

Komisija za pripremanje prijedloga za izbor/napredovanje
u naučnonastavno zvanje redovni profesor (jedan izvršilac)
za naučnu oblast „Konstrukcija“

UNIVERZITET U SARAJEVU - GRAĐEVINSKI FAKULTET
Patriotske lige 30
71000 Sarajevo

VIJEĆU UNIVERZITETA U SARAJEVU - GRAĐEVINSKI FAKULTET

Odlukom Vijeća Univerziteta u Sarajevu-Građevinski fakultet, broj: 02-1-2481-7/25 od 10.03.2026. godine u Sarajevu, imenovana je Komisija za pripremanje prijedloga za izbor/napredovanje u naučnonastavno zvanje **redovni profesor** za naučnu oblast „Konstrukcija“ – jedan (1) izvršilac sa punim radnim vremenom, u sastavu:

1.) Prof.dr. Mustafa Hrasnica, dipl.ing.građ., redovni profesor Univerziteta u Sarajevu – Građevinski fakultet (naučna oblast: „Konstrukcije“), predsjednik Komisije

2.) Prof.dr. Esad Mešić, dipl.ing.građ., redovni profesor Univerziteta u Sarajevu – Građevinski fakultet (naučna oblast: „Konstrukcije“), član Komisije

3.) Prof.dr. Samir Dolarević, dipl.ing.građ., redovni profesor Univerziteta u Sarajevu – Građevinski fakultet (naučna oblast: „Konstrukcije“), član Komisije

Na osnovu pisane Potvrde Sekretara Univerziteta u Sarajevu-Građevinskog fakulteta o blagovremenosti prijave broj 03-2481-5/25 od 23.02.2026.godine (koja predstavlja sastavni dio Izvještaja), Komisija je konstatovala da se na konkurs objavljen u dnevnim novinama „Dnevni Avaz“, Web stranici Univerziteta u Sarajevu i Univerziteta u Sarajevu - Građevinski fakultet, dana 03.02.2026. godine, u utvrđenom roku, prijavio jedan kandidat sa kompletnom dokumentacijom traženom konkursom, i to:

1. **Prof.dr. Goran Simonović, dipl.ing.građ., vanredni profesor za naučnu oblast „Konstrukcije“** Univerziteta u Sarajevu - Građevinski fakultet (naučna oblast: „Konstrukcije“).

(Konkursna prijava kandidata zavedena je u protokolu Univerziteta u Sarajevu - Građevinskog fakulteta pod brojem 03-2-2481-4/25 od 17.02.2026. godine).

Komisija je konstatovala da je prijava potpuna, (Potvrda o potpunosti Prijave na Konkur za izbor u naučno nastavno zvanje redovni profesor za naučnu oblast „Konstrukcije“ br.: 03-2481-10/26 od 12.03.2026.godine, koja predstavlja sastavni dio Izvještaja) prema uvjetima konkursa za izbor/napredovanje u naučnonastavno zvanje redovni profesor, prema odredbama člana 96 stav 1) tačka f), člana 100, člana 102 i člana 115. stav (2) **Zakona o visokom obrazovanju ("Službene novine Kantona Sarajevo", broj: 33/17, 35/20, 40/20 i 39/21)**, kao i prema odredbama člana 194 stav (1), tačka f), člana 196. i člana 199 stavovi (1), (4) i (5) **Statuta Univerziteta u Sarajevu od 28.11.2018. god.**, pripremila Vijeću Univerziteta u Sarajevu - Građevinski fakultet Izvještaj sa zaključkom i prijedlogom za izbor/napredovanje:

IZVJEŠTAJ KOMISIJE ZA PRIPREMANJE PRIJEDLOGA ZA IZBOR/NAPREDOVANJE U ZVANJE REDOVNI PROFESOR ZA KANDIDATA:

Prof.dr. Goran Simonović, dipl.inž.građ, vanredni profesor Univerziteta u Sarajevu-Građevinski fakultet

A. BIOGRAFSKI PODACI:

• **Lični podaci**

Ime i prezime: Goran Simonović
Datum rođenja: _____ godine u Sarajevu, Bosna i Hercegovina
Adresa: _____ Sarajevo

• **Trenutni angažman:**

- Univerzitet u Sarajevu - Građevinski fakultet vanredni profesor i tehnički rukovodilac Instituta za materijale i konstrukcije fakulteta,
- Politehnički fakultet Univerziteta u Zenici vanredni profesor – angažman po osnovu ugovora o djelu

• **Kvalifikacije:**

- Doktor tehničkih nauka, Univerzitet u Sarajevu - Građevinski fakultet, 04.12.2014. godine;
- Magistar tehničkih nauka, Univerzitet u Sarajevu - Građevinski fakultet, 03.06.2008. godine;
- Diplomirani inženjer građevine, Univerzitet u Sarajevu - Građevinski fakultet, 08.10.1998. godine.

