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To register as a founding member, please fill out the attached form (last page of this document) and return it to the COBRAE office.

COBRAE Group News

Conclusions from the BridgEneering Bridge Technology Conference

The COBRAE Group hosted a special session at the BridgEneering Conference & Trade Show in June 29-30, 2006. BridgEneering was held at the Maritime Research Centre in Rotterdam, the Netherlands. The Chairman of the COBRAE Group, Prof. Dr. Urs Meier from EMPA gave a KeyNote lecture on FRP Composites Innovations.

The Conference was divided into 7 separate sessions, each addressing a different subject. Each session had several presentations hosted by some of the most prominent speakers from the Bridge Engineering world.

The following Conclusions were drawn from the Conference:

- Architectural considerations are as important as engineering aspects
- Bridges create a lot of emotions in all phases of their life. In planning, designing, engineering, building and even after their end of lifetime
- Innovations in bridge engineering are an ongoing process. New materials can play an important role, including environmental considerations
- Future vision is that, provided principals are prepared to spend money on research and technical developments, larger spans and lighter bridges are possible
- It is imperative that Bridge Engineers, when using new technologies or materials, stay conservative in their approach to apply them
- Engineering and architecture must be "hand in glove" disciplines in Bridge building

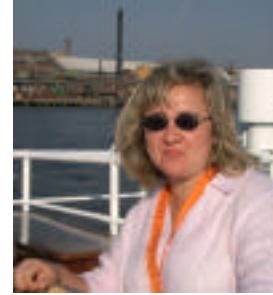
The Conference Proceedings with all papers can be obtained by filling out the order form that can be downloaded from the BridgEneering web-site (www.bridgeneering.com)

Details on the Conference (speakers, subjects of papers) can be found on the **BridgEneering** web-site: www.bridgeneering.com

BRISK EVENTS

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THE NETHERLANDS Email: info@briskevents.nl

Because COBRAE took care of a Session in the Bridgeneering Conference, held in June of this year in Rotterdam, a short Executive Council meeting was held immediately after the conference. Main topic was the 2007 COBRAE Conference to be held in Stuttgart. The theme of the Conference was chosen and already commitments were made to present papers. Also a decision was taken on the options for the 2006 Members and Non-Members meeting.



Because the Executive Council is now reduced to 5 members and it was felt that a new member needed to be found. We have found Mrs. Dolores Pulido (see photo) of Pedelta Consulting Engineers in Barcelona Spain to be prepared to take a seat on the Council. Mrs. Pulido will be officially installed in the Annual Members Meeting in Spain on Thursday November 30th. We hope that many members will be present to welcome Mrs. Pulido.

COBRAE Annual Members Meeting, November 29 - 30, 2006, Barcelona / Lérida - Spain
(Non-Members also welcome!)

Wednesday 29 November 2006

AM Arrival COBRAE Members and guests.
13.00 Bus leaves from Barcelona Airport to UPC
14.00 Lunch at UPC (Technical University of Catalonia)
15.00 Visit Construction Laboratories UPC
17.00 Bus trip to Lérida
19.00 Arrival Hotel REAL Lérida
(price approx. € 50,- to € 65,- per night - www.hotelrealleida.com)
20.00 COBRAE Annual Members Diner in typical Catalonian restaurant
Night Hotel Real

Thursday 30 November 2006

07.00 Breakfast – check out rooms
08.30 COBRAE Members and Non-Members Meeting (in hotel)
Main Topics to be discussed

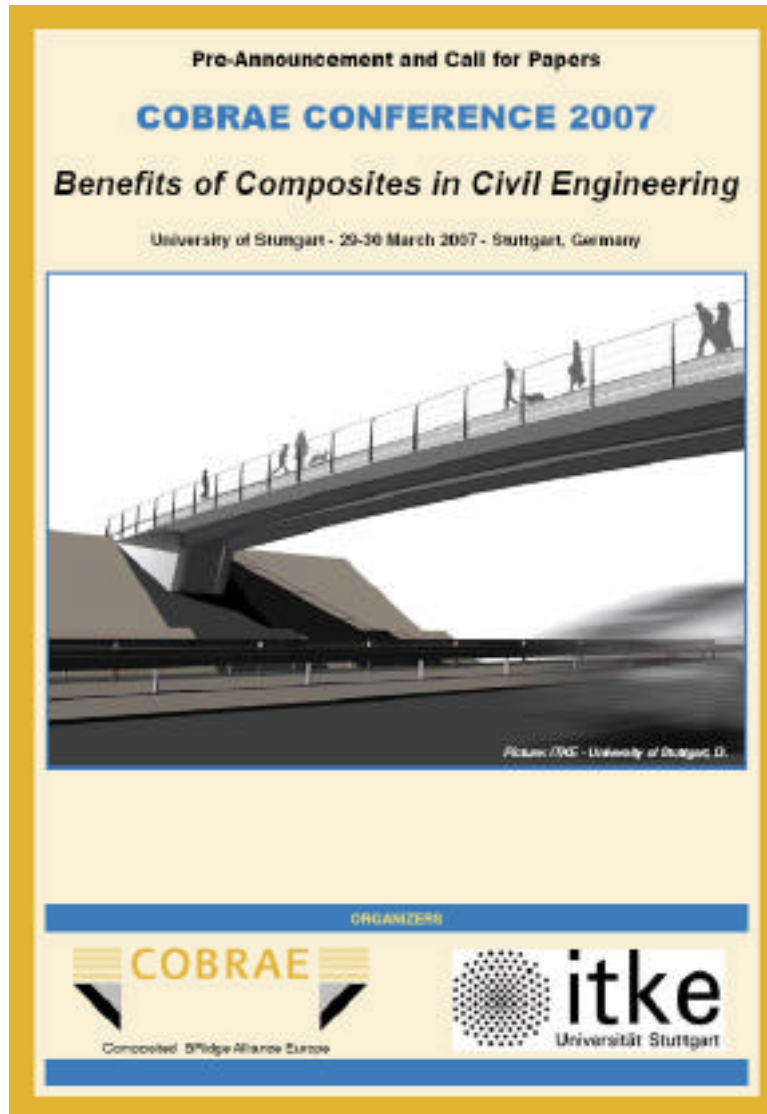
- *Round-up of new European Bridge projects and Rehabilitation Projects.*
- *Application for European Research funding for bridge rehabilitation.*
- *EuroCode for FRP in Construction project progress report*
- *Preliminary programming COBRAE Conference Stuttgart 2007.*

