

## Symposium Programme

<b>14:00 – 15:15</b>	<b>Session 4: Geotechnical Engineering</b> Main Lecture Hall SESSION CHAIR: PROF. <b>MEHO SAŠA KOVAČEVIĆ</b>	<b>Session 5: Construction Materials</b> Lecture Hall 121 SESSION CHAIR: PROF. <b>IVANA BANJAD PEČUR</b>
14:00 – 14:30	<b>A Review of CPT Based Axial Pile Design in the Netherlands</b> <u>KENNETH GAVIN</u> , MEHO SAŠA KOVAČEVIĆ, DAVID IGOE	<b>Research in Cement and Concrete over 40 Years: Experiences and Lessons for the Future</b> <u>MARK ALEXANDER</u> , YUNUS BALLIM
14:30 – 15:00	<b>Trends in Non-destructive Testing of Rock Bolts</b> <u>MARIO BAČIĆ</u> , KENNETH GAVIN, MEHO SAŠA KOVAČEVIĆ	<b>Alternative Binders for Concrete: Opportunities and Challenges</b> <u>MARIJANA SERDAR</u> , DUBRAVKA BJEGOVIĆ, NINA ŠTIRMER, IVANA BANJAD PEČUR
15:00 – 15:15	Discussions	Discussions
<b>15:15 – 16:30</b>	<b>Session 6: Transport Infrastructure</b> Main Lecture Hall SESSION CHAIR: PROF. <b>TATJANA RUKAVINA</b>	<b>Session 7: Applied Mathematics</b> Lecture Hall 121 SESSION CHAIR: PROF. <b>ALAN FILIPIN</b>
15:15 – 15:45	<b>Design of New Generation of Switches and Crossings</b> <u>OTTO PLÁŠEK</u> , LUKÁŠ RAIF, IVAN VUKUŠIĆ, VLASTISLAV SALAJKA, JAROMÍR ZELENKA	<b>Grassmann Algebra and Graphic Statics</b> <u>IVA KODRNJA</u> , MAJA BANIČEK, KREŠIMIR FRESL
15:45 – 16:15	<b>Future Trends in Transport Infrastructures Monitoring</b> <u>SIMONA FONTUL</u>	<b>Shell Puzzle Overview</b> DORA POKAZ, <u>HELENA KONCUL</u>
16:15 – 16:30	Discussions	Discussions
16:30 – 16:45	<b>Closing of the Symposium</b> / Main Lecture Hall Amphitheatre	

Scientific Symposium

# Future Trends in Civil Engineering

17 October 2019

Faculty of Civil Engineering, Zagreb, Kačićeva 26

Organiser:  
University of Zagreb  
Faculty of Civil Engineering



**100.** anniversary  
celebration of the  
**Faculty of Civil  
Engineering**  
University of  
Zagreb  
1919–2019

100

## Invitation to Participants

It is with great pleasure that we invite you to take part in the scientific symposium **FUTURE TRENDS IN CIVIL ENGINEERING** that is organised on the occasion of the **100th anniversary of the Faculty of Civil Engineering of the University of Zagreb**. During this festive year, The Faculty has organised a number of activities, one of which is this Symposium, particularly significant for international cooperation activities of the Faculty. The Symposium will be held on **17 October 2019** at the Faculty of Civil Engineering of the University of Zagreb.



The lectures to be presented at the Symposium are related to the fields covered the Faculty's activities: geotechnical engineering, water engineering, structural engineering, construction materials, construction management and economics, transport infrastructure, engineering mechanics, and applied mathematics. At this gathering, each field will be represented by one foreign lecturer with international repute and one domestic lecturer. Foreign lecturers come from six countries (Austria, Czech Republic, Germany, Italy, the Netherlands, Portugal, Slovenia, South Africa, and the UK) and universities, while domestic lecturers are from the Faculty of Civil Engineering Zagreb. Lectures presented at the Symposium will be published in full in the Symposium Proceedings.

