



# **International Conference on Science, Technology, Engineering and Economy ICOSTEE 2018**



## **CONFERENCE PROGRAMME**

***LECTURES  
AND  
POSTER PRESENTATIONS***

**25 October 2018**

**Faculty of Engineering**

**University of Szeged**

**Building A**

**Mars tér 7, Szeged, Hungary**

**Session on**  
**AUTOMATIZATION, MEASUREMENT TECHNIQUES**  
**AND MACHINERY**

**Session chair:** Sinisa BIKIC (*University of Novi Sad, Serbia*)

**Co-chair:** József SÁROSI (*University of Szeged, Hungary*)

**Room:** Lecture room III.

- 12<sup>00</sup> – 12<sup>15</sup> István BÍRÓ, Livija CVETICANIN, Péter SZUCHY  
SPECIAL NUMERICAL METHOD TO DETERMINE THE ELASTIC CURVE OF SUPPORTED  
BEAMS OF VARIABLE CROSS-SECTION
- 12<sup>15</sup> – 12<sup>30</sup> Livija CVETICANIN, András VECSEI, István BÍRÓ, Dragan CVETICANIN  
DETECTION PROCEDURES FOR SHAFT MISALIGNMENT DETECTION: AN OVERVIEW
- 12<sup>30</sup> – 12<sup>45</sup> Sinisa BIKIC  
ATP DAMPER DEVELOPMENT
- 12<sup>45</sup> – 13<sup>00</sup> Gyula MESTER  
RANKING HUNGARIAN RESEARCHERS - USING H INDEX AND TOTAL NUMBER OF  
CITATIONS
- 13<sup>00</sup> – 13<sup>15</sup> Róbert KÜRTÖSI, Miklós BERCZELI, Zoltán WELTSCH  
ADHESIVE JOINING OF ALUMINIUM CFRP COMPOSITES
- 13<sup>15</sup> – 13<sup>30</sup> Peter SZUCHY  
ROTATING VECTORS OF 2-DEGREE-OF-FREEDOM OSCILLATION
- 13<sup>30</sup> – 13<sup>45</sup> Dominik NAGY  
MECHATRONIC SYSTEM DESIGNING IN THE INDUSTRY

**Session on  
ECONOMICS, MARKETING, MANAGEMENT  
AND LOGISTICS I.**

**Session chair:** Masa BUKUROV (*University of Novi Sad, Serbia*)

**Co-chair:** Krisztián KIS (*University of Szeged, Hungary*)

**Room:** Seminar room IV.

- 12<sup>00</sup> – 12<sup>15</sup> Slavka NIKOLIC, Masa BUKUROV  
A SOAP BUBBLE ANALOGY FOR MERGERS AND ACQUISITIONS
- 12<sup>15</sup> – 12<sup>30</sup> Ágota PANYOR, Krisztián KIS  
TRENDS OF FOOD CONSUMPTION FOR HEALTH CONSCIOUS LIFESTYLE
- 12<sup>30</sup> – 12<sup>45</sup> Krisztián KIS, Ágota PANYOR  
THE CONCEPT OF VALUE CREATION IN BLUE OCEAN STRATEGY AND LEAN  
MANAGEMENT
- 12<sup>45</sup> – 13<sup>00</sup> Edina LENDVAI, Ágnes ÖRDÖG  
ANALYSIS OF THE HUNGARIAN AGRICULTURAL MARKETING – BY THE SUPPLY OF  
LOCAL PRODUCTS' CONSUMERS
- 13<sup>00</sup> – 13<sup>15</sup> Ferenc SZABÓ  
THE LOGISTICS OF HUNGARIAN WASTE MANAGEMENT SYSTEMS AFTER THE CHANGE  
OF REGIME
- 13<sup>15</sup> – 13<sup>30</sup> Sándor NAGY, Ádám MOLNÁR  
ROLE OF DISTANCE IN TERRITORIAL ECONOMIC COHESION - A COMPARATIVE  
ANALYSIS OF RELATIVELY SMALL AND LARGE TERRITORY COUNTRIES IN EUROPE

