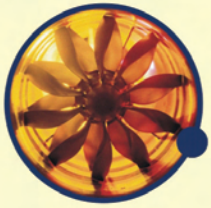
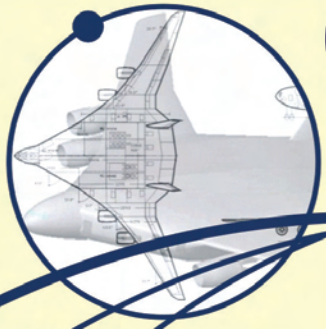
Deutsche Gesellschaft
für Luft- und Raumfahrt





DGLR

Young Professional Awards 2007

Ladies and Gentlemen,

It is the young people who currently start their career who will become the future of the European aerospace industry. Hence it is natural to the German Society for Aeronautics and Astronautics (DGLR) to get involved with the support of especially those young talents. In this context it is a great pleasure for DGLR to be in the position to award prizes to young highly skilled professionals who have achieved outstanding performance in their student research projects, diploma thesis, or even in their dissertation. This year's CEAS European Air and Space Conference provides an excellent occasion to celebrate this in an award ceremony. Furthermore the young laureates will present their impressing results during the conference. This brochure provides you with an overview over the laureates, the sponsors and date and time for each presentation.

It is a pleasure to express the gratefulness of the German Society for Aeronautics and Astronautics (DGLR) to those who have made this possible, our sponsors. Through their sponsoring each of them has contributed significantly to DGLR's ongoing support of young talents.

Sincerely yours

Prof. Dr.-Ing. S. Staudacher
Member of the Board of DGLR

DGLR Awards for the advancement of the scientific young professionals 2007

Young professional awards for outstanding dissertations:

Airbus Award of Airbus Deutschland GmbH for an outstanding dissertation in the field of aeronautics to
Dr.-Ing. R. Petz, TU Berlin, for his dissertation with the topic:
Aerodynamic Benefits of Pulsed Blowing Applied to High Lift Airfoils

Reinhard-Furrer Award
Award of the Wernher-von-Braun-Stiftung for an outstanding dissertation in the field of astronautics to:
Dr.-Ing. C. Wiedemann, TU Braunschweig, for his dissertation with the topic:
Modellierung der Natrium-Kalium-Tropfen als Beitrag zur orbitalen Objektpopulation

Young Professionals Awards for outstanding student research project and diploma thesis:

Ferchau Engineering GmbH Award to
Dipl.-Ing. (FH) Hans Brunswig, HAW Hamburg, for his diploma thesis with the topic:
Bestimmung der aerodynamischen Eigenschaften des BWB-Modells AC20.30 mit Methoden der CFD

Winfried-Bierhals Foundation Award to
Dipl.-Ing. Ferdinand Meinl, Universität Karlsruhe, for his diploma thesis with the topic:
Application of the Acoustic Emission Analysis to Highly Thermally Loaded Combustor Shielding Plates

Walther-Blohm Study Award to
Dipl.-Ing. Ricardo Basan, TU Berlin, for his student research project with the topic:
Vergleichende Analyse der konzentrierten Einzelkrafteinleitung in eine Rechteckscheibe mittels kontinuumsmechanischer und FEM Berechnung sowie Experiment

Ludwig-Bölkow Foundation Award to
Dipl.-Ing. Torsten Hensel, TU Darmstadt, for his diploma thesis with the topic:
Analysis of the Interaction of Neighbouring Laminae in Fibre-Reinforced Plastics during Cyclic Loading

DLR Technology Award to
Dipl.-Ing. Alexander Wagner, TU Dresden, for his student research project with the topic:
Detection of the Transition Point on the Wing of a Glider in Free Flight with the Help of a Thermography System

Claudius Dornier Jr. Foundation Award to
Dipl.-Ing. Georg F. P. Wellmer, RWTH Aachen, for his diploma thesis with the topic:
Development of a Preprocessor for the Generation of Structural Beam Models for Multidisciplinary Optimisation

IABG Foundation Award to
Dipl.-Ing. Andreas Weber, TU Dresden, for his diploma thesis with the topic:
Study and Employment of the Monte Carlo Simulation for the Robust Design of Space Structures

Reinhardt Abraham - Lufthansa Foundation Award to
Eckard Anton, RWTH Aachen, for his student research project with the topic:
Preliminary Design of a Simulation Tool to Ascertain the Potential Economic Impact of Airplane Noise Reduction Measures

Willy-Messerschmitt Award to
Dipl.-Ing. Stephan Rapp, TU München, for his diploma thesis with the topic:
Deformation Fields Estimation Using Fibre Bragg Gratings

Wolfgang-Heilmann Award of MTU Aero Engines to
Timo M. Nafz, Universität Karlsruhe (TH), for his student research project with the topic:
Background Oriented Schlieren – Möglichkeiten und Grenzen des optischen Verfahrens zur quantitativen Dichtegradientenbestimmung

MT Aerospace Innovation Award to
Dipl.-Ing. Sebastian Kébreau, TU Braunschweig, for his diploma thesis with the topic:
Fracture Mechanics Analysis of Novel Non-Rectangular Stiffening Concepts in Comparison to Conventionally Rectangular Stiffened Fuselage Structures

Ferdinand-Schmetz Award to
Dipl.-Ing. Bernhard Kobiela, Universität Stuttgart, for his diploma thesis with the topic:
Investigation of Boundary Layer Transition For Small Reynolds Numbers in Free Flight and Wind Tunnel Experiments

ZARM Award to
Dipl.-Ing. Sebastian Höfner, TU München, for his diploma thesis with the topic:
LISA Thermal Control Analysis in Context of the BayernSat Mission

Zeppelin Foundation Award of the City Friedrichshafen to
Dipl.-Ing. Dennis Höse, UniBW München, for his diploma thesis with the topic:
Development of a Microcontroller Based Sensor Acquisition System for Uninhabited Aerial Vehicles

Airbus Deutschland GmbH

Airbus is a leading aircraft manufacturer whose customer focus, commercial know-how, technological leadership and manufacturing efficiency have propelled it to the forefront of the industry. With a turnover of 26 billion euros in 2006, Airbus today consistently captures about half of all commercial airliner orders. The company also continues to broaden its scope and product range by applying its expertise to the military market.