• **Radno iskustvo i pozicije:**

1999 - 2005	Arhitekt d.o.o. – Projektant konstrukcija
2000 - 2005	Građevinski fakultet Univerziteta u Sarajevu – asistent honorarno
2005 - 2006	Institut za materijale i konstrukcije Građevinskog fakulteta u Sarajevu
2006 - 2008	Građevinski fakultet Univerziteta u Sarajevu – asistent za naučne oblasti: “Mehanika i teorija konstrukcija” i “Građevinske konstrukcije”
2008 - 2015	Građevinski fakultet Univerziteta u Sarajevu – viši asistent za naučne oblasti: “Mehanika i teorija konstrukcija” i “Građevinske konstrukcije”
2013 - 2016	Politehnički fakultet Univerziteta u Zenici, asistent i viši asistent
2015 - 2020	Građevinski fakultet Univerziteta u Sarajevu – docent za naučnu oblast “Konstrukcije”.
2015 -	UNDP BiH– Roaster of experts
2017 - 2020	Politehnički fakultet Univerziteta u Zenici - docent za naučnu oblast “Konstrukcije”
2020 -	Građevinski fakultet Univerziteta u Sarajevu - vanredni profesor za naučnu oblast “Konstrukcije”, te tehnički rukovodilac Instituta za materijale i konstrukcije.
2020 -	Politehnički fakultet Univerziteta u Zenici – vanredni profesor za naučnu oblast “Konstrukcije”
2021 -	ALL4R&D platform - predavač

B. OCJENA ISPUNJENOSTI UVJETA ZA IZBOR:

B.1. ZAVRŠEN ODGOVARAJUĆI CIKLUS STUDIJA

Kandidat prof.dr. Goran Simonović dostavio je ovjerene kopije diploma kojima se dokazuju završeni ciklusi studija kao i potvrdu o provedenom periodu u zvanju vanredni profesor :

- DIPLOMA O ZAVRŠENOM STUDIJU ZA STICANJE ZVANJA DOKTOR TEHNIČKIH NAUKA IZ OBLASTI GRAĐEVINARSTVA (OVJERENA KOPIJA), STEČENA NA GRAĐEVINSKOM FAKULTETU UNIVERZITETA U SARAJEVU,
- DIPLOMA O ZAVRŠENOM STUDIJU ZA STICANJE ZVANJA MAGISTAR TEHNIČKIH NAUKA IZ OBLASTI GRAĐEVINARSTVA (OVJERENA KOPIJA), STEČENA NA GRAĐEVINSKOM FAKULTETU UNIVERZITETA U SARAJEVU
- DIPLOMA O ZAVRŠENOM STUDIJU ZA STICANJE STRUČNOG ZVANJA DIPLOMIRANOG INŽINJERA GRAĐEVINARSTVA (OVJERENA KOPIJA), STEČENA NA GRAĐEVINSKOM FAKULTETU UNIVERZITETA U SARAJEVU,
- POTVRDA IZDANA OD STRANE UNIVERZITETA U SARAJEVU – GRAĐEVINSKI FAKULTET O PROVEDENOM IZBORNOM PERIODU U ZVANJU „VANREDNI PROFESOR“,

B.2. OBJAVLJENI NAUČNI I STRUČNI RADOVI – BIBLIOGRAFIJA (OD IZBORA U ZVANJE VANREDNI PROFESOR 2020.GODINE)

Kandidat, prof.dr. Goran Simonović, u bibliografiji je naveo i u prijavi dostavio (u printanoj i elektronskoj formi) 14 radova, objavljenih nakon izbora u zvanje vanredni profesor, uz pregled časopisa i zbornika u kojima su objavljeni (URL web stranica). Pbrojao je i 20 radova objavljenih prije izbora u sadašnje zvanje. Kandidat je također dostavio i ispis Google Scholar-a sa ID ispisom Prof.dr. Goran Simonović.

Naučni radovi od prijave na konkurs za izbor u zvanje vanrednog profesora 2020. godine do 2026. godine:

1. CONVERGENCE OF THE FINITE ELEMENT METHOD WITH VARIABLE ELEMENT TOPOLOGY

Autori: Armin Hadrović, Mili Selimotić, Goran Simonović, Dani Rahimić
Datum publikacije: 10-14 March 2020 (objavljeno nakon prijave za izbor)
Zbornik: THE 7th INTERNATIONAL CONFERENCE "CIVIL ENGINEERING - SCIENCE AND PRACTICE
Izdavač: University of Montenegro Faculty of Civil Engineering, 2020 (Podgorica : Artgrafika)

ISBN 978-86-82707-32-5

Sažetak

The convergence of the 3D Variable Element Topology Finite Element Method (VETFEM) is presented. Comparing to the conventional Finite Element Method (FEM), VETFEM elements can have any polyhedral shape and possess much milder restrictions on the element geometry. However, strict continuity of VETFEM shape functions that are formed as low-order polynomials in the physical coordinates of the problem is not possible for elements of general polyhedral shape, due to the finiteness of their polynomial order. VETFEM, therefore, is regarded as a nonconforming method. Conditions that need to be satisfied for the method to converge are described and the behaviour of the method illustrated through the use of several "patch" tests as well as through the analysis of a 3D boundary value problem in elastostatic. Several different element patches, consisting of VETFEM elements as well as of Voronoi cells, are used to discretize the domain (cube) that was exposed to traction boundary conditions consistent with a uniform stress field. In the described 3D boundary value problem, geometry and pertinent boundary conditions of the problem, as well as the loading on the problem domain, are

described first. Then, the problem is analyzed under several levels of mesh refinement and various mesh realizations within each level of refinement. A reference solution was obtained by using a very fine mesh of VET elements near the problem boundary and conventional Finite Element Method (FEM) elements (hexes) in the body interior. For each level of mesh refinement and realization, an error relative to the reference solution is calculated for both the displacement vector magnitude and the normal stress in the vertical direction at a fixed location in the domain. The error is analyzed using log-log plots and an "envelope" which bounds the error from above for all analysis was constructed.

