# **Invitation** and **Final Program**

UNIKASSEL VERSITAT

**International Symposium** on **Ultra High Performance Concrete** 

September 13 - 15, 2004 Kassel, Germany

# Supported by:









#### Scientific committee

Prof. Michael Schmidt. University of Kassel, D (chairman) Prof. Ekkehard Fehling. University of Kassel, D (vice-chairman)

Prof. Joost C. Walraven.

Delft University of Technology, NL (vice-chairman)

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Prof. Surendra P. Shah, Northwestern University, USA Prof. Man-Chung Tang, T. Y. Lin International, USA Prof. Nguven Tue, University of Leipzig, D Prof. Gerd Thielen.

German Cement Work Association, D

## **Organizing committee**

Symposium's Secretary: Mr. Carsten Geisenhanslüke

Chairman of the Organizing Committee:

Mr. Walter Schreiber

Fehling & Jungmann, Structural and Material Consulting Engineers, Kassel, D

University of Kassel:

Prof. Ekkehard Fehling (vice-chairman)

Prof. Michael Schmidt Mrs. Elvira Berndt Mr. Torsten Leutbecher Mr. Roland Bornemann Dr. Bernhard Middendorf

Mrs. Ute Müller Mrs. Claudia Rebmann Mrs. Nadine Sonntag

Mr. Thomas Teichmann

#### **Contact**

Mr. Carsten Geisenhanslüke University of Kassel Department of Structural Materials, FB14 Mönchebergstrasse 7 34125 Kassel, Germany

Tel: +49 561 804 2601 +49 561 804 2662 Fax: Email: ghlueke@uni-kassel.de

# **International Symposium on Ultra High Performance Concrete** September 13 - 15, 2004, Kassel, Germany

The development of Ultra High Performance Concrete (UHPC) with its high compressive strength of more than 200 MPa and its improved durability marks a quantum leap in concrete technology. This high performance material offers a variety of interesting applications. It allows the construction of sustainable and economic buildings with an extraordinary slim design. Its high strength and ductility makes it the ultimate building material e.g. for bridge decks, storage halls, thin-wall shell structures and highly-loaded columns.

Beside its improved strength properties, its outstanding resistance against all kinds of corrosion is an additional milestone on the way towards no-maintenance constructions.

The very special properties of UHPC distinguishes it remarkably from normal and high performance concrete. For complete utilisation of its advanced properties special know-how is necessary for its production, construction and design.

Worldwide this material is under thorough investigation. Several applications were already been built. One of the first precast UHPC bridges in the world will be built in Kassel in this year. The bridge is designed as a foot and bike bridge with a total length of 150 m. This is one of the reasons to held the conference in Kassel.

More than 75 experts from all over the world will present their scientific and practical experiences with the new and outstanding material. They will give a broad overview of all aspects of the raw materials, the micro- and macro-structure, the mechanical behaviour, the durability as well as of construction and design procedures appropriate for this material.

The conference will promote the exchange of scientific and practical experiences and the common usage of this new and outstanding building material.

We are pleased to welcome you at the University of Kassel!

Prof. Dr.-Ing. habil. M. Schmidt Prof. Dr.-Ing. E. Fehling

9:00	Sunday, Sep. 12	Monday, Sep. 13	Tuesday, Sep. 14	Wednesday, Sep. 15	Thursday, Sep. 16 - Sunday,
to 10:30		Opening Ceremony	Session B1, C1	Session D1, E1	Sep. 19
10:30 to 11:00		Coffee Break	Coffee Break	Coffee Break	Post- Conference Tour
11:00 to 12:30		Session A1	Session B2, C2	Session D2, E2	(Berlin or Heidelberg)
12:30 to 14:00		Lunch	Lunch	Lunch	
14:00 to 15:30		Session A2	Session B3, C3	Session D3	
15:30 to 16:00		Coffee Break	Coffee Break	Coffee Break	*
16:00 to 18:00	Welcome Reception /	Session A3	Session B4, C4	Closing Ceremony	
20:00	Registration	Conference dinner	Cultural event		

# **Welcome Reception on Sunday**

We would like to invite you with sparkling wine and light refreshments on September, 12th 2004 at 06.00 p.m. It takes place in our "Gießhaus" at the University of Kassel. The registration for the Symposium will start at 04.00 p.m.