**Session on  
ECONOMICS, MARKETING, MANAGEMENT  
AND LOGISTICS II.**

**Session chair:** József GÁL (*University of Szeged, Hungary*)

**Co-chair:** György HAMPEL (*University of Szeged, Hungary*)

**Room:** Seminar room VI.

- 12<sup>00</sup> – 12<sup>15</sup> Constantin Dan DUMITRESCU, Edward-Istvan DEBELKA  
SOME ASPECTS REGARDING QUALITY MANAGEMENT SYSTEMS (QMS)  
DEVELOPMENT WITHIN SMES IN ROMANIA
- 12<sup>15</sup> – 12<sup>30</sup> Andreea-Eva SOMKEREKI, Petrișor IOAN  
HISTORICAL LANDMARKS OF THE MANAGEMENT OF MAJOR URBAN LOGISTICS  
PROJECTS IN IMPERIAL TIMISOARA
- 12<sup>30</sup> – 12<sup>45</sup> György HAMPEL  
LOGISTICS IN CITIES: SKYLINES
- 12<sup>45</sup> – 13<sup>00</sup> Virgil ROTARU, Aurelian Nicolae BIBU, Stefan HOLBAN  
EFFECTIVE MANAGEMENT OF RDI PROJECT NETWORKS
- 13<sup>00</sup> – 13<sup>15</sup> Eszter ÁCS, Brigitta ZSÓTÉR  
ECONOMY OF FISH CONSUMPTION WITH PARTICULAR ATTENTION TO THE VAT-  
REDUCTION IN YEAR 2018
- 13<sup>15</sup> – 13<sup>30</sup> Eszter ÁCS, Brigitta ZSÓTÉR  
THE PHYSIOLOGICAL EFFECTS OF FISH CONSUMPTION. WHY SHOULD WE CONSUME  
FISH ON A REGULAR BASIS?
- 13<sup>30</sup> – 13<sup>45</sup> Bence RAFAEL, Nóra KURUCZLEKI, József GÁL  
THE WAY OF THE PHARMACEUTICAL INGREDIENTS TO THE FINISHED  
PHARMACEUTICAL FORM

**Session on**  
**FOOD- AND ENVIRONMENTAL SCIENCE**

**Session chair:** Gábor GÉCZI (*Szent István University, Hungary*)

**Co-chair:** Zsuzsanna LÁSZLÓ (*University of Szeged, Hungary*)

**Room:** Seminar room VII.

- 12<sup>00</sup> – 12<sup>15</sup> József CSANÁDI, Barbara BIHARI NAGY, Katica NYÁRADI  
COMPOSITION AND CERTAIN PROPERTIES OF GOAT MILK FROM SMALL FARMS IN  
SOUTH HUNGARY
- 12<sup>15</sup> – 12<sup>30</sup> András BARCZI, Gábor GÉCZI  
COLOUR CHANGES ANALYSIS OF ALGAE POPULATIONS ON RGB COLOUR MODEL  
SCALE
- 12<sup>30</sup> – 12<sup>45</sup> Gábor MUCSI, Roland SZABÓ, Mária AMBRUS  
THE DEVELOPMENT OF FLY ASH – RED MUD BASED GEOPOLYMER
- 12<sup>45</sup> – 13<sup>00</sup> Zoltán PATONAI, Gábor GÉCZI  
WASTE MANAGEMENT OF A TEMPORARY FACILITY
- 13<sup>00</sup> – 13<sup>15</sup> Rajab GHABOUR, Péter KORZENSZKY  
STUDYING THE POSSIBILITY OF PROVIDING THE THERMAL REQUIREMENTS OF  
PASTEURIZATION BY PV/T SOLAR SYSTEM IN HUNGARY
- 13<sup>15</sup> – 13<sup>30</sup> Zoltán JÁKÓI, Balázs LEMMER, Cecilia HODÚR, Sándor BESZÉDES  
MICROWAVE ENHANCED ENZYMATIC BIODEGRADABILITY OF CELLULOSIC BIOMASS
- 13<sup>30</sup> – 13<sup>45</sup> Naoufal BELLAHSEN, Szabolcs KERTÉSZ, Zita SERES, Cecilia HODÚR  
ADSORPTION OF AMMONIUM USING POMEGRANATE PEEL AS LOW-COST ADSORBENT

## POSTER SESSION

**Room:** Gym hall

Mahmood AL RAMAHI, Sándor BESZÉDES, Gábor KESZTHELYI-SZABÓ  
IMPACTS OF MICROWAVE PRETREATMENTS ON THE ANAEROBIC DIGESTION OF DAIRY WASTE ACTIVATED SLUDGE

