



**University of Belgrade**  
**Technical Faculty in Bor**



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



## **2<sup>nd</sup> call EMFM 2013**

The International Symposium on Environmental and Material Flow Management – EMFM2013 – will be organized this year for the third time, jointly by Environmental Campus Birkenfeld, University of Applied Sciences Trier (Germany), and the Technical Faculty in Bor, University of Belgrade (Serbia) and the Faculty of Mechanical Engineering, University of Zenica (Bosnia and Herzegovina), presenting a forum for scientific research discussion and practice on the subjects of environmental and material flow management.

### **SYMPOSIUM TOPICS**

The Symposium will be performed as follows: plenary session (key papers covering global and introducing topics), symposium with parallel sessions (papers according to the conference topics) and a poster session, when needed. We would like to inform all potential authors to prepare papers in the following topics:

- Sustainable Development, Sustainability Management
- Material Flow Management
- Industrial Ecology and Cleaner Production
- Eco-efficiency and Life Cycle Analysis
- Waste Management and Environmental Monitoring

### **ABSTRACTS**

The conference will be fully held in English language. Abstracts are to be submitted in English language and prepared in the following style: title (font Times New Roman, Bold, Capital Letters, 14pt, centered), authors' names and addresses (Times New Roman, Bold, 12pt, Italic, centered), text not exceeding 1800 characters (Times New Roman, normal, 12pt,

justified) with margins: top and left - 25mm, bottom and right - 25mm, in A4 format (210 x 297 mm). All submitted and accepted abstracts will be collected in a book of abstracts, before the conference. The presentations and papers will be published in electronic proceedings.

## CONFERENCE AND VENUE

The conference will be held from 27<sup>th</sup> to 29<sup>th</sup> June 2013 at Environmental Campus Birkenfeld. Environmental Campus (in German: Umwelt-Campus Birkenfeld) was founded in 1996 on a site of a former military camp in the county of Birkenfeld, state of Rhineland-Palatina in the southwest of Germany (for detailed information visit [www.umwelt-campus.de](http://www.umwelt-campus.de)). Today around 2600 students are enrolled in 25 Bachelor and Master Programs. Around 55 professors teach at the campus accompanied by a staff of more than a hundred. *Environmental Campus is designed as a unique Zero Emission Campus in Europe.*

## PRELIMINARY SCHEDULE

June 27<sup>th</sup>, Thursday: travelling day, arrival at Environmental Campus. 18:00 h: Registration and welcome dinner.

June 28<sup>th</sup>, Friday: Conference day. 9:15 – 16.00 Sessions, followed by a visit to the energy landscape Morbach. Conference dinner.

June 29<sup>th</sup>, Saturday: 9:15 – 11:15 h closing session, followed by an excursion to Trier (Germany's oldest city). Guided city tour, time for individual sight seeing or shopping. 16:30 h return to Birkenfeld. Departure, travelling home OR voluntary dinner event at the city center of St. Wendel.

## Travel and accommodation information

### CONFERENCE FEE

The conference fee includes admission to the sessions, access to proceedings and accompanying materials, welcome dinner and refreshments during the conference.

- Participants: 100 EUR
- Accompanying persons: 60 EUR
- Note. For the participants from three organizing institutions, there is no symposium fee

## TRAVELLING AND ACCOMMODATION

**Travelling information:** It's most comfortable to fly to Frankfurt Airport. Frankfurt Airport is directly connected to two railway stations. There is one train connection per hour to the Environmental Campus Birkenfeld. After arriving to Frankfurt Airport, go to the "regional train station" ("Regionalbahnhof", an underground station). Deutsche Bahn-tickets are

available at the counter above the station. Every two hours, there is a direct train to “Saarbrücken”. In the hours in between you have to change trains once: First take the train to Mainz Hbf (main station), at Mainz main station switch to the train in direction of Saarbrücken. The train needs 80-85 minutes from Mainz to the station “Neubrücke”. The campus is located just opposite to the train station “Neubrücke”. Preprint your train connections via [www.bahn.de](http://www.bahn.de).

