УНИВЕРЗИТЕТ У НОВОМ САДУ
НАЗИВ ФАКУЛТЕТА

УПУТСТВО ЗА ПИСАЊЕ ИЗВЕШТАЈА О ПРИЈАВЉЕНИМ КАНДИДАТИМА НА КОНКУРС ЗА ИЗБОР У ЗВАЊЕ ГОСТУЈУЋЕГ НАСТАВНИКА УНИВЕРЗИТЕТА
-обавезна садржина-

I. ПОДАЦИ О КОНКУРСУ, КОМИСИЈИ И КАНДИДАТИМА

1. Датум и место објављивања конкурса:

Одлука Наставно научног већа ФТН од 26.05.2021. године и Решење Декана ФТН број 01-1324/1 од 01.06.2021.

2. Број наставника који се бира, са назнаком звања и назив уже научне области за коју се расписује конкурс:

Један гостујући професор, УО – Грађевински материјали, процена стања и санација конструкција

3. Састав комисије са назнаком имена и презимена сваког члана, звања назива уже научне области за коју је изабран у звање, датум избора у звање и установа у којој је члан комисије запослен:

Др Властимир Радоњанин, ред. проф. ФТН, Нови Сад (уно: Грађевински материјали, процена стања и санација конструкција)
Др Снежана Маринковић, ред. проф. Грађевински факултет, Београд (уно: Бетонске конструкције)
Др Мирјана Малешев, ред. проф. ФТН, Нови Сад (уно: Грађевински материјали, процена стања и санација конструкција)
Др Ђорђе Лађиновић, ред. проф. ФТН, Нови Сад (уно: Теорија конструкција)
Др Мирослава Радека, ред. проф. у пензији ФТН, Нови Сад (уно: Грађевински материјали, процена стања и санација конструкција)

4. Пријављени кандидати:

Др. Илдико Мерта

II. БИОГРАФСКИ ПОДАЦИ О КАНДИДАТИМА

1. Име, једног родитеља и презиме:

Илдико Мерта (отац: доц. Др. Золтан Мерта)

2. Звање: Доцент, Научни саветник

3. Датум и место рођења, адреса:

23.03.1969 (Бачка Топола, Србија),
Адреса боравка: Ortsstrasse 86/3/2, 2331 Vösendorf, Austria

4. Садашње запослење, професионални статус, установа или предузеће:

Доцент, Универзитет у Марибору, Факултет за грађевинарство, саобраћај и архитектуру, Словенија

Научни саветник, TU Wien (University of Technology Vienna), Faculty of Civil Engineering, Austria, Institute of Material Technology, Building Physics,

and Building Ecology

5. Година уписа и завршетка основних студија:

1988-1995 (1992-95 прекид због запослења)

6. Студијска група, факултет, универзитет и успех на основним студијама:

Technical University Maribor, Faculty of Civil Engineering, Slovenia

Средња оцена: 8,2 (од 10)

7. Година уписа и завршетка специјалистичких, односно магистарских студија:

1999-2002

8. Студијска група, факултет, универзитет и успех на специјалистичким, односно магистарским студијама:

Магистарске студије:

Technical University Maribor, Faculty of Civil Engineering, Slovenia

TU Graz, Institute for Concrete Structures, Austria

Средња оцена: 9,8 (од 10)

9. Наслов специјалистичког рада, односно магистарске тезе:

Shear Strength of Reinforced Concrete Circular Cross Section Members

10. Наслов докторске дисертације:

Analytical Shear Capacity Model of Reinforced Concrete Circular Cross-Section Members under Monotonic Load

11. Факултет, универзитет и година одбране докторске дисертације:

TU Wien, Faculty of Civil Engineering, Austria, 2006, (PhD with honor)

12. Место и трајање специјализација и студијских боравака у иностранству:

TU Maribor, Slovenia: 1988-2000

TU Graz, Austria: 2001-2002

TU Wien, Austria: 2003-present

ZAG Ljubljana, Slovenia: 2018

Brno University of Technology, Czech Republic: 2017

Budapest University of Technology and Economics, Hungary: 2011

13. Знање светских језика:

Енглески, Немачки, Мађарски, Словеначки, Српски

14. Професионална оријентација (област, ужа област и уска оријентација):

