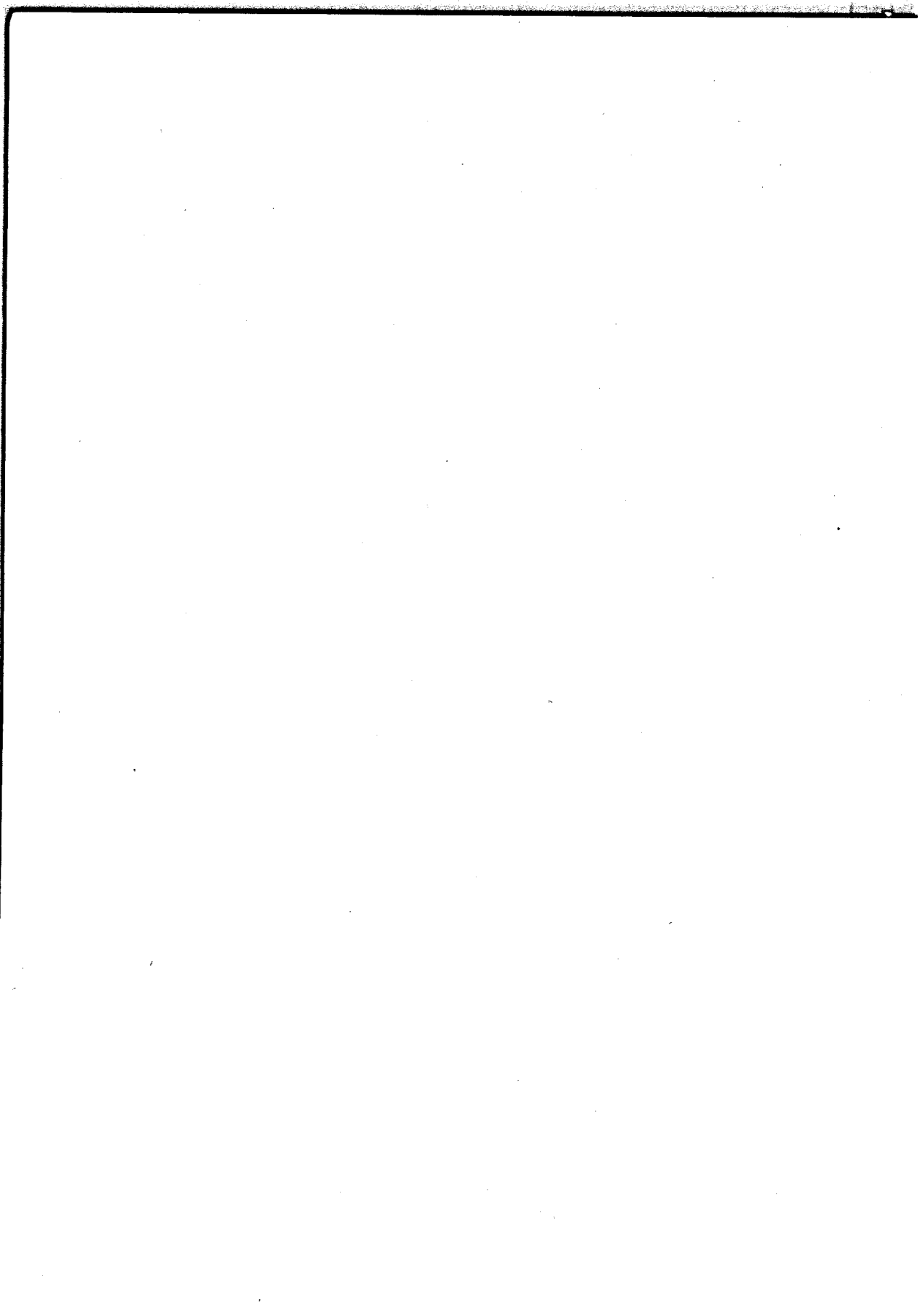


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NATIONAL PHYSICAL LABORATORY

SYMPOSIUM No. 10

# Mechanisation of Thought Processes

*Proceedings of a Symposium held at  
the National Physical Laboratory  
on 24th, 25th, 26th and 27th November 1958*

VOLUME I

LONDON: HER MAJESTY'S STATIONERY OFFICE

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## P R E F A C E

This Symposium was the tenth in the present series of N.P.L. Symposia. Two are normally held each year - one on a subject of general industrial interest and the other on a theme of more academic research.

This Symposium was held to bring together scientists studying artificial thinking, character and pattern recognition, learning, mechanical language translation, biology, automatic programming, industrial planning and clerical mechanization. It was felt that a common theme in all these fields was "The Mechanization of Thought Processes" and that an interchange of ideas between these specialists would be very valuable.

It is unfortunate that meeting accommodation in the Laboratory is at present very restricted, and a very large number of people had to be turned away. Nearly 200 delegates attended and of these about one third came from overseas.

A total of 32 papers was presented, and on the fourth day there were parallel sessions - one covering implications for Biology and the other for Industry. With one exception these papers are reproduced here substantially as presented i.e. with only very minor revisions. Several authors have added appendices to their papers since the Symposium. The discussion was recorded and all contributors and authors were asked to edit their contributions. The discussion is reproduced in full.

There were also a number of Lecture-Demonstrations, and a list of these is included. Most of the demonstrations are described in the papers or appendices, and the others are described in short papers.

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