09.00 - 10.30	Opening Ceremony
M. Schmidt, E. Fehling	
P. D. Postlen	
RD. Postlep	of Vancel
President of the University	oj Kassei
N. Witte	
Stadtbaurat of Kassel City MC. Tang	High strength materials – past, present and future
San Francisco, USA	riigii strengtii materiais – past, present and future
Cassian A1	History and Europe and
Session A1	History and Experiences
11.00 - 12.30 Chairman:	Prof E Fobling Voscal D
S. Ahmad	Prof. E. Fehling, Kassel, D  100 years of ACI activities in concrete
S. Ahmad Farmington Hills, USA	100 years of AC1 activities III concrete
P. Acker	Ductal® Technology: a Large Spectrum of Properties, a
St. Quentin Fallavier, F	Wide Range of Applications
P. Buitelaar	Ultra High Performance Concrete: Developments and
Höjbjerg, DK	Applications during 25 years
,-,-,	rippineurions during 20 years
Session A2	Recent Applications
14.00 - 16.00	FF.
Chairman:	Prof. M. Schmidt, Kassel, D
FJ. Ulm	The next generation of US-Highway Bridge Girders:
Cambridge, USA	From UHPC materials to High Performance Structures
Z. Hajar, A. Simon	Design and Construction of the world first Ultra-High
D. Lecointre, J. Petitjean	Performance Concrete road bridges
Bagneux, F	
N.Kaptijn, J.Blom	A new bridge deck for the Kaag bridges: The first CRC
Tilburg, NL	(Compact Reinforced Composite) application in civil
	infrastructure
U. Maeder, I. Lallemant-	Ceracem, a new high performance concrete:
Gamboa, J. Chaignon,	characterizations and applications
JP. Lombard	
Zürich, CH	THE TELL OF COLUMN
A. Möller	Ultra High Performance grouts for offshore
Aalborg, DK	constructions  Historial Prinder Construction with LIHPC in Vessels
E. Fehling, K. Bunje, M. Schmidt, W. Schreiber	Hybrid Bridge Construction with UHPC in Kassel:
Kassel, D	Design and Construction
Session A3	Regulations and Recommendations
16.30 - 17.45	Duef M. Cymbook Duesday D
Chairman:	Prof. M. Curbach, Dresden, D
J. Resplendino	First French recommendations for Ultra-High-
Lyon, F	Performance Concretes and examples of application
M. Schmidt, U. Wiens	State of the Art Report on UHPC materials and design
Kassel, Berlin, D	of the German Committee for Structural Concrete
	(DAfStb)