Грађевинарство, наука о грађевинским материјалима, одрживи цементни композити

III. КРЕТАЊЕ У ПРОФЕСИОНАЛНОМ РАДУ

1. Установа, факултет, универзитет или фирма, трајање запослења и звање (навести сва):

Доцент 05/2021-present
Универзитет у Марибору, Факултет за грађевинарство, саобраћај и архитектуру, Словенија

Senior scientist 09/2018-present
TU Wien, Institute of Material Technology, Building Physics, and Building Ecology

Visiting researcher 12/2017-08/2018
Slovenian National Building and Civil Engineering Institute, Ljubljana, Slovenia

Visiting research fellow of the OeAD 07/2017-09/2017
Brno University of Technology, Institute of Structural Mechanics, Czech Republic

Hertha Firnberg post-doc fellow of the Austrian Science Fund (FWF)
for excellent female scientists 06/2012-06/2017
TU Wien, Institute for Building Construction and Technology

Visiting research fellow of the Austrian Research Association (ÖFG) 01/2011-03/2011
Budapest University of Technology and Economics, Hungary

Visiting research fellow of the Austrian Research Association (ÖFG) 04/2010-07/2010
Technical University Maribor, Slovenia

Post-doc university assistant 10/2008-06/2012
TU Wien, Institute for Building Construction and Technology

Research assistant 03/2003-10/2006
TU Wien, Institute for Building Construction and Technology

IV. ЧЛАНСТВО У СТРУЧНИМ И НАУЧНИМ АСОЦИЈАЦИЈАМА:

RILEM TC AMC: Use of Agro-Based Materials as Cementitious Additions
in Concrete and Cement-Based Materials 2019-

FIB-Federation internationale du beton (Hungarian group) 2018-present

IA-FraMCoS, International Association of Fracture Mechanics 2004-present
for Concrete and Concrete Structures

Wisia, Women in Science - an Interdisciplinary Association, Austria 2009-present

V. НАСТАВНИ РАД:

а) Претходни наставни рад (пре избора у звање наставника):

1. Курсеви наставних предмета, називи година студија и фонд часова:

Предмети (на TU Wien)	година
Механика лома (4. година - 2 часа/недељно)	2013
Одржавање и санација зграда (4. година - 3 часа/недељно)	2008-2010
Интердисциплинарни семинар (3. година - 2 часа/недељно)	2005-2006, 2008-2010
Техничко цртање, Регулатива за зграде (1. година - 2 часа/недељно)	2005-2006, 2008, 2010
Грађење зграда (4. година - 3 часа/недељно)	2005-2006, 2008-2010
Грађење и пројектовање (2. година - 2 часа/недељно)	2005-2006, 2009
Семинар - грађевинарство (4. година – 1,5 часа/недељно)	2006
Грађење зграда 2 (4. година - 3 часа/недељно)	2005-2006
Љуске и лаке конструкције (4. година – 1,5 часа/недељно)	2006

2. Педагошко искуство:

Предавања, вежбе, демострације у лабораторији, групни пројекти, менторства, истраживачки оријентисана предавања. Предавања на више језика (енглески, немачки, словеначки, мађарски, српски).

Наставне вештине (обука на TU Wien)

Презентације
Радионица о дидактичкој методологији за наставнике
Напредна настава на енглеском

3. Реизборност у звање асистента (од.до. број): -

Не постоји у Аустрији

4. Одржавање наставе под менторством (обим ангажовања у часовима/семестру, на предмету, са фондом часова): -

Грађење зграда 1 (4. година - 3 часа/недељно)	2005-2006, 2008-2010
Семинар грађење зграда (4. година – 1.5 час/недељно)	2006
Грађење зграда 2(4. година - 3 часа/недељно)	2005-2006

Под менторством Prof. Andreas Kolbitsch, TU Wien

b) Садашњи наставни рад (за избор у виша наставна звања – ванредни професор и редовни професор)

1. Назив предмета, година студија и фонд часова на основним, односно специјалистичким, магистарским и докторским студијама.