Headquartered in Toulouse, France, Airbus, is owned by EADS. It is a truly global enterprise of some 55,000 employees, with fully-owned subsidiaries in the United States, China, Japan and in the Middle East, spare parts centres in Hamburg, Frankfurt, Washington, Beijing, and Singapore, training centres in Toulouse, Miami, Hamburg and Beijing and more than 150 field service offices around the world. Airbus also relies on industrial co-operation and partnerships with major companies all over the word, and a network of some 1,500 suppliers in 30 countries.

As a company, Airbus draws together the skills and expertise of 16 sites in France, Germany, Spain and the UK. Each site produces a complete section of the aircraft, which is then transported to the Airbus final assembly lines in Toulouse or Hamburg. Airbus' industrial network has been expanded to include a satellite design office in North America, a joint venture engineering centre in Russia and further engineering centre in the People's Republic of China. Work has started mid-May on the construction of the Airbus A320 Family Final Assembly Line in Tianjin.

Airbus' modern and comprehensive product line comprises five highly successful families of aircraft ranging from 107 to 525 seats: the single-aisle A320 Family (A318/A319/A320/A321), the wide-body A300/A310 Family, the long-range wide-body A330/A340, the all-new next generation A350 XWB Family, and the ultra long-range, double-decker A380 Family. Airbus' unique family concept ensures that Airbus fly-by-wire aircraft share the highest possible degree of commonality in airframes, on-board systems, cockpits and handling characteristics, which reduces significantly operating costs for airlines.

Airbus has sold over 7,200 aircraft to more than 300 customers/operators and has delivered over 4,700 aircraft since it first entered service in 1974. Dedicated to helping airlines get the most out of their aircraft and enhancing the profitability of their fleets, Airbus also delivers a wide range of customer services in all areas of support, tailored to the needs of individual operators all over the world.

This proven expertise in civil aviation is now also being put to use in the military field with the A400M programme. Under the overall responsibility of Airbus Military, Airbus manages the development of this military transport aircraft. This programme is using the same Airbus Centres of Excellence, integrated engineering and programme management methods and certification processes as any other Airbus programme. In addition, Airbus is offering new solutions to fulfil the different needs of the world's air forces for tanker/transport aircraft with the Multi Role Tanker Transport (MRTT). It will also break new ground in offering military customers direct access to the exceptional Airbus product support organisation.

Airbus is an EADS company.

Airbus-Award of Airbus Deutschland GmbH

Dr.-Ing. **Ralf Petz**
TU Berlin

Topic of the Dissertation:
Aerodynamic Benefits of Pulsed Blowing Applied to High - Lift Airfoils

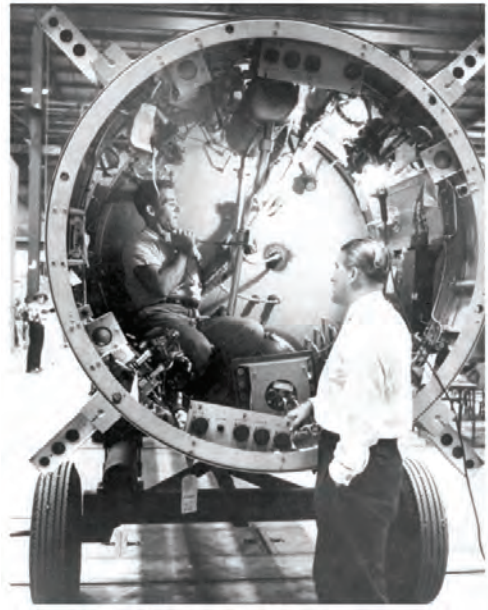
Presentation: Thursday, 13.Sept. 2007
Estrelsaal A, 10:00 – 10:25

Wernher-von-Braun-Stiftung

The Wernher-von-Braun-Stiftung was founded by the Deutsche Bank AG and the late Professor Furrer and Dr. Dr. Armin Haag in 1992 for the support of astronautics sciences. The trust is located in Berlin and is managed by a board of trustees and a business management. The purpose of this trust is the advancement of R&D for the peaceful utilization of space.

Prof. Reinhardt Furrer was one of the astronauts of the first German Spacelab mission in 1982. He was a payload specialist on STS-61-A (D1), which was launched October 30, 1985. After his spaceflight he became a professor in 1987 as well as the Director of the Institute of Space Sciences at the Free University of Berlin until his death in 1995.

The Reinhardt-Furrer Award for an exceptional dissertation in the field of astronautic science in the domain of Natural Sciences, medicine and technics is conferred since 2001.



