# International Black Sea Mining \& Tunnelling Symposium 2016 was held in Trabzon/Turkey 

MEI sponsored International Black Sea Mining \& Tunnelling Symposium (IBSMTS) (www.blacksea2016.com) which was organised by Karadeniz Technical University (KTU) Department of Mining Engineering and Karadeniz Technical University (KTU) Mining Association in Trabzon/Turkey at November 2-4. Two parallel short courses were held on $2^{\text {th }}$ November. One of the short courses was about tunnelling which delivered by Dr. Nick Barton, Prof. Dr. Turgay Onargan (Dokuz Eylul Univ., Turkey), and Prof. Dr. C. Okay Aksoy (Dokuz Eylul Univ., Turkey). The other course was on Comminution\&Control\&Modelling in Mineral Processing which delivered by the experts from Metso by Murat Us (Mining Eng., Sales Manager) and Mert Katkay (Mining Eng., Sales Engineer) and Dama Engineering by Dr. Tuğcan Tuzcu (Head of Mining and Mineral Processing Dept.). At November 3-4, six keynote lectures, 19 poster presentations, and 46 oral presentations were presented with sum of 71 scientific papers. Over 200 researchers from Norway, Iran, Algeria, and Turkey attended to the symposium with their scientific studies.



Dr. Nick Barton in Tunnelling course (November 2)


Lecturers and participitants after the Tunnelling course (November 2)


Photos from Comminution\&Control\&Modelling in Mineral Processing short course (November 2)


Opening Ceremony (November 3)


Prof. Dr. Ali Osman Yılmaz (Head of KTU Dept. of Mining Eng.) making his speech at opening ceremony


Mr. Metin Güneș (Head of KTU Mining Association) making his speech at opening ceremony


A/Prof. Dr. Kerim Aydıner (Head of Organisation Committee) making his speech at opening ceremony


Exhibition Area


Prof. Dr. Ali Osman Yılmaz in registration desk with some of the students from KTU Dept. of Mining Eng. that worked in the organisation of the symposium



Sessions



# WHOLE DAY TUNNE LING COURSE 

KARADENIZ TECHNICAL UNIVERSITY - TRABZON - TURKEY
WHOLE DAY TUNNE COURSE CONSISTS OF THREE PARTS. FIRST PART OF THE COURSE WIL BE GIVEN BY DR. NICK BARTON WHO IS THE DEVELOPER OF ONE OF THE MOST CIIED AND USED ROCK MASS CLASSIFICATION SYSTEMS, "Q". SECOND PART OF THE COURSE WIL BE GIVEN BY PROF. DR. TURGAY ONARGAN ABOUT NATM TUNNELING WHO HAS MANY CONSULTING EXPERIENGES FOR TUNNEIING PROIECTS. PROF. DR. G. OKAY AKSOY WILL PERFORM THE LAST COURSE ABOUT NUMERICAL MEIHODS INTUNNELING WHO HAS ALSO GREAT CONSULTING CAREER IN TUNNEL WORKS.

## course outhine

| Time | Lecturer | Course Title |
| :---: | :--- | :--- |
| 9:00-12:00 | Dr. Nick Barton | Empirical methods in drill-and-blast and TBM tunnelling, for civil and mining engineers: |
| 13:30-15:00 | Prof. Dr. Turgay Onargan | Support Design Principles and Applications in NATM Tunnelling |
| 15:30-17:00 | Prof. Dr. C. Okay Aksoy | Principles of Numerical Modeling Methods in Tunnel Design and Introduction of Non- <br> Deformable Support System |


| Course 1: 9:00-12:00 | Title: Empirical methods in drill-and-blast and TBM tunnelling, for civil and mining engineers: $Q$ and $Q_{\text {твм }}$ |
| :---: | :---: |
|  | Lecturer: Dr. Nick Barton (Nick Barton \& Assoc., Oslo, Norway) <br> Objectives of the short course: <br> This half-day short course will cover some key elements of the lecturer's developments and work in rock me chanics and rock engineering. The course will start with the Q -system, an example of observational empiricism, using a key-note treatment of rock mass classification and its many siteinterpretation and tunnel-and-cavern design aspects. TBM tunnelling performance will follow, from world records to more common performance, especially problems caused by fault zones. The Qтem prognosis method for estimating penetration rate PR and advance rate AR, will also be described and illustrated. <br> First part of the course: FORTY YEARS with the Q-SYSTEM: LESSONS and DEVELOPMENTS Second part of the course: TBM PERFORMANCE, PROGNOSIS by Qtem , AND RISK CAUSED BY FAULTING |

Course 2: 13:30-15:00
Title: Support Design Principles and Applications in NATM Tunnelling


Lecturer: Prof. Dr. Turgay Onargan (DEU, Mining Engineering Department, ízmir, Turkey)

Objectives of the short course:
This course will cover discussed 'Rock engineering design in NATM Tunnelling - the importance of process, prediction of behavior, choice of design criteria, review, and consideration of risk', outlining his views on the design process.

Course 3: 15:30-17:00


Title: Principles of Numerical Modeling Methods in Tunnel Design and Introduction of NonDeformable Support System

Lecturer: Prof. Dr. C. Okay Aksoy (DEU, Mining Engineering Department, İzmir, Turkey)
Objectives of the short course:
This course will cover discussed 'Numerical modeling principles in Rock engineering and Tunnelling and also Non-Deformable Support System". Selection of time-dependent rock mass deformation characters, rock mass behavior, rock mass properties and the evaluation of non-deformable support system is the important issues for the system. The short course give some outlining his views on the design process. EXPERTS FROM SECTOR'S IEADING COMPANY METSO ABOUT NEW TECHNOLOGIES FOR ORE PROCESSING. SECOND PART OF THE COURSE WIL BE GIVEN BY MPES FOCUSING ON THE NUMERICAL MEHODS IN MINERAL PROCESSING. LAST PART WIL BE PRESENIED BY PROFESSIONALS FROM DAMA ENGINERING ABOUT MODEIUNG IN MINERAL PROCESSING.

| COURSE OUTLINE |  |  |
| :---: | :--- | :--- |
| Time | Speakers | Course Title |
| 9:00-12:00 | Murat US (Metso) <br> Dr. Birol SÖNMEZ (Metso) <br> Mert KATKAY (Metso) | New trends in comminution circuits: HPGR(High Pressure Grinding Roll) <br> Stired milling technology \& applications in ultra-fine grinding <br> Expert control \& automation systems in mineral processing |
| 13:30-14:30 | Murat YAZICIOĞLU <br> (MPES) | The need to utilize modelling methods and industrial trainings in mineral processing <br> operations from the perspective of plant performance |
| 15:00-17:00 | Sabri KARAHAN (DAMA) <br> Tuğcan TUZCU (DAMA) | Modelling in mineral processing and plant performance improvement. functional <br> performance analysis |

Target Audiences: Mining Engineers, Mineral Processing Engineers


Title: The need to utilize modelling methods and industrial trainings in mineral processing operations from the perspective of plant


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[^0]:    This short course will be held within the INTERNATIONAL BLACK SEA MINING AND TUNNELUNG SYMPOSIUM. For further details of the course please check the symposium website: $w w w$.blacksea2016.com