Предмети (на TU Wien)	година
Наука о грађевинским материјалима (1., 2., 3. година - 1.5 час/недељно)	2018 -
Историја конструктерства – Бетонске конструкције (3., 4. година - 1.5 час/недељно)	2014 -
Пројекти (4. година - 2 часа/недељно)	2014 -

2. Увођење нових метода у наставном процесу

Члан „ESEE Education Working Group of the European Institute of Innovation & Technology (EIT)“ KIC Raw Materials (12 members from 7 countries), involved in development of the educational strategy plan program for the Central- and East European Universities, Outcome: *ESEE Education Concept Note – a report on how to increase innovation capacity of ESEE region through education activity in the raw material sector (2019)*

3. Руковођење – менторство дипломских радова (број радова)

Мастер радови

G. Nemeth: Influence of curing regime on physical and mechanical properties of alkali-activated natural fibre fly ash mortars	2019
M. Eichinger: Bionic reinforcement in building construction	2010
F Chuan: Erdbeben- und Windaussteifung von Stahlhochbauten - State of the Art	2005
C Mantl: Punktgehaltene Glaskonstruktionen - State of the art	2005
S. Moser: Sicherheitsüberlegungen bei Bestandsobjekten	2005
M. Huber: Qualitätssicherung bei Stahlbetonsanierungen mit aufgeklebten CFK-Lamellen	2004

Дипломски радови

K. Heil: Bruchmechanische Werte von verschiedenen Beton – Gummigranulat – Gemischen	2012
Ch. Hinterleitner: Bruchmechanische Werte von Beton mit Gummi- Zusatz	2012
C. Nowakowski: Zugfestigkeit von Hanffasern in Beton	2012

4. Руковођење – менторство, специјалистичких радова и *магистарских теза (име и презиме студента, ужа научна област и наслов рада):

Не постоји у Аустрији.

Ментор на пројектима

Gergely Nemeth: (material science) Durability and structural physics of natural fibre concrete 2016

Andras Russoi: (material science) Advancement and durability of sustainable cementitious composites 2015-2016

5. Руковођење – менторство докторских дисертација (име и презиме докторанта, ужа научна област и наслов дисертације):

PhD thesis

Bojan Poletanovic (mentoring): Geopolymers reinforced with natural fibres 2016-present

Andreas Schneemayer (co-mentoring): Fracture mechanical behaviour of masonry mortar 2012-2016

Co-mentoring of PhD and post-doc incoming/outgoing fellows

Hana Simonova, incoming **post-doc fellow**, 01/2019-06/2019
Failure initiation and fracture of selected quasi-brittle building materials mainly using double-K fracture mode

Hana Simonova, incoming **post-doc fellow**, 09/2014-03/2015
Complex Evaluation of Wedge Splitting Fracture Tests of Hemp Fibre Concrete Specimens using Double-K Model

Ivana Havlikova, incoming **PhD student** 2014

Bojan Poletanovic: Improvement of durability of sustainable cementitious composites by means of fibre protection, Supervisor: I. Merta, K. Kopecsko 2017

Andreas Schneemayer: Estimation of the fracture process zone of quasi-brittle materials based on the acoustic emission data, Supervisor: I. Merta, Z. Kersner 2015

6. Извођење наставе на универзитетима ван земље:

Предавања

TU Wien, Faculty of Civil Engineering, Austria 2003-present

Гостујући предавач

Brno University of Technology, Faculty of Civil engineering, Institute of Structural Mechanics, Czech Republic 2015-present

7. Учешће у комисијама за одбрану дипломских и специјалистичких радова, магистарских теза и докторских дисертација:

PhD Thesis reviewer

J. D. Ríos Jimé, Reviewer: H. Cifuentes Bulte, I. Merta 2019
"*Microstructural analysis of heated ultra-high-performance fibre-reinforced-concrete under cyclic loading*"; Técnica Superior de Ingeniería Universidad de Sevilla

A. Singh Rajput, Reviewer: U. Kumar Sharma, I. Merta 2019
"*Seismic Evaluation and Upgradation of Corroded Confined Reinforced Concrete Columns*"; Indian Institute of Technology Roorkee, Dpt. of Civil Engineering

Habilitation (docent)

Member of the Habilitation Commission (M. Hoffmann), TU Wien, Faculty of civil engineering 2019