WERNHER-VON-BRAUN-STIFTUNG

Reinhardt-Furrer-Award,
Provided Through the Wernher-von-Braun-Stiftung

Dr.-Ing. **Carsten Wiedemann**
TU Braunschweig

Topic of the Dissertation:

Modellierung der Natrium-Kaliumtropfen als Beitrag zur orbitalen Objektpopulation

Presentation: Thursday, 13. Sept. 2007
ECC Room 3, 10:00 - 10:25

FERCHAU Engineering GmbH

FERCHAU Engineering GmbH is Germany's top provider of engineering services. The mid-sized family enterprise founded in 1966 now employs more than 3,100 engineers, technicians and technical draftsmen at more than 40 branches and locations and as well as 49 technical offices.

FERCHAU AVIATION division

To bundle and concentrate competencies in aerospace engineering, FERCHAU Engineering founded the AVIATION division in 2004.

FERCHAU AVIATION division is an international systems supplier with strategically important locations in the dynamic aerospace market. In addition to the German locations in Bremen,Hamburg and Munich, two locations in France and the United Kingdom guarantee AVIATION direct channels to key partnerships with customers.

The aviation and space industry will face exciting challenges in the next few years. Experts forecast continuous growth, particularly for the European aeroplane construction segment. Responding to specific requests from airlines and driven by ongoing modernisation processes, FERCHAU AVIATION is rising to meet tomorrow's diverse engineering challenges.

FERCHAU AVIATION division pioneers developments in the aerospace industry and is integrated in projects of well-known companies like AIRBUS, ASTRIUM, EADS, Eurocopter, Luthansa Technik and Socata. Thanks to the outstanding strategic basis, FERCHAU AVIATION division is the ideal partner to help the industry meet the demands of coming years.

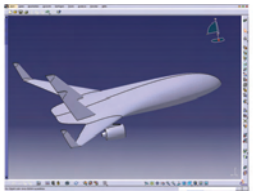
For further information: http://www.ferchau.de/go/aviation

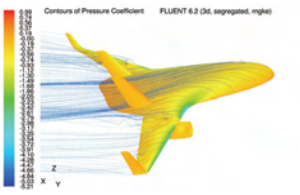
Ferchau Engineering GmbH Award

Dipl.-Ing. (FH) **Hans Brunswig**
HAW Hamburg

Topic of the Diploma Thesis:

Bestimmung der aerodynamischen Eigenschaften eines BWB-Modells AC20.30 mit Methoden der CFD





Presentation already during DLRK 2006

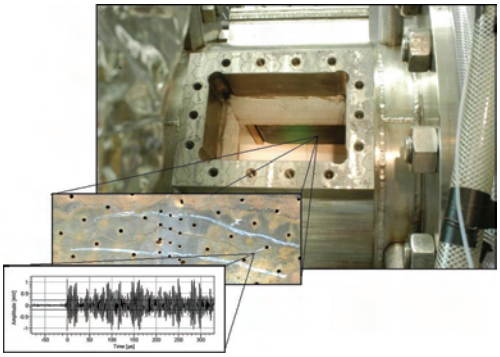
Winfried-Bierhals-Stiftung

1971 the German Aeronautics Societiey (DGLR) established a charitable trust under the Stifterverband of German Science to support junior scientists in the field of aeronautics and astronautics. The financial basis was the inheritance of the sound engineer Winfried Bierhals and tied financial donation of three German aeronautics and astronautics companies for the sponsorship of junior scientist. This sponsorship was used to recognize the endeavours of young scientists in their respective fields of aeronautics and astronautics.

1979 the trust was enhanced through the inheritance of DGLR member Herbert Schumann. The donation was used to assist the work of young scientists of aeronautics and astronautics and of the departments at their respective universities. In 1998 the two trust funds were united in order to better support the goal of both trusts that is to say the assist young scientists in their work in aeronautics and astronautics and the history of aeronautics and astronautics.

Winfried-Bierhals Award

Dipl.-Ing. **Ferdinand Meinl**
Universität Karlsruhe



Topic of the Diploma Thesis:
Application of the Acoustic Emission Analysis to Highly Thermally Loaded Combustor Shielding Plates

Presentation: Thursday, 13. Sept. 2007
ECC Room 1, 10:40 – 11:05

Walther-Blohm-Stiftung

The Walther-Blohm Trust was established in 1964, shortly after the death of Walther Blohm, by his widow and his sons & daughter in special remembrance. Walther Blohm was always fully aware of the importance of support for young talents.

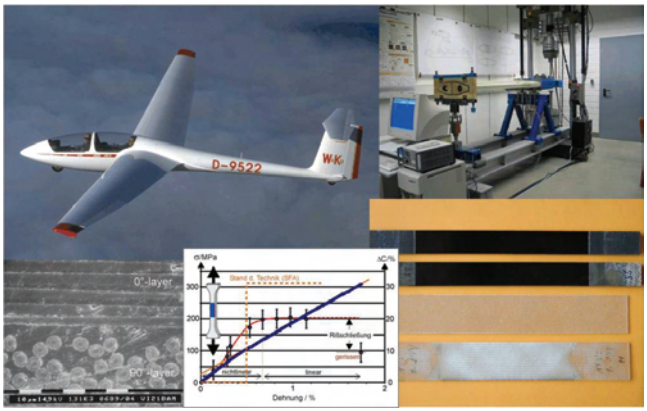
A trust fund in his name will of course try to support young engineers to help Germany retain its outstanding achievement in the field of aeronautics and astronautics in the future.

For over 40 years the trust fund supports highly skilled young people during their academic years in the field of astronautics and aeronautics

Walther Blohm was an honorary Senator of the Technical University of Berlin. The trust fund awards every year the Walther-Blohm-Studienpreis for the top graduate of the Institute of aeronautics and astronautics, of the Technical University of Berlin.

