

# Structure

INFRATRRAIN is a series of events in INFRAstructure research and policy TRAINING designed for graduate scholars, practitioners, and policy makers. Each INFRATRRAIN event consists of several training sessions among which the participants select one.

The training sessions in this seventh INFRATRRAIN (Fall 2009) are dedicated to the question of **Infrastructure Modeling, Regulation, and Innovation.**

INFRATRRAIN thus addresses

- Advanced Master students
- PhD students, post-docs, and other scholars from universities and research institutions
- Junior staff from ministries, regulatory agencies and other governmental bodies
- Young practitioners from industry, consulting firms and financial companies dealing with infrastructure issues

Students in a Master or PhD program will receive a certificate corresponding to 6 ECTS (European Credit Transfer System) upon the completion of a term paper resulting from the training course.

The core element of each INFRATRRAIN are the Training Sessions, which cover a specific topic.

Senior practitioners or faculty lecture on a focused topic, propose exercises and computer simulations, and discuss theoretical and policy issues.

Training Sessions are accompanied by

- Seminars, where participants present and debate either their PhD theses or other current work in smaller groups
- Keynote lectures given by renown researchers and policy makers
- The Conference on Applied Infrastructure Research, an international forum for academics and policymakers.



# Training Sessions

## The World Gas Model (WGM): Structure and Scenario Development

- The World Gas Model (WGM) is a dynamic simulation model of the global gas market, covering 80 countries and 95% of world natural gas production and consumption. The course provides an introduction in the model structure and underlying assumptions. Participants will then develop and implement their own scenarios in GAMS.
- Trainers: Ruud Egging (University of Maryland), Daniel Huppmann (DIW Berlin, TU Vienna)

## Transmission Expansion of Electricity and Natural Gas Networks: Theory and Numerical Simulations

- The course addresses the difficult issue of network investment and regulation. We review the theoretical literature and analyze how transmission expansion is handled in restructured markets (such as the California TEAM-approach, or the PJM Market-Based Transmission Expansion). Applications will be done in the electricity and the natural gas sector, and implemented in GAMS.
- Trainers: Prof. Dr. Juan Rosellon (CIDE, Mexico), Friedrich Kunz (Dresden University of Technology)

## Innovation Econometrics: Theory and Applications

- This course provides an introduction to econometric methods used in the economics of innovation and science&technology. It includes non-parametric efficiency analysis, panel methods, and semi-parametric methods. Applications include patenting, non-tangible human capital, agglomeration effects of innovation, etc. Knowledge of STATA and R recommended.
- Trainers: Dr. Astrid Cullmann and Jens Schmidt-Ehmcke (DIW Berlin), Petra Zloczynski (FU Berlin)



# Program

	Mon 05.10.	Tue 06.10.	Wed 07.10.	Thu 08.10.	Fri 09.10.	Sat 10.10.
09:00		Training Session 3	Training Session 6	Training Session 9	Training Session 12	Conference (INFRA-DAY)
10:30						
10:45	Arrival/Registration	Seminar 1	Seminar 2	Seminar 3	Plenary Session Presentation of Training Session Results & Discussion	Conference (INFRA-DAY)
12:15						
14:00	Welcome Address Training Session 1	Training Session 4	Training Session 7	Training Session 10	Conference (INFRA-DAY)	Conference (INFRA-DAY)
15:30						
16:00	Training Session 2	Training Session 5	Training Session 8	Training Session 11	Conference (INFRA-DAY)	Conference (INFRA-DAY)
17:30						
Evening	Reception Introduction to software	Continuation of Training Sessions, Exercises	Informal Get-together	Preparation of the Final Presentation	Reception	Final Dinner



INFRATRRAIN is organized by **WIP, the Workgroup for Infrastructure Policy**, at Berlin University of Technology. With a staff of 13 researchers and an international scientific and consulting network, WIP is one of the leading German institutes in infrastructure research and policy.

**Scientific coordinators** of INFRATRRAIN are Prof. Dr. Georg Meran (Dean of Graduate Studies at DIW Berlin / TU Berlin) and Prof. Dr. Christian von Hirschhausen (TU Berlin / DIW Berlin / TU Dresden).

**Cooperation partners** are:

- MINE (Master in Industrial and Network Economics) Program at TU Berlin
- DIW Berlin, the German Institute for Economic Research
- Dresden University of Technology, Chair of Energy Economics and Public Sector Management

Among the **core faculty**, workshop leaders and keynote speakers are:

- Dr. Astrid Cullmann (DIW Berlin)
- Ruud Egging (University of Maryland)
- Prof. Dr. Christian von Hirschhausen (TU Berlin, DIW Berlin, and TU Dresden)
- Prof. Dr. Juan Rosellon (CIDE, Mexico)
- Prof. Dr. Anming Zhang (University of British Columbia)



The participation fee for INFRATRRAIN is **350 €**. This fee includes tuition, course and training materials, meals, and the participation fee for the 8<sup>th</sup> Conference on Applied Infrastructure Research (INFRADAY).

**Eligible are** researchers and practitioners with an interest in economic research and policy implications. Particular emphasis is placed on young researchers (PhD students, post-Docs). We also welcome advanced participants in Master Programs.

If you are interested in participating, please send your CV including fields of scientific interest and your preferred topic for the training session until **August 31, 2009** to

[infratrtrain2009@wip.tu-berlin.de](mailto:infratrtrain2009@wip.tu-berlin.de)

If you are interested in presenting a paper or a research project, please add an extended abstract (one page, about 300 words). Preference will be given to participants presenting own work. Participation in each training session is limited to 12 persons. Information on acceptance will be given by early September.

## Contact

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# INFRATRRAIN

Autumn School

**Infrastructure Modeling,  
Regulation, and Innovation**

**October 5 - 10, 2009**

**Berlin University of Technology**

Scientific Cooperation Partners:



[www.wip.tu-berlin.de/infratrtrain](http://www.wip.tu-berlin.de/infratrtrain)