2. PROBLEM OF OPENING IN A CYLINDRICAL SILO

Autori: Goran Simonović, Jelena Medić, Senad Medić, Mili Selimotić
Datum publikacije: 10-14 March 2020 (objavljeno nakon prijave za izbor)
Zbornik: THE 7th INTERNATIONAL CONFERENCE "CIVIL ENGINEERING - SCIENCE AND PRACTICE
Izdavač: University of Montenegro Faculty of Civil Engineering, 2020 (Podgorica : Artgrafika)

ISBN 9788682707325

Sažetak

The paper deals with the problem of openings in a cylindrical silo. All stages from the design solution, the construction of the openings with strengthening, to the silo exploitation tests are shown. The silo was built in the 1980s, and the technological requirement to cut an opening in the silo walls occurred after the outage of the plant. The diameter of the silo is 30m and the wall height amounts to 30m. An opening of 4x4 m was planned in the reconstruction. The need to cut through the silo walls arose from the long-term deposition of the clinker and its solidification, thereby significantly reducing the useful storage capacity. The first part of the paper describes the original design solution. It is followed by a linearization of the relevant loads in order to create a simplified numerical model. Silo stresses obtained by finite element analysis are compared with influences that can be easily determined by membrane theory. This model was used to control the stresses of the original load bearing structure, as design documentation is lacking. Then the calculation was made for the model with openings. Strut-and-tie models were also formed in order to visualize the load bearing mechanism and to determine the required reinforcement. Execution of strengthening by jacketing is also briefly described. At the end of the paper, the excerpts from the silo testing after establishing of the openings are presented. The silo test was performed in stages. The load increment was approximately 20% of the full exploitation load. It takes slightly less than a month of continuous filling to saturate the silo. The measured stresses are as expected. The problem of ovalization of the silo due to the imperfect distribution of stored material was also pointed out.

3. ANALYSIS OF STEEL FRAMES STRENGTHENED WITH DIAGONALLY INSTALLED MECHANICAL DAMPERS

Autori: Emir Buljubašić, Goran Simonović
Datum publikacije: 05.10.2020
Zbornik: e-Zbornik 20/2020. Electronic collection of papers of the Faculty of Civil Engineering
Izdavač: Faculty of Civil Engineering, Architecture and Geodesy

<https://doi.org/10.47960/2232-9080.2020.20.10.30>

Sažetak

This paper is a continuation of the research on reinforcement of masonry walls using a combination of metal frames and mechanical dampers. This paper analyzes a single metal frame with and without reinforcement with mechanical dampers in order to have a clearer insight into the behavior of individual reinforcement components. It presents an overview of the basic characteristics of mechanical dampers,

their configuration and combinations with metal frame, and special emphasis is placed on their earthquake behavior. The results of the numerical analysis for a single metal frame were obtained using two modern software packages, ABAQUS and SAP2000. After the results of the individual metal frame were obtained, the metal frame was strengthened by applying mechanical dampers and analyzed.

4. EXPERIMENTAL TESTING OF A BRIDGE IN KRALJEVA SUTJESKA

Autori: Senad Medić, Hanka Hadžić, Enver Selimović, Sergey Churilov, Goran Simonović, Mustafa Hrasnica
Datum publikacije: April 2022
Zbornik: 19th International Symposium MASE: „Eurocodes - Gates to Europe“
Izdavač: Macedonian Association Of Structural Engineers

ISBN 978-608-4510-47-5

Sažetak

Testing of bridges with test load is an obligatory procedure before the opening of bridges for traffic. In this paper, we present the results of a test under static and dynamic vehicular loads of a bridge in Kraljeva Sutjeska in Bosnia and Herzegovina. The bridge is a reinforced concrete integral structure with a span of 21 m. The structure is arched and the solid slab cross-section has a variable depth that ranges from 70 to 120 cm. We have employed the ambient vibration method i.e., operational modal analysis to identify the eigenfrequencies and modal shapes. The method is particularly suitable for testing bridges without impairment of traffic flow. It also serves as a reference for the calibration of finite element models and damage identification.

5. ENGINEERING MODEL FOR ANALYSIS OF MASONRY STRUCTURES

Autori: Goran Simonović, Mustafa Hrasnica, Senad Medić
Datum publikacije: March, 2023
Zbornik: Proceedings of the 2nd Croatian Conference on Earthquake Engineering - 2CroCEE CroCEE Zagreb, Croatia
Izdavač: Faculty of Civil Engineering, Zagreb

<https://doi.org/10.5592/CO/2CroCEE.2023.114>

Sažetak

This paper presents the methodology for seismic analysis of masonry structures that can be employed in commercial software packages such as SAP2000. The concept of elementary block which combines non-linear spring and linear shell elements is used for discretization of masonry walls. The proposed modelling technique with localized nonlinearity can successfully simulate in-plane wall failure modes induced by compressive or tensile axial force and transverse force. It can also be used to investigate out-of-plane collapse which makes it a good candidate for 3D static and dynamic analysis of buildings. The modelling approach is tested on two examples where pushover analysis was performed: a single slender cantilever masonry wall and a family house. The response was verified against the results delivered by 3MURI and MINEA, and reasonable agreement was obtained. It is demonstrated that the transverse walls have significant contribution to the load bearing capacity of buildings.

