THE 5TH CIRP CONFERENCE ON
INDUSTRIAL PRODUCT-SERVICE SYSTEMS

MARCH 13TH-15TH, 2013

Product-Service Integration for Sustainable Solutions
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TRUMPF

INNOSOFT

FIPSS

SCHAUDT MIKROSA

symmedia

DEMAC

CLAAS

Springer
GENERAL INFORMATION
IMPORTANT FACTS TO KNOW

WEATHER
Weather forecast for 14th/15th of March 2013 on the basis of meteorological data of the last 20 years in the region of Bochum:
 Average max.: 11.4 °C
 Average min.: 2.8 °C
 All-time max.: 18.6 °C
 All-time min.: -5.1 °C
 Average sunshine hours per day: 4.2 h
 Average rainfall: 2.2 mm
 Average maximum wind speed: 38.7 km/h

ELECTRICITY
CEE 7/4 (German "Schuko" 16 A/230 V grounded)

CREDIT CARDS
Credit cards are not as widely accepted as in other European Countries or the US. But it should be no problem to pay via credit card in large supermarkets, restaurants and hotels.

SMOKING
Smoking is not allowed in public places such as restaurants, cafés and train stations. In restaurants there are special smoking rooms, on train platforms there are smoking areas.

TAP WATER
Tap water has a good quality. It is controlled very strictly and can freely be used for consumption. Exceptions have to be labeled ("Kein Trinkwasser" - no drinking water), usually found on fountains and in trains.

EMERGENCY NUMBER
112 (Ambulance), 110 (Police)

OPENING HOURS
 REWE (supermarket, Kortumstraße 100) Mo-Sa 07:00 – 24:00, Sunday closed
 Kaiser’s (supermarket, Kortumstraße 51) Mo-Sa 07:00 – 22:00, Sunday closed
 Netto (supermarket, Uni-Center) Mo-Sa 07:00 – 22:00, Sunday closed
 kaufpark (supermarket, Uni-Center) Mo-Sa 08:00 – 22:00, Sunday closed
 Ruhr-Park (Arkaden Shopping) Mo-Th and Sa 10:00 – 20:00, Fr 10:00 – 21:30
 Dreh scheibe City Point (Shopping, Kortumstraße 89) Mo-Sa 08:00 – 20:00
 Gas Stations: 08:00 – 24:00 or 24h

SUBWAY TIMETABLE - BOCHUM MAINSTATION

Please notice that your ticket is printed on your name badge!
VENUE
THE REGION AROUND BOCHUM

THE STATE OF NORTH RHINE-WESTPHALIA

The German federal state of North Rhine-Westphalia (NRW) is located in the west of Germany. With its 18 million inhabitants and more than 34,000 square kilometers, it is the fourth largest state and has the strongest economy in Germany. From an economic perspective, North Rhine-Westphalia is renowned for its highly skilled workers and high quality infrastructure. Over the past decades, NRW has steadily expanded its economic position, especially in the service sector. With around 490,000 students, 67 universities and about 130 research institutes, the NRW region is one of the best addressees when it comes to know-how.

BOCHUM

The city of Bochum is part of the Ruhr Metropolis. Today, with a population of nearly 370,000, Bochum ranks among the 20 largest cities of Germany.

The history of Bochum dates back to 890 AD when it was founded as a royal court at the junction of two important trade routes. Located in the center of the Ruhr area near to the rivers Ruhr and Emscher and between the southern and northern Ruhr coal zone, Bochum acquired city status following the incorporation of surrounding towns and villages after 1900. At the same time, the city gained popularity for its coal mining in the 19th century. The rise in the city’s mining industry began in 1841, when the first Ruhr coal mine pit called “Präsidient” emerged. In 1905, Bochum’s population exceeded 100,000 as a consequence of new job opportunities in the area and was henceforth considered a big city. However, during the Second World War, 38 percent of the city was destroyed by bomb attacks. After the war, Bochum was part of the British occupation zone.

Bochum’s prosperous mining industry ended when the last colliery, “Zecche Hannover”, closed down in 1973. Nevertheless, in the post-war period, Bochum was able to recover thanks to an important investment in the automobile industry, which created new jobs for former miners. The city also developed into a cultural metropolis of the Ruhr area with its first university, Ruhr-Universität Bochum, opening in 1965.

