



MEASUREMENT, VISUALISATION
AND PROCESSING IN **BIM**
FOR DESIGN AND CONSTRUCTION
MANAGEMENT **2019**

PROGRAMME BOOK

24-25 September 2019,
Prague, Czech Republic

Table of Contents

Sponsors	2
Partners & Exhibitors & Organizers	3
Welcome Note	4
Conference Venue	5
Social Programme.....	5
General Information.....	7
Programme	8

The conference is organized under the auspices of:



MINISTRY
OF REGIONAL
DEVELOPMENT CZ



Main sponsors:



Other sponsors:



Partners:



FACULTY OF CIVIL
ENGINEERING
CTU IN PRAGUE



SPRÁVA ŽELEZNIČNÍ
DOPRAVNÍ CESTY



PHEDCS



ŘSD ČR
ŘEDITELSTVÍ SILNIC A DÁLNIC ČR



ČESKÁ
AGENTURA PRO
STANDARDIZACI



sfdi
STATNÍ FOND DOPRAVNÍ
INFRASTRUKTURY

Exhibitors:



GEODETICKÁ KANCELÁŘ
NEDOMA & ŘEZNÍK, s. r. o.



RIEGL®



SPRÁVA ŽELEZNIČNÍ
DOPRAVNÍ CESTY

Organizers:



Information from Imagery



Auletris
event management services



PHEDCS

Welcome Note

We would like to invite you to a two-day conference, which will be held in Prague on 24-25 September 2019 at the Czech Technical University in Prague, Faculty of Civil Engineering. ISPRS Working Group V/7 aims to promote global literacy and advance of innovations in geospatial technologies, mainly in photogrammetry and remote sensing for implementation in the educational process of civil engineers and architects through the development of multidisciplinary educational content that facilitate knowledge exchange between various applied sciences and organizations involved.

The Program Committee, chaired by Vaclav Safar aims to emphasis the focus on the practical support that is currently available thus enhancing the development in the field of measurement and visualization and by adapting technology into BIM shift from theory into practice.

It is our pleasure to invite you to Prague for the conference.

Vladimir Sereдовich, Gottfried Konecny, Karel Vach

Conference Venue

Faculty of Civil Engineering, CTU in Prague

Address

Thákurova 7/2077, 166 29 Prague 6 Dejvice

Nearby the faculty there is a metro station Dejvická, tram station Thákurova and Vítězné náměstí, bus station Studentský dům and Národní technická knihovna.

The Faculty

The Faculty of Civil Engineering of the Czech Technical University in Prague is one of the largest schools providing civil engineering university education world-wide.

The Faculty of Civil Engineering (FCE) is one of the largest colleges of the Czech Technical University. The academic community comprises approximately 3 500 students and 600 teaching and research staff.

Venue Organization

The lecture room number B169 is located on the ground floor of the building B, plenary sessions and keynote lectures will take the same place.

The registration desk, coffee breaks and lunches will take place in the atrium of the main building C.

Social Programme

Welcome Reception

The first day will be concluded by a Welcome Reception taking place in the atrium of building C of Faculty of Civil Engineering from 18:00 on Tuesday 24 September.

The reception is open to all registered participants. Come to meet your friends and colleagues with a drink and some tasty treats of local cuisine.



General Information

Registration & Information desk

The registration and information desk will be open daily from 8:00. In case of any questions, contact us on +420607786670.

Prague Public Transport

All pre-registered participants will receive public transport ticket valid throughout the conference for all sorts of public transport.

Prague provides three metro lines – A, B, C. Line A is the most convenient one for travelling from and to the conference venue.

The night public transport in Prague is one of the best in the world. All night tram lines are reachable at one central transfer station. Buses and trams have their night lines between 12 pm and 4 am.

Always buy your public transport ticket at the station and do not forget to validate it on the bus or tram.

For more information about the Prague public transport, please have a look at <http://www.dpp.cz/en/>.

Tourist Information

Prague.eu – The Official Tourist Website for Prague.

Honest Guide – YouTube channel with tips & tricks for your stay in Prague.

Wi-fi

Free wi-fi – SSID: ISPRS2019, Password: isprs092019

If you use Eduroam, you can connect to the Eduroam network with the username and password of your home institution.

ATM and Currency

ATM is located out of the building of Faculty of Civil Engineering.

Currency of the Czech Republic is the Czech Crown (CZK). However, Euro is accepted in many restaurants, hotels and shops. Payment with credit card is always a solution. Exchange rates are approximately 26 CZK/EUR and 24 CZK/USD.

Emergency Calls

General Emergency: 112, Fire Department: 150, Medical Services: 155, Police: 158.