Walter-Blohm Award

Dipl.-Ing. **Ricardo Basan**
TU Berlin



Topic of the Student Research Project:

Vergleichende Analyse der konzentrierten Einzelkrafteinleitung in eine Rechteckscheibe mittels kontinuumsmechanischer und FEM Berechnung sowie Experiment

Presentation: Tuesday, 11. Sept. 2007
Estrelsaal A, 15:10 - 15:35

Ludwig Bölkow – graduate engineer, entrepreneur, visionary

Ludwig Bölkow was the last pioneer in the history of the German aviation, astronautics and defence industry after World War II. He died July, 23rd, 2003, aged 91. Ludwig Bölkow was Honorary Member of DGRL and awarded of the Ludwig-Prandtl-Ring.

After a degree in engineering and industrial placement Bölkow joined the Messerschmitt Company and became head of the high speed aero dynamics department. Shortly before the end of World War II he spearheaded as programme leader the development the Me P 1101, the first thrust fighter of the world who's back swept wings could be adjusted on the ground.

Like many scientists and engineers of his generation, Ludwig Bölkow did not immigrate to the US. He engaged himself with topics important for post-war Germany: innovative construction methods and subsidies for R&D. In 1948 he set up this own engineering company in the city of Stuttgart-Degerloch, starting with 3 employees. 20 years later the company Messerschmitt-Bölkow-Blohm (MBB) had emerged with 40000 employees.

Ludwig Bölkow's vision of a „Technical Europe" was intended to guarantee the competitive ability of the continental aeronautical and astronautical industry. He campaigned in the beginning of the 1970s to create a joined European aeronautical and astronautical industry. He became a leading figure and precursor of European programmes and European corporate structures. His vision of an industrially joined "Europe of aeronautics and astronautics" came true in his lifetime with the EADS European Aeronautic Defence and Space Company, a multi national European company combining the capacities of Germany, France and Spain with a staff of approximately 107000 at over a hundred business locations.

After his retirement from MBB, Ludwig Bölkow continued working in other areas in accordance with his conviction that technology and intelligent appliance of those technologies are instrumental in solving the problems of mankind and find solutions for the future. He worked with the design and studies of long-term development for energy and traffic solutions. Regenerative energy sources and hydrogen power were at the centre of his work. He developed essential and trendsetting concepts and showed ways and means of engineering implementations. Ludwig Bölkow will live on in his many achievements. His widow Eleonore Bölkow-Konschak continues the legacy of his Young Scientific Talent Award, named after him in remembrance of himself and his life achievement.

Ludwig-Bölkow Award

Dipl.-Ing. **Torsten Hensel**
TU Darmstadt

Topic of the Diploma Thesis:

Analysis of the Interaction of Neighbouring Laminae in Fibre – Reinforced Plastics during Cyclic Loading

Presentation: Tuesday, 11. Sept. 2007
Estrelsaal A, 15:50 – 16:20

Deutsches Zentrum für Luft- und Raumfahrt e.V.
in der Helmholtz-Gemeinschaft

DLR at a glance

DLR is Germany´s national research center for aeronautics and space. Its extensive research and development work in Aeronautics, Space, Transportation and Energy is integrated into national and international cooperative ventures. As Germany´s space agency, DLR has been given responsibility for the forward planning and the implementation of the German space program by the German federal government as well as for the international representation of German interests. Furthermore, Germany's largest project-management agency is also part of DLR.

Approximately 5,300 people are employed in DLR´s 28 institutes and facilities at eight locations in Germany: Koeln-Porz (headquarters), Berlin-Adlershof, Bonn-Oberkassel, Braunschweig, Goettingen, Lampoldshausen, Oberpfaffenhofen, and Stuttgart. DLR also operates offices in Brussels, Paris, and Washington, D.C.

DLR's mission comprises the exploration of the Earth and the Solar System, research for protecting the environment, for environmentally-compatible technologies, and for promoting mobility, communication, and security. DLR's research portfolio ranges from basic research to innovative applications and products of tomorrow. In that way DLR contributes the scientific and technical know-how that it has gained to enhancing Germany's industrial and technological reputation. DLR operates large-scale research facilities for DLR's own projects and as a service provider for its clients and partners. It also promotes the next generation of scientists, provides competent advisory services to government, and is a driving force in the local regions of its field centers.

DLR Technology Award

Alexander Wagner
TU Dresden

Topic of the Studen Research Project:

Description of the Transition Point on the Wing of a Glider in Free Flight with the Help of a Thermography System

Presentation: Thursday, 13. Sept. 2007
Estrelsaal A, 10:40 - 11:10

Dornier GmbH

Die Industrie im Bodenseeraum weist eine ganz eigene Struktur auf. Viele der Firmen gingen aus dem einstigen "Luftschiffbau Zeppelin" hervor. So auch der inzwischen mehrheitlich zur European Aeronautic Defence and Space Company (EADS) gehörende Dornier-Konzern. Das Traditionsunternehmen steht für technische Innovation und Aktivitäten auf den Gebieten Luftfahrt, Raumfahrt, Verteidigung und Zivile Systeme.

Dem späteren Firmeninhaber Claude Dornier stellte Graf Zeppelin oft außergewöhnliche Aufgaben. Im Jahre 1914 beauftragte er den jungen Diplomingenieur mit der Entwicklung großer, ganz aus Metall gebauter Flugzeuge. Diese Herausforderung wurde zum beherrschenden Lebenswerk von Claude Dornier.