Session B1	Binders and Fillers
09.00 - 10.30	
Chairman:	Prof. R. Trettin, Siegen, D
L. Elfgren, JE. Jonasson,	EMC Cements for Ultra High Performance Concretes
V. Ronin	
Lulea, S	
N. B. Singh	Highly reactive β-Dicalcium silicate for Ultra-High
Gorakhpur, IND	Performance Concrete
J. F. Martirena-	Lime-pozzolan Binder as a very fine mineral admixture
Hernández	in concrete
Santa Clara, C	
M. Shekarchizadeh,	Optimizing mix proportions of Normal Weight
A. H. Iranmanesh,	Reactive Powder Concrete with Strengths of 200-350
I. Talebinejad, A. Bassam Tehran, IR	MPa
C. Vellmer, M. Gehrke,	Seeing at the nanoscale: reaction of pozzolanic and
B. Middendorf	cementitous materials in UHPC
Kassel, D	comonttous materials in orn c
Session B2	Silica Fume and Additives
11.00 - 12.30	
Chairman:	Prof. N. B. Singh, Gorakhpur, IND
A. Korpa, R. Trettin	The use of synthetic colloidal silica dispersions for
Siegen, D	making HPC and UHPC systems, preliminary
	comparison results between colloidal silica dispersions
	and silica fumes (SF)
K. Jayakumar	Role of Silica fume Concrete in Concrete Technology
Coimbatore, IND	
I. Terzijski	Compatibility of Components of High and Ultra High
Brno, CZ	Performance Concrete
R Hela, J. Zach	Utilization of chemical admixtures in HPC concretes
Brno, CZ	1.0 C C 10.1 N 1
T. Kowald, R. Trettin	Influence of surface-modified Carbon Nanotubes on
Siegen, D	Ultra-High Performance Concrete
Carrier D2	Ellisa and American
Session B3	Fillers and Aggregates
14.00 - 15.30	Prof V von Dravool Dolft MI
Chairman:	Prof. K. van Breugel, Delft, NL
J. Ma, M. Orgass, N. V.	Comparative Investigations on Ultra-High Performance
Tue, F. Dehn, D. Schmidt	Concrete with and without Coarse Aggregates
Leipzig, D	THE TELL BOOK OF THE LOCAL COLUMN ASSETS AS A SECOND OF THE LOCAL COLUMN AS A SECOND OF THE LO
P. Rougeau B. Borys	Ultra High Performance Concrete with ultrafine
Epernon, F  HW. Röth	particles other than silica fume Production of Calcium Carbonate based fine fillers for
Köln, D	UHPC
P. Haleerattanawattana,	Strength-based gradation of coarse aggregate for ultra-
E. Limsuwan Bangkok, TH	high-strength concrete
C. Geisenhanslüke,	Investigations on UHPC with fly ash and quartz fines
M. Schmidt, E. Schneider	m. congations on other with my ash and quartz filles
Kassel, Baden-Baden, D	

C 1 D1	16 - 1116 1 W
Session B4	Material Modelling and Prediction
16.00 - 18.00 Chairman:	Prof. D. Heinz, München, D
	Analyses of hydration processes and microstructural
K. van Breugel, Ye Guang Delft, NL	development of UHPC through numerical simulation
J. Adolphs, A. Schreiber	Microstructural Characterisation of Ultra-High
Hofheim, D	2
H. Taghaddos,	Performance Concrete Prediction of Compressive Strength Behaviour in RPC
н. 1 agnaaaos, F. Mahmoodzadeh,	with applying an Adaptive Network-Based Fuzzy
r. Manmooazaaen, A. Pourmoghaddam,	Interface System
M. Shekarchizadeh	interface System
Tehran, IR	
K. Droll	Influence of Additions of Ultra High Performance
Wiesbaden, D	Concretes – Grain Size Optimization
U. Stark; A. Müller	Particle Size and Shape – an important factor for
Weimar, D	Packing Density
C. Geisenhanslüke.	Modelling and Calculation of High Density Packing of
M. Schmidt	Cement and Fillers in UHPC
Kassel, D	and I more in orin
T. Teichmann, M. Schmidt	Influence of Particle Packing on Structure, Strength
Kassel, D	and Durability of UHPC
0 • 01	Davis Court C. March L. Language
Session C1	Design Specific Material Aspects
09.00 - 10.30	Prof. A. Muttoni, Lousanna, CH
Chairman:	Prof. A. Muttoni, Lausanne, CH
E. Fehling, K. Bunje Kassel, D	Design relevant properties of fixed Ultra High
	Performance Concrete
N. V. Tue, H. Schneider	Bearing Capacity of Short Columns made of UHPC
Leipzig, D	confined by a Steel Tube
J. Hegger, D. Tuchlinski	Bond Anchorage Behavior and Shear Bearing Capacity
Aachen, D	of Ultra High Performance Concrete Beams
KH. Reineck,	Tests on ultra-high performance fibre reinforced
S. Greiner	concrete for designing hot-water tanks and UHPFRC-
Stuttgart, D	shells
K. Holschemacher,	Bond of Reinforcement in Ultra High Strength
D. Weiße, S. Klotz Leipzig, D	Concrete
Session C2	Design Specific Material Aspects
11.00 - 12.30	
Chairman:	Prof. N. V. Tue, Leipzig, D
K. Habel, E. Denarié, E.	Structural response of hybrid "UHPFRC-concrete
Brühwiler, Lausanne, CH	members under bending
K. Bunje,	Loading Capacity and Behaviour of Ultra High
E. Fehling	Performance Concrete Structural Elements subject to
Kassel, D	Shear and Punching Loads
J. Brauns, K. Rocens	Stress state optimization in steel-concrete composite
Riga, LV	elements
J. Hegger, S. Rauscher,	Push-Out Tests on Headed Studs embedded in UHPC
C. Goralski, Aachen, D	
T. Leutbecher, E. Fehling	Structural Behaviour of UHPC under Tensile Stress
Kassel, D	and Biaxial Loading
1.5	<u>~</u>