6. AMBIENT VIBRATION MEASUREMENT OF THE INSTITUTE FOR MATERIALS AND STRUCTURES BUILDING IN SARAJEVO

Autori: Enver Selimović, Hanka Hadžić, Goran Simonović, Sergej Curilov, Mustafa Hrasnica, Senad Medić

Datum publikacije March, 2023
Zbornik: Proceedings of the 2nd Croatian Conference on Earthquake Engineering -
 2CroCEE CroCEE Zagreb, Croatia
Izdavač: Faculty of Civil Engineering, Zagreb

<https://doi.org/10.5592/CO/2CroCEE.2023.101>

Sažetak

Determination of dynamic properties of structures is the first step in assessing seismic response, and they can be measured in several ways. Controlling or knowing the input excitation usually applied by impact hammer or vibration shaker, typical for experimental modal analysis (EMA) that has been around for the past few decades, is for majority of structures difficult or practically impossible. Ambient vibration testing (AVT) or operational modal analysis (OMA), on the other hand, is the output-only modal analysis. It does not require knowledge of the input excitation, which is practically induced by wind, traffic or similar random source. In this paper, an investigation of ambient vibrations and numerical modelling of the building of the Institute for Materials and Structures (IMK) of the Faculty of Civil Engineering in Sarajevo was carried out. The main goal was to determine the dynamic characteristics of the IMK building using the DIGITEX SENTRY system and Artemis modal software. In addition to testing the IMK building, testing of simpler systems such as a wooden simple beam and a steel cantilever was also conducted. For each experiment, a modal analysis was performed in the Tower 8 software package. The numerical model of the building was more flexible than measured in the experiments, and the results were only comparable after inclusion of partition walls in the analysis.

7. EXPERIMENTAL TESTING OF AN INTEGRAL BRIDGE

Autori: Enver Selimović, Hanka Hadžić, Goran Simonović, Sergej Curilov, Mustafa
 Hrasnica, Senad Medić
Datum publikacije June 2023, Sarajevo
Zbornik: ECCOMAS MSF 2023 Thematic Conference
Izdavač: University of Sarajevo, Faculty of Civil Engineering

<https://gf.unsa.ba/eccomas-msf-2023>

Sažetak

Bridge testing is an obligatory procedure in order to release bridge to the traffic. In this paper, the results of the tests under static and dynamic vehicular loads of a bridge in Kraljeva Sutjeska, Bosnia and Herzegovina are presented. The bridge is a reinforced concrete integral structure with a span of 21 m. The structure is arched and the solid slab cross-section has a variable depth ranging from 70 to 120 cm. We have employed the ambient vibration method i.e., operational modal analysis to identify the eigenfrequencies and modal shapes. The method is particularly suitable for testing bridges without impairment of traffic flow. The testing results also serve as references for the calibration of finite element models and damage identification.

8. AMBIENT VIBRATION INVESTIGATION OF THE SUSPENSION BRIDGE OVER JABLANICA LAKE

Autori: Amina Karavelić, Hanka Hadžić, Enver Jahić, Goran Simonović, Mustafa
 Hrasnica, Senad Medić
Datum publikacije June 2024, Sarajevo
Zbornik: The 18th World Conference on Earthquake Engineering (WCEE2024), Milan,
 Italy
Izdavač: International Association of Earthquake Engineering (IAEE)

Sažetak

This paper presents the results of ambient vibration tests (AVT) conducted on a recently reconstructed suspension bridge in Ostrozac, Bosnia Herzegovina. The Ostrozac bridge is a typical example of aging infrastructure characterized by a lack of adequate maintenance and severe degradation by corrosion. It spans Jablanica lake with a total length of 248 m (25+198+25 m). The end coastal parts, each 25 m long, and the 18 m high towers are reinforced concrete. The central span is a complex steel structure consisting of portable prefabricated Bailey-type trusses suspended by vertical hangers and cables. Two main girders at an axial distance of 4.38 m are assembled from 65 doubled side panels, each 3.05 m long. Trusses are suspended by Ø30 mm steel hangers, placed at every 6.10 m, on a primary load-bearing cable consisting of 6Ø52 mm strands. Horizontal cables ensure lateral stability. The load-bearing cables are anchored in concrete blocks of problematic quality using threaded rods. The dynamic parameters were obtained by in situ measurements using the DigiteX Sentry system and the output-only operational modal analysis, which does not require knowledge of the input excitation. The vibrations were induced by wind or by the passage of cars. The measured modal parameters were employed to update the finite element models. The absence of original project documentation posed a significant difficulty for bridge assessment.

9. MASONRY WALL-RC SLAB INTERACTION UNDER SEISMIC LOADING

Autori: Goran Simonović, Mustafa Hrasnica, Senad Medić
Datum publikacije: March, 2025
Zbornik: Proceedings of the 3rd Croatian Conference on Earthquake Engineering - 3CroCEE, Split, Croatia
Izdavač: CroCEE

<https://doi.org/10.5592/CO/3CroCEE.2025.122>

Sažetak

In conventional engineering practice, masonry walls are typically analyzed independently from the rest of the structure. The gravity load is determined, and a horizontal load is applied under the assumption that RC slabs behave as rigid diaphragms, distributing horizontal forces according to the relative stiffness of the walls. The wall load-bearing capacity is then assessed in a separate model, considering the effects of bending moments, and normal and shear forces. However, spatial models that incorporate structural elements connected with masonry walls are rarely developed. This study focuses on slender masonry walls, where the height exceeds the length, a characteristic feature in traditional engineering structures. In such structures, reinforced concrete ring beams are commonly placed atop these walls, often transitioning into lintels or beams supporting the RC slab. The objective of this research is to investigate whether these elements, along with the RC slab as a whole, influence the seismic behavior of walls. Experimental studies and post-earthquake damage reports indicate that wall behavior varies significantly depending on the level of normal stress. Key influencing factors include the wall's position within the structure, load intensity, connection details, and material and geometric properties. Less-loaded walls, typically found on upper slabs, are prone to rocking failure, with or without edge crushing. Sliding failure is common under low normal forces combined with high shear stresses, whereas diagonal cracking occurs under specific stress conditions. This study develops a numerical model to explore the interaction between slender walls and RC slabs, particularly in relation to rocking and toe crushing. It aims to answer whether walls should be considered isolated or part of spatial frame systems.

