

## PERSONAL INFORMATION



# **BORIS TROGRLIĆ**

- 23/B, Strožanačka cesta, Podstrana, 21312, Croatia
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- http://gradst.unist.hr/eng/about-the-faculty/directory/agenttype/view/propertyid/1783

Sex Male | Date of birth 14/07/1968 (Zenica, Bosnia and Herzegovina) | Nationality Croatian

# POSITION Full professor / Structural engineer

| WORK EXPERIENCE |                |
|-----------------|----------------|
| (23/02/2017 -)  | Full professor |

University of Split / Faculty of Civil Engineering, Architecture and Geodesy / Matice hrvatske 15, HR 21000 Split, Croatia / www.gradst.hr

- Research in Structural Engineering (Numerical modelling of structures, Earthquake engineering)
- Teaching in: Engineering Statics, Non-linear Engineering Statics, Masonry Structures, Building
- Physics, Computer Aided Design of Structures
- Structural Engineering Design

Business or sector Higher education

(01/10/2014 - 30/09/2018) Dean

University of Split / Faculty of Civil Engineering, Architecture and Geodesy / Matice hrvatske 15, HR 21000 Split, Croatia / www.gradst.hr

Management of Faculty (Dean of Faculty of Civil Engineering, Architecture and Geodesy)

Business or sector Higher education

(20/12/2012 - 22/02/2017) Associate professor

University of Split / Faculty of Civil Engineering, Architecture and Geodesy / Matice hrvatske 15, HR 21000 Split, Croatia / www.gradst.hr

- Research in Structural Engineering (Numerical modelling of structures, Earthquake engineering)
- Teaching in: Engineering Statics, Non-linear Engineering Statics, Masonry Structures, Building Physics, Computer Aided Design of Structures
- Structural Engineering Design
- Management of Faculty (Vice Dean for finances and professional work)

Business or sector Higher education

(15/10/2004 - 20/12/2012) Assistant professor

University of Split / Faculty of Civil Engineering, Architecture and Geodesy / Matice hrvatske 15, HR 21000 Split, Croatia / www.gradst.hr

- Research in Structural Engineering (Numerical modelling of structures, Earthquake engineering)
- Teacher in: Engineering Statics, Non-linear Engineering Statics, Computer Aided Design of Structures, Masonry Structures, Building Physics
- Structural Engineering Design
- Management of Faculty (Vice Dean for finances and professional work)

Business or sector Higher education



8.2 CQF / 8.0 EQF

8.1 CQF / 8.0 EQF

7.1 CQF / 7.0 EQF

(01/02/1996 - 15/10/2004)Research Assistant

> University of Split / Faculty of Civil Engineering, Architecture and Geodesy / Matice hrvatske 15, HR 21000 Split, Croatia / www.gradst.hr

- Research in Structural Engineering (Numerical modelling of structures, Earthquake engineering)
- Teaching assistant in: Mechanic, Engineering Statics, Computer Aided Design of Structures Structural Engineering Design

Business or sector Higher education

## EDUCATION AND TRAINING

(22/12/2003)

## Doctor of Philosophy (Ph. D.)

University of Split / Faculty of Civil Engineering, Architecture and Geodesy / Matice hrvatske 15, HR 21000 Split, Croatia / www.gradst.hr

Creation and validation of new theories and methodologies in the field of structures and nonlinear numerical analysis: Nonlinear numerical modelling of stability and load-bearing capacity of reinforced concrete space frames

## (11/07/2000)

Master of Philosophy in Civil Engineering (MPhil. CE.)

University of Split / Faculty of Civil Engineering, Architecture and Geodesy / Matice hrvatske 15, HR 21000 Split, Croatia / www.gradst.hr

Creation and validation of new type of structures: Analysis of Aseismic Complete Reinforced Lightweight Walls

#### (1995)Master of Science in Civil Engineering (M. Sc. CE.)

University of Split / Faculty of Civil Engineering, Architecture and Geodesy / Matice hrvatske 15, HR 21000 Split, Croatia / www.gradst.hr

Analysis, validation and solving civil engineering problems in uncertain, new conditions

# PROFESSIONAL QUALIFICATION / EXPERIENCE / ACTIVITY

#### Qualifications and skills:

- Advanced university degree in architecture or engineering: PhD, MsCE
- Fluency in official languages of Bosnia and Herzegovina: Yes
- Working knowledge of English: Yes

### General experience:

- Licenced engineer designer: 17 years of professional experience
- Licenced supervisor engineer: 7 years of professional experience

