

Structure

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

The training sessions in this eighth INFRA TRAIN (Fall 2010) are dedicated to the question of **Infrastructure Modeling, Regulation, and Innovation.**

INFRA TRAIN 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 INFRA TRAIN 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

Stochastic Optimization Modeling: Principles and Application to Intermittent Renewables in the Energy Market

- In this session, we will explore the principles of stochastic optimization and their applications to renewables that have intermittency features. Topics from stochastic optimization will include: **recourse methods, chance constraints, and stochastic dynamic programming.** We will model the interaction of intermittent renewable sources and fossil fuels to achieve some sort of balance between societal goals and smooth running of the power grid.
- Trainer: Prof. Dr. Steven Gabriel (University of Maryland)

Transmission Expansion of Electricity Networks with Time-Varying Supply and Demand

- Based on the existing literature on transmission expansion, this course addresses the challenges of integrating time-varying supply and demand. The focus will be on the adoption of existing mechanisms to renewables integration: incentive schemes, costs-based schemes, and combines schemes such as the Hogan-Rosellón-Vogelsang mechanism. Applications will be implemented in GAMS, e.g. for the Benelux region and the North Sea.
- Trainer: Prof. Dr. Juan Rosellón (CIDE, Mexico)



Program

	Mon 04.10.	Tue 05.10	Wed 06.10.	Thu 07.10.	Fri 08.10.	Sat 09.10.
09:00		Training Session 3	Training Session 6	Training Session 9	Training Session 12	Conference (INFRA-DAY)
10:30						
10:45	Arrival/Registration (13:00-14:00)	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).

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:

- Prof. Dr. Steven Gabriel (University of Maryland)
- Jeremy Eckhause (LMI, University of Maryland)
- Prof. Dr. Juan Rosellon (CIDE, Mexico)
- Prof. Dr. Christian von Hirschhausen (TU Berlin, DIW Berlin, and TU Dresden)



The participation fee for INFRATRRAIN is **350 €**. This fee includes tuition, course and training materials, meals, and the participation fee for the 9th 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, 2010** to

infratrtrain2010@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. Information on acceptance will be given by early September.

Contact

TU Berlin, Workgroup for Infrastructure Policy (WIP)
Secr. H 33
Straße des 17. Juni 135
D-10623 Berlin, Germany
infratrtrain2010@wip.tu-berlin.de
<http://wip.tu-berlin.de/infratrtrain>



INFRATRRAIN

Autumn School

**Infrastructure Modeling,
Regulation, and Innovation**

October 4 - 9, 2010

Berlin University of Technology

Scientific Cooperation Partners:



www.wip.tu-berlin.de/infratrtrain

