

**THE PRESENT STATUS
OF
TUNNELLING ACTIVITIES
IN
JAPAN**

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FOREWORD

It is a great pleasure to present to readers this second edition of "The present Status of Tunnelling Activities in Japan" issued in commemoration of the fifth anniversary of the Japan Tunnelling Association.

The previous edition was published on the occasion of the first meeting of the International Tunnelling Association held at Munich in May, 1975, which coincided with the year the Japan Tunnelling Association was founded.

Sharing common backgrounds and activities with the I.T.A., the Japan Tunnelling Association has been providing valuable opportunities to the people concerned for their joint effort to improve tunnelling technology.

Five years have passed since the first publication. For a layman, tunnelling technology might seem to have remained unaltered during these five years, but substantial changes have taken place to meet more stringent economic requirements and environmental constraints.

The diversified usage of small diameter shields and application of rock mechanics to tunnelling methods are some of the examples.

Development of new technologies supersedes international barriers and great benefits are derived from communication of experience and researches through meetings and discussions, bringing about worldwide advancement of tunnelling technology.

It is considered necessary to cover in this book the main features of present days Japanese tunnelling technology, especially from the view point of socio-economic requirements and the state of the art.

Therefore, this book is not merely an updating of the previous edition; in addition to the efforts made to depict the present status, a description is given of how Japanese tunnellers are trying to meet current needs.

It would be the editor's greatest pleasure if this book could contribute to the enrichment of knowledge, promotion of friendship and development of both the International Tunnelling Association and the Japan Tunnelling Association.

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Hisashi YOSHIMURA

Chairman of Editorial Committee
"The Present Status of Tunnelling
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