Session C3	Design Specific Material Aspects
14.00 - 15.30	
Chairman:	Prof. H. S. Müller, Karlsruhe, D
E. S. Lappa, C.R. Braam,	Static and fatigue bending tests of UHPC
J. C. Walraven	
Delft, NL	
S. Ortlepp, M. Curbach	Research into high-strength concrete at high rates of
Dresden, D	loading
K. Holschemacher,	Ultra High Strength Concrete under Concentrated
F. Dehn, S. Klotz,	Loading
D. Weiße	
Leipzig, D	
T. Stiel	Effect of the Casting Direction on the Mechanical
Cardiff, Kassel, UK, D	Properties of CARDIFRC
L. Kraft,	Deformation Characteristics in various Calcium
L. Hermansson	Aluminate Cement Admixtures investigated using
Uppsala, S	three different Methods
Session C4	Design and Construction
Session C4 16.00 - 18.00	Design and Construction
	Prof. J. Hegger, Aachen, D
16.00 - 18.00	
16.00 - 18.00 Chairman:	Prof. J. Hegger, Aachen, D
16.00 - 18.00 Chairman: W. Brameshuber,	Prof. J. Hegger, Aachen, D
16.00 - 18.00 Chairman: W. Brameshuber, T. Brockmann,	Prof. J. Hegger, Aachen, D
16.00 - 18.00 Chairman: W. Brameshuber, T. Brockmann, B. Banholzer	Prof. J. Hegger, Aachen, D
16.00 - 18.00 Chairman: W. Brameshuber, T. Brockmann, B. Banholzer Aachen, D	Prof. J. Hegger, Aachen, D  Textile reinforced ultra high performance concrete
16.00 - 18.00 Chairman: W. Brameshuber, T. Brockmann, B. Banholzer Aachen, D M. Teutsch, J. Grunert	Prof. J. Hegger, Aachen, D  Textile reinforced ultra high performance concrete
16.00 - 18.00 Chairman: W. Brameshuber, T. Brockmann, B. Banholzer Aachen, D M. Teutsch, J. Grunert Braunschweig, D	Prof. J. Hegger, Aachen, D  Textile reinforced ultra high performance concrete  Bending design of steel-fibre-strengthened UHPC
16.00 - 18.00 Chairman: W. Brameshuber, T. Brockmann, B. Banholzer Aachen, D M. Teutsch, J. Grunert Braunschweig, D J. Jungwirth, A. Muttoni	Prof. J. Hegger, Aachen, D  Textile reinforced ultra high performance concrete  Bending design of steel-fibre-strengthened UHPC
16.00 - 18.00 Chairman: W. Brameshuber, T. Brockmann, B. Banholzer Aachen, D M. Teutsch, J. Grunert Braunschweig, D J. Jungwirth, A. Muttoni Lausanne, CH	Prof. J. Hegger, Aachen, D  Textile reinforced ultra high performance concrete  Bending design of steel-fibre-strengthened UHPC  Structural Behavior of Tension Members in UHPC
16.00 - 18.00 Chairman: W. Brameshuber, T. Brockmann, B. Banholzer Aachen, D M. Teutsch, J. Grunert Braunschweig, D J. Jungwirth, A. Muttoni Lausanne, CH J. Aronoff; A. Katz;	Prof. J. Hegger, Aachen, D  Textile reinforced ultra high performance concrete  Bending design of steel-fibre-strengthened UHPC  Structural Behavior of Tension Members in UHPC  The Behaviour of Very High Strength Reinforced
16.00 - 18.00 Chairman: W. Brameshuber, T. Brockmann, B. Banholzer Aachen, D M. Teutsch, J. Grunert Braunschweig, D J. Jungwirth, A. Muttoni Lausanne, CH J. Aronoff; A. Katz; Y. Frostig	Prof. J. Hegger, Aachen, D  Textile reinforced ultra high performance concrete  Bending design of steel-fibre-strengthened UHPC  Structural Behavior of Tension Members in UHPC  The Behaviour of Very High Strength Reinforced
16.00 - 18.00 Chairman: W. Brameshuber, T. Brockmann, B. Banholzer Aachen, D M. Teutsch, J. Grunert Braunschweig, D J. Jungwirth, A. Muttoni Lausanne, CH J. Aronoff; A. Katz; Y. Frostig Haifa, IL	Prof. J. Hegger, Aachen, D  Textile reinforced ultra high performance concrete  Bending design of steel-fibre-strengthened UHPC  Structural Behavior of Tension Members in UHPC  The Behaviour of Very High Strength Reinforced Concrete Structures with CFRP Reinforcing Bars
16.00 - 18.00 Chairman: W. Brameshuber, T. Brockmann, B. Banholzer Aachen, D M. Teutsch, J. Grunert Braunschweig, D J. Jungwirth, A. Muttoni Lausanne, CH J. Aronoff; A. Katz; Y. Frostig Haifa, IL B. Freytag, J. Juhart,	Prof. J. Hegger, Aachen, D  Textile reinforced ultra high performance concrete  Bending design of steel-fibre-strengthened UHPC  Structural Behavior of Tension Members in UHPC  The Behaviour of Very High Strength Reinforced Concrete Structures with CFRP Reinforcing Bars  The use of UHPC in composites – Ideas and



