

FOREWORD

THIS IS THE SEVENTH VOLUME in the series of *Memorial Tributes* issued periodically by the National Academy of Engineering to honor the deceased members and foreign associates of the Academy and to recognize their achievements. It is intended that these volumes will stand as an enduring record of the many contributions of engineers and engineering to the benefit of humankind. In most cases, the authors of the tributes are contemporaries or colleagues who had personal knowledge of the interests and the engineering accomplishments of the deceased members and foreign associates.

The National Academy of Engineering is a private organization established in 1964 to share in the responsibility given the National Academy of Sciences under its congressional charter signed by President Lincoln in 1863 to examine and report on questions of science and engineering at the request of the federal government. Individuals are elected to the National Academy of Engineering on the basis of significant contributions to engineering theory and practice and to the literature of engineering or demonstrated unusual accomplishments in the pioneering of new and developing fields of technology.

Simon Ostrach

Home Secretary

Memorial Tributes

NATIONAL ACADEMY OF ENGINEERING