Sein Wirken umspannte ein halbes Jahrhundert, seinen Maßstab formulierte er so: "Ich habe mir bei allen Entwürfen immer das Ziel möglichst hoch gesetzt, in der Erkenntnis der Tatsache, dass das endgültig Erreichbare erheblich unter dem Erhofften liegen würde."

Claude Dorniers Erfolge reichten von den letzten Jahren des Kaiserreiches bis in die Nachkriegszeit mit ihren Wirtschaftswunderjahren. In diesem Zeitraum mit seiner schnellen, ja sprunghaften technologischen Entwicklung, entwarf und baute Dornier nahezu 80 Flugzeugtypen. Viele Baumuster machten seinen Namen weltbekannt, zum Beispiel die Flugboot- Familie Dornier-Wal, Do 18, Do 24 und Do 26.

Aus der langen Tradition im Flugzeugbau hat sich das Unternehmen seit Ende der 50er Jahre Ziel gerichtet zu einem High-Tech Konzern gewandelt. Die im Jahre 1962 vor allem zur Bündelung der außerhalb der Luftfahrt angesiedelten Programme gegründete Dornier System GmbH erbrachte insbesondere auf den Gebieten Raumfahrt und Neue Technologien, zum Beispiel mit den erfolgreichen Forschungssatelliten Rosat und ERS-1, und ERS-2 Pionierleistungen. In der Elektronik, Informatik, Werkstoff- und Verfahrenstechnik sowie Energie-, Umwelt- und Medizintechnik erschloss das Unternehmen im Laufe der Jahre neue Arbeitsgebiete.

Im Zuge der Neustrukturierung der deutschen Luft- und Raumfahrtindustrie wurde Dornier 1985 Teil des Konzerns DaimlerChrysler und wird seit Mai 1989 von der European Aeronautic Defence and Space Company (EADS) geführt. Heute sind die Dornier-Aktivitäten in den EADS-Divisions Space sowie Defence and Civil Systems verankert.

Dornier ist in Europa führend bei Erdbeobachtungs- und Wissenschaftssatelliten-Programmen und unternimmt große Anstrengungen, um auch in dem kommerziellen Markt für Kommunikationssatelliten weltweit ein erfolgreicher Anbieter zu werden. Der dazu erforderliche erste Schritt in Richtung europäischer Strukturen war 1995 die Gründung der Dornier Satellitensysteme GmbH und im Jahr 2000 der Unternehmens Astrium. Durch die Gründung von Astrium soll durch Konzentration auf Ressourcen und Spezialisierung die Position auf dem Weltmarkt, gerade in der Kommunikation deutlich gestärkt werden.

Claudius Dornier Jr. Award

Dipl.-Ing. Georg Wellmer
RWTH Aachen

Topic of the Diploma Thesis:

Development of a Preprocessor for the Generation of Structural Beam Models for Multidisciplinary Optimisation

Presentation: Wednesday, 12. Sept. 2005
Estrelsaal A, 12:00 - 12:30

IABG

We are a leading European technology company focused on future-oriented applications of high technology and science . We plan, implement and operate. About 1.000 employees offer our customers solutions in the business areas Automotive, InfoCom, Transport & Environment, Aeronautics, Space and Defence & Security.

As a development partner of the car manufacturers we solve problems in the areas of fatigue, functional suitability, quality, and materials. We handle tasks involving technical qualification and quality assurance. Our product and services portfolio for the automotive industry is wide ranging. It reaches from numerical analyses and computer aided design via experimental investigations and consultancy up to individually customised test stands. Whether IT or telecommunications, IABG stands for a maximum of availability, effectiveness, efficiency and security. We plan, integrate and operate complex IT and communications systems, we implement customised solutions and we take care for a smooth migration. Our clients profit by our recognised expertise in IT security: we deliver high-quality security concepts and solutions and perform security audits.

In the “Environment” business we handle complex projects, especially in the field of recycling derelict armament sites. Our geodata service supports modern town and country planning. We prepare 3-D city or terrain models, we introduce and customise GIS and take care for a smooth data integration.

We are testing the strength and endurance of full scale aircraft and aircraft components. In our halls they have to survive several thousand flights without damage before they can enter into regular operation. With our unique expertise and our trend-setting technology we are Europe’s leading test and qualification enterprise for the aviation industry.

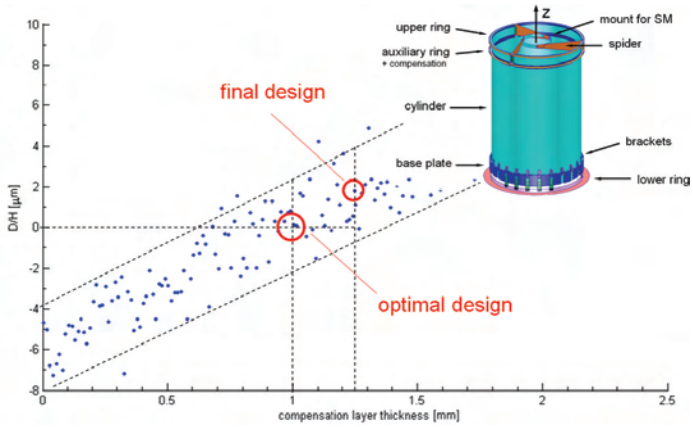
Our national Space Test Centre, which is coordinated by the European Space Agency ESA, offers the complete range of space specific tests and analyses under one roof. Whether launchers like Ariane-5 Evolution, whether international satellite projects like CryoSat 2 satellite, whether national projects such as SAR-Lupe through to numerous subsystems and components, all of them have extensively been tested in our facilities prior to their mission. We support the Federal Armed Forces, NATO and EU in tackling the tasks confronting them. Whether the Armed Forces or the Armaments Department – we have taken part in the force structure planning and evaluation of practically all the systems involved. Today we support the transformation of the Armed Forces and provide solutions for Homeland Security. Our experience, our expertise and our independence from manufacturers make us a unique partner of trust in these sensitive areas.