Laboratory of materials and constructions, University of Kassel

Session D1	Processing and Early Age Behaviour
09.00 - 10.30	
Chairman:	Prof. R. Day, Calgary, CDN
J. Schubert, O. Mazanec,	Effect of Mixing und Placement Methods on Fresh and
I. Schachinger	Hardened Ultra High Strength Concrete
Baden-Baden, München,	
Hannover, D	
T. Teichmann,	Influence of the precasting process on the material
U. Goldbach	properties of fibre reinforced UHPC
Kassel, D	
S. Staquet,	Early-age autogenous shrinkage development of UHPC
B. Espion	incorporating very fine fly ash or metakaolin in
Brussels, B	replacement of silica fume
H. Ito, I. Maruyama,	Expansive behaviour of high-strength expansive
R. Sato	concrete and its induced stress
Hiroshima, J	
B. Piscaer	Cross Fertilisations from the Refractory Industry
Köln, D	
Session D2	Fibre Reinforcement
11.00 - 12.30	1 tore Reinforcement
Chairman:	Dr. F. Dehn, Leipzig, D
L. Lohaus,	Effects of polymer- and fibre modifications on the
S. Anders	ductility, fracture properties and micro-crack
Hannover, D	development of ultra-high performance concrete
Y. Klug, M. Orgass	Fibre Reinforced Ultra-High Strength Concretes
Leipzig, D	
G. Güvensoy, A. Ilki,	Mechanical Behaviour of Ultra High Performance Steel
F. Bayramov,	Fibre Reinforced Concretes under Cyclic Loading
M. A. Taşdemir	Condition
Istanbul, TR	
A. Si-Larbi, E. Ferrier,	Flexural behaviour of Ultra High Performance
P. Hamelin	Concrete reinforced with mixed short fibers and CFRP
Lyon, F	rebars
R. Bornemann, S. G. Faber	UHPC with steel and non-corroding high strength
Kassel, D	polymer fibres under static and cyclic loading
C D2	
Session D3	Durability
14.00 - 15.30	Prof W. Promochuhor, Andrew D
Chairman:	Prof. W. Brameshuber, Aachen, D
G. Herold, H. S. Müller	Investigation on the Durability of Ultra High Strength Concrete
Karlsruhe, D	
L. Ay	Curing tests on ultra high strength plain and steel
Stockholm, S	fibrous cement based composites
D. Heinz, F. Dehn,	Fire Resistance of Ultra High Performance Concrete
L. Urbonas	(UHPC) – Testing of Laboratory Samples and Columns
Munich, D	under Load
D. Heinz, HM. Ludwig	Heat Treatment and the Risk of DEF Delayed
Munich, D	Ettringite Formation in UHPC
F. Dehn	Temperature Behaviour of Ultra High-Performance
Leipzig, D	Concrete (UHPC) - A Micro Analytical Reflect