### Specific experience:

- Project Leader of project: By implementing a modern scientific-research infrastructure at Faculty of Civil Engineering, Architecture and Geodesy in Split to smart specialization in green and energyefficient construction, 2014-2018. (2014-2018, EU Founds, 11 mil. Euros)
- Structural designer of building Technology park Split, Dračevac
- UNIST TECHNOLOGICAL PARK technical preparation of the project and obtaining a building permit
- Structural designer of building Hydrotechnical laboratory Faculty of Civil Engineering, Architecture and Geodesy in Split



| PERSONAL SKILLS                     |  |  |   |                       |                    |  |  |
|-------------------------------------|--|--|---|-----------------------|--------------------|--|--|
| Mother tongue(s)                    | Croatian   |  |   |                       |                    |  |  |
| Other language(s)                   | UNDERSTANDING  |  | SPEAKING                                  |                       | WRITING            |  |  |
|                                     | Listening  | Reading  | Spoken interaction                        | Spoken production     |                    |  |  |
| English                             | B1   | B1   | B1  | B1                    | B1                 |  |  |
|                                     | Levels: A1/2: Basic user -<br>Common European Fran   | - B1/2: Independent us<br>nework of Reference fo | er - C1/2 Proficient user<br>or Languages |                       |                    |  |  |
| Communication skills                | <ul> <li>Teaching experience<br/>masonry structures</li> </ul>   | ce at undergraduat<br>s, building physics,       | e, graduate and postg<br>CAD)             | raduate studies (theo | ory of structures, |  |  |
| Organisational / managerial skills  | <ul> <li>Member of editorial board (Technical editor): International Journal for Engineering Modelling (University of Split, ISSN: 1330-1365)</li> <li>Coordinator of Faculty for Croatian Qualifications Framework to EQF and QF_EHEA</li> <li>Close connections and collaborations with industry</li> <li>Implementation of new courses on Graduate University Study and Professional study</li> <li>20102012., Vice-dean for Professional study on Faculty of Civil Engineering, Architecture and Geodesy in Split</li> <li>2012, Vice Dean for finances and professional work on Faculty of Civil Engineering, Architecture and Geodesy in Split</li> <li>Structural design engineer, accredited Structural engineer, 2005</li> </ul>  |  |   |                       |                    |  |  |
| Computer skills                     | <ul> <li>Co-author of computer program for nonlinear numerical analysis of stability and load-bearing capacity of reinforced concrete space frames</li> <li>Good command of structural analysis software (SCIA Engineer, EMRC NISA), FORTRAN programming, CAD tools (ACAD)</li> </ul>  |  |   |                       |                    |  |  |
| ADDITIONAL INFORMATION              |  |  |   |                       |                    |  |  |
| Publications - Books                | <ul> <li>Structural analysis II., Faculty of Civil Engineering, Architecture and Geodesy, Split, 2014. (co-author)</li> <li>Structural analysis I., Faculty of Civil Engineering, Architecture and Geodesy, Split, 2011. (co-author)</li> <li>Concrete structures for buildings - selected examples, Croatian Chamber of Civil Engineers, 2010. (author of chapter)</li> <li>40 Years of Higher Education of Civil Engineers in Split (1971 - 2011), Faculty of Civil Engineering, Architecture and Geodesy, Split, (Editor)</li> </ul>  |  |   |                       |                    |  |  |
| Publications – Papers<br>(selected) | <ul> <li>Batinić, Milko; Galić, Mirela; Trogrlić, Boris; Divić, Vladimir; Racetin, Ivan; Mihanović, Ante. Combined photogrammetry and mechanical testing of fired clay brick // Materialwissenschaft und Werkstofftechnik, 49 (2018)</li> <li>Smoljanović, Hrvoje; Uzelac, Ivana; Trogrlić, Boris; Živaljić, Nikolina; Munjiza, Ante. A computationally efficient numerical model for a dynamic analysis of beam type structures based on the combined finite - discrete element method // Materialwissenschaft und Werkstofftechnik, 49 (2018)</li> <li>Balić, Ivan; Trogrlić, Boris; Mihanović, Ante. Simplified multimodal pushover target acceleration method for seismic resistance analysis of medium-rise RC structures. // KSCE Journal of Civil Engineering. 21 (2017)</li> <li>Balić, Ivan; Živaljić, Nikolina; Smoljanović, Hrvoje; Trogrlić, Boris. Seismic resistance of dry stone arches under in- plane seismic loading. // Structural engineering and mechanics. 58 (2016)</li> <li>Balić, Ivan; Mihanović, Ante; Trogrlić, Boris. Target acceleration method for analysis of RC structures. // Engineering computations. 32 (2015)</li> <li>Smoljanović, Hrvoje; Balić, Ivan; Trogrlić, Boris. Stability of regular stone walls under in-plane seismic loading. // Acta mechanica. 226 (2015)</li> <li>Trogrlić, Boris; Harapin, Alen; Mihanović, Ante. The null configuration model in limit load analysis of steel space frames. // Materialwissenschaft und Werkstofftechnik. 42 (2011)</li> </ul> |  |   |                       |                    |  |  |