10.00 Coffee break
10.30 COBRAE Members and Non-Members Meeting continuation
12.00 Lunch
13.00 Visit Lérida footbridge
14.00 Bus to airport in time for outbound flights
16.00 Arrival airport in time for 17.00 hrs and later flights.

The participation cost will be Euro 295,- per person. This covers the bus services, the luncheon (2x) the Barcelona dinner and all the required paperwork and organizing fee by the COBRAE office. Please note that the hotel reservation needs to be done through the COBRAE office and paid on site.

Please note that this programme can be subject to changes. Final programme will be send to those who have registered.





On 29 - 30 March 2007 the COBRAE Conference 2007 - Benefits for Composites in Civil Engineering will be held at the University of Stuttgart in Germany. The Conference is co-organized by ITKE (Institut für Tragkonstruktionen und Konstruktives Entwerfen). ITKE is a dedicated Research and Development Institute and it is part of the Civil Engineering and Building Faculty of the University of Stuttgart, Germany.

The Pre-Announcement Brochure, as displayed above, can be downloaded from the COBRAE web-site (www.cobrae.org) as a PDF-file.

Civil Structures and Composites

Civil structures, including bridges, form a significant aspect of our daily lives. The use of highways has increased dramatically over the past decades, but often there has been chronic under investment, both in maintenance and upgrading facilities. The introduction of methods of renewal (including new construction) using high performance composite materials that are light and durable, present the opportunity for immense economic benefits, both in real terms and in intangibles. In real terms repairs could cost less and be conducted faster enabling savings when upgrading or maintaining existing infrastructure. New constructions using these technologies will have a significantly longer life-time and technical issues related to weight, which have often restricted functionality, would be resolved. The durability of composite decks for example would substantially reduce the overall maintenance costs.

Composites are a technical and economic alternative

Civil infrastructure is also an important aspect of the world economy and contracts worth billions of dollars are let annually on a global basis. Fiber-reinforced polymers (FRP) have greater strength capabilities and are less susceptible to environmental deterioration than steel. FRP composites do not deteriorate in the presence of road salts, which shorten the life of a conventional structure. Additionally, FRP has weight to strength ratios 50 times of that of concrete and 18 times of that of steel. Many of today's bridge structures are either structurally deficient or functionally obsolete. It would cost billions to eliminate these structural deficiencies.

Composites to be further developed

All of these structures will gradually have to be replaced and composites could play a significant role. It is conceivable that with the good attributes composites offer to the construction industry, they could have significant future impact. But high-risk composite systems or products are to be further developed if successfully to be applied. This COBRAE conference addresses the latest worldwide advancements of composite technology in Civil Engineering and Infrastructure and is the third already in a series of conferences organised by the COBRAE Alliance.

Call for Papers

Interested companies, academics and other professionals are invited to submit papers on the following subjects:

- Futuristic and visionary projects
- Research and development projects
- Composites for new bridge projects
- Bridge-deck developments
- Safety & Security issues: Earthquake, Anti-terrorist
- Monitoring & Modeling Technologies
- Composites for rehabilitation and structural repair
- Use of composites to wood, glulam constructions
- Other Civil Engineering systems: gates, lock-doors

To submit a paper, please send a 100 word abstract of your proposed paper, a personal résumé and your correct and full contact details to info@cobrae.org or send a fax to +31 33 4343 501.

Full written papers must be submitted before 16 February 2007 in Word format. All accepted papers will be published in bookform. A list of submitted papers and papers on request will be published on the web-site: <http://www.cobrae.org>.

