



Vysoká škola báňská – Technická univerzita Ostrava
Technology for the Future
reg.no. CZ.02.2.69/0.0/0.0/16_015/0002338



International Summer School on
Bridge Engineering
18. – 22. 6. 2018

Faculty of Civil Engineering,
VSB-TU Ostrava, Czech Republic

CONTENTS OF THE LECTURES

Miroslav Rosmanit
Jaroslav Navrátil
Petr Konečný and Petr Lehner
Vít Křivý and Monika Kubzová
Antonín Lokaj and Kristýna Vavrušová
Marcela Maturová and David Bujdoš



EVROPSKÁ UNIE
Evropské strukturální a investiční fondy
Operační program Výzkum, vývoj a vzdělávání





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Programme

KA 5 Internationalization - INTERNATIONAL SUMMER SCHOOL ON BRIDGE ENGINEERING

Date: 18. – 22. 06. 2018

Time: 9 a.m. till 4 p.m.

Venue: Faculty of Civil Engineering, VŠB-TU Ostrava

Address: L. Poděšť 1875, Ostrava-Poruba, Czech Republic

Room no: LPOI205

Mon 18. 06. 2018

9,00 – 16,00

Design of Bridge Structures

Steel and composite steel and concrete bridges

Lecture + laboratory work – Lecturer: *Ing. Miroslav Rosmanit, Ph.D.*

- introduction to bridge engineering
- practical examples of bridge structures
- design of the composite steel and concrete beam bridge structure
(sample of design procedure, construction phase, experience from practice)

Tue 19. 06. 2018

9,00 – 16,00

Design of Bridge Structures

Concrete and prestressed concrete bridges

Lecture + laboratory work – Lecturer: *doc. Ing. Jaroslav Navrátil, CSc.*

- practical examples of bridge structures
- design of the concrete bridge structures
(sample of design procedure, construction phase, experience from practice)
- numerical software in bridge engineering

Wed 20. 06. 2018

9,00 – 12,00

Degradation Processes on Bridge Structures

Evaluation of durability of concrete

Lecture + laboratory work – Lecturers: *doc. Ing. Petr Konečný, Ph.D., Ing. Petr Lehner*

- introduction to the durability of concrete related mainly to chloride ingress and carbonation



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- procedures to evaluation of concrete durability
- measurements of concrete resistivity (indirect measure of concrete ability to resist ingress of aggressive agents)
- protection of concrete structures.

13,00 – 16,00

Degradation Processes on Bridge Structures

Corrosion degradation of steel structures

Lecture + excursion – Lecturers: *doc. Ing. Vít Křivý, Ph.D., Ing. Monika Kubzová*

- corrosion rate (practical examples)
- thickness of corrosion products (practical examples)
- protection of steel structures

Thu 21. 06. 2018

9,00 – 12,00

Design of Bridge Structures

Timber bridges

Lecture + excursion – Lecturer: *doc. Ing. Antonín Lokaj, Ph.D.*

- design of the timber bridge structures
(sample of design procedure, construction phase, experience from practice)

13,00 – 16,00

Design of Bridge Structures

Timber bridges

Lecture + laboratory work – Lecturer: *Ing. Kristýna Vavrušová, Ph.D.*

- degradation of timber structures
- degradation processes on timber
- protection of timber structures

Fri 22. 06. 2018

9,00 – 12,00

Conclusion

- evaluation and feedback
- collection of the student works
- distribution of Certificates

Laboratory + excursions: *Mgr. Marcela Maturová, Ing. David Bujdoš, Ing. Miroslav Rosmanit, Ph.D.*



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