15th European Symposium on Comminution and Classification

The 15th European Symposium on Comminution and Classification (ESCC 2017) was held from 11th to 14th September 2017 at Euphoria Aegean Resort hotel in Izmir. Izmir is the third largest city in Turkey, located near the Aegean Sea and has historic significance. Izmir is a unique city that has a combination of historical and modern features to create a unique atmosphere for anyone visiting the city. An excellent choice of the venue and all those in attendance loved the location and the amenities at this venue.
The symposium attracted a range of sponsors with LOESCHE as platinum sponsors and LABRIS came in as a gold sponsor. Weir Minerals, MTM Makina, Derrick Corp., Ecutec S.L® and MEI acted as media liaison partner.

Melis Orakcı (Left) the person who was responsible for the conference secretariat poses for a photograph with Margarita Mezzetti from TU Bergakademie Freiberg in Front of the 15th ESCC banner showing the sponsors of the conference.
The Symposium, and its associated Proceedings, consisted of five themes, with papers arranged in 11 technical sessions: on material characterization, stirred milling, high pressure comminution, crushing, classification, computational and numerical modelling in comminution (CFD, DEM), plant operations, ultra-fine grinding and food processing. The technical themes were well balanced with the social program exhibiting Turkish Hospitality at its best.

11 September 2017, Monday

Prof. A. Hakan Benzer, chairman of ESCC 2017 head of the Mining Engineering Department, Hacettepe University, welcomed the 112 delegates of the 15th European Symposium on Comminution and Classification. In his welcoming speech he indicated that this international event attracted people from more than 26 different institutes and companies from 15 countries. There was a good mix of people from the local industry and institutions as well and other countries. All the five continents were represented at the symposium which was good to see. Participants covered different industries which included cement, minerals, phamaseutical, food processing to mention a few.

Prof.Dr. A. Hakan BENZER welcoming speech.

After welcoming remarks, session chairs Agnus J. Marrison and Katalin Bohacs opened the first technical session. The first technical session attracted lots of discussion setting the tone for the rest of the conference. The welcome reception began at 5 pm and the delegations were introduced to the warm atmosphere of Turkish hospitality. This marked the beginning of the taste of the real Turkish hospitality which continued till the last day of the conference.

The welcome reception enabled the delegates from industry to meet those from academia, science, which set the scene for a warm conference atmosphere where scientists, researchers and industrial practitioners deliberated on technologies and processes that would move the comminution and classification technology and science forward for all industries.

The conference was well supported by the local industries which has worked in close collaboration with the comminution researchers within Turkey. This was evident from the discussions during tea breaks and discussions during presentations. The symposium also highlighted how Turkish researchers and industrial practitioners are working together in resolving challenges in comminution and
classification. There is a lot of work happening locally in the areas of dry and wet comminution in all industries as well as innovation in stirred milling devices for various applications.
12 September 2017, Tuesday

The day began with a keynote speak "Innovations in grinding technology in cement industry" by Osman Nemli General Manager of Bursa Cement, Turkey. He emphasized the importance of continuous innovations in cement business. In this session, researchers presented the studies on high compression milling technologies including vertical roller mills and HPGRs, both used in cement and minerals. A virtual reality satellite event hosted by Loesche attracted nearly all delegates- This involved taking a walk in an operational VRM and observe grinding and transport of particle. This was a breathtaking experiment for several people and was the highlight of day for many.

Stirred milling technology was also one of the main topic of ESCC 2017. Because of ores becoming more complex, the interest on fine grinding increase day by day. Papers discussing factors that influence their performance and how this technology can be used to address demands for better energy efficiency in fine grinding of complex, low grade ores and advancement in the designs of these systems were presented.
Matthias Mersman’s keynote on Tuesday afternoon was themed: “Innovations for ore processing – Why we need them why we do not materialize them”. The presentation challenged the industry to transform from the conservative way of carrying out projects by adopting project management principles with models that allow both the operating companies and suppliers to share the risk. Only if the projects are carried out in a way that recognizes the shared risk will assist the industry to realise that encouraging innovation results in a win – win situation for all stakeholders. Innovative ideas are already there it is the project management model that doesn’t allow these to flourish.

The second day ended with the symposium dinner hosted by Labris. The four course menu put on display the rich culture of dishes selected from various regions of Turkey. Delegates were treated to appetizers, deep fried phyllo pastry with pastrami and tomato filling, lamb stew served on mashed eggplant dishes and baklava.
13 September 2017, Wednesday

The third day began with a keynote address themed “Flour Milling Technology and Recent Developments” by Prof. Dr. Hamit Köksel, Hacettepe University Department of Food Engineering. Prof. Dr. Hamit Köksel is currently the President of the International Association for Cereal Science and Technology (ICC). His presentation showed that the issues in comminution and classification are the same in all the industries. It doesn’t matter whether it is the minerals, cement or food processing. The keynote set the scene for researchers from different fields to discuss how they can use the development from different industries to find the solutions to the common problems in grinding & classification applications. The tea/coffee break provided an opportunity for people from different industries to talk about their different experiences with the current technology and the process that is needed to find solutions to common problems. Tea/coffee breaks were deliberated scheduled to be longer to promote discussions.
Prof. Malcolm Powell, Chair in Comminution - Julius Kruttschnitt Mineral Research Centre (JKMRC), gave the afternoon keynote address on "Addressing Challenges of Mechanistic Mill Modelling". This set the scene for discussions centered around Computational Fluid Dynamics, Discrete Element Methods and dynamic modelling which were an integral part of the interesting topics for ESCC 2017. The Keynote and subsequent presentations introduced modelling and the role of computational tools as topics for tea time discussions. The taste of Turkish delight and other sweets which were served during tea breaks spiced with modelling topics made it difficult for chair persons to get people back into the auditorium to continue with the technical programme.

14th September 2017, Thursday

The last keynote at the 15th European Symposium on Comminution and Classification was addressed by Prof. Aubrey Mainza and was themed “impact of classification on circuit design”. It was a thought provoking discourse and stimulated discussions on designing and operating plants in an integrated manner. High frequency screening which is a recent technology in classification was emphasized by David Perkins with its advantage on capacity improvement and recovery increase. Discussions on classification modelling including use of computational tools such as CFD and Smooth Particle hydrodynamics and granular flow approach formed the core of the presentations given by Professors Govender, Mainza and Narasimha in the last two sessions of the conference.

The successful event was closed by Prof. Hakan Benzer by acknowledging the participant, sponsors and the exhibitors. – There is no doubt in the minds of all those in attendance that this was a beautifully organized event.
İbrahim Göktaş (ETİ Copper Corp.), Daniel Strohmeyer (Loesche), Merve Yüksel (MNG Gold Corp.), Ramazan Ayhan (MNG Gold Corp.), Max Hesse (TU Bergakademie Freiberg)
Turkish industry practitioners in deep conversation: Osman Nemli (Bursa Cement), Levent Onat (Bursa Cement), Cumhur Şahin (Akçansa Cement), Sadri Çakır (Koza Gold Corp.) and an academic Kemal Bilir (Osmangazi University)
Emrah Şenol (Ecutec s.l.), Hari Ünal (Ecutec s.l.), Muhterem Köse (Turkish Gold Miners Association), Cumhur Şahin (Akçansa Cement)
David Perkins (Derrick Corp.), Berkan Arabacılar (MTM Makina)