Petra APÁTI-NAGY, Cecilia HODÚR, Zita ŠEREŠ, Zsuzsanna LÁSZLÓ, Szabolcs KERTÉSZ  
BIOLOGICALLY PRETREATED DAIRY WASTEWATER ULTRAFILTRATION

Dóra BENCSIK, Balázs P SZABÓ, Gyöngyi GAZSI, Béla URBÁNYI, Béla SZENDE, Gergely RÁCZ, Antal VÉHA, Zsolt CSENKI  
SUBACUTE EFFECTS OF A FOOD FLAVOUR ON FISH MODEL

József BENÉCS, Péter HERMANUCZ, Zoltán DODOG  
EXAMINATION OF INTELLIGENT MEASUREMENT SYSTEM (IMRE) APPLICATIONS

Sándor BESZÉDES, Balázs LEMMER, Zoltán JÁKÓI, Andrea VÁGVÖLGYI, Gábor KESZTHELYI-SZABÓ, Cecilia HODÚR  
APPLICATION OF MICROWAVE TREATMENTS AND DIELECTRIC MEASUREMENTS IN WASTEWATER AND SLUDGE UTILIZATION PROCESSES

Ciprian BULEI, Mihai-Paul TODOR, Imre KISS  
ALUMINIUM MATRIX COMPOSITES – AN OVERVIEW ON THE MATERIALS SUBSTITUTION AND EFFICIENT USE OF MATERIALS

Sándor CSIKÓS, Tamás MOLNÁR, Péter SZUCHY, László GOGOLÁK, István BÍRÓ, József SÁROSI  
VIBRATIONAL TESTS AND ANALYSIS ON MATERIALS USED IN THE AIRCRAFT

Khabat Noori HUSSEIN, György KENESEI, István DALMADI  
COMBINATION OF ACTIVE COMPOUNDS OF ESSENTIAL OIL AND HHP TECHNOLOGY IN CHICKEN MEAT

Khabat Noori HUSSEIN, Regina FORGÁCS, György KENESEI, István DALMADI  
INSTRUMENTAL ANALYSIS OF SENSORY PROPERTIES OF CHICKEN MEAT TREATED BY COMBINED THERMAL AND NONTHERMAL FOOD PRESERVATION TECHNIQUES

Miljana DJORDJEVIĆ, Zita ŠEREŠ, Szabolcs KERTÉSZ, Cecília HODÚR, Nikola MARAVIĆ, Dragana Šoronja SIMOVIĆ, Ljubica DOKIĆ, Marijana DJORDJEVIĆ  
THE USAGE POTENTIAL OF ACTIVATED CARBON IN SUGAR BEET MOLASSES PURIFICATION: INFLUENCE ON COLOUR AND TURBIDITY

Zoltán FABULYA  
CREATING A MICROSOFT ACCESS APPLICATION FOR CLIENT-FOCUSED SERVICES

Ákos FAZEKAS, Gábor VERÉB, Szabolcs KERTÉSZ, Sándor BESZÉDES, Cecilia HODÚR, Zsuzsanna LÁSZLÓ  
FENTON AND DIFFERENT LIGHT SOURCE ASSISTED PHOTO-FENTON REACTIONS FOR THE PURIFICATION OF REAL THERMAL WASTEWATER

Ferenc FARKAS, József GÁL, István Tibor TÓTH, István PÉTER SZABÓ, István BÍRÓ, Antal VÉHA, Tamás MOLNÁR  
E-MOBILITY IN SZEGED – ELECTRIC CARS AND CHARGING POINTS

Diána FURULYÁS, Viktória DOBÓ, Dóra SZÉKELY, Rentsentdavaa CHAGNADORJ, Éva STEFANOVITS-BÁNYAI, Mónika STÉGER-MÁTÉ  
OPTIMIZING OF EXTRACTION OF BIOACTIVE COMPONENTS FROM SEA BUCKTHORN (HIPPOPHAE RHAMNOIDES L.) POMACE AND DEVELOPE OF ANTIOXIDANT-ENRICHED APPLE JUICE

Szabolcs KERTÉSZ, Dzszenifer GARAI, Mihály ZAKAR, Cecilia HODÚR, Gábor VERÉB, Sándor BESZÉDES, Zita ŠEREŠ, Zsuzsanna LÁSZLÓ  
EXAMINATION OF DIFFERENT PRETREATMENT METHODS TREATING MODEL WASTEWATER