Programme

Tuesday 24/9	
10:00 - 10:10	Opening ceremony Location: B169
10:10 - 10:30	Keynote lecture 1 Location: B169
10:30 - 11:40	MVPBIM 1: Photogrammetry and Laser-scanning for BIM in the Design, Construction and Operation of the Transport Infrastructure - I Location: B169
11:40 - 12:10	Coffee break
12:10 - 13:20	MVPBIM 2: Measurement and BIM in the Construction and Facility Management of Buildings - I Location: B169
13:20 - 14:20	Lunch break
14:20 - 14:40	Keynote lecture 2 Location: B169
14:40 - 15:50	MVPBIM 1: Photogrammetry and Laser-scanning for BIM in the Design, Construction and Operation of the Transport Infrastructure - II Location: B169
15:50 - 16:20	Coffee break
16:20 - 16:50	Keynote lecture 3 Location: B169
16:50 - 18:00	MVPBIM 2: Measurement and BIM in the Construction and Facility Management of Buildings - II Location: B169
18:00 - 21:00	Welcome reception Location: Atrium

24/9

10:00-10:10 • B169

Opening ceremony

Welcome on behalf of the ISPRS – WG V/7

Karel Vach

PHEDCS zapsany ustav, Co-Chair WG V/ Innovative Technologies in Training Civil Engineers and Architects, Commission V, Czech Republic

Welcome on behalf of chair of Program Committee MVPBIM 2019

Václav Šafář

Chair of Program Committee MVPBIM2019, Regional Representative of ICWG I/II: UAS & Small Multi-sensor Platforms: Concepts & Applications, Czech Republic

Welcome on behalf of the ISPRS

Lena Halounová

ISPRS - Secretary General, Czech Republic

Welcome on behalf of CUZK (Czech Office for Surveying, Mapping and Cadastre)

Karel Večeře

Chairman of the Czech Office for Surveying, Mapping and Cadastre, Czech Republic

24/9

10:10-10:30 • B169

Keynote lecture 1

GeoBIM integration in practice: from design to automatic building permission issuing

Francesca Noardo

Delft University of Technology, Amsterdam Institute for Advanced Metropolitan Solutions, The Netherlands

24/9

10:30-11:40 • B169

MVPBIM 1: Photogrammetry and Laser-scanning for BIM in the Design, Construction and Operation of the Transport Infrastructure - I

Session Chair: Karel Pavelka

Session Chair: Vladimir Adolfovich Seredovich

Photogrammetric technology for remote high-precision 3d monitoring of cracks and deformation joints of buildings and constructions

Alexander Wojnarowski

PHOTOGRAMMETRIA Research and Production Enterprise, St. Petersburg, Russia; Saint Petersburg State University, Department of Cartography and Geoinformatics, St. Petersburg, Russia

From Point Cloud to existing BIM for modelling and simulation purposes

Ahmad Hamed Baik

King Abdulaziz University, Faculty of Environmental Design, Jeddah, Saudi Arabia

Geo-registering consecutive datasets by means of a reference dataset, eliminating ground control point indication

Stan Vincke

KU Leuven, Belgium

Scan-to-BIM methodology adapted for different application

Vladimir Badenko

Peter the Great St. Petersburg Polytechnic University, Russian Federation

Digital construction and laser scanning

Vladimir Seredovich

Novosibirsk State University of Architecture and Civil Engineering (Sibstrin), Siberian Centre for Laser Scanning in Construction, Novosibirsk, Russian Federation

24/9

12:10–13:20 • B169

MVPBIM 2: Measurement and BIM in the Construction and Facility Management of Buildings – I

Session Chair: Lena Halounová

Session Chair: Francesca Noardo

Building information modeling applied to the industrial architectural monuments case study of Saint Petersburg

Alexander Wojnarowski

PHOTOGRAMMETRIA Research and Production Enterprise, Russian Federation; Saint Petersburg State University, Department of Cartography and Geoinformatics, St. Petersburg, Russia

Immersive Visualisation of Construction Site Point Cloud Data, Meshes and BIM Models in a VR Environment Using a Gaming Engine

Stan Vincke

KU Leuven, Belgium

Automated Alignment of Local Point Clouds in Digital Building Models

Tim Kaiser

University of Applied Sciences Dresden, Germany

Building Information Modeling potential for an enhanced real estate valuation method based on the hedonic approach

Siham El Yamani

Department of Geodesy and Topographic surveying, IAV Hassan II Institute, Morocco; Department of Cartography and Photogrammetry, IAV Hassan II Institute, Morocco

