



UNIVERSITY OF ZENICA
 FACULTY OF MECHANICAL ENGINEERING IN ZENICA
 Bosnia and Herzegovina



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 TECHNICAL FACULTY
 BOR
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**UMWELT-CAMPUS
 BIRKENFELD**
 TRIER UNIVERSITY OF
 APPLIED
 SCIENCES
 Germany

**2nd International Symposium on
 Environmental and Material Flow Management**

EMFM2012

Final program



07-09 June 2012
 Zenica, Bosnia and Herzegovina

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MAIN TOPICS

Environmental Management
ISO 14001 and EMAS
Material Flow Management
Life Cycle Analysis
Sustainable Development
Industrial Ecology
Energy Management
Cleaner Production
Eco-efficiency

PAPER PRESENTATION

Presentation is limited to 10 minutes+5 minutes for discussion. Presenters can use overhead transparencies or Power Point slide shows. Papers can be presented in English or the Languages of BCS (Bosnian, Croatian or Serbian.).

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SCHEDULE OF EVENTS

THURSDAY June 7th

19.00-21.00 Registration and Welcome Drink

FRIDAY June 8th

09.00-11.00 Round Table on topic: Organising Joint Doctoral Studies in the Field of Environmental Engineering

11.00-12.00 Coffee Break and Registration of Participants

12.00-12.15 Conference Opening and Welcome Speech

12.15-13.00 Keynote Paper presentations

13.00-14.00 Lunch Break

14.00-15.30 Sessions of Presentations I

15.30-16.00 Coffee Break

16.00-17.30 Sessions of Presentations II

17.30-18.00 Coffee Break

18.00-19.30 Sessions of Presentations III

21.00 Diner

SATURDAY June 9th

09.00-10.30 Sessions of presentations IV

10.30-12.00 Visit to the Regional Landfill Zenica

12.00-16.00 Visit to the Fortress Vranduk and Lunch

SCHEDULE OF PAPER PRESENTATIONS

THURSDAY, June 7th
19.00-21.00 Registration and Welcome Drink

FRIDAY, June 8th
09.00-11.00 Round Table on Topic: Organising Joint Doctoral Studies in the Field of Environmental Engineering

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12.00-12.15 Conference Opening and Welcome Speech

12.15-13.00 Keynote Paper Presentations

Chairmen: Š. Goletić, D. Petković, D. Živković

1. LESS FORMAL TOOLS FOR ENVIRONMENTAL MANAGEMENT IN PRODUCTION INDUSTRY
Janko Hodolič, Igor Budak, Djordje Vukelić, Boris Agarski, Miodrag Hažistević (Serbia)
2. CLIMATE PROTECTION POTENTIAL BY WASTE MANAGEMENT IN BOSNIA AND HERZEGOVINA
Adele Clausen, Thomas Pretz (Germany)

FRIDAY, June 8th (Material Flow Management)
14.00-15.30 Session I
Chairman: D. Živković, F. Bikić, N. Neukirchen

1. ANALYSIS OF SOIL SITES TETOVO ON HEAVY METALS AND ASSESSMENT OF POLLUTION
Farzet Bikić, Larisa Omerović (Bosnia and Herzegovina)
2. COPPER RECOVERY FROM ORE DUMPS BY ACIDITHIOBACILLUS FERROOXIDANS
Jelena S. Avdalović, Zorica R. Lopičić, Tatjana D. Šoštarić, Aleksandar R. Čosović, Vladimir M. Adamović (Serbia)
3. COPPER RECOVERY FROM ORE DUMPS BY ACIDITHIOBACILLUS FERROOXIDANS
Jelena S. Avdalović, Zorica R. Lopičić, Tatjana D. Šoštarić, Aleksandar R. Čosović, Vladimir M. Adamović (Serbia)
4. DISTRIBUTION OF ARSINE IN THE PROCESS OF COPPER CEMENTATION
Vladimir Cvetkovski, Silvana Dimitrijevic, Vesna Conic, Suzana Dragulovic, Zdenka Stanojevic-Simsic, Ruzica Lekovski (Serbia)
5. RESEARCH OF SYSTEM FOR OXYGEN ENRICHMENT OF WATER IN FISH FARMS
Adnan Jažić, Jože Duhovnik, Senad Balić, Almedina Zuko, Jasmin Omeragić (Bosnia and Herzegovina)
6. NEW URANIUM REMEDIATION APPROACH BASED ON MINERAL ROW MATERIALS AND PHYTOACUMULATORS