10. SEISMIC PERFORMANCE OF EXISTING HIGH-RISE BUILDING WITH R.C. WALLS

Autori: Mustafa Hrasnica, Amina Karavelić-Hadžimejlić, Senad Medić, Goran Simonović

Datum publikacije June 2025, Split
Zbornik: ECCOMAS MSF 2025 Thematic Conference
Izdavač: University of Sarajevo, Faculty of Civil Engineering

<https://ceacm.net/msf-2025>

Sažetak

Bridge testing is an obligatory procedure in order to release bridge to the traffic. In this paper, the results of the tests under static and dynamic vehicular loads of a bridge in Kraljeva Sutjeska, Bosnia and Herzegovina are presented. The bridge is a reinforced concrete integral structure with a span of 21 m. The structure is arched and the solid slab cross-section has a variable depth ranging from 70 to 120 cm. We have employed the ambient vibration method i.e., operational modal analysis to identify the eigenfrequencies and modal shapes. The method is particularly suitable for testing bridges without impairment of traffic flow. The testing results also serve as references for the calibration of finite element models and damage identification.

11. PROBLEM OF OVALIZATION OF A CYLINDRICAL SHELL

Autori: Goran Simonović, Senad Medić, Mustafa Hrasnica, Muhamed Zlatar
Datum publikacije Sept. 2025
Zbornik: 21th International Symposium MASE: Structural Engineering - Limitless
Izdavač: Macedonian Association Of Structural Engineers

ISBN 978-608-4510-67-3

Sažetak

Modern structural analysis is unimaginable without the aid of computer technology. Not long ago, however, civil engineering relied solely on theoretical knowledge and manual calculations. The results of that era still stand today as monumental structures and symbols of their time. This paper investigates the behavior and failure mechanism of the cylindrical concrete shell of the "Dom mladih" building, part of the Skenderija complex in Sarajevo. After reconstruction, an unexpectedly large number of cracks appeared. The lack of complete original documentation necessitated a detailed reverse-engineering effort. Using a modern 3D numerical model, the study revealed significant tensile forces caused by asymmetrical support conditions. This analysis led to the identification of a spatial load-bearing mechanism responsible for the observed cracking, and the corresponding reconstruction strategy.

12. STRUCTURAL TESTING OF A CYLINDRICAL SHELL

Autori: Goran Simonović, Senad Medić, Mustafa Hrasnica, Jelena Medić
Datum publikacije Sept. 2025
Zbornik: 21th International Symposium MASE: Structural Engineering - Limitless
Izdavač: Macedonian Association Of Structural Engineers

ISBN 978-608-4510-67-3

Sažetak

This article deals with the problem of silos with openings and the results of measurements. The silo was built in the 1980s, and the technological requirement to cut an opening in the silo walls occurred after the outage of the plant. The diameter of the silo is 30m and its height is 30m. The planned opening is 4x4m in size. The need to cut the opening arose from the long-term deposition of clinker in the silo and its hardening, which significantly lost the useful volume for material storage. In the first part of the work, the original project solution is briefly described. The following is an excerpt from the project and execution. Then, excerpts from the testing of the silo structure after cutting the opening were presented.

The testing of the silo was done in stages. The load increment was about 20% of the full operating load. It takes less than a month of continuous filling to fill the silo. The measured stresses are generally in line with expectations. However, some illogicalities occurred during the measurements, which are partly to be investigated in the paper.

13, STRUCTURAL TESTING OF A ADMINISTRATIVE BUILDING

Autori: Goran Simonović, Senad Medić, Mustafa Hrasnica
Datum publikacije: Sept. 2025
Zbornik: RIM 2025 International conference on Development and Modernization of Manufacturing
Izdavač: University of Bihać, Faculty of Technical Engineering

ISSN 2566 - 3283

Sažetak

Structural regularity of load-bearing elements should be a design goal. This does not imply that all buildings must look the same—in fact, creativity is encouraged, provided that the structural load paths are clear. However, when analysing existing structures without original design documentation—especially those employing nonstandard load-bearing systems—it is not an easy task to determine key structural features. We found very interesting example of unusual structure. Logically we presumed simple structure with usual columns element with prevailing compression, but after we look up the whole building we discovered a truss in the roof. The main beam in the first floor hanged actually on the roof structure and the middle columns became tension elements. This explained the beam height of 600 mm, which the designer used to span 12 m.

14, STRUCTURAL TESTING OF A MEMORIAL

Autori: Goran Simonović, Senad Medić, Amina Karavelić-Hadžimejlić
Datum publikacije: Sept. 2025
Zbornik: RIM 2025 International conference on Development and Modernization of Manufacturing
Izdavač: University of Bihać, Faculty of Technical Engineering

ISSN 2566 - 3283

Sažetak

Usually, when we talk about structural testing using trial loading, this refers to the testing of bridges, buildings, and similar engineering structures, while monuments are rarely analysed in this way. This paper presents a load test of a monument, where the applied load intensity corresponds to the calculated design load. The aim of the test is to demonstrate that the monument possesses the required load-bearing capacity, i.e., to simulate a potential undesirable scenario such as the monument overturning.

