



Curriculum Vitae

Dipl.-Ing. Florian Ruess

Age: 32, born 29 March 1978
in Friedrichshafen, Germany

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today Structural System engineer, full-time permanent position
OHB System, Bremen, Germany

to

- Structure Responsible Small GEO Satellite program
- Technical Team leader Structure Small GEO
- Mechanical System Interface to all other Subsystems

12/09

11/09 Structural engineer, full-time permanent position
AIRBUS GmbH, Bremen, Germany

to

- Design Task Responsible (DTR) ATA 57 Stress A380 Flaps
- Interface loads focal point

08/06

07/06 Structural engineer, full-time permanent position
BDE Engineering, Stuttgart, Germany

to

- Nonlinear Finite-Element simulations for lightweight cable-bridges and cable-stayed facades

08/04

06/04 **University of Stuttgart, Germany**
Specialized on Structural & Finite-Element analysis, Structural Design
Major: Civil Engineering, A-Level grade: 1.5

06/04 **Rutgers University, USA**
Diploma/Master Thesis: "Structural Analysis of a Lunar Base"
A-Level grade: 1.0

to

01/04

08/03 **Werner Sobek Ingenieure, Stuttgart, Germany**
Structural design office internship, analysis of high-rise buildings

to

08/02

05/02 **University of Calgary, Canada**
ISAP exchange program

to

09/01

05/01 **University of Stuttgart, Germany, Institute for Mechanics**
Research and lecture assistant

to

01/99

10/98

09/98 **Social Service**
Hospital Markdorf, Germany

to

08/97

07/97 **Strasser Construction Salem, Germany**
Internship at several construction sites

to

06/97

06/97 **Bildungszentrum Markdorf, Germany, Gymnasium**
Abitur: A-Level grade: 1.2

to

07/88 Intensive courses: Mathematics, Chemistry

today Partner and Founder of **HE²**
Habitats for Extreme Environments
www.HE-Squared.com

- Conceptual designs for space habitat construction
- Optimization of structural systems
- Structural safety and reliability
- Linear and Nonlinear, Static and Dynamic FEM
- Interdisciplinary and System thinking
- Technology concepts for lunar colonization

to

08/04

Grants / Awards:

- 11/07 Airbus Germany, Bremen site
Special grant for outstanding performance and commitment
- 09/01 – 05/02 DAAD (German Academic Exchange Service) Full-time scholarship
ISAP exchange program with the University of Calgary, Canada
- 06/97 Special Price of the “Fonds der Chemischen Industrie”
For outstanding students in chemistry

Publications:

- *In press*: F. Ruess & B. Braun (2009), “A reliability-based design concept for lunar habitats”, to be published in the ***Rutgers Symposium on Lunar Settlements Proceedings***
- *In press*: F. Ruess, B. Braun, K. Zacny, M. Pinni (2009), “Lunar Base Site Preparation”, to be published in the ***Rutgers Symposium on Lunar Settlements Proceedings***
- F. Ruess, B. Braun & K. Zacny (2008), “Lunar in-situ resource utilization - Regolith bags automated filling technology”, ***AIAA Space 2008 Proceedings***
- F. Ruess, J. Schaenzlin & H. Benaroya (2006), “Structural Design of a Lunar Habitat” ***Journal of Aerospace Engineering, 19 (2006), No. 3***
- F. Ruess (2004), “A base on the Moon. The logical next step in space.” (in German) ***VFR spaceexpress – chronicle of space science 2004***
- F. Ruess (2004), “Structural analysis of a lunar base.” ***Master Thesis, University of Stuttgart / Rutgers University***
- F. Ruess, U. Kuhlmann & H. Benaroya (2004), “Structural design of a lunar base.” ***Earth & Space 2004 Proceedings***
- Several articles in German magazines and newspapers

Major Presentations:

- “Lunar in-situ resource utilization – Regolith bags automated filling technology”, ***AIAA Space 2008 Conference***, 2008, San Diego, USA
- “Lunar Habitats – A Key Technology for Human Space Exploration” ***Workshop on the future of the Korean Space program***, 2007, Seoul, Republic of Korea
- “A reliability-based design concept for lunar habitats” ***Rutgers Symposium on Lunar Settlements***, 2007, New Brunswick, USA
- “Structural design of a lunar base.” ***Earth & Space 2004 Conference***, 2004, Houston, USA

Software skills:

MS-Office, MathCAD, Acrobat, Photoshop, AutoCAD, HTML
FEM-Software: NASTRAN / PATRAN, SOFiSTiK, Friedrich & Lochner, RStab, RFEM

Languages:

German (native language)
English (fluent)
French, Spanish (beginner level)

Other Interests:

Soccer (Active player & coach of junior soccer teams), Surfing, Snowboarding, Hiking
Reading, Chess, Individual Traveling