- Mirjana Stojanović, Zorica Lopičić, Marija Mihajlović, Marija Petrović, Dragan Radulović, Jelena Milojković (Serbia)*
7. POSITIVE EFFECTS OF ELECTROMAGNETIC FIELD DURING THE SOLIDIFICATION PROCESS OF ALUMINUM ALLOYS
Zvonko Gulišija, Aleksandra Patarić, Marija Mihailović, Zoran Janjušević (Serbia)
 8. RECYCLING OF SILVER AND COPPER FROM HAUSING PLATED WITH SILVER
Silvana B. Dimitrijevic, Suzana S. Dragulovic, Zorica S. Ljubomirovic, Vlastimir K. Trujic, Zdenka S. Stanojevic-Simsic, Radmila T. Markovic, Biserka T. Trumic (Serbia)
 9. ENVIRONMENTAL AND MATERIAL FLOW COST ACCOUNTING IN SAUSAGE PRODUCTION
Radoslav D. Grujić, Midhat E. Jašić, Slavica M. Grujić, Danica M. Savanović, Jovo M. Savanović (Bosnia and Herzegovina)
 10. WATER EVACUATION FROM THE SARIĆA OSOJE MUNICIPAL WASTE LANDFILL OF UŽICE
Nenad M Šušić, Dragoslav R Rakić, Ksenija S Djoković, Dušan M Berisavljević (Serbia)
 11. IMPLEMENTATION OF EUROPEAN STEEL DESIGNATION STANDARDS IN THE PROCESS OF IRON AND STEEL RECYCLING PRACTICES
Haračić Nadija (Bosnia and Herzegovina)
 12. ANALYSES OF THE RIVER SEDIMENTS ON THE MOUTH OF THE SPREČA RIVER INTO THE MODRAC ACCUMULATION WITH GOAL OF DEFINITION ITS USING VALUE
Jelena Marković, Snežana Mičević, Jasminka Sadadinović, Elvir Babajić, Almasa Babajić (Bosnia and Herzegovina)
 13. PRACTICAL APPLICATION OF SYMBIOTIC NITROGEN FIXATION AS A WAY OF PRESERVATION AND PROTECTION OF AGRICULTURAL SOIL
Ines Pohajda (Croatia)
 14. INVESTIGATION OF CHALCOPYRITE CONCENTRATE LEACHING BY HYDROGEN PEROXIDE AND SULPHURIC ACID SOLUTION
Miroslav D. Sokić, Branislav R. Marković, Vladislav Lj. Matković, Dragana P. Živković, Nada D. Štrbac (Serbia)
 15. QUALITATIVE COMPARISON OF THE BUILDING ENVELOPE HEAT CONDUCTABILITY BY APPLYING THERMOGRAPHIC TECHNIQUE
Branko Strbac, Miodrag Hadzistevic, Slobodan Krnjetin, Janko Hodolic (Serbia)

FRIDAY, June 8th (Industrial Ecology)
16.00-17.30 Session II
Chairman: Š. Goletić, D. Petković, J. Hodolič

