Tenth EFEE World Conference on Explosives and Blasting

Edited by
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Foreword by the Chairman of the Technical Committee

As Chairman of the EFEE Technical Committee I am delighted to introduce to you the proceedings of the 10th EFEE World Conference on Explosives and Blasting held in Helsinki, Finland.

Together with my colleagues from the Technical Committee - Jörg Rennert (Germany), Jouko Salonen (Finland), Johan Finsteen Gjødvad (Denmark) and Richard Hosley (USA), we have selected from the proposed papers the contributions you find in these proceedings. During the evaluation we have been very much delighted by the high quality of the papers submitted and I like to thank all the authors that took the workload and wrote the papers for this book.

The papers in these proceedings cover the whole field from explosives formulation to the blasting operation. The topics are HSE, Technical Development, Blast Design Management, Blasting Work Experiences, EU Directives & Harmonisation Work, New Applications and Training and Vibration and Seismology. This makes the EFEE World Conference on Explosives and Blasting so important and valuable, namely to bring together manufacturers, shotfirers, explosives engineers, managers, students and researchers from the blasting industry to discuss new developments in our business, forming the basis for the raw materials and construction industry.

As the papers published in this proceeding of the 10th EFEE World Conference on Explosives and Blasting show, the conference has fulfilled its mandate admirably and the material will be a good platform for additional challenging blasting engineering developments and experiences that we can share in future EFEE conferences.

EFEE, the Finnish National Association – Infra Contractors Association in Finland (INFRA) and the event organizer Tyler Events Ltd are very proud of arranging this event in 2019 and we sincerely hope that you are going to enjoy the conference at a place known worldwide not only for its culture and history, but also for its long tradition in the field of blasting in mining, quarrying and infrastructure projects. Finland is a significant European mineral producer and remains a skilled producer of metals like copper, nickel, zinc and gold, as well as industrial minerals such as talc, phosphate and limestone.

Roger Holmberg
EFEE Technical Committee Chairman and EFEE Secretary General
Acknowledgement

As Chairman for the EFEE Technical Committee I would like to thank all members of the EFEE Conference Committee and the EFEE Technical Committee for their interest, dedication and commitment to this 10th EFEE World Conference on Explosives and Blasting held in Helsinki, 2019.

Specifically, I would like to thank the EFEE Technical Committee for their help with the selection procedure and with the editing of the various papers.

Roger Holmberg, EFEE Technical Committee Chairman.

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