Gábor GÉCZI, Virág OCSKAY  
COMPARISON OF FILTER MATERIALS USED FOR DEPTH FILTRATION

Milica HADNADJEV-Kostic, Tatjana VULIC, Aleksandar JOKIC, Dunja SOKOLOVIC, Arpad KIRALJ  
A COMPARATIVE STUDY ON THE REMOVAL OF ANIONIC AND CATIONIC DYES FROM AQUEOUS SOLUTION BY LAYERED DOUBLE HYDROXIDES

György HAMPEL  
USING MICROSOFT EXCEL VBA IN A BIOMETRIC CASE STUDY

Péter HERMANUCZ, Gábor GÉCZI  
EXAMINATION OF NATURAL REFRIGERANT APPLICATION IN PILOT FOOD REFRIGERATION EQUIPMENT

Zsuzsanna H. HORVÁTH  
MATHEMATICAL ANALYSIS OF COLOUR PARAMETERS

Aleksandar JOKIĆ, Nataša LUKIĆ, Jelena DODIĆ, Jovana GRAHOVAC, Milica HADNAĐEV-KOSTIĆ, Tatjana VULIĆ  
POSSIBILITES TO CONTROL SOLID UPTAKE DURING OSMOTIC DEHYDRATION OF CARROT SLICES IN SALT SOLUTIONS

Tamás KARCHES, Judit KNISZ, Ildikó MÁTRAI, Edit VADKERTI  
SLUDGE REDUCTION IN ATTACHED GROWTH WASTEWATER SYSTEM ASSUMING FOOD CHAIN REACTOR

Péter KORZENSZKY  
BREWERY TECHNOLOGY MEASUREMENTS

Róbertné KOVÁCS, Gábor KESZTHELYI-SZABÓ, Péter SZENDRŐ  
BIOGAS PRODUCTION POTENTIAL AND KINETICS OF MICROWAVE PRE-TREATMENT OF FOOD INDUSTRIAL WASTEWATER

Balázs LEMMER, Nikolett SZPISJÁK-GULYÁS, Zoltán JÁKÓI, Gréta BÁNYAI, József CSANÁDI, Cecilia HODÚR  
ANTIOXIDANT ACTIVITY OF WHEY PROTEINS

Balázs LEMMER, Nikolett SZPISJÁK-GULYÁS, Zoltán JáKói, Gréta BÁNYAI, Sándor BESZÉDES, Cecilia HODÚR  
ENZYME RECOVERY FROM REAL FERMENTATION BROTH

Edina LENDVAI, Erika NÉMETHNÉ DOBÓ  
THE SITUATION OF THE HUNGARIAN PEACH PRODUCTION-, PARTICULARLY  
THE PLANTATION IN SZATYMAZ

Nataša LUKIĆ, Aleksandar JOKIĆ  
VOLUMETRIC MASS TRANSFER COEFFICIENT IN AN EXTERNAL-LOOP AIRLIFT  
REACTOR WITH SELF-AGITATED IMPELLERS CONTAINING AQUEOUS SUCROSE  
SOLUTION

Tamás MOLNÁR, Péter SZUCHY, Sándor CSIKÓS, László GOGOLÁK, István BÍRÓ, József  
SÁROSI  
MATERIAL TESTS AND ANALYSIS OF AIRCRAFT MATERIALS

Zsuzsanna MURÁR, Marietta FODOR, István DALMADI  
NEAR INFRARED SPECTROSCOPY INVESTIGATION OF WHITE BUTTON  
MUSHROOM PRESERVED BY COMBINED TREATMENTS

Zsuzsanna MURÁR, István DALMADI  
ELECTRONIC NOSE INVESTIGATION OF WHITE BUTTON MUSHROOM  
(AGARICUS BISPORUS) PRESERVED BY COMBINED TREATMENTS

Gábor NAGY, Alexandra TAKÁCS, András Arnold KÁLLAY  
THE DEVELOPMENT OF LOW-COST BIOGAS REACTOR

István PÉTER SZABÓ, Bence ZELLEI  
FURTHER DEVELOPMENT OF A RADIO-CONTROLLED MODEL CAR

István PÉTER SZABÓ, Gábor HORVÁTH  
FRONT RUNNING GEAR DEVELOPMENT FOR THE AIRRARI PNEUMOBILE  
RACING CAR

Bence RAFAEL, Ernő GYIMES, Géza REGDON Jr.  
THERMOANALYTICAL QUALITY EXAMINATION OF CONFECTIONERY ROW  
MATERIALS AND PRODUCTS