1. CONTROL STRATEGIES OF NITRITE ACCUMULATION IN A SUBMERGED BIOFILTER
Sukru Aslan, Burhanettin Gurbuz (Turkey)
2. FLUE DUST REMOVAL & KINETICS
Ali M. Tajouri, Mofstah M. Abuzbeda, Mosbah A. Akrim (Libya)
3. OPTIMIZATION OF THE PROCESS OF COPPER EXTRACTION FROM THE FLOTATION WASTE USING FACTORIAL EXPERIMENTAL DESIGN
Ivan Mihajlovic, Nada Štrbac, Predrag Đorđević, Đorđe Nikolić, Aleksandra Mitovski and Živan Živković (Serbia)

4. SUSTANABLE SOLUTIONS FOR MANAGING ENVIRONMENTALLY HAZARDOUS WASTE MATERIALS: REAPPLICATION OF FLY ASH
Anja Terzić, Ljiljana Miličić, Ljubica Pavlović, Zagorka Radojević, Zagorka Aćimović-Pavlović (Serbia)
5. WASTE MANAGEMENT IN FOUNDRIES
B. Kosec, S. Senčič, B. Karpe, S.P. Peterman Poljanšek, A. Nagode, H. Schwarzova Budak, J. Hodolič, M. Soković (Slovenia & Slovakia & Serbia)
6. EFFICIENCY WET GAS CLEANING ON THE METALLURGY'S FACILITIES
Mustafa Imamović, Šefket Goletić (Bosnia and Herzegovina)
7. LISCO (LIBYA) LIMESTONE AND RE-USE
Moftah M.Abouzbeda, Ali M.Tajouri, Mohamed S.Ltayef (Libya)
8. PROJECT SOLUTION FOR WASTE WATER TREATMENT IN TECHNOLOGICAL PROCESS OF MILK PROCESSING
Miodrag Stanislavljević, Ivan Krstić, Vesna Lazarević (Serbia)
9. DESCRIPTION OF PROPOSAL FOR THIS PROCESS WASTEWATER TREATMENT OF SMALL LEATHER PROCESSING FACTORY
Nurudin Avdić, Šefket Goletić (Bosnia and Herzegovina)
10. MODELING AND SURFACE OBSERVATION OF SO₂ GAS DISPERSION FROM COPPER SMELTER IN BOR, SERBIA
Djordje M. Nikolić, Predrag B. Djordjević, Ivan N. Mihajlović, Živan D. Živković (Serbia)
11. THE SIGNIFICANCE OF DIFFERENCES LEVEL POLLUTANT EMISSIONS COMBUSTION OF DIFFERENT FUELS
Vehid Birdahić, Šefket Goletić, Jusuf Duraković, Nusret Imamović (Bosnia and Herzegovina)
12. POLLUTANTS REMOVAL BY THE WASTED BIOMASS
Jelena V. Milojković, Zorica R. Lopičić, Mirjana D. Stojanović, Milan J. Adamović, Aleksandra S. Bočarov-Stančić, Marija L. Mihajlović, Tatjana D Šoštarić (Serbia)
13. POTENTIALS FOR UTILIZATION OF BOF GAS IN INTEGRATED IRON AND STEEL WORKS
Mirnesa Mujkić, Azra Sivro (Bosnia and Herzegovina)
14. DYNAMICS OF THE HEAVY METALS CONTENT IN THE SOIL OF THE STEELPLANT SURROUNDINGS IN ZENICA
Šefket Goletić (Bosnia and Herzegovina)
15. CONTRIBUTION OF BIOMASS TO SUSTAINABLE DEVELOPMENT OF BOSNIA AND HERZEGOVINA—CHALLENGES AND BARRIERS
Semin Petrović, Saša Papuga, Milovan Kotur, Petar Gvero (Bosnia and Herzegovina)
16. SUSTAINABLE MANAGEMENT OF ANIMAL WASTE
Tomislav Grizelj, Jasmina H. Bajramović (Austria & Bosnia and Herzegovina)