Session E1	Applications
09.00 - 10.30	
Chairman:	Prof. J. C. Walraven, Delft, NL
B. Middleton, R. Day,	Durability and Mechanical Properties of High
L. Cowe Falls	Performance Concrete for Ultra-Thin Whitetopping
Calgary, CDN	Pavements
J. Kaufmann	Development of special mortars for an application in
Dübendorf, CH	centrifugal casting process
C. Vogt, B. Lagerblad,	Optimization of UHPC for selective stabilization of
T. Hugo-Persson	deep boreholes
Stockholm, S	
X. Pu, C. Wan, Y. Wang,	Kilometer Compressible Material and Its Preparation
H. Pu, C. Wang	
Chongqing, China	
P. Racky	Cost-effectiveness and sustainability of UHPC
Kassel, D	

Session E2	Applications
11.00 - 12.30	
Chairman:	Prof. FJ. Ulm, Cambridge, USA
E. Fehling, M. Schmidt,	Ultra High Performance Composite Bridge above the
N. V. Tue, K. Bunje,	Fulda in Kassel - Accompanying Investigations as
T. Teichmann	Basis for the required Agreement of the Authorities -
Kassel, D	
S. S. Gaharwar, S. Kumar,	A Visionary Approach for the Health Monitoring of
R. Kumar, M.V.B. Rao	Ultra High Performance Concrete Bridges in Indian
New Delhi, IND	Conditions
N. V. Tue, H. Schneider,	Application of UHPC Tubes as Building Members
G. Schenk	
Leipzig, D	
A. Lichtenfels	Ultra-High Performance Fibre Reinforced Concrete for
Keltern, D	shells
G. Zimmermann,	Membrane Concrete Grid Shells
T. Teichmann,	
M. Grohmann	
Kassel, D	

16.00 - 17.15	Closing Ceremony
J. C. Walraven	Designing with ultra high strength concrete: basics,
Delft, NL	potential and perspective
M. Schmidt, E. Fehling	Visions in UHPC
Kassel, D	Will the tower of Babylon come true?

# **Social Program**

- Welcome reception (September 12, 2004)
- Conference dinner (September 13, 2004)
- Cultural event (September 14, 2004)
- Guided city tours
- Fulda boat trip

# Accompanying persons program

Accompanying persons are invited to the opening and closing sessions of the Symposium, the Welcome reception on Sunday evening, the Dinner on Monday evening and a cultural event on Tuesday evening.

Also, various sightseeing tours will be organized in and around Kassel.

	Sunday,	Monday, Sep. 13	Tuesday, Sep. 14	Wednesday, Sep. 15
Morning	Sep. 12	9:00 Opening Ceremony and Welcome Sightseeing Tour in Kassel	эср. 1 <del>4</del>	Hillside Park Wilhelmshöhe (Museum Castle
Afternoon	Welcome Reception	Museum Tour (Neue Galerie, Orangerie)	Boat trip on the Fulda river (incl. Coffee)	Wilhelmshöhe; Sightseeing in the Park with famous fountain; Coffee break)

# **Post-Conference Tours (September 16 - 19)**

Post-Conference Tours to **Heidelberg** or **Berlin** can be booked by filling-in the enclosed registration form. To get more informations please visit our symposium's website (www.uni-kassel.de/uhpc2004).

#### **Hotel Accommodation**

The participants can book rooms at preferential rates in several hotels located in Kassel. To get a complete hotel list please visit our symposium's website (www.uni-kassel.de/uhpc2004).