Deadlines:

Abstract submission	01 December 2006
Paper acceptance	20 December 2006
Programme available	02 February 2007
Written paper submission	16 February 2007

How to Pre-Register

You can pre-register for the Conference via the Pre-Registration Form that can be found on the COBRAE web-site www.cobrae.org. You can return the pre-registration form per post or fax to the COBRAE office in Leusden, the Netherlands, fax: (31)33-4343 501.

The fee for participation to the conference is set per person for two days, include. catering (cocktail) drinks, 2 lunches, Country Dinner, bus service and documentation.

Early Bird registration (to be sent before December 1st, 2006)

Early Bird conference fee: Euro 780,- (Conference fee includes local taxes)

Delegates who register after December 1 st, 2006 pay the full conference fee:

Full conference fee: Euro 980,- (Conference fee includes local taxes)

ANNOUNCEMENT

Sales Director and Future Member of the Board of Directors position open

J. Friisberg Robertson & Partners IIC, an international management search company based in Zollikon-Zurich is currently looking for the: **Sales Director and Future Member of the Board of Directors** of a leading worldwide company involved in bridge building. The position will be based in the Zurich area and will involve international travel (the detailed job description in German is included in the text underneath).

The successful candidate will be an engineer with an additional qualification and proven experience in sales or marketing. He or she will come with sector experience in bridge building and will be aged not less than 30. It is essential to speak both English and German.

If you are interested yourself or if you know someone who could be suitable, please contact:

Julian Last (based in France)
00 33 555 64 90 28
jlast@wanadoo.fr

J. Friisberg Robertson & Partners IIC
Gustav Maurer-Strasse 25, Postfach 329
CH-8702 Zollikon
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Web: www.iicpartners.com



SPEZIFIKATION FÜR DEN

**VERKAUFSLEITER UND ZUKÜNFTIGES MITGLIED DER GESCHÄFTSLEITUNG
EINER WELTWEIT FÜHRENDEN HERSTELLERIN VON BRÜCKENLAGERN UND FAHRBAHN-
ÜBERGÄNGEN IM GROSSRAUM ZÜRICH**

Darstellung der Situation

Die Firma ist in den letzten Jahren stark gewachsen. Der Umsatz hat sich verdreifacht. Das nächste Ziel ist das Erreichen einer doppelten Umsatzgrösse. Die Qualität der Produkte und die vorgegebene Dynamik der Massnahmen lassen erahnen, dass die Verwirklichung dieses Zieles nur eine Frage der Zeit ist.

Naturgemäss wachsen bei solchen Entwicklungen auch die Aufgaben der Geschäftsleitung. Der Leistungsdruck hat inzwischen dermassen zugenommen, dass man sich entschlossen hat, einen Verkaufsleiter anzustellen. Dieser soll nach entsprechender Bewährung das dritte Mitglied der Geschäftsleitung werden.

a) Beschreibung der Firma

Die Firma ist eine weltweit führende Herstellerin von Brückenlagern und Fahrbahnübergängen. Das Schweizer Unternehmen wurde 1963 gegründet und hat seinen Hauptsitz im Grossraum Zürich. Ferner bestehen Niederlassungen in der französischen Schweiz, in Österreich und in Deutschland. Seit Mai 2005 ist eine Niederlassung in der Volksrepublik China dazugekommen.

Im Jahre 2004 fusionierte die Firma mit ihrem grössten Schweizer Konkurrenten. Damit konnte die Produktpalette besonders im Hochbau ergänzt werden.

Die Firma ist die Erfinderin der modernen Lamellenfuge, sowie Inhaberin zahlreicher Patente, auch im Bereich Brückenlager und Stossdämpfer.

Weltweit sind mehrere tausend Brücken mit Lagern und Fugen der Firma ausgerüstet.

Die Produkte zeichnen sich durch Qualität und Dauerhaftigkeit aus. Die Firma ist seit 1991 nach ISO 9001 zertifiziert. Fachkompetenz und Qualitäts-Management auf hohem Niveau, sowie stetige Forschung und Entwicklung – in Zusammenarbeit mit namhaften Hochschulen – tragen entscheidend zum Erfolg bei. Damit auch die Dienstleistungen höchsten Ansprüchen gerecht werden, stehen den Kunden kompetente Fachleute und Ingenieure weltweit für Beratung und Service zur Verfügung.

Der beste Beweis für Qualität und Dauerhaftigkeit ist die Zuverlässigkeit der Produkte: Diese funktionieren unter härtesten Verkehrsbedingungen einwandfrei bis zu mehreren Jahrzehnten.

Weltruhm erlangte die Firma mit der Ausrüstung von zahlreichen Grossprojekten wie zum Beispiel der Oresund-Brücke, welche seit dem Jahre 2000 Dänemark und Schweden verbindet.