## Venue

The Symposium will be held on **17 October 2019** at the **Faculty of Civil Engineering** of the University of Zagreb (Kačićeva 26) in the very amphitheatre in which a plenary lecture was delivered by **Max Planck** in the last century.

## Registration and Application for Participation

Applications for participation in the scientific symposium Future Trends in Civil Engineering should be sent electronically via an ONLINE application/registration form that is available at the Symposium website: [www.grad.hr/ftce/2019](http://www.grad.hr/ftce/2019). The participation is **free of charge**, but registration via the online registration form is obligatory. By online registration, the participants confirm their participation at the Symposium and at the lunch. In addition, Symposium materials including Symposium Proceedings will be prepared and handed to participants at the registration desk.

## Dean's Recognition

Each participant in the Symposium will receive a formal Recognition from the Dean of the Faculty of Civil Engineering as an acknowledgment of participation in this Symposium that offers visions of progress made in various fields of civil engineering, as one of the most important and valuable sectors of the economy.

## Contact

### Information:

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### Hotel Reservations and Travel Support:

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## Symposium Programme

08:00 – 09:00	Registration	
09:00 – 09:30	<b>Opening of the Symposium</b> / Main Lecture Hall Amphitheatre	
<b>09:30 – 10:30</b>	<b>Session 1: New trends in design, construction &amp; maintenance</b> Main Lecture Hall SESSION CHAIR: PROF. <b>IVICA ZAVRŠKI</b> , IZV. PROF. <b>ANA MANDIĆ IVANKOVIĆ</b>	
09:30 – 10:00	<b>Pelješac bridge – Design and Maintenance</b> MARJAN PIPENBAHER, <u>GORDANA HRELJA KOVAČEVIĆ</u> , TATJANA PETERŠIĆ, NIJAZ MUJKANOVIĆ	
10:00 – 10:30	<b>BIM Implementation in Building Maintenance</b> <u>ANITA CERIĆ</u> , IVICA ZAVRŠKI, MLADEN VUKOMANOVIĆ, IVONA IVIĆ, MAJA-MARIJA NAHOD	
10:30 – 11:00	Coffee break	
<b>11:00 – 12:45</b>	<b>Session 2: Reliability and Risk Assessment</b> Main Lecture Hall SESSION CHAIR: ASSIST. PROF. <b>ANA SKENDER</b>	<b>Session 3: Hydrosience and Engineering</b> Lecture Hall 121 SESSION CHAIR: ASSIST. PROF. <b>DAMIR BEKIĆ</b>
11:00 – 11:30	<b>Reliability Differentiation and Uniform Risk in Standards: a Critical Review and a Practical appraisal</b> <u>DIMITRIS DIAMANTIDIS</u> , MIROSLAV SYKORA	<b>Short Term and Seasonal Forecast of Hydro-power Production by means of Hydro-meteorological Predictions</b> <u>HUBERT HOLZMANN</u> , IGNACIO MARTIN-SANTOS, MATHEW HERRNEGGER
11:30 – 12:00	<b>European Seismic Risk Model 2020: Focus on Croatia</b> <u>HELEN CROWLEY</u> , VITOR SILVA, VENETIA DESPOTAKI, LUIS MARTINS, JOSIP ATALIĆ	<b>Latest Developments in Sustainable Water Management</b> <u>IVAN HALKIJEVIĆ</u> , DAMIR BEKIĆ, GORAN LONČAR, KRISTINA POTOČKI, GORDON GILJA, DALIBOR CAREVIĆ
12:00 – 12:30	<b>Seismic Risk Reduction in Croatia: Mitigating the Challenges and Grasping the Opportunities</b> MARTA ŠAVOR NOVAK, <u>JOSIP ATALIĆ</u> , MARIO UROŠ, SNJEŽAN PREVOLNIK, MIROSLAV NASTEV	<b>Professionalism of the Built Environment Researcher</b> <u>GEORGE OFORI</u>
12:30 – 12:45	Discussions	Discussions
12:45 – 14:00	Lunch	