

Report on the 43rd International Symposium: *Actual Tasks on Agricultural Engineering*, 24th-27th February 2015, Opatija, Croatia

Dr. Sc. Igor Kovacev, Convenor of the Symposium

Prof. Daniele De Wrachien, Past President of EurAgEng

The 43rd International Symposium *Actual Tasks on Agricultural Engineering* was held on 24th-27th February 2015 in Grand Hotel *Adriatic* Opatija, Republic of Croatia. The principle Organiser, Agricultural Engineering Department, Faculty of Agriculture, University of Zagreb was supported by the following frameworks: Department of Agricultural Engineering, Faculty of Agriculture, University J.J. Strossmayer, Osijek, Department of Bio-systems Engineering, Faculty of Agriculture and Lifesciences, University of Maribor (Slovenia), Agricultural Institute of Slovenia, Hungarian Institute of Agricultural Engineering Gödöllő and Croatian Agricultural Engineering Society. In addition, CIGR, EurAgEng and AAEE bestowed their support and endorsement on the Event.

This year 76 participants from 9 countries attended the Symposium. It consisted of an Opening Session and six Topic Sessions covering all the broad subject-areas that fall under the scope of Agricultural Engineering. At the Opening Session Prof. Dr. Daniele De Wrachien, former president of the EurAgEng, in his speech highlighted briefly the main historical steps of the symposium emphasising its significant role as a gathering event for scientists, engineers and dealers from southeast European countries and brought the greetings of EurAgEng and CIGR. Prof. Dr. Sc. Vlado Guberac, dean of Faculty of Agriculture, University J.J. Strossmayer, Osijek addressed audience bringing them greetings and good wishes for successful work and emphasizing long tradition, high quality level and importance of symposium within south European area. The Convenor, Dr. Sc. Igor Kova ev ended the Opening Session with the greetings of the Croatian Society of Agricultural Engineering to the audience. A number of lectures followed, among which are worth mentioning: *Sprinkler jet flow: classical and quantum thermal-fluid dynamical assessment* presented by Prof. Dr. Daniele De Wrachien from Italy, *The effect of tillage techniques, temperature and precipitation on CO₂ emissions from light soil* given by Prof. Dr. Denis Stajanko from Slovenia, *Influence of agro-measures on soil physical parameters in alternative farming* presented by BSc Laura Masilionyte from Lithuania, *Harvest residues bio-treatment as a soil incorporation improvement* featured by Prof. Dr. Egidijus Sarauskis from Lithuania, *Technology of potatoe weed management under conditions of low input systems* performed by Dr. Sc. Jaroslav Cepl from Czech Republic, *Thermal solar collectors and absorption system applied to greenhouse cooling* delivered by Dr. Sc. Evelia Schettini from Italy, *Vertical green systems for buildings climate control* delivered by Prof. Dr. Giuliano Vox, from Italy, *SWOT analysis and land management of plastic wastes in agriculture* presented by Dr. Sc. Carmela Sica from Italy, *The valorisation of vernacular farm buildings for an innovative rural tourism and Linking vernacular architecture and environment: the case study of the Marche Region (Central Italy)* by Prof. Dr. Pietro Picuno and Prof. Dr. Andrea Galli respectively, *Analysis of an underground cellar thermal behaviour based on energy simulation* by Prof. Dr. Alberto Barbaresi, from Italy, *Agricultural residues for anaerobic digestion: technologies to open up new resources*, presented by Prof. Dr. Andreas Gronauer from Austria, *Investigation on possibilities of bio-methane production from corn stover in Vojvodina* proposed by Dr. Sc. Djordje Djatkov from Serbia, *Relationship between cutter inclination*



and cutting force for the stalks of *Salix viminalis var.energo* and *Critical analysis of the reflection by the resources quality agro-livestock in the labeling of generated foodstuff* presented by Prof. Dr. Dumitru Tucu and Dumitru Mnerie respectively, from Romania, *Carbon footprint of vineyard production* and *Situation in the field of agricultural tractors in Slovenia* introduced by Dr. Sc. Viktor Jecic and Msc Tomaz Poje respectively, from Slovenia. In the Topic Sessions, each starting with a review report, 81 papers were discussed, in oral presentation. At the Closing Session the Convenor emphasised the role of EurAgEng and CIGR in the ecologically sustainable development of agriculture and in the preservation of the rural cultural heritage within the East-European countries. Participants were given electronic copies of the Proceedings consisting in volumes of 884 pages, containing 83 papers all peer reviewed. Papers from the Proceedings have been indexed in Thomson Reuters (The Conference Proceedings Citation Index, part of Web of Science® database) since 1997. Maziva Zagreb d.d.-INA group (national petrol company) presented its results of field-testing latest palette of synthetic and biodegradable oils emphasising the progress made in keeping pace with well known worldwide competitors. Especially interesting was an Open debate titled *The cooperative organization as a function of better resources use in agriculture* moderating by Prof. Dr. Sc. Miroslav Tratnik that gathered Croatian experts from middle range agricultural enterprises and representatives of famous machinery producers

Downloadable electronic version of proceedings of the 43rd symposium is available at symposium's website: <http://atae.agr.hr/proceedings.htm> starting on 30th of March 2015. Information regarding the 44th Symposium in the year 2016 will soon be available at the web site: <http://atae.agr.hr>