Bochum has many notable attractions which make it a place worth visiting: the most important mining museum in the world (Deutsches Bergbaumuseum), the most popular musical show in Germany Starlight Express (first staged in 1984), the city’s famous theater which has yielded numerous celebrated performances and actors (Schauspielhaus Bochum), Zeiss Planetarium Bochum and the soccer stadium (rewirpowerSTADION). If you wish for relaxed moments, you can go to Bochum’s lake in the middle of a nature reserve for recreation and relaxation (Kemnader See), and in search for an enjoyable spot in the evening, you might visit the city’s legendary nightlife district offering a large choice of bars, clubs and restaurants (Bermuda 3Eck).

RUHR METROPOLIS

The Ruhr Metropolis is located in NRW and consists of 53 cities and towns and has a population of about 5.7 million people. The Ruhr Metropolis used to be representative for heavy industry and coal mining, but in the last two decades, it has radically changed into a modern, creative 21st century culture metropolis and one of the most dynamic industrial and research regions in Europe. With the guiding theme “Change through culture”, it won the title “European Capital of Culture 2010” which clearly reflects the ongoing structural change. Comprising 5 universities, the Ruhr area is turning into a think-tank in the heart of Europe, which attracts both high-potential research and innovative industries.
VENUE
THE UNIVERSITY

RUHR-UNIVERSITÄT BOCHUM

Ruhr-Universität Bochum (RUB) was founded in 1962 as the first new public university in Germany since the end of World War II.

Located in the midst of the dynamic, hospitable metropolitan area of the Ruhr, this university is with its 20 faculties home to more than 36,600 students from 130 different countries and about 5,600 employees. All the great scientific disciplines are united on one compact campus.

The faculties of humanities, law, economics and social sciences recorded 21,300 students in the winter term of 2011. Further 7,023 students are enlisted to the faculty of engineering, 6,146 are studying natural sciences, 2,029 medicine, and 195 do academic facility studies.

There are more than 40 university-wide partnerships in 25 nations and more than 250 partnerships at faculty/institute level in 62 nations.

RUB is one of the leading universities in research and one of the largest in Germany. It houses a research school where members work independently on their own research projects whilst pursuing their doctorate. There are over 300 doctoral candidates and 9 graduate schools.

On university grounds, there is also a botanical garden. One of its attractions is the Chinese garden, which is a true must-see.

CHAIR OF PRODUCTION SYSTEMS (LEHRSTUHL FÜR PRODUKTIONSSYSTEME, LPS)

The scientific orientation of the LPS covers the major topics of modern production technology, from the management of flexible production structures to the provision of production-related services to the technology-oriented production automation.

The relevance of industrial use is the most important feature when it comes to formulating solutions. Therefore, the LPS runs a pilot plant, designed according to the most modern features, where theoretical concepts can be tested and evaluated. The LPS uses the results obtained in the pilot plant to support the technology transfer to industry.

The Collaborative Research Center Transregio 29 (TR29)

Since 2006, the collaborative research center Transregio 29 (CRC TR29) “Industrial Product-Service Systems – Dynamic Interdependencies of Products and Services in the Production Area” is funded by the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG). Prof. Dr.-Ing. Horst Meier, speaker of Transregio 29 and chairman and organizer of this year’s IPS² Conference, has initiated the Transregio 29 together with researchers from Ruhr-Universität Bochum and Technische Universität Berlin. Around 40 researchers at the two partner universities aim to establish an innovative and user-oriented understanding of products and services. This understanding views product and service shares in an integrated and mutually determined way as Industrial Product-Service Systems and leads to an increased solution space. Here, new possibilities for innovations arise due to the integrated view of product and service shares. The increased solution space also leads to a better marketing of highly complex machines, as the customer is offered an increased utility value. Winning the competition based on the reduction of prices is not possible. Furthermore, technology-based market leadership does not directly result in corresponding market success. Only the integration of the product with an appropriate service avoids the danger of technology traps.

The fields of activity of Transregio 29 comprise the entire lifecycle of Industrial Product-Service Systems. Approaches, methods and tools to plan, develop, deliver and use Industrial Product-Service Systems are developed in this collaborative research project. The effects of the initiated paradigm shift are being examined in 15 subprojects in the fields of “Planning/Development”, “Delivery/Usage”, “Life Cycle” and “Demonstrator” and the research results are applied and evaluated in three transfer projects with industry partners.