Die Firma bietet folgende Produkte an:

Im Bereich Tiefbau:

- Brückenlager
- Fahrbahnübergänge
- Stossdämpfer
- Dienstleistungen (inkl. Fernüberwachungen)

Im Bereich Hochbau:

- Auflager
- Dehnfugen
- Spezialprodukte
- Schwingungsisolation

b) Die anstehenden Aufgaben

Der zukünftige Stelleninhaber muss ein starker Verkaufsleiter auf hohem fachlichen und menschlichen Niveau sein, der sich speziell durch folgende herausragenden Eigenschaften profiliert:

- ausgewiesener Verkaufsleiter und Teamleader – ein unternehmerisch handelnder Macher
- erfolgreicher, akquisitionsstarker Verkäufer, welcher befähigt ist, Markt- und Kundenpotenziale zu erkennen, mit Schlüsselkunden persönlich Geschäfte zu tätigen und die Projekt- und Niederlassungsleiter hinsichtlich Verkauf anzuleiten und zu begeistern
- internationale Erfahrung und gewohnt auf hohem Niveau erfolgreich zu verhandeln
- strategisches, innovatives Denkvermögen und die Fähigkeit als Leader zu agieren
- Fokus auf Wachstum und Profitabilität
- Ausbildung als Bau-Ingenieur (evt. Maschineningenieur) mit Abschluss einer Zusatzausbildung als Verkaufs- und/oder Marketingleiter, MBA oder äquivalent
- soll Deutsch und Englisch beherrschen – weitere Fremdsprachen sind von Vorteil
- Erfahrung im Brückenbau, z.B. als Projektleiter

Wichtig ist, dass der zukünftige VLM sich selbständig auf den internationalen Märkten bewegen kann und über viel Energie und Ausdauer verfügt. Die Firma sucht ein Kader-Mitglied welches über mehrere Jahre (z.B. 5-10) einen substantiellen Beitrag an die Entwicklung der Firma leistet.

Es ist vorgesehen, den VLM sukzessive in seine Aufgaben einzuführen um dabei seine Eignung laufend beurteilen zu können:

- Tätigkeit als Projektleiter während einigen Monaten
- Übernahme eines geographisch abgegrenzten Gebietes, verbunden mit Führungs-Aufgaben – in beiden Funktionen als stv. VLM
- Vollständige Wahrnehmung der Funktion als VLM und Mitglied der GL

Die Entwicklung des Einkommens soll einen parallelen Verlauf aufzeigen.

Zeitlich gesehen sollte sich dieser Prozess über einen gewissen Zeitraum erstrecken. Der Aufstieg bis zum vollwertig produktiv beitragenden GL-Mitglied wird einige Jahre harten Einsatz und Erfahrungsaufbau benötigen. Dabei geht es um ein lohnenswertes Ziel, da es sich durchaus um eine Lebensstelle handeln kann.

Der ideale Kandidat*

- **Nationalität:** Vermutlich Schweizer oder aus der EU
- **Alter:** ca. 32 - 50 Jahre
- **Ausbildung:** Bau-Ingenieur (evt. Maschinen-Ingenieur) mit Abschluss einer Zusatzausbildung als Verkaufsleiter / Marketingleiter, MBA oder äquivalent
- **Sprachen:** Deutsch und Englisch sind ein Muss – jede weitere Sprache ist ein Plus
- **Persönlichkeit:** Gewinnende, überzeugende, dynamische und seriöse Person. Muss in der Lage sein, langfristige Geschäftsverbindungen aufzubauen und aufrecht zu erhalten. Muss ein starker Verkäufer sein und Engagement an der Front zur Gewinnung von Neukunden einsetzen. Die bestehende Kundschaft ist weiter zu pflegen. Soll das Team von technisch versierten Niederlassungs- und Projektleitern punkto Verkauf führen, anleiten und durch sein motivierendes Wesen zu Höchstleistungen anspornen (Vorbild-

Funktion). Spürt dank seinen Marktkenntnissen neue Geschäftsmöglichkeiten in neuen und bestehenden Märkten, sowie neue Kunden auf

- **Ideale Erfahrung:** Kommt mit einem soliden Erfolgs-Nachweis aus einer ähnlichen oder vergleichbaren Funktion. Kenntnisse der Baubranche (Brückenbau) sind eine Voraussetzung
- **Entlöhnung:** Interessant genug um den idealen Bewerber zu motivieren
- **Reisebereitschaft:** muss vorhanden sein
- **Arbeitsort:** Grossraum Zürich

* Für diese Beschreibung wurde die männliche Form verwendet. Die Funktion ist aber sowohl für Herren wie Damen offen.

BRIDGES NEWS FLASHES

Composites Europe – Launch of a New B2B Platform



Last week, the trade fair organiser Reed Exhibitions and the European Composites Industry Association (EuCIA) held the first Composites Europe exhibition, a new trade fair for composites.

At the first Composites Europe in Essen, approximately 200 companies from all over Europe presented the entire value creation chain of the composites industry, from the raw material to the finished end product, processing technology and practical applications. Special forums such as workshops and live demonstrations accompanied the trade fair.

Further support for the fair came from AVK - Industrievereinigung Verstärkte Kunststoffe e.V. - which this year chose Composites Europe as the venue for its annual conference, with more than 500 participants from all over the world.