## **Curriculum Vitae**

- Trogrlić, Boris; Mihanović, Ante. The comparative body model in material and geometric nonlinear analysis of space R/C frames. // Engineering Computations. 25 (2008)
- more on: <u>https://www.bib.irb.hr/pregled/znanstvenici/210964?autor=210964</u>

Conferences

International scientific conferences:

- Member of the Scientific Committee / Co-organizer of the session on International Conference on Advanced Computational Engineering and Experiment: ACEX 2019 (Athena), ACEX 2018 (Amsterdam), ACEX 2018 (Wien), ACEX 2016 (Split), ACEX 2015 (Munich), ACEX 2014 (Paris), ACEX 2013 (Madrid), ACEX 2012 (Istanbul)
- DAS 2008, 25th Danubia-Adria Symposium on Advances in Experimental Mechanics, České Budějovice, Czech Republic, 2008.
- 8th. World Congress on Computational Mechanics (WCCM8) and 5th. European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2008), Venice, Italy, 2008.
- III. European Conference on Computational Mechanics; Solid, Structures and Coupled Problems in Engineering, Lisbon, Portugal, 2006.
- International Conference on Bridges, Structural Engineering Conference (SECON) and Croatian Society of Structural Engineers (CSSE), Dubrovnik, 2006.
- NATO Advanced Research Workshop on Multi-physics and Multi-scale Computer Models in Nonlinear Analysis and Optimal Design of Engineering Structures Under Extreme Conditions, Bled, Slovenia, 2004.
- The 9th International Conference on Numerical Methods in Continuum Mechanics, Žilina, Slovakia, 2003.

## Scientific projects • Modelling failure and stability of structures under large displacement (researcher)

- Non-linear seismic analysis of three-dimensional reinforced concrete structures (researcher)
- Other Projects International study program Structures resistant to accidental actions– Resilient Structures InterStruct, Josip Juraj Strossmayer University of Osijek, Faculty of Civil Engineering and Architecture Osijek, 2019.- (Member of Workgroup)
  - By implementing a modern scientific-research infrastructure at Faculty of Civil Engineering, Architecture and Geodesy in Split to smart specialization in green and energy-efficient construction, 2014-2018. (Project Leader)
  - HR.3.1.15 Strategic Development of Higher Education and Qualifications Standards in the field of sustainable and green building with innovative and interdisciplinary development of new Master's degree program in a sustainable and green building with a focus on the Mediterranean area, 2014.-2016. (Project Leader)
  - "Technology transfer infrastructure in the Croatian Adriatic Region TTAdria", 2013.-2014. (Sector expert)
  - IPA IV Programme, "Further development and implementation of the Croatian Qualifications Framework in Croatia", Europeaid/131254/M/ACT/HR, 2011. (Member of Workgroup)

#### Seminars

- Lecturer in Erasmus Programme Teaching Staff Mobility for academic year 2015/2016 University of Ljubljana, Faculty of Civil and Geodetic Engineering, Slovenia (24-28.10.2016.)
- Lecturer in Erasmus Programme Teaching Staff Mobility for academic year 2014/2015 on VŠB-Technical University of Ostrava, Czech (25-29. 05. 2015.)
- Lecturer in Erasmus Programme Teaching Staff Mobility for academic year 2013/2014 on Hochschule RheinMain University Wiesbaden, Department of Architecture and Civil Engineering, Institute of Building Materials and Structures, Wiesbaden, Germany (14-18. 10. 2013.)
- Lecturer in Erasmus Programme Teaching Staff Mobility for academic year 2013/2014 on Czech Technical University in Prague, Faculty of Civil Engineering, Prague, Czech (05-09. 05. 2014.)
- Lecturer in Long life learning seminars (over 50 seminars), (Faculty of Civil Engineering, Architecture and Geodesy, Split / Croatian Chamber of Civil Engineers), 2007-.

#### Memberships

- Lions Clubs International "Diocletian" Split, District 126, Croatia, 2009.-
- Croatian Chamber of Civil Engineers, 2005.-
- Croatian society of mechanics, 1996.-

Split, May 2022.