

## Foreword

The 17<sup>th</sup> International Mining Congress and Exhibition of Turkey (IMCET 2001) organized by the Chamber of Mining Engineers of Turkey is held between June 19 and June 22, 2001 in Ankara, Turkey. The primary objective of the Congress is to promote operational, economical and scientific information exchange pertaining to all aspects of mining technology. Furthermore, die IMCET 2001 is well positioned to offer a wide spectrum of opportunities for scientists, mine owners, operators, engineers and researchers who would like to stay abreast of recent technological progresses in the design, construction, operation of mines and in the generation of robust and pragmatic solutions to challenging issues in mining engineering technology.

The papers included in the proceedings volume have been grouped under nine specific themes including, Advanced Technologies İn Mining; Rock Engineering and Design; Mining and Environment; Mining Engineering Education; Natural Resource Management; Computer Applications; Process Engineering; Health and Safety; and Practical Solutions to Mining Problems. The 125 papers included in this volume have been prepared by authors from 27 countries representing the continents of Africa, America, Asia, Australia and Europe. I am confident to state that papers included in this proceedings volume are testimonials to the vibrant role that mining technology plays in the identification and establishment of routes to sustainable resource development, environmental protection and globalization.

Every successful symposium stems from a teamwork approach through which the concepts are developed, plans are laid out, critical decisions are made and details are followed. The success of IMCET 2001 is mamly due to the tireless and unselfish efforts of the Organizing Committee, Executive Board, International Advisory Committee, Scientific Committee and Chairs of the technical sessions. There is no need to mention that these proceedings volume and the IMCET 2001 would not come to reality without contributions of the speakers, and authors hailing from all over the world. Our most genuine appreciation also goes to the delegates for their interest and contibutions to the success of the Congress.

We acknowledge with gratitude the support provided by our sponsors and exhibitors. Particular recognition İs given to Alabanda Tourism and Travel Agency for providing high quality professional assistance to us in organizing the IMCET 2001. We also thank to our publisher Kozan Offset for their professionally meticulous work in putting this volume together. I am indebted to Mr. Richard Spiby for his dedication and extensive work in proof-reading all the papers, and to Mr. Güray Çakmakçı and Mr. Hasan Öztürk for their immense assistance in editing this volume of proceedings.

Once again, I thank to all of the participants of the IMCET 2001 for their contributions which will become instrumental in the enhancement of our scientific and professional development. I am delighted to reiterate that it is a great pleasure for me to welcome all friends and colleagues to Ankara, to a congress that you will find technically stimulating and socially enjoyable.

Dr. Erdal Ünal  
for the Organizing Committee