The event was generally thought to have been a good initial opening for a potential series of exhibitions, by both visitors and exhibitors, and pre-booking for Composites Europe 2007, to be held in Stuttgart, is already well underway. The organisers, Reed Exhibitions, also decided to organise an independent event in Asia, currently the fastest-growing market, to supplement Composites Europe. Composites & RP Asia - Asian Trade Show and Conference for Composites, Technology and Applications will be held in Hong Kong from September 4th to 6th, 2007.

WWW Link: <http://www.composites-europe.com>

WWW Link: <http://www.composites-asia.com>

Source: www.netcomposites.com

Innovative Technologies from Huntsman at Composites Europe

New industrial structural composites, adhesives and tooling materials were on show from Huntsman Advanced Materials at Composites Europe 2006.

A number of new adhesives specially developed for the aerospace industry were being shown including a unique Araldite epoxy based aerofoil-fill syntactic paste. Developed by the Araldite team in conjunction with Rolls Royce and the University of Sheffield, Araldite 1641A/B is a very low-density two-component syntactic paste, which exhibits exceptional noise and vibration damping characteristics. It can be used as a replacement for traditional metal reinforcements in aerospace engine components such as outer guide vanes (OGV).



Two multi-functional epoxy resins suitable for a range of processing systems including Resin Transfer Moulding, Resin Film Infusion, Pre-pregs and Filament Winding, were also highlighted. Araldite MY0600 is a tri-functional epoxy resin unique in its ability to provide structural matrices with higher modulus and greater toughness, MY 0600 is particularly suitable for aerospace applications. XB 9721 is a multi-functional epoxy resin, suitable for high temperature industrial applications

WWW Link: <http://www.huntsman.com/advancedmaterials>

Source: www.netcomposites.com

AVK Presents the Winners of the 2006 Innovation Awards

A carbon fibre SMC, a material recycling concept and an impregnating technique for filament winding won this year's Innovation Awards presented by the AVK Industrievereinigung Verstärkte Kunststoffe.

With these awards, the Federation annually honours outstanding developments with regard to reinforced plastics in the categories industrial application, ecological value, and academic research.

The awards were presented on 19 September in conjunction with the 9th International AVK Conference. For the first time this year, the AVK Conference was organised as a prelude to the new Composites Europe trade fair at the Congress Center Süd on the Messengelände in Essen. During the press conference, which took place right before the presentation of the awards, Frank Bruns, AVK President, informed the press about the award-winning developments.

Carbon fibre SMC products – more rigid and less heavy than their glass fibre counterparts

Among the contenders for the Industrial Award, the jury was particularly impressed by the carbon fibre SMC (sheet moulding compound) developed by Polynt GmbH & Co. KG in Miehlen. This innovative material may be able to open up entirely new areas of application for SMC. A preliminary example is the rim for Golf Caddy vehicles that was developed in close collaboration with the Swiss processor Romay AG, Oberkulm. This part was traditionally made of cast aluminium.



Polynt had tried to develop a carbon fibre material that could be processed by the classical SMC technique without any adjustments. This was made possible by using chopped strands that also allow finished components with complex geometries. Under the name of HUP CF 24/54 RB-9500, Polynt launched such a carbon fibre SMC based on a vinyl ester resin. With a fibre content of approximately 50 wt% and fibre lengths of 25 and 50 mm, respectively, this product achieves a rigidity of 35 000 MPa at 20 % less density – which is about three times as high as the rigidity attained by a typical glass fibre SMC.

The Caddy rim produced by Romay is also made of HUP CF 24/54 RB-9500. By using moulded parts made of carbon fibre SMC instead of cast aluminium, the weight was reduced from about 1300 to less than 500 g. In relation to the total weight of the Caddy, exchanging the two rims will reduce the weight by 12 %. Glass fibre SMC, by the way, is unsuitable for this application since the spoke tends to bend under the load.

The Celstran recycling concept – suitable for the initial application

Ticona GmbH in Kelsterbach received the Ecology Award of the year for their Celstran recycling concept. This was the first raw materials producer to develop a pultrudate containing recycled long glass fibre reinforced production waste. Qualified recycling companies, such as EcoCare in the Netherlands, who were involved in the project development, reprocess the Celstran web scrap created during the manufacture and further machining of structural components. The resulting ground material meets certain defined quality criteria. In the second step, this ground material is pultruded to afford rod-shaped pellets exhibiting the specified properties. This product is then recycled to the initial application.

This approach has the advantage of facilitating the logistics, handling, and dosage for the processing company. At present, the pultrudate has a recyclate content of 10 % and is used to create the dashboard bracket of the VW

Golf A 5. Efforts are under way to increase this content to 20 %. Besides, further areas of applications are to switch over to recycle-containing pultrudate.

The impact of the LFT recycling concept is demonstrated by the fact that, according to the "TA-Siedlungsabfall" (the German Technical Directions for household waste), disposal of fractions with a carbon content in excess of 5 % has been prohibited since 1 June, 2005. Thus, corresponding waste must undergo thermal pretreatment. Owing to the limited incineration capacities, however, the associated costs have recently experienced a drastic increase.

