



PERSONAL INFORMATION

NAME

MAG. DIPL.-ING. DR. TECHN. ROLAND EISL

E-MAIL CITIZENSHIP

Roland.Eisl@enrag.at
Austria

WORK EXPERIENCE

SINCE FEBRUARY 2016

Certified Court Expert (according to Austrian law) for calculation and simulation of thermodynamical and fluidmechanical processes; for combustion and gasification technologies, for steam generators and for computational fluid dynamics (CFD)

SEPTEMBER 2013-DEZEMBER 2017

BIUCO GmbH

General Manager (Chief Technician, CTO)

Company selling and engineering biomass gasification combined heat and power plants for small and medium size based on a patented fluidized bed technology.

SINCE JUNE 2010

ENRAG GmbH

CEO

Engineering Company for process engineering (power engineering)

Business operation areas: Modelling and simulation of thermodynamical and fluid mechanical processes and systems; Industrial- and chemical process engineering; Process- and power engineering; Optimization of combustion systems; software development

SEPTEMBER 2011-OCTOBER 2013

Research Studio Austria HELIOFLOAT (Vienna University of Technology)

CEO

Business development, marketing, entrepreneurship, acquisition of funding and investors.

MARCH 2007 – MARCH 2010

Vienna University of Technology, Institute for Energy Systems and Thermodynamics.

Junior Scientist

Tasks:

Providing simulations and solutions for industrial partners in the fields of combustion-, power- and process engineering as well as computational fluid dynamics simulations (CFD simulation).

Working and writing on the PhD thesis: „CFD modelling of the coal fragmentation,

-drying and -devolatilization inside a moving bed of a COREX melter gasifier.“; in cooperation with SIEMENS VAI

AUGUST AND SEPTEMBER 2009

SANDIA National Laboratories, Livermore, California, US
Guest scientist at the CRF (Combustion Research Facility)
Tasks: Research on combustion and gasification of solid fuels

MAY 2004 - AUGUST 2008

Siemens AREVA /Westinghouse Germany
Process Engineer
Power Plant Revision work in different German power plants

EDUCATION

1991-1995

Grammar school Bad Ischl, Austria

1995-2000

Higher Technical Education Institute (HTBLA), Vöcklabruck, Austria
Building services and Energy systems
A-Level (**passed with distinction**)

2001 – 2007

Vienna University of Technology: Bachelor and Master in mechanical engineering
Field of in-depth study:
Energy systems and power engineering:

- Advanced power plants
- Thermal energy systems

Finished May 2007 (**passed with distinction**)
Degree: **Diplom Ingenieur (Master of Science, MSc)**

2001-2009

Vienna University of Economics and Business: Bachelor and Master in business administration
Fields of in-depth study:

- Corporate Finance
- Banking and investment banking
- Corporate and capital market law

Finished March 2009
Degree: **Magister der Sozial- und Wirtschaftswissenschaften (Master of Science, MSc)**

2007-2010

Vienna University of Technology: Doctorate program in technical sciences
Modelling and simulation in thermal- and process engineering
PhD thesis: „*CFD modelling of the coal fragmentation, -drying and -devolatilization inside a moving bed of a COREX melter gasifier.*“; in cooperation with SIEMENS VAI.
Finished March 2010 (**passed with distinction**)
Degree: **Doktor der technischen Wissenschaften (PhD)**

SINCE 2019

Johannes Kepler University Linz: Bachelor program for **Artificial Intelligence**

PERSONAL SKILLS

FIRST LANGUAGE

German

ADDITIONAL LANGUAGE

English

Fluent in written and spoken

SOCIAL SKILLS

Elected member of the students union, 2003-2005.

Elected student member of different commissions of the faculty of mechanical engineering, 2003-2006

Voluntary employee at the students union press office of Vienna University of Technology, 2003-2005

TEACHING

Numerical methods for thermal energy systems (summer terms 08, 09)

TECHNICAL SKILLS

SOFTWARE:

Office (special Excel VBA knowledge), LaTeX

CAD

Mathcad, Matlab

Process simulation: Gate Cycle, IPSE Pro, KED, GT Pro, EBSILON, Aspen+

CFD: ANSYS, Altair, Openfoam

DEM: LIGGGHTS, EDEM

FEM: Altair Hyperworks

c, c++, c#, python (incl. pytorch and tensorflow), java, etc.