Renáta RAUCH, Rita FÖLDÉNYI  
INVESTIGATION OF SORPTION OF 2,4-DICHLOROPHENOL ON SPECIAL  
HUNGARIAN OIL SHALE

János SIMON  
POSSIBLE IMPLEMENTATIONS OF THE CLOUD-BASED DATA-CENTRIC IOT PILOT  
PLATFORMS FOR SMART CITIES AND AGRICULTURE

Péter SIPOS, Róbert NAGY, Zoltán GYŐRI  
USE OF SORGHUM FLOUR FOR BREAD AND CAKE PRODUCTION AFTER HEAT  
TREATMENT

Szabolcs KERTÉSZ, Szabolcs SZERENCSÉS, Zsuzsanna LÁSZLÓ, József CSANÁDI, Gábor  
VERÉB, Sándor BESZÉDES, Zita ŠEREŠ, Cecilia HODÚR  
MEMBRANE FILTRATION TESTS FOR DAIRY WASTEWATER SEPARATION



Nikolett SZ. GULYÁS, Balázs LEMMER, Cecilia HODÚR  
MODELLING OF CEREAL ORIGINATED BEVERAGE ULTRAFILTRATION BY  
HERMIA MODEL

Balázs P. SZABÓ, Ernő GYIMES, Antal VÉHA  
CONNECTION BETWEEN THE KERNEL HARDNESS AND THE FLOUR QUALITY IN  
HUNGARIAN WINTER WHEAT

Viktoria SZUTS, Zoltán RÉPÁS, Tibor PÁLI, Zsolt SZEGLETES, Tibor SZÜCS, Ildiko  
DOMONKOS, Ferenc OTVOS, Balázs P. SZABÓ, Antal VÉHA, Csaba VÁGVÖLGYI, Katalin  
HALASY  
EFFECT OF OPHIOBOLIN A ON KIR2.1 POTASSIUM CHANNEL IN CHICKEN  
SKELETAL MUSCLE CELLS

Viktoria SZUTS, Judit MÁRKI, Zsolt SZEGLETES, Zoltán DEIM, Attila KOLLER, Rita SZŰTS,  
Ferenc OTVOS, Zita SERES, Balázs P. SZABÓ, Antal VÉHA, József CSANÁDI  
EVALUATION OF THE SEASONAL EFFECT ON THE MILK PERFORMANCE OF  
COW'S AND GOAT'S

Mihai-Paul TODOR, Ciprian BULEI, Imre KISS  
NATURAL FIBRE REINFORCED POLYMER COMPOSITES FROM TEXTILE WASTES  
– AN OVERVIEW ON NEW POSSIBILITIES

Erika Varga-SIMON, Mária ÖRVÖS  
HIDRODINAMIC FORCE INFLUENCED HEAT TRANSPORT AT CONVECTIVE  
DRYING

András VECSEI, Péter SZUCHY  
EFFECT OF SHAFT MISALIGNMENT ON COUPLING AND ENERGY CONSUMPTION

Gábor VERÉB, Ákos FAZEKAS, Viktória KÁLMÁN, Fanni REDENCZKI, Tünde DOBÓ, Mihály  
ZAKAR, Ildikó KOVÁCS, Szabolcs KERTÉSZ, Sándor BESZÉDES, Cecilia HODÚR, Zsolt PAP,  
Zsuzsanna LÁSZLÓ  
UTILIZATION OF ADVANCED OXIDATION PROCESSES FOR ADVANCED  
MEMBRANE SEPARATION OF OIL CONTAMINATED WATERS

Mihály ZAKAR, Imre Dániel FARKAS, Szabolcs KERTÉSZ, Erika HANCZNÉ-LAKATOS, Gábor  
KESZTHELYI-SZABÓ, Zita ŠEREŠ, Zsuzsanna LÁSZLÓ  
INVESTIGATION OF THE EFFECT OF OZONE PRETREATMENT IN THE MEMBRANE  
FILTRATION OF REAL DAIRY WASTEWATER

Zita Boglárka ZAKUPSZKI, Antal VÉHA, Balázs P. SZABÓ  
DEVELOPMENT OF MATZO MADE OF WHOLEMEAL RYE FLOUR AND ITS  
IMPLEMENTATION IN THE INDUSTRY

Gabriella ZSARNÓCZAY, Dóra BENCSIK  
NUTRITIONAL JUDGEMENT OF ORNAMENTAL POULTRY MEAT