Hotels	Varta Hotel Guide	Room rate per night	Location of
noteis	Category	single/double	Hotel
La Strada	***	78 € / 90 € (w.b.)	1
Courtyard by Marriot	**	49 € / 49 € (w.b.)	2
Schlosshotel Wilhelmshöhe	**	48 € / 66 € (w.b.)	3
Gude	**	79 € / 104 € (i.b.)	4
Astoria	*	51 € / 71 € (i.b.)	5
Moevenpick	***	82 € / 112 € (o.b.)	8
Kurfuerst Wilhelm I.	*	60 € / 87 € (i.b.)	11
Stadthotel Kassel		57 € / 77 € (i.b.)	6
Chassalla	*	52 € / 72 € (i.b.)	7
Mercure Hessenland	**	69 € / 87 € (i.b.) standard 77 € / 97 € (i.b.) comfort	9
Schweizer Hof	*	62 € / 79 € (i.b.)	10
Deutscher Hof		49 € / 67 € (i.b.)	11

(w.b. = breakfast not included)

(i.b. = breakfast included)

The locations of the hotels offering special rates are shown on the enclosed citymap. The University and location of Symposium is marked with a red dot.



## Registration

Participation to the Symposium and the excursions organized for accompanying persons may be registered by filling-in the enclosed Symposium Registration Form, according to the instructions therein, and sending it by fax or mail with payment, directly to the conference office.

	before August 1, 2004	after August 1, 2004
Delegate	€ 380,-	€ 410,-
Lecturer	€ 280,-	€ 280,-
Accompanying person	€ 130,-	€ 150,-

Cancellations: before August 31: 75% refund; after August 31: no refund

These fees include, for delegates and lecturers:

- Attendance to Opening and Closing Ceremonies
- Attendance to the Symposium Technical Sessions
- Two coffee-breaks per day (September 13-15)

The "Herkules" and the "Lions Castle" - The town's landmarks

of Kassel in the biggest

hillside park of Europe

- Welcome reception on Sunday, September 12
- Conference Dinner on Monday, September 13
- Cultural event on Tuesday, September 14
- One copy of the Symposium Proceedings

#### **Commercial exhibition**

A commercial exhibition for products, services and projects is organized during the Symposium. There are stands of variable sizes available. Companies and organizations interested in participating may contact the Symposium's Secretary for reservation before August 1, 2004.

### Language

The Symposium's language is English.

# To get to Kassel By plane:

• to Frankfurt or Hannover Airport (from there about 1.5 hrs by train)

#### By train:

ICE-train station Kassel-Wilhelmshoehe Hourly trains from:

- Hannover (airport)
- Berlin
- Frankfurt (airport)
- Munich

#### From ICE station to the venue:

- Tram line 1 or 2 Stop Holländischer Platz/Universität **By car:**
- Autobahn A7 Exit Kassel-Nord
- follow Dresdener Strasse to Zentrum/town centre
- At Crossing Dresdener Strasse Ysenburgstrasse turn right
- Behind Fulda river bridge turn left
- Behind Buildings of University turn right twice towards parking spaces



#### The city of Kassel





Kassel is situated in the very heart of Germany. It is offering fast and easy access by the ICE-train or motorway. Visitors who appreciate nature, love the arts and want to relive history will get their money's worth in this town, with its host of internationally famous art treasures, historic monuments, and cultural and educational institutions. Kassel is the town of the famous Documenta exhibition of modern art.

Kassel is an ideal venue for conferences and congresses - its central location, the excellent facilities, the efficiency of its hotels and its fringe amenities such as Wilhelmshöhe, the biggest hillside park in Europe formed in the 17th century, and the Kurhessen Thermal Baths, the Casino and the Palace. Add to these the museums, State Theatre, pedestrian precincts and shopping malls.



The campus of the University of Kassel



More informations: www.kassel-tourist.info www.kassel.de www.uni-kassel.de



The forthcoming UHPC bridge in Kassel

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University of Kassel Department of Structural Materials, FB14 Mr. Carsten Geisenhanslüke Mönchebergstrasse 7 34125 Kassel Germany

Tel:+49 561 804 2601 Fax:+49 561 804 2662 Email:ghlueke@uni-kassel.de Web: www.uni-kassel.de/uhpc2004