Ring winding payout eye – filament winding enters series production

The research performed by Prof. Dr.-Ing. Alois K. Schlarb and Dr.-Ing. Ralf Schledjewski of the Institut für Verbundwerkstoffe GmbH, Kaiserslautern) [Composites Institute] is to enhance the efficiency of the thermoset filament winding process. The jury gave the award for the best academic effort of the year to the new impregnating technique developed by these researchers, pictured.

In this process, the rovings are being pulled through a siphon-like impregnating unit and are completely immersed in a precisely measured amount of resin. The mobile arms of the winding head guide the rovings directly to the surface of the vessel and deposit them precisely, using rotatable feed-eye that can be rotated. The construction was designed specifically to make sure that the bandwidth remains constant within the cylindrical part of the vessel and during rotation around the polar caps, the pulled-through rovings are straightened out, and all the excess resin is scraped off.

Thus, fibre-reinforced pressure vessels targeted for use as hydrogen tanks in automobiles may be produced more efficiently and on a larger scale.

Long-term tests proving the suitability of this approach for continuous mass production were performed with the first prototype of the winding head equipped with modular impregnating units.

Using this unit, the stacking rate may be increased by a factor of 3.2. Shorter travelling distances reduce cycle times and allow units that require less floor space. Besides, the largely closed syphon impregnating system reduces possible resin leakages. After the end of the shift, only the tubes need to be disconnected and disposed of. Adding to these benefits is the reduced resin consumption.

Source: www.netcomposites.com

Milestone reached on Australian highway



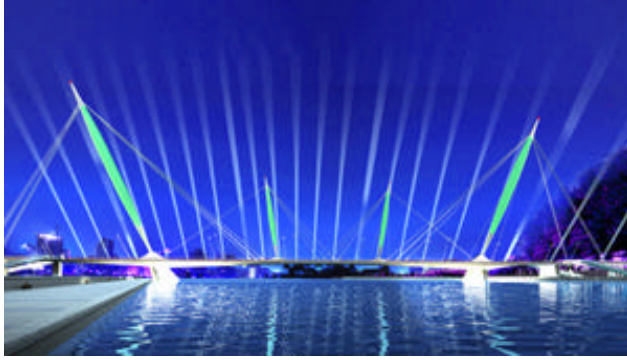
Abigroup has placed the last of 402 bridge beams needed for the Wodonga to Murray River project in Victoria, Australia. The contractor has established its own precast yard on site and this is also being used to supply 120 beams for the New South Wales section of the Albury-Wodonga Hume Freeway project.

Source: www.bridgeweb.com

Five killed in Canadian flyover collapse

A motorway flyover built in 1970 collapsed on Saturday near Montreal in Canada, killing five people in two cars that were passing underneath. The collapse occurred on a bridge connecting the island of Laval with Montreal in the province of Quebec. The Quebec government has announced a public inquiry into the accident. A similar concrete overpass built at the same time has been closed as a precaution and other structures have been identified for close review.

Source: www.bridgeweb.com



Hyder finishes preliminary design for JiZhao Bridge

Hyder Consulting has completed the concept and preliminary design for a glass-clad bridge over the Haihe River in the Chinese city of Tianjin. The concept for the 192m-span bridge – which was developed in conjunction with architect Ronald Yee – incorporates steel pylons clad in glass panels. The cable-stayed structure's two main and two secondary pylons are arranged in a radial manner. Bearings at the base of the pylons allow rotation to minimize moments in the foundations, deck and

pylons. "The design is unique in geometry and articulation with no resemblance to any other road bridge that we have seen," said Hyder's project director, Francis Kung.

Source: www.bridgeweb.com

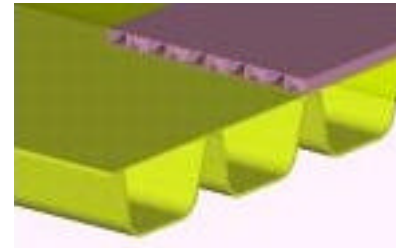
Bulgarian minister announces third Danube Bridge

Bulgarian transport minister Petar Mutafchiev has said that there will be a third bridge joining Romania and Bulgaria across the Danube River. He said that it will be built at Oryahovo, 190km northeast of Sofia. The bridge would stand at narrowest part of the river in the region and would be 860m long. Preliminary calculations have put the cost at US\$88.8 million.

Source: www.bridgeweb.com

Location sought for a free bridge demo test project

Lightweight Structures B.V. from the Netherlands is looking for a partner for a lightweight bridge demo project. The Traffic Bridge will have a span of max. 12 meters and a width of approx. 12 meters. The traffic load will be for the highest class. The partner Lightweight Structures is looking for can either be a (local) government or a company interested in the project and the results.



The bridge location can be anywhere in any country of the European Union.

The bridge deck used in the project will be supplied without any costs for the partner. The local partner pays only the local costs and all costs other than deck components.