IABG Award

Dipl.-Ing. **Andreas Weber**
TU Dresden

Topic of the Diploma Thesis:

Study and Employment of the Monte Carlo Simulation for the Robust Design of Space Structures



Presentation: Thursday, 13. Sept. 2007
Estrelsaal C1, 10:00 - 10:30

Deutsche Lufthansa Berlin-Stiftung (DLBS) / Reinhardt Abraham Studienförderung

On June 16th, 1986 the Deutsche Lufthansa Berlin – Stiftung (DLBS) was founded in Berlin. Aim and purpose of the foundation (DLBS) is to conserve the value of culture and support the science of civil aviation. In order to express the very special bond to the city, the headquarters were set up in Berlin, the place where Lufthansa was founded in 1926. With her statutes the DLBS implements the conservation of historical aircrafts and their presentation on ground and in the air to the interested public. The historically most significant aircraft of the DLBS-fleet is the Junkers Ju 52. In 1936 the Ju 52 was owned by Lufthansa for a short time before she started her long odyssey which ended in 1984 when Lufthansa re-purchased the aircraft. After a thorough restoration the Ju 52 was airworthy again in 1986. This project was followed by the restoration of the Messerschmitt Me 108 “Taifun“, the Arado Ar 79, the Junkers W 33 “ Bremen“,and the Focke-Wulff FW 200 “Condor” at present.

In 1996 Lufthansa and the Boeing Company founded the Reinhardt Abraham Studienförderung (RASf) in memory of Reinhardt Abraham the former chairman of the executive board of Lufthansa engineering. The RASf offers several complementary trainee programs to students of the TU Berlin and the University of Washington in Seattle providing their studies concentrate on civil aviation. Furthermore, does the RASf support the Deutsche Gesellschaft für Luft- und Raumfahrt in their encouragement of the new generation by awarding the Reinhardt Abraham – Lufthansa Stiftungspreis.

Reinhardt Abraham – Lufthansa Award

Dipl.-Ing. **Eckard Anton**
RWTH Aachen

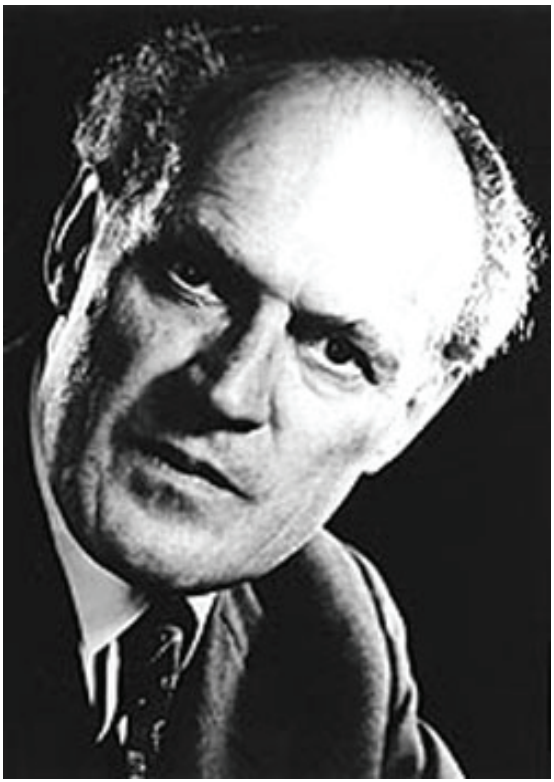
Topic of the Student Research Project:

Preliminary Design of a Simulation Tool to Ascertain the Potential Economic Impact of Airplane Noise Reduction Measures

Presentation: Tuesday, 11. Sept. 2007
ECC Hall C, 16:10 – 16:40

Willy-Messerschmitt-Stiftung

Professor Madelung, München



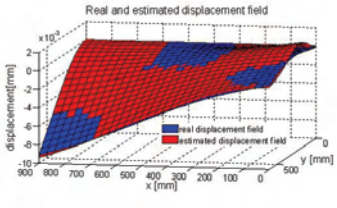
Willy Messerschmitt

Willy-Messerschmitt Award

Dipl.-Ing. **Stephan Rapp**
TU München

Topic of the Diploma Thesis:

Deformation Fields Estimation Using Fibre Bragg Gratings



Presentation: Tuesday, 11. Sept. 2007
Estrelsaal, 16:10 – 16:40

MTU Aero Engines – Germany's leading manufacturer in the engine industry

MTU Aero Engines is Germany's leading engine manufacturer and an established global player in the industry. It engages in the development, manufacture, marketing and support of commercial and military aircraft engines and industrial gas turbines. In the years ahead, MTU will focus its resources on its core business, seek stakes in emerging engine programs and expand its service offerings.