Researchers from Transregio 29 actively take part in organizing and supporting the 5th CIRP Conference on Industrial Product-Service Systems.
SOCIAL EVENTS

CULTURAL TOUR – HENRICHSHÜTTE HATTINGEN (MUSEUM OF IRON AND STEEL)
Wednesday, March 13th - from 14.30 to 18.00 hrs

For 150 years, the sparks were flying at the blast furnaces of the Henrichshütte iron-works when the kilns were opened to ejaculate the molten iron. Today, this authentic historical ironworks is brought back to life. Over 10,000 people worked here once on the gigantic site producing coke and casting, rolling and forging iron and steel. The museum has a number of different trails where visitors can learn more about the different work processes.

Guided tour: Iron’s journey

On iron’s journey, you will learn something about the history of the Henrichshütte and the technique of ironworks’ nature. While exploring the whole museum area, one gets to know everything concerning the working conditions and dangers as well. You will follow the material flow from ore, coke and lime to liquid crude iron. The tour goes through ore pockets and takes the elevator to the top of the blast furnace. From up there, you will take the stairs down to the cast hall – right into the heart of the blast furnace plant, where 1,400 degree hot iron was tapped. The special thing to discover is the variety of pictures, films and interviews from people who worked there.

CULTURAL TOUR – ZECE NACHTIGALL IM RUHRTAL (THE NIGHTINGALE MINE OF RUHR VALLEY)
Wednesday, March 13th - from 14.30 to 18.00 hrs

People began chipping out the first lumps of “black gold” from the hillsides of the Ruhrgebiet around 200 years ago. The Nightingale colliery will take you back to the time when miners could walk straight inside the galleries to get at the coal; and later sunk the first shafts below ground.

Equipped with a helmet and pit lamp, visitors can take a walk down the narrow gangway of the mining gallery to a genuine coal streak and experience the unique atmosphere of early mining. The exhibition on the “Heracles” shaft, one of the first deep shafts in the region, will tell you more about the technology and harsh working conditions endured by miners in the 19th century. One of the oldest hauling engines in the region can be seen in operation in the engine house, too.

Please note: In case you suffer from claustrophobia, you might get into trouble while visiting the heading. In this case we would recommend to choose another tour.

INDUSTRIAL TOUR – THYSSENKRUPP STEEL (DORTMUND)
Wednesday, March 13th - from 14.30 to 18.00 hrs

The ThyssenKrupp Steel Europe AG is Germany’s biggest steelmaking company. It is focused on the manufacturing and distribution of quality goods made of quality flat steel. The range of products comprises hot bands, thin sheets, surface finished products, electrical steel and heavy plates.

Dortmund: From History to a High-tech Smithery

This location has an advanced cold strip mill with an additional continuous annealing line and integrated surface refinement lines. The architectural highlight is the hot-dip coating facility number 8: it is honored with the European steel construction award and this building is a model example for a color-shaped industrial complex. In the DOC Dortmunder OberflächenCentrum, tailored coatings are generated and tested. Research and development are of great significance here. A few steps from there, you will empathize with contemporary history at first hand. A visit of the Hoesch Museum rounds out the nice journey.

CONFERENCE DINNER
Thursday, March 14th

On Thursday evening, all conference guests are invited to the conference dinner which is going to take place in the Bistro of our university. Before that, we would like to extend a welcome to you at the Cafébar, which is on the same floor as the Bistro. By the time the Bistro opens up for us, you can look forward to a nice gala dinner rich in variety and pleasant piano music. The whole evening will be surrounded by some refreshing performances.
WELCOME RECEPTION

On Wednesday evening, conference guests are invited to join our welcome reception located in a conservatory as part of the botanical garden. The botanical garden belongs to Ruhr-Universität Bochum and is its whole pride. It comprises plants from all continents except Antarctica. Depending on how you count and on scientific consideration, there are 13,000 - 15,000 species growing on 14 hectare open ground and 5,000 square meters conservatory area. The worldwide exchange with other botanical gardens facilitates the continuous growth of its biological diversity; this garden belongs to the ten most prestigious gardens in Germany just yet.

The conservatories accommodate plants from warmer countries, which cannot flourish all-season on open ground because of our climate. Located between tropical house and desert house, there are the new savanna houses, which were completed in 2001. We are going to meet between those big conservatories; there is a central foyer providing access to those different climate zones.

Surrounded by a warm atmosphere, you will meet under palm trees and enjoy a nice cocktail, if you like – to forget about our cold and grey season for a few moments at least.

### ACCOMMODATION

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<td>ACHAT Premium Hotel</td>
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