U pripremi je rad:

M. Hrasnica, S. Medić, A. Karavelić-Hadžimejlić, G. Simonović, *Seismic Performance of the Older High-Rise Building with R.C. Walls and Slabs*, 18th European Conference on Earthquake Engineering, Berlin, September 14 – 18, 2026

B.3. OBJAVLJENE MONOGRAFIJE, KNJIGE, UDŽBENICI

Prof.dr.Goran Simonović,dipl.inž.građ. je nakon izbora u zvanje vanredni profesor (2020.godine) objavio je 2 udžbenika i to:

1. ISPITIVANJE GRAĐEVINSKIH KONSTRUKCIJA I
Goran Simonović. stranica 288, slika 218, tabela 4, poglavlja 6, literaturnih navoda 58, format B5, ISBN: 978-9958-938-86-2
Izdavač: Univerzitet u Sarajevu - Građevinski fakultet, 2025.
Štamparija: Fojnica d.d.
2. ISPITIVANJE GRAĐEVINSKIH KONSTRUKCIJA II
Goran Simonović i Senad Medić. stranica 218, slika 156, tabela 26, poglavlja 15, literaturnih navoda 43, format B5, ISBN: 978-9958-638-97-9,
Izdavač: Univerzitet u Sarajevu - Građevinski fakultet, 2025.
Štamparija: Fojnica d.d.

B.4. UČEŠĆE NA PROJEKTIMA

Međunarodni/internacionalni naučno-istraživački projekti i stručni projekti

1. ERASMUS+, Capacity Building in higher education, Co-funded by the Erasmus+ Programme of the European Union, 2019-2022, Project Reference Number: 598719-EPP-1-2018-1-MK-EPPKA2-CBHE-JP,
2. ALL4R&D platform, Promoting academia-industry alliances for R&D through collaborative and open innovation platform, online platforma prethodnog projekta gdje je predavač na kursu.

Stručni projekti:

2020

- Elaborat stanja armiranobetonske podloge kosog lifta na Ciglanama – druga staza
- UNDPBIH – inspektor za izvršenu rekonstrukciju 20 infrastrukturnih objekata
- Elaborat o stanju konstrukcije nakon požara u pogonu Sprind Sarajevo
- Uzorkovanje i ispitivanje betona, Eking
- IMK - 229 različitih poslova indirektno ili direktno uključen

2021

- Stručno mišljenje o stanju mosta u Zenici
- Arcelor Mittal Zenica - Nadzor Rudni dvor
- IMK - 225 različitih poslova indirektno ili direktno uključen

2022

- Okružni sud u Bijeljini naknadno vještačenje Aquaparka Pavlović.

- Elaborat o stanju konstrukcije građevine Ledena dvorana, Sajamska dvorana i Garaža KJP Centar „Skenderija“.
- IMK - 252 različitih poslova indirektno ili direktno uključen

2023

- Elaborat o uticaju izgradnje brze ceste na postrojenje Ginex u Goraždu.
- Stručno mišljenje o mogućnosti instaliranja opreme na silos krečnog blata u Maglaju
- IMK - 213 različitih poslova indirektno ili direktno uključen

2024

- Studija o stanju objekata Acelormittal Zenica.
- Arcelor Mittal Zenica - Nadzor Rudni dvor.
- IMK - 257 različitih poslova indirektno ili direktno uključen

2025

- Instrukta - Podizanje ploče u Makarskoj
- Sud u Bihaću – Vještačenje u sporu.
- KSIRC Ilidža - Stručno mišljenje
- Grbo - Ispitivanje konstrukcije.
- IMK - 200 različitih poslova indirektno ili direktno uključen

2026

- Ld Bijeljina, Elaborat o stanju konstrukcije

B.5. NASTAVNO-PEDAGOŠKI RAD OD ZADNJEG IZBORA U ZVANJE VANREDNI PROFESOR 2020 GODINE

Prof.dr. Goran Simonović nakon izbora u zvanje vanredni profesor za naučnu oblast „Konstrukcije“ kao nastavnik je vodio predmete:

- Mehanika 1 - I ciklus studija u Sarajevu,
- Otpornost materijala 1 - I ciklus studija Građevinskog fakulteta u Sarajevu,
- Ispitivanje konstrukcija - II ciklus studija Građevinskog fakulteta u Sarajevu,
- Dinamika i stabilnost konstrukcija - I ciklus studija Politehničkog fakulteta u Zenici,
- Dejstva na objekte - I ciklus studija Politehničkog fakulteta u Zenici,
- Testing of Structures - ALL4R&D platform,

Kao asistent je izvodio praktični dio nastave iz predmeta:

- Otpornost materijala 2 - I ciklus studija Građevinskog fakulteta u Sarajevu,
- Ispitivanje konstrukcija - II ciklus studija Građevinskog fakulteta u Sarajevu.