PUBLICATIONS

R. Eisl, H. Ofner: *E³SteP: Enhanced Energy Efficient Iron- and Steel Production*, Klimafonds Science Brunch, 2018

R. Eisl, D. Buchberger, R. Redl, B. Hiebl: *Design and optimization of iron ore pelletizing plants with coupled numerical simulations*, EUROPEAN STEEL TECHNOLOGY AND APPLICATION DAYS 2017

M. Hämmerle, M. Haider, R. Willinger, K. Schwaiger, R. Eisl, K. Schenzel: *„Saline cavern adiabatic compressed air energy storage using sand as heat storage material“*; 10th Conference on Sustainable Development of Energy, Water and Environment Systems, Dubrovnik, Croatia; 27.09.2015 - 02.10.2015; in: *"Proceedings of the 10th Conference on Sustainable Development of Energy, Water and Environment Systems"*, (2015),

K. Schwaiger, M. Haider, F. Holzleithner, R. Eisl: *"A comparison between passive regenerative and active fluidized bed thermal energy storage systems"*; Journal of Physics: Conference Series, 395 (2012), 395; 8 S.

K. Schwaiger, M. Haider, F. Holzleithner, R. Eisl: *"A comparison between passive regenerative and active fluidized bed thermal energy storage systems"*; Vortrag: 6th European Thermal Sciences Conference (Eurotherm 2012), Poitiers; 04.09.2012 - 07.09.2012.

K. Schwaiger, M. Haider, F. Holzleithner, R. Eisl: *"sandTES - A novel Thermal Energy Storage System based on Sand"*; 21st International Conference on Fluidized Bed Combustion, Naples; 03.06.2012 - 06.06.2012; in: *"21st International Conference on Fluidized Bed Combustion"*, (2012)

K. Schwaiger, M. Haider, F. Holzleithner, R. Eisl: *"A comparison between passive regenerative and active fluidized bed thermal*

energy storage systems";

Journal of Physics: Conference Series, 395 (2012), 395; 8 S.

M. Rammerstorfer, R. Eisl: "*Carbon Capture and Storage - Investment Strategies for the future?*" Energy Policy, vol. 39, 7103-7111, 2011.

M. Haider, K. Schwaiger, F. Holzleithner, R. Eisl:

"SandTES - A novel thermal energy storage system based on sand";

Presentation: Eurotherm Seminar No. 93, Bordeaux; 16.11.2011 - 18.11.2011.

R. Eisl, F. Holzleithner, M. Haider, G. Aichinger:

"CFD Simulation of Process-driven Particle Fragmentation in a Coal Bed Gasifier";

presentation: 8th European Conference on Coal Research and its Applications:

ECCRIA 8, Leeds, 06.09.2010 - 07.09.2010.

A. Steiner, R. Eisl, M. Haider:

"Energy survey "ECOCEM""; Report for Gmundner Zementwerke Produktions- u.

Handels GmbH; 2010.

R. Eisl:

"CFD modeling of the coal fragmentation, -drying and -devolatilization inside a moving bed of a COREX melter gasifier", Vienna, Vienna University of Technology, PhD thesis, 2010.

R. Eisl, M. Rammerstorfer:

"Carbon capture and storage - Investment strategies for the future"; Melbourne

Derivatives Research Group Conference, Melbourne; 2009.

R. Eisl:

"Computational Fluid Dynamics - A powerful tool to optimize waste incineration";

Solid Waste Management Symposium, Vienna; 2009.

R. Eisl:

„Validation of CO2 storage and – transportation facilities via real options analysis", Vienna, Vienna University of Economics and Business., Master thesis,

2009

R. Eisl, A. Werner, H. Walter, M. Haider:

"A Comparison between CFD-Simulation and Experimental Observation of Solids

Distribution in a CFB-Test Rig"; 9th International Conference on Circulating

Fluidized Beds, Hamburg, Germany, in: "Circulating Fluidized Bed Technology IX",

J. Werther, W. Nowak, K. Wirth, E. Hartge (Hrg.), 2008

R. Eisl:

"Modeling the gas- solids distribution in a circulating fluidized bed with

computational fluid dynamics (CFD) ", Vienna, Vienna University of Technology,

Master thesis, 2007.

PATENTS

R. Eisl, M. Haider, F. Holzleithner:

"Wärmespeichersystem" (engl: "*Heat Storage System*");

Patent: Austria, Nr. 510897 B1

European Patent, EP 2612098 B1

DRIVING LICENSES

A, B, C, E, F, G, crane