1. APPLYING METHODS OF NONLINEAR STATISTICS IN MODELING OZONE CONCENTRATION IN AMBIENT AIR
Marija Savić, Ivan Mihajlović, Predrag Đorđević, Đorđe Nikolić, Živan Živković (Serbia)
2. CORELATION OF AVERAGE ANNUAL CONCENTRATION OF TOTAL SUSPENDED PARTICLES AND INHALATION BRONCHODILATATION THERAPY USE IN CHILDREN UP TO 6 YEARS OF AGE (2000. – 2011.)
Smajil Durmisevic, Jasminka Durmisevic-Serdarevic, Melita Lelic (Bosnia and Herzegovina)
3. MAINTENANING POLITIC LIKE FUNCTION OF REDUCED PRODUCTION OF SPECIAL WASTE UNDER SURFACE EXPLOATATION
Nihad Vežović (Bosnia and Herzegovina)
4. CHRONIC EXPOSURE TO LEAD IN METAL INDUSTRY
Vesna Lazarević, Snežana Ivezić Đorđević, Ivan Krstić, Ljiljana Blagojević, Žarko Janković (Serbia)
5. METHODS OF ECOLOGICAL ENGINEERING USED IN DEGRADATION OF PLASTIC BAGS(PE- POLYETHYLENE)
Grabovac Zlata (Bosnia and Herzegovina)
6. ANALYSIS OF A TYPICAL COMPOSITION OF MUNICIPAL WASTE IN ORDER TO ESTABLISH CENTRE FOR WASTE MANAGEMENT AT REGIONAL LANDFILL MOŠĆANICA
Emir Zukić, Maja Krajišnik, Svjetlana Jerkić (Bosnia and Herzegovina)
7. INVESTIGATION OF THE METAL POTENTIAL OF CLOSED LANDFILL SITES
Nicole Neukirchen, Thomas Pretz, Adele Clausen (Germany)
8. EVALUATION OF POTENTIAL FOR DEVELOPING RENEWABLE SOURCES OF ENERGY TO FACILITATE DEVELOPMENT IN DEVELOPING COUNTRIES
Esma Manić, Erna Alihodžić, Vanja Ćurin, Plamenko Tais, Minela Isaković (Bosnia and Herzegovina)
9. BIOGAS PRODUCTION FROM ORGANIC PART OF MUNICIPAL SOLID WASTE. URBANBIOGAS PROJECT
Bojan Ribić, Dinko Sinčić (Croatia)
10. POSSIBILITIES FOR DISPOSING OF USED OIL IN B&H
Fehim Zilić, Jasminka Sadadinović, Suvad Kesić (Bosnia and Herzegovina)
11. ANIMAL WASTE DISPOSAL PROCEDURES
Šisić Muvedet, Šefket Goletić, (Bosnia and Herzegovina)

SATURDAY, June 9th

(ISO 14001 and EMAS; Cleaner Production; Eco-efficiency; Sustainable Development; Industrial Ecology, Material Flow Management)