There is also some low cost air travelling to the remote airport “Frankfurt-Hahn” (this is far away from Frankfurt, but relatively close to Birkenfeld). From this airport, there is sporadic bus service to Birkenfeld. While planning your journey, contact [emfm@umwelt-campus.de](mailto:emfm@umwelt-campus.de) to organize the transfer, if necessary.

**Hotels:** We recommend booking a hotel as early as possible. Directly on Environmental Campus a couple of rooms have been reserved for the conference (Vicinity hotel, 33-42 Euro/night, breakfast 6 Euro, contact: <http://www.hotel-vicinity.de/>). This hotel can be reached within a few minutes by foot after arriving to Neubrücke railway station.

Further, there are a couple of hotels (also higher quality) available at St. Wendel, a county capital city just 25 km south of Birkenfeld. This is only two train stops (15 min.) from Neubrücke with the same trains coming from Mainz/Frankfurt. Leaving the train at St. Wendel station, you go approx. 10 min. in direction of the city center (Bahnhofstraße, just opposite to the station) reaching the hotels. We can recommend Dom Hotel (starting from 38 Euro/night, <http://www.domhotel-st-wendel.de/index.html>, Hotel Angels am Fruchtmarkt (starting from 78 Euro/night, <http://www.angels-dashotel.de/fruchtmarkt/index.html>), Auberge Journal (starting from 43.50 Euro/night, <http://www.cafe-le-journal.de/auberge/auberge.php>). All these hotels are accessible within a few minutes by foot from St. Wendel railway station. For time schedules from St. Wendel to Campus, you can ask [emfm@umwelt-campus.de](mailto:emfm@umwelt-campus.de) in advance.

## **CORRESPONDENCE**

You can get information regarding the conference at:  
Phone: +49 6782 17-1850 (Mrs. Kathrin Haupenthal)  
E-mail: [emfm@umwelt-campus.de](mailto:emfm@umwelt-campus.de)

You can also contact:

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Prof. Dr. Eckard Helmers, vice president via

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## IMPORTANT DATES

|   |  |
|---|--|
| Submission of abstracts   | <b>April 30<sup>st</sup> 2013</b>            |
| Notification of acceptance of the abstracts and instructions for preparing the papers | June 1 <sup>st</sup> 2013                    |
| Submission of the full paper and presentation **                                      | June 10 <sup>th</sup> 2013                   |
| Conference fee payment  | June 27 <sup>th</sup> 2013                   |
| Final Programme   | June 15 <sup>th</sup> 2013                   |
| EMFM 2013   | June 27 <sup>th</sup> -29 <sup>th</sup> 2013 |

\*\* ) will be published in electronic proceedings to be given on the EMFM and Campus website.

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# **Third International Symposium on Environmental and Material Flow Management**

## **Scientific Program**

### **Thursday, June 27<sup>th</sup>**

**18:00** Registration at UCB Contact (building 9914, room 019)

**19:00** Welcome Dinner

### **Friday, June 28<sup>th</sup>**

SR I + SR II: lecture rooms between buildings (99)14 and (99)15

**09:00 – 09:15** *President N. Kuhn*

SR II: [Opening address](#)

**09:15 – 10:15** *P. Heck:*

SR II: [Key lecture: Material Flow Management](#)

**10:15 – 10:30** Coffee Break

**10:30 – 11:30** **Session 1a** [Sustainable Development](#)

SR I: *A. Versele, L. Trappers, S. Windels, S. Vochten, S. Wille:*  
Renewable energy potential in rural communities

*E. Parvanova:*

The Balkans Science Pool – a Network of Know-How Transfer in the fields of SME and the Environment