B.6. MENTORSTVA NA II I III CIKLUSU STUDIJA OD 2020 GODINE

Prof.dr. Goran Simonović bio je mentor rada „Eksperimentalno ispitivanje silosa“ kandidata Nurak Armina i komentor rada „Određivanje i eksperimentalno utvrđivanje karakteristika zgrade Instituta za materijale i konstrukcije Građevinskog fakulteta u Sarajevu“ kandidata Terzić Namika na II ciklusu studija. U prethodnom izboru bio je mentor za sedam kandidata, a u toku su izrade završnih radova za još dva kandidata II ciklusa studija. Učestvovao je u radu mnogih Komisija za odbranu završnih radovana II ciklusu studija kao član ili predsjednik Komisije.

Članom 115, stav (2) Zakona o visokom obrazovanju („Službene novine Kantona Sarajevo“, broj: 33/17, 35/20, 40/20 i 39/21), regulisano je sljedeće: "U slučaju da kandidat pri izboru u akademsko zvanje iz objektivnih razloga nije mogao ispuniti uslov objavljena knjiga i/ili mentorstva za drugi i/ili treći ciklus studija odnosno integrisani studij, uvodi se ekvivalencija odnosno supstitucija objavljene knjige i/ili mentorstva sa tri dodatna naučna rada objavljena u citatnim bazama podataka, u odnosu na

minimalne uslove utvrđene zakonom". Objektivne razloge za neispunjavanje uvjeta mentorstva propisuje Statut Univerziteta u Sarajevu (28.11.2018.god.) u članu 199 stav (4) (objektivni razlog pod b) glasi: ako nijedan kandidat nije prijavio temu završnog rada odnosno magistarskog ili doktorskog rada iz naučne oblasti za koju se vrši izbor; objektivni razlog pod c) glasi: "ako zbog broja kandidata u datom vremenskom periodu kandidat za izbor u određeno akademsko zvanje nije određen za mentora").

Komisija je utvrdila da je kandidat u prijavi izdvojio sljedeća tri (3) naučna rada kao radove za ekvivalenciju/supstituciju za mentorstvo kandidata na III ciklusu studija:

1. ENGINEERING MODEL FOR ANALYSIS OF MASONRY STRUCTURES

Autori: Goran Simonović, Mustafa Hrasnica, Senad Medić
Datum publikacije: March, 2023
Zbornik: Proceedings of the 2nd Croatian Conference on Earthquake Engineering - 2CroCEE CroCEE Zagreb, Croatia
Izdavač: Faculty of Civil Engineering, Zagreb

<https://doi.org/10.5592/CO/2CroCEE.2023.114>

2. MASONRY WALL-RC SLAB INTERACTION UNDER SEISMIC LOADING

Autori: Goran Simonović, Mustafa Hrasnica, Senad Medić
Datum publikacije: March, 2025
Zbornik: Proceedings of the 3rd Croatian Conference on Earthquake Engineering - 3CroCEE, Split, Croatia
Izdavač: CroCEE

<https://doi.org/10.5592/CO/3CroCEE.2025.122>

3. PROBLEM OF OVALIZATION OF A CYLINDRICAL SHELL

Autori: Goran Simonović, Senad Medić, Mustafa Hrasnica, Muhamed Zlatar
Datum publikacije: Sept. 2025
Zbornik: 21th International Symposium MASE: Structural Engineering - Limitless
Izdavač: Macedonian Association Of Structural Engineers

ISBN 978-608-4510-67-3

Navedena tri (3) rada su u ovom Izvještaju u poglavlju B.2. OBJAVLJENI NAUČNI I STRUČNI RADOVI – BIBLIOGRAFIJA (OD IZBORA U ZVANJE VANREDNI PROFESOR 2020.GODINE), navedena pod brojevima 5, 9 i 11 i dat je detaljniji sažetak istih.

B.7. OSTALE NAUČNE I STRUČNE AKTIVNOSTI:

- Angažiran je pri Federalnom ministarstvu pravde u Komisiji za obuku stalnih sudskih vještaka iz oblasti građevinarstva.
- Od 2015.godine je na UNDP BiH listi eksperata za građevinarstvo.
- Zadnjih pet godina, pored redovnih naučnoistraživačkih aktivnosti, je tehnički rukovodilac Instituta za materijale i konstrukcije Građevinskog fakulteta.
- Položio stručni ispit iz oblasti građevinarstva.

PRIJEDLOG KOMISIJE SA OBRAZLOŽENJEM

Na osnovu svih podataka i informacija prezentiranih u ovom Izvještaju, kao i uvida Komisije u cjelokupni nastavni, pedagoški, naučnoistraživački i stručni rad prijavljenog kandidata, te uvažavajući potvrde sekretara Univerziteta u Sarajevu-Građevinski fakultet: Potvrde o blagovremenosti Prijave na Konkurs za izbor u naučno- nastavno zvanje redovni profesor za naučnu oblast „Konstrukcije“ br. 03-2481-5/26 od 23.02.2026. godine i Potvrde o potpunosti Prijave na Konkurs za izbor u naučno – nastavno zvanje redovni profesor za naučnu oblast „Konstrukcije“ br. 03-2481-10/26 od 12.03.2026. godine (koje predstavljaju sastavni dio Izvještaja), a u skladu sa odredbama **Zakona o visokom obrazovanju** (**“Službene novine Kantona Sarajevo”, broj: 33/17, 35/20, 40/20 i 39/21**) kao i odredbama Statuta Univerziteta u Sarajevu (Broj: 01-1093-3-1/18 od 28.11.2018.godine)., Komisija Vijeću Univerziteta u Sarajevu-Građevinski fakultet jednoglasno daje sljedeći:

PRIJEDLOG

Da se usvoji Izvještaj Komisije za pripremanje prijedloga za izbor/napredovanje u naučnonastavno zvanje redovni profesor (jedan izvršilac) za naučnu oblast „Konstrukcija“ i da se utvrdi prijedlog da se vanredni profesor dr.sc.Goran Simonović, dipl. inž. građ. izabere u zvanje redovnog profesora na naučnu oblast "Konstrukcije" na Odsjeku za konstrukcije, Univerziteta u Sarajevu – Građevinski fakultet, u radni odnos sa punim radnim vremenom.