09.00-10.30 Session IV**Chairman: J. Sredojević, D. Živković, N. Neimarlija**

1. URBAN WASTEWATER PROJECT IN MUNICIPALITY OF TEŠANJ
Ismar Alagić (Bosnia and Herzegovina)
2. DETERMINING ENVIRONMENTAL ASPECTS BY USING A FLOWCHART DIAGRAM METHOD
Alan Lisica, Darko Petković, Sabahudin Jašarević (Bosnia and Herzegovina)..
3. "ENERGY GREEN" AT BRIDGES, FIELDS AND OVERBRIDGES
Božidar Mihajlović, Snežana Kirin, Marijana Tomasević (Serbia)
4. OPTIMAL POSSIBILITIES OF USE OF BIODIESEL IN A DIESEL ENGINE PASSENGER CARS OLDER THAN 10 YEARS
Suvad Kesić, Jasminka Sadadinović, Fehim Zilić (Bosnia and Herzegovina)
5. REVITALIZATION OF THE MINI HYDROPOWER PLANT ON THE ČEČEVO RIVER
Nikola Maričić, Djordje Novković, Nebojša Arsić, Djurica Marković, Ljiljana Andjelković (Serbia)
6. MICROECONOMICS OF ENERGY FLOW IN THE SIMULATED COPPER CASTING PROCESS
Ivan Najdenov, Radomir Radiša, Karlo Raić, Tatjana Volkov Husović, Gordana Kokeza (Serbia)
7. NEW APPLICATIONS OF NATURAL ZEOLITES AS MATERIALS FOR SUSTAINABLE ENVIRONMENT
Zorica R. Lopičić, Mirjana D. Stojanović, Jelena S. Avdalović, Vladimir M. Adamović, Aleksandar R. Čosović (Serbia)
8. SPATIAL PLANNING AND SEA SUPPORT TO SUSTAINABLE DEVELOPMENT IN SERBIA
Marija Maksin, Sasa Milijić, Marina Nenković-Riznić (Serbia)
9. MATERIAL FLOW MANAGEMENT. EVOLUTION OF THE 'ANALYSIS OF INPUT/OUTPUT IN PHYSICAL UNITS
Pasqua L'Abbate (Italy)
10. QUALITY OF AIR IN SARAJEVO IN RELATION TO SO₂ PRESENCE IN 1995-2011 PERIOD
Suad H, Aida S. (Bosnia and Herzegovina)
11. PUBLIC RELATIONS STRATEGIES IN OVERCOMING THE NEGATIVE REACTIONS OF B&H LOCAL COMMUNITIES CAUSED BY PLANS FOR CONSTRUCTION OF FACILITIES FOR WASTE
Senija Šehanović (Bosnia and Herzegovina)
12. INVESTIGATION OF THE CHARACTERISTICS OF RIVER TIMOK WATERS IN THE VICINITY OF ZAJEČAR (SERBIA)
D. Živković, V. Stanković, B. Nikolić, M. Antonijević, G. Bogdanović, V. Nikolić, D. Miljković (Serbia)
11. PLURIPERSPECTIVE APPROACH FOR THE ENVIRONMENTAL ISSUES

SOLUTION

Lejla Mušić, Šehić - Mušić Nafija (Bosnia and Herzegovina)

12. CONTRIBUTION OF BIOMASS TO SUSTAINABLE DEVELOPMENT OF BOSNIA AND HERZEGOVINA – CHALLENGES AND BARRIERS

Semin Petrović, Saša Papuga, Milovan Kotur, Petar Gvero (Bosnia and Herzegovina)

13. DEVELOPMENT AND PERSPECTIVE OF WIND ENERGY IN THE WORLD AND BOSNIA AND HERZEGOVINA

Elvir Zlomušica, Sabina Sijarić, Mirjana Kovač (Bosnia and Herzegovina)

14. STATE OF SPECIFIC AIR POLLUTION CONTROL IN ZENICA FOR PERIOD OF TIME 2006-2011

Fahrudin Duran (Bosnia and Herzegovina)

15. THE DUST EMISSION CONTROL IN PRODUCTION OF FERROALLOYS BY APPLICATION OF BEST AVAILABLE TECHNIQUES

Šefket Goletić, Nusret Imamović, Heidy Schwarczová (Bosnia and Herzegovina & Slovak Republic)

16. EXPERIMENTAL INVESTIGATION OF FLY ASH CONTENT INFLUENCE ON CEMENT MORTARS PROPERTIES

Dragica Lj. Jevtić, Aleksandra A. Mitrović, Aleksandar R. Savić (Serbia)

17. IMPROVEMENT OF RESOURCE EFFICIENCY IN METAL INDUSTRY

Sanda Midžić-Kurtagić, Irem Silajdžić, Branko Vučijak (Bosnia and Herzegovina)

18. ESTABLISHING ISO 17025 COMPLIANT LABORATORY

Esma Manić, Erna Alihodžić, Vanja Ćurin, Plamenko Tais, Minela Isaković

SATURDAY, June 9th

10.30-12.00 Visit to the Regional Landfill Zenica

12.00-16.00 Visit to the Fortress Vranduk and Lunch