If you are interested in becoming a partner of Lightweight Structures for this project you can contact Aldert Verheus of Lightweight Structures for further information:

Lightweight Structures B.V.

Kluyverweg 1
2629 HS DELFT
Netherlands

Tel: +31 15 278 20 99

Fax: +31 15 278 72 99

Mob: +31 6 5335 0208

Aldert.verheus@lightweight-structures.com

Boeing composite manufacturing centre begins 787 vertical fin

Fabrication of the first composite stringers for the 787 vertical fin, Boeing's all new commercial airplane, began Sept. 13 at the Composite Manufacturing Center (CMC) at Boeing Frederickson in Pierce County, Wash. The vertical fin is the largest major Boeing 787 Dreamliner assembly built by an internal Boeing supplier. CMC plans to deliver its first fully functional vertical fin to 787 Final Assembly in Everett, Wash., in Spring 2007. To accommodate the new work, the Boeing Fabrication manufacturing business unit is streamlining its factory, implementing a pulsed moving line for the 787 vertical fin. This will allow both the 787 vertical fin and 777 empennage to be built in the building's original footprint.



Boeing's Composite Manufacturing Center is responsible for designing the entire structure, including composite and metal subcomponents; manufacturing and assembling the vertical fin's main box, or center section; working together on supplier selection and co-management; integration of sub-tier-supplied components; functionally testing and certifying all structures and systems, such as hydraulics, electronic actuators, signal lights and wires; delivering on-time; and providing life-cycle support.

The vertical fin assembly and horizontal stabilizer make up the empennage, or tail structure, of an airplane. The vertical fin assembly is an elliptical airfoil comprised of the leading edge, center box and rudder which, together, function as flight control surfaces that maintain yaw, or side-to-side horizontal movement of an airplane in flight. Fabrication start of the 787 vertical fin began with the push of a button by Boeing CMC employee, Don Hall, flat tape laminating machine operator. The process involves laying down composite tape to build up a "charge," with the part then formed on a tool and cured in a large autoclave prior to assembly.

Source: Boeing

Nijl Composites



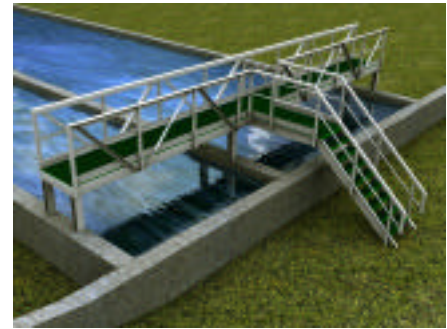
NIJL B.V. main activities are designing, producing and installing steel constructions. Since 2004 we are expanded to the aircraft industry and created facilities for engineering, production and installation of aircraft products, called NIJL Aircraft Docking. The third step in expanding our businesses is the founding of NIJL Composites. NIJL wants to provide the customer a solution and the utilisation of Fibre Reinforced Plastics (FRP) is adding value to our constructions. The utilisation of several construction materials by a steel construction company is almost unique and highly innovative in the construction business.

In our existing markets we have noticed that steel structures are not always **the** solution because of the corrosion and chemical surroundings. The main activities of NIJL Composites are designing, producing and installing FRP constructions, if required in combination with steel. The main FRP products we are using are pultrusion profiles, planks and gratings. At this moment we are working on constructions in the chemical industry and water treatment like is shown in the two schematic drawings.



A maintenance platform for aircrafts

In the aircraft docking business we are working on a solution for a platform from FRP like is shown at the third picture.



A schematic drawing of the bridging platform

The NIJL organisation employs 70 persons in the departments: engineering, production and installation. We have our own design office that works with several design and drawing applications which are CAD-CAM headed with our production machines. We have 3 installation teams for the installing of our constructions.

What if FRP is not the solution and steel or aluminium comply better with the requirements? NIJL is in the unique position that we can utilise all these three materials. Each time we will make the deliberation which material complies with the requirements and provides an optimal solution for our customer.

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A schematic drawing of the piping and cablebridge

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See also: www.nijl.nl / www.aircraftdocking.com

INTERESTING WEB-SITES

Nontri Co., Ltd.

http://www.nontrico.com/eng/index_home_eng.html

Nontri Co., Ltd. was established in 1973. Ever since, the company has been providing services in the field of civil engineering and structural engineering along with making a significant contribution to development of the country through our previous projects, ranging from structural analysis and design, new construction, structural repair and strengthening to providing advice and engineering solution. All projects were carried out with the first priority being given to quality of the work. At the same time, the company has continuously introduced new technologies and innovation especially in the fields of civil and structural engineering and their related fields. This can be seen clearly from our history in introducing new methods and materials (composite materials for example) for structural repair and strengthening.

Our technicians and engineers are trained and practiced to be ready at all times to deal with new technology and innovation. Throughout our entire history, we have committed ourselves to quality work so as to deliver the best thing to our customers, as well as being able to fulfill their needs.