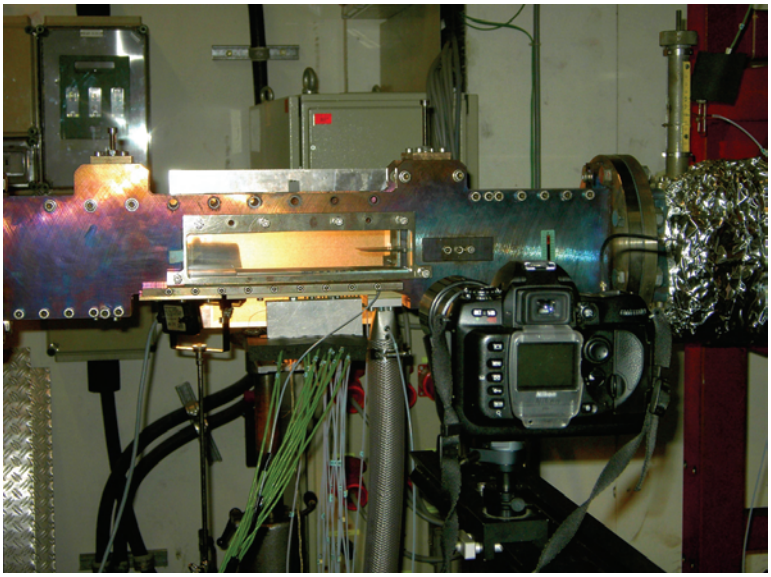
With its products, the company has content in all thrust and power categories and on all major engine components and subsystems, such as compressors, combustors, turbines and engine control units. Jointly with other manufacturers, MTU cooperates on novel propulsion systems, its partners being the big league players in the industry General Electric (GE), Pratt & Whitney and Rolls-Royce. Technologically, the company commands full engine systems integration capabilities, being a leader in the major engine areas and excelling especially in low-pressure turbines and high-pressure compressors, as well as engine control units and manu¬facturing and repair techniques. In the military arena, MTU is Germany's industrial lead company for practically all engines flown by the country's military.

Wolfgang-Heilmann Award Provided By MTU Aero Engines

Timo Nafz
Universität Karlsruhe

Topic of the Thesis:

Background Oriented Schlieren – Möglichkeiten und Grenzen des optischen Verfahrens zur quantitativen Dichtegradientenbestimmung



Presentation: Thursday, 13. Sept. 2007
Estrelsaal B, 17:50 - 18:20

Supplier of space an aeronautic products

MT Aerospace Ag, Augsburg, is a company owned by the technological holding company Apollo Capital Partners GmbH Munich and the Bremen company OHB Technology AG, one of the world's leading providers in the space + security, telematic and satellite service sectors.

Above all, MT Aerospace is a supplier of components to the space and aeronautic industries. Its subsidiary MT Mechatronics GmbH offers also systems expertise in antennas and mechtraonics.

As far as space technology is concerned, the company's main focus is on components and subsystems for launchers, satellites and orbit transfer systems and the construction and service of infrastructure at the Kourou space centre in French Guyana.

In the aeronautic sector, lightweight tanks and structures, as well as components and subsystems for missiles are developed and manufactured.

The company's great strengths lie in the development and production of large structures and tanks in lightweight design, which require particular manufacturing technologies such as flow turning, spin forming, complex welding methods and fibre composite technologies.

The Augsburg-based company has consistently demonstrated its innovative ability with the development of new manufacturing technologies for components of the European launcher ARIANE 5.

OHB Technology AG is strengthening the position of its space division further with the addition of MT Aerospace AG, which represents a continuation of its growth strategy in its core divisions. Both companies are intending to exploit development potential and optimisation opportunities in development and production by means of intensive collaboration.

MT AEROSPACE Award

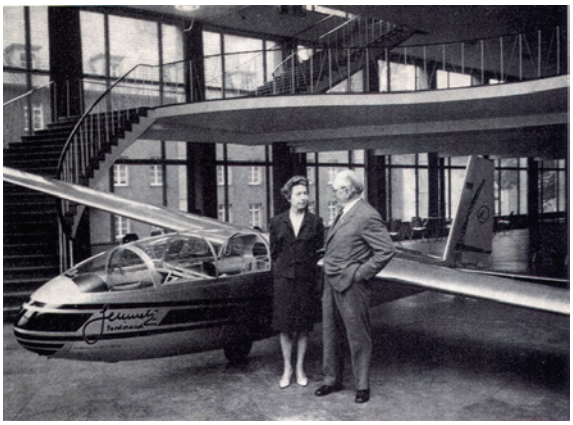
Dipl.-Ing. **Sebastian Kébreau**
TU Braunschweig

Topic of the Diploma Thesis:

Fracture Mechanics Analysis of Novel Non-rectangular Stiffening Concepts in Comparison to Conventional Rectangular Stiffening Fuselage Structures

Presentation: Thursday, 13. Sept. 2007
ECC Room 2, 12:00 - 12:30

Ferdinand-Schmetz-Stiftung



The Ferdinand-Schmetz-Award founded by the Schmetz Company in Herzogenrath near Aachen commemorates one of the pioneers of gliders and sailplanes - Ferdinand Bernhard Schmetz. After the Second World War, Ferdinand Schmetz together with other engineers made it his challenge to catch up with the research status and technological development of other countries through a new conceptual design in gliding flight.

He and his team of engineers among them Haase, Kensche, and others succeeded in reaching this aim by constructing new gliders in their own factories, e.g. Aachener Segelflugzeugbau GmbH, later Schmetz & Kracht. One of their gliders, HKS3, eventually won the world sailplane championship in 1958. Other gliders designed by Schmetz and his team of engineers like MEISE, HABICHT, a.s.o. remained comparable to high performance sailplanes of later glider generations until the seventies.

Schmetz was not only very successful with his own projects; he also supported groups, clubs, and associations dealing with the construction of gliders or with research on dynamic gliding flight. He provided encouragement, advice, and often also financial aid. After his death in 1968 at the age of 70, his wife Annelies Schmetz continued his support of young aviators and of scientific research on dynamic gliding flight until her own death in 2005.