OBRAZLOŽENJE

Komisija je referirajući se na odredbe člana 96 stav 1) tačka (f), člana 100, člana 102 i člana 115. stav (2) **Zakona o visokom obrazovanju** (**“Službene novine Kantona Sarajevo”, broj: 33/17, 35/20, 40/20 i 39/21**), kao i odredbe člana 194 stav (1), tačka f), člana 196. i člana 199 stavovi (1), (4) i (5) Statuta Univerziteta u Sarajevu od 28.11.2018. god, te na dosadašnju praksu Univerziteta u Sarajevu - Građevinski fakultet, konstatovala da prijavljeni kandidat **prof.dr. sc. Goran Simonović, dipl.inž.građ.** ispunjava sve propisane uvjete za izbor u zvanje **redovnog profesora** kako slijedi:

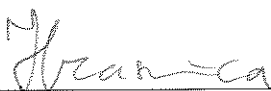
1. Kandidat posjeduje akademsko zvanje doktora tehničkih nauka iz oblasti za koju se bira od 2014. godine, a nakon prethodnog izbora 2020. godine, proveo je jedan izborni period u zvanju vanrednog profesora za naučnu oblast "Konstrukcije".
2. Od 2018.godine obavlja funkciju tehničkog rukovodioca Instituta za materijale i konstrukcije Univerziteta u Sarajevu-Građevinski fakultet.
3. Od 2020. godine (od zadnjeg izbora u zvanje vanredni profesor) objavio je ukupno 14 naučnih radova u časopisima/publikacijama koji prate relevantnu međunarodnu bazu.
4. Objavio je 2 (dva) recenzirana udžbenika (od zadnjeg izbora 2020.godine).
5. Nakon izbora u zvanje vanredni profesor učestvovao u 2 međunarodna naučna projekta10 (deset) projekata (1 međunarodni, 1 naučno-istraživački i 8 domaćih stručnih u svojstvu saradnika, revidenta i recenzenta).
6. Nakon izbora u zvanje vanredni profesor uradio je 18 stručnih pojekata, a kao tehnički rukovodilac Instituta za materijale i konstrukciju organizirao je nekoliko stotina različitih stručnih projekata, ekspertiza, elaborata i stručnih mišljenja.
7. U periodu od 2020.godine, predavao je 6 predmeta na Univerzitetu u Sarajevu – Građevinski fakultet i Politehničkom fakultetu Univerziteta u Zenici.
8. Nakon posljednjeg izbora 2020 godine bio je mentor 2 kandidata koji su uspješno odbranili završne radove na II ciklusu Univerziteta u Sarajevu - Građevinski fakultet, a dva završna magistarska rada su u toku.
9. Predsjednik je stručnog dijela Komisije za obuku stalnih sudskih vještaka za građevinarstvo.

Na osnovu svega izloženog, Komisija za pripremanje prijedloga za izbor akademskog osoblja u naučnonastavno zvanje **redovni profesor** za naučnu oblast „Konstrukcija“ utvrđuje da **vanredni profesor dr. sc. Goran Simonović, dipl.inž.građ.**, ispunjava sve uvjete Zakona o visokom obrazovanju („Službene novine Kantona Sarajevo”, broj: 33/17, 35/20, 40/20 i 39/21) kao i odredbe Statuta Univerziteta u Sarajevu (Broj: 01-1093-3-1/18 od 28.11.2018. god.) za izbor u zvanje—**univerzitetski redovni profesor**.

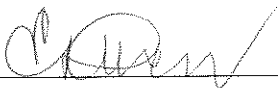
Na osnovu svih činjenica navedenih u ovom Izvještaju, te osobnog uvida članova Komisije u pojedinačne radove, naučni i stručni doprinos kandidata, kao i cjelokupni nastavni, pedagoški i naučnoistraživački rad, Komisija sa osobitim zadovoljstvom predlaže Vijeću Univerziteta u Sarajevu – Građevinski fakultet, da se utvrdi prijedlog da se **vanredni profesor dr. sc. Goran Simonović, dipl. inž. građ.**, izabere u naučnonastavno zvanje **redovni profesor** za naučnu oblast „Konstrukcije” na Univerzitetu u Sarajevu - Građevinski fakultet, te da se s tim u vezi nastavi Zakonom predviđena procedura do okončanja postupka.

Komisija u sastavu:

- 1.) Dr.sc. Mustafa Hrasnica, dipl.inž.građ., redovni profesor Univerziteta u Sarajevu – Građevinski fakultet (naučna oblast: „Konstrukcije“), predsjednik Komisije



- 2.) Dr.sc. Esad Mešić, dipl.inž.građ. – redovni profesor Univerziteta u Sarajevu – Građevinski fakultet (naučna oblast: „Konstrukcije“), član Komisije



- 3.) Dr.sc. Samir Dolarević, dipl.inž.građ. – redovni profesor Univerziteta u Sarajevu – Građevinski fakultet (naučna oblast: „Konstrukcije“), član Komisije



Sarajevo, 19.03.2026. godine