**10:30 – 11:30 Session 1b Fundamentals**

SR II: *V. Stefanović, M. Began:*

Ecologization of production as the right to a healthy environment

*I. Mihajlović, Ž. Živković, I. Đurić*

Technological process optimization based on numerical modeling approach

**11:30 – 12:30 Lunch**

**12:30 – 13:30 Session 2a Industrial Ecology and Cleaner Production**

SR I: *R. Weicht:*

EffCheck-PIUS analyses in RLP

*P. Ngahan:*

Casestudy EffCheck - Schwollener Sprudel

SR II: **Session 2b Environmental Monitoring**

*Š. Goletić, N. Imamović:*

State of specifics air pollution control in zenica

*M. Medić, T. Čiča, N. Imamović:*

The measurement of PH value of cooling and lubrication solutions and households oil in the river water

**13:00 – 13:45 Coffee Break**

**13:45 – 14:45 Session 3a Waste Management**

SR I: *M. Mildenberger, M. Bottlinger, H. Bradl:*

Hydrothermal carbonization for the utilization of biomass: principles and examples

*M. Bicalho, J. Versteegen, M. Bottlinger, H. Bradl:*

Biochar from hydrothermal carbonization and pyrolysis as soil amendment

SR II: **Session 3b Environmental Monitoring**

*D. Voza, M. Vuković:*

Evaluation of surface water quality characteristics by using multivariate statistical techniques: a case study of lower Danube, Serbia

*S. Šerbula, D. Živković, V. Stanković:*

Characterization of wastewater streams within Bor copper mine and their influence on pollution of timok's water basin

**14:45 – 15:00 Coffee Break**

**15:00 – 16:00 Session 4a Waste Management and Cleaner Production**

SR I: *Z. S. Simsic, S. Dragulovic, V. Conic, S. Dimitrijevic, Z. Ljubomirovic, M. Gorgievski, D. Bozic*

Indium recycling from waste products in the world

*M. Savića, Đ. Nikolića, I. Mihajlovića, Ž. Živkovića, B. Boyanovb, P. Đorđevića*

Multi-criteria Models for the optimal blending of zinc concentrates



**15:00 – 16:00 Session 4b Waste Management and Cleaner Production**

SR II: *N. Avdic, G. Müller-Czygan:*

Requirements to realize an eco-efficient industrial wastewater treatment plant that is adapted to manufacturing process optimizing life cycle costs

*N. D. Štrbac, M. D. Sokić, D. T. Živković, Ž. J. Kamberović, B. R. Marković:*

Environmentally friendly Sphalerite treatment by leaching in oxidative sulfuric acid solution

**16:15 – 19:00 Excursions to Energy Landscape Morbach**

**19:00 – 22:00 Conference Dinner at Hunsrückhaus**

**Saturday, June 29<sup>th</sup>**

**09:15 – 10:15 Session 5a Waste Management and Cleaner Production**

SR I: *Džafer Dautbegović, Šefket Goletić:* Waste paper collecting from the viewpoint of location of origin and collecting method

*S. Dimitrijević, S. Dimitrijević, M. Vuković:*

Electrochemical methods for arsenic removal from industrial wastewater discharges

SR II: **Session 5b Industrial Ecology and Cleaner Production**

*K. Movchan:*

Sustainability management in the financial industry Deutsche Bank and Commerzbank

*S. Menze, T. A. Koch:*

Sustainability management in the sports industry Adidas and Puma

**10:15 – 10:30 Coffee Break**

**10:30 – 11:30 Session 6 Industrial Ecology and Cleaner Production**

SR II: *T. Monreal, M. Azennoud:*

Sustainability management in the automotive industry, VW and Daimler

*R. Trifanovs, G. F. Collins:*

Sustainability management in the chemical industry BASF and Bayer

**12:00 – 17:15 Visit to Trier**

13:00 Guided tour

14:00 Spare Time

16:30 Depature to Environmental Campus Birkenfeld

**18:30 Closing Dinner in St. Wendel (optional)**