"pro RWTH, Freunde und Förderer der RWTH Aachen e.V." holds the fund in trust. Theoretical and practical contributions to the research area of gliding flight are awarded the "Ferdinand-Schmetz-Preis".

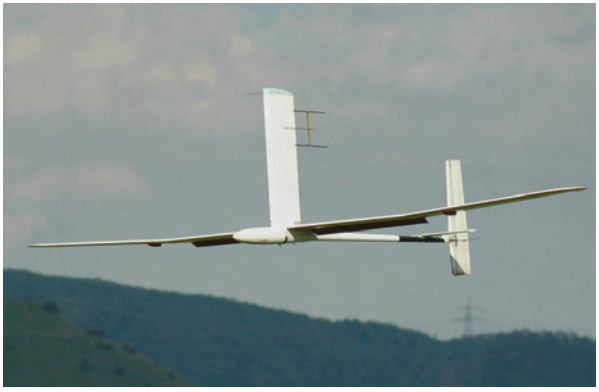
The DGLR (German aeronautics and astronautics society) organizes an annual award ceremony for the best student projects on gliding flight. The head of the RWTH Aachen University Institute of Aeronautics and Astronautics judges the presented projects and allocates appropriate funding.

Ferdinand-Schmetz Award

Dipl.-Ing. **Bernhard Kobiela**
Universität Stuttgart

Topic of the Diploma Thesis:

Investigation of Boundary Layer Transition for Small Reynolds Numbers in Free Flight and Wind Tunnel Experiments



Presentation: Wednesday, 12th September 2007
ECC Room 2, 10:40 – 11:10

ZARM

The Center of Applied Space Technology and Microgravity (ZARM) headed by Prof. Dr.-Ing. Hans J. Rath is part of the Department of Production Engineering at the University of Bremen. In September 1985, the institute was established as a research centre mainly concentrated on the investigation of phenomena under conditions of weightlessness and questions related to space technology. The main laboratory is the drop tower, which offers the opportunity for short-term experiments under high-quality microgravity conditions. The ZARM Drop Tower Operation and Service Company (ZARM FAB) was established in 1990 along with the start of operation of the Bremen Drop Tower. With a height of 146 m the Bremen Drop Tower is the predominant facility of ZARM and also the only drop tower in Europe.

In December 2004 ZARM entered a new dimension of microgravity research: The new catapult system developed by ZARM engineers creates world-wide unique experiment conditions. The experiment time can now be extended to 9.5 seconds by performing a vertical parabolic flight instead of a simple drop experiment.

Zentrum für angewandte Raumfahrttechnologie und Mikrogravitation Fallturmbetriebsgesellschaft
Am Fallturm
28359 Bremen
www.zarm.uni-bremen.de

ZARM Award

Dipl.-Ing. **Sebastian Höfner**
TU München

Topic of the Diploma Thesis:

LISA Thermal Control Analysis in Context of the BayernSat Mission

Presentation: Wednesdy, 12th September 2007
ECC Room 3, 10:00 – 10:30

Zeppelin Foundation Award of the City Friedrichhafen

FRIEDRICHSHAFEN

In August 1908 the Airship LZ4 burned down in the town of Echterdingen. Aviation enthusiast collected between them 6.2 Million Mark (the currency of the time) for a second (and third) chance and thus enabled Ferdinand Graf von Zeppelin to found the Luftschiffbau Zeppelin GmbH (Airship Construction Zeppelin Ltd.) and a Zeppelin foundation.

After the Second World War, the Zeppelin Foundation passed over to the city of Friedrichshafen. In the 1990s, the successor of the original Zeppelin Company in Friedrichshafen, the Zeppelin Luftschifftechnik GmbH, reengaged in airship construction.

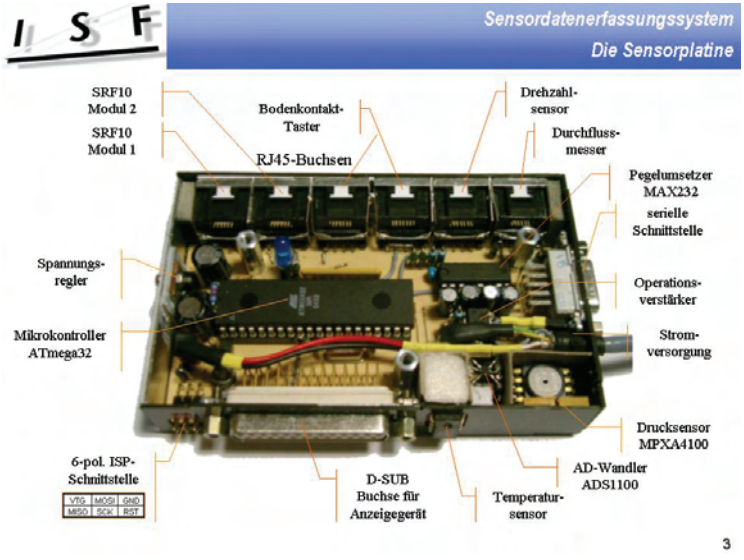
Since that time the dividend are only used for charitable, non-profit objects. One example is the Zeppelin Stiftungspreis for Young Professionals.

Zeppelin Foundation Award of the City Friedrichshafen

Dipl.-Ing. **Dennis Höse**
UniBW München

Topic of the Diploma Thesis:

Development of a Microcontroller Based Sensor Acquisition System for Uninhabited Aerial Vehicles



Presentation: Tuesday, 11. Sept. 2007
ECC Hall D, 16:10 – 16:40