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Telephone: +66 2 722 1634, +66 5 918 4620-4

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Malamalama

<http://www.hawaii.edu/malamalama/2006/09/index.html>

Malamalama is the magazine of the University of Hawaii. It is distributed three times a year, in January, May and September. The world Malamalama means in Hawaiian: "the light of knowledge".

NEW ANNOUNCED EVENTS

Betondag (Concrete Day)

November 16, 2006, Rotterdam, The Netherlands

www.betonvereniging.nl

Polymer Composites Conference IV

March 20 - 22, 2007, Morgantown WV, USA

The Constructed Facilities Center, College of Engineering and Mineral Resources, West Virginia University, with its co-sponsors- Federal Highway Administration (FHWA) and West Virginia Department of Transportation (WVDOT), will be hosting the Polymer Composites Conference IV, March 20 - March 22, 2007. This conference will be held at Lakeview Golf Resort and Spa, Morgantown, WV.

Research, government, industry and educational leaders join together to:

- Demonstrate the successful application of composites in infrastructure renewal by validating their cost-effectiveness, design, construction, and performance;
- Exchange information with participants on the use of composites by: (1) delineating the role that composites play in infrastructure development and renewal, and homeland security; (2) understanding technical, economic and regulatory barriers; and (3) identifying agencies (e.g., DOE & DOD) that can enable the expansion of composites use;
- Present current and proposed contract specifications, which affect the use of composites and allow the use of competitive bidding;
- Recognize and promote domestic applications and future trends;
- Discuss recommended practices for installation, repair procedures and maintenance materials.

FEATURED TOPICS are DOT Case Studies including Rehabilitation with Polymer Composite Reinforcements/Decks & Wearing Surfaces/Wraps for Concrete Structures, Applications for Naval Structural Systems including Fire Control/Army Trucking and Bridging/Under Ground Systems/ Windmills, Design, Processes and Monitoring, Guide Specifications, Environmental Concerns and Failure Analyses including Real-Time Monitoring.

SHORT-COURSE TOPICS are Analysis and Design of Composites for Infrastructures, Specifications for FRP Highway Bridges and, Test Methods for Composite Materials.

Contact:

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WWW: <http://www.cemr.wvu.edu/cfc/conference>

3rd International Conference on Durability & Field Applications of FRP Composites for Construction (CDCC 2007)

May 23 - 25, 2007, Quebec City, Canada
<http://www.civil.usherbrooke.ca/cdcc2007/>

Global Pultrusion Technology Conference

June 7 - 8, 2007, Baltimore USA
<http://www.briskevents.nl>

A new Pultrusion conference is launched on the initiative of Brisk Events Technology Conference Organizers of the Netherlands. The conference to be held on Thursday/Friday June 7-8, 2007, by and for the worldwide Pultrusion Industry is supported by SAMPE and coincides with the SAMPE 2007 Conference and Exhibition, Baltimore, USA – June 3-7, 2007.

The 2-day conference aims to gather the Worldwide Pultrusion Industry, one of the fastest growing Composite Industry sectors. About 300 companies worldwide are producing 0.5 million ton of composite profiles, representing US\$ 1.2 billion value. The average annual growth of the industry ranges between 5% and 10% depending on market sector, world region and application area. Globally there is a growing interest in pultrusion technology. Composite profiles offer on many occasions an economic and technical superior alternative to metal profiles, both in low- and in high-tech applications.

The delegates to the Global Pultrusion Conference are offered a free ticket to the SAMPE Exhibition and a reduced fee to the SAMPE Conference. Brisk Events has chosen Composites Worldwide Inc, publisher of the Advanced Materials & Composite News, as its Media Partner. A Pre-Announcement Brochure and a Pre-Registration Form can be found on the Brisk Events web-site: www.briskevents.nl

More information please contact:

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COBRAE AGENDA 2006-2007

COBRAE Annual Members Meeting (Non-Members are also welcome!)

November 29 - 30, 2006, Barcelona/Lérida, Spain

<http://www.cobrae.org>

COBRAE Conference 2007 - Benefits of Composites in Civil Engineering

March 29 - 30, 2007, Stuttgart, Germany

<http://www.cobrae.org>

OTHER COMPOSITE STRUCTURES & COMPOSITE BRIDGES EVENTS

5. GFK-Tagung

March 7 - 8, 2007, Munich, Germany

<http://www.tuev-sued.de/akademie>

<http://www.composite-meeting.de>

Global Pultrusion Technology Conference

June 7 - 8, 2007, Baltimore USA

<http://www.briskevents.nl>

FRPRCS - 8th International Symposium on Fiber Reinforced Polymer Reinforcement for Concrete Structures.

July 16-18, 2007, Patras, Greece

Correspondence and Inquiries *FRPRCS-8 Secretariat* c/o Prof. Thanasis Triantafillou

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EVACES '07 - Experimental Vibration Analysis of Civil Engineering Structures

October 24-26, 2007, Porto, Portugal

www.fe.up.pt/evaces07

N.B. COBRAE TAKES NO RESPONSIBILITY FOR THE CORRECTNESS OF THE ABOVE LISTED INFORMATION