24/9

14:20–14:40 • B169

Keynote lecture 2

Digitalization in construction projects

Josef Žák

Skanska a.s., Department of Management and Economics, CTU in Prague

24/9

14:40-15:50 • B169

MVPBIM 1: Photogrammetry and Laser-scanning for BIM in the Design, Construction and Operation of the Transport Infrastructure – II

Session Chair: Václav Šafář

Session Chair: Jūratė Sužiedelytė Visockienė

Percentage of Completion of in-situ cast concrete walls using point cloud data and BIM

Maarten Bassier

KU Leuven, Belgium

Extraction of main levels of building from a large point cloud

Cristina Leoni

Sapienza, Italy

Laser Scanning for BIM and results visualization using VR

Karel Pavelka

CTU in Prague, Czech Republic

Building Information Modelling (BIM) from Close Range Photogrammetry (CRP) and Terrestrial Laser Scanner (TLS) point cloud Datasets

Yogender Yogender

Department of Civil Engineering, National Institute of Technology, Kurukshetra, Haryana, India, 136119

24/9

16:20-16:50 • B169

Keynote lecture 3

Digital Technical Map of the Czech Republic

Jiří Čtyrský

Section Director, Spatial Information Section, Prague Institute of Planning and Development

24/9

16:50-18:00 • B169

MVPBIM 2: Measurement and BIM in the Construction and Facility Management of Buildings - II

Session Chair: Karel Vach

Session Chair: Vladimir Adolfovich Seredovich

Comparison of software for airborne laser scanning data processing in smart city applications

Dmitry Zotiv

Peter the Great St. Petersburg Polytechnic University, Russian Federation;

Exchange Information Enhancement in Execution Method by Using Virtual Reality

Nguyen Anh Quan Tran

Peter the great Polytechnic university St.Petersburg, Russian Federation

Identifying gaps in BIM implementation for design of retail stores in Australia

Shalini Gandhi, Willy Sher

University of Newcastle, Australia

Building information model as a possibility for digital reconstruction of the buildings of rural architecture

Zdeněk Poloprutský

Faculty of Civil Engineering, CTU in Prague, Czech Republic

Wednesday 25/9	
09:00 - 09:20	Keynote lecture 4 Location: B169
09:20 - 10:00	MVPBIM 2: Measurement and BIM in the Construction and Facility Management of Buildings - III Location: B169
10:00 - 10:30	Coffee break
10:30 - 10:50	Keynote lecture 5 Location: B169
10:50 - 11:30	MVPBIM 3: Application Photogrammetry and Laser-scanning in BIM Technologies for Water Management and Urban Drainage Location: B169
11:30 - 12:30	Lunch break
12:30 - 12:50	Closing ceremony Location: B169

25/9

09:00-09:20 • B169

Keynote lecture 4

Register of territorial identification, addresses and real estates
(RUIAN)

Jiri Formanek

Czech Office for Surveying, Mapping and Cadastre, Czech Republic

25/9

09:20-10:00 • B169

MVPBIM 2: Measurement and BIM in the Construction and Facility
Management of Buildings - III

Session Chair: Markéta Potucková

Session Chair: Argina Novitskaya

Point Cloud Generation of a Building from Close Range Thermal
Images

Adam Dlesk

Czech Technical University in Prague, Department of Geomatics

Analysis of differences in 3D building information modeling

Jūratė Sužiedelytė Visockienė

Vilnius Gediminas Technical University, Lithuania

25/9

10:30-10:50 • B169

Keynote lecture 5

Czech governmental BIM strategy

Jaroslav Nechyba

*Czech Standardization Agency, BIM Strategy department director, Czech
Republic*

25/9

10:50-11:30 • B169

MVPBIM 3: Application Photogrammetry and Laser-scanning in BIM Technologies for Water Management and Urban Drainage

Session Chair: Radovan Haloun

Session Chair: Lena Halounová

BIM, structural analysis and communication using common data environment (CDE) in the field of water management

Pavel Vlasák

AQUA PROCON s.r.o., Czech Republic

3D and 2D analysis of the hydraulic urban alteration of Santa Catarina river using historical images. Study case: Monterrey, Nuevo León, México

Nelly Ramirez-Serrato

UANL, Civil Engineering Faculty, Geomatics Department, Cd. Universitaria, San Nicolás de los Garza, N.L., CP 66455, Mexico

25/9

12:30-12:50 • B169

Closing ceremony

Announcement of the best student contribution

Lena Halounová

ISPRS - Secretary General, Czech Republic

Announcement of the best contribution

Vladimir Adolfovich Seredovich

Chair of WG V/ Innovative Technologies in Training Civil Engineers and Architects

mvpbim2019.org