в) Награде и признања универзитета, педагошких и научних асоцијација

Award for Excellent Performance as a PhD Student 2006
TU Wien, Faculty of Civil Engineering, Vienna, Austria

Graduate Student Excellent Performance 1995
TU Maribor, Faculty of Civil Engineering, Maribor, Slovenia

г) **Уџбеници** (наслов, аутори, година издања, издавач):

д) **Друга дидактичка средства** (приручници, скрипте и сл. наслов, аутор, година издања, издавач):

Скрипте
Hochbaukonstruktionen (Band 1, 2, 3), TU Wien
Tragwerkslehre, TU Wien
Formelsammlung, TU Wien

VI ПРЕГЛЕД И МИШЉЕЊЕ О ДОСАДАШЊЕМ НАУЧНОМ ОДНОСНО УМЕТНИЧКОМ РАДУ

1. Научне књиге (оригинални наслов, аутори, година издања и издавач):

2. Монографије, посебна поглавља у научним књигама (наслов, аутори, година издања и издавач):

Књиге

I. Merta:
"*Matematicni prirocnik (Handbuch der Mathematik)*"; ISBN: 961-90382-2-3;
4 editions: 1996, 1997, 1998, 2002, Merta & Co., Maribor, Slovenia, 212 pages.

I. Merta:
"*Matematikai kézikönyv (Handbuch der Mathematik)";* ISBN: 963-85392-2-4;
2. Editions:1997, 2000, Fimath, Budapest, Ungarn, 210 pages.

I. Merta:
"*Matematicki prirucnik (Handbuch der Mathematik)*";
Suvremeno Gospodarstvo, Croatia, 1999, ISBN: 953-97667-0-2; 210 pages.

I. Merta:
"*Podrecznik matematyki (Handbuch der Mathematik)*";
Intermarkpress 2000, Warszawa, Poland, 1998, ISBN: 83-908727-8-1; 202 pages.

Поглавља у научним књигама

I. Merta:
"*Hemp Fibres-A Promising Reinforcement for Cementitious Materials*";
in: "*Natural Fibres: Advances in Science and Technology Towards Industrial Applications. From Science to Market*", issued by: Fangueiro, Raul, Rana, Sohel; Springer Verlag, 2016, ISBN: 978-94-017-7513-7, 291 - 303.

3. Референце међународног нивоа (публикације у међународним часописима, међународне изложбе и уметнички наступи):

1. I. Merta, A. Mladenovic, J. Turk, A. Sajna, A. Mauko Pranjic:
"*Life Cycle Assessment of Natural Fibre Reinforced Cementitious Composites*";
Key Engineering Materials, **761** (2018), 204 - 209. **(M23)**
2. S. Seitl, P. Miarka, I. Merta, Z. Kersner:
"*Numerical Stress Analysis of the Biaxial Tension-compression Wedge Splitting Test in Vicinity of the Crack Tip*";
Key Engineering Materials, **784** (2018), 85 - 90. **(M23)**
3. S. Seitl, P. Miarka, V. Ruzicka, L. Malikova, I. Merta:
"*Wedge Splitting Test: Displacement Field Analysis by Multi-parameter Fracture Mechanics*";
Transactions of the VSB - Technical University of Ostrava, Civil Engineering Series, **2** (2018), 18.
4. I. Merta, L. Berger, G. Heidfogel, K. Kuhn, G. Lewis, E. Tschegg:
"*Size and boundary effects on notch tensile strength and fracture properties of PMMA bone cement*";
Polymer Testing, **59** (2017), 441 - 448. **(M21)**
5. I. Merta, B. Poletanovic, K. Kopecsko:
"*Durability Of Natural Fibres Within Cement-Based Materials - Review*";

Concrete Structures. Journal of the Hungarian Group of fib (Federation International de Beton), **18** (2017), 10 - 16.

6. E. Tschegg, I. Merta, U. Fitsch, G. Lewis, K.D. Kühn:
"*Influence of Powder Sterilization Method on Properties of PMMA Bone Cement Using Novel Wedge-splitting Test Compact Tension Method*";
Current Applied Polymer Science, **1** (2017), 1 - 8. **(M22)**

7. V. Veselý, Z. Kersner, I. Merta:
"*Quasi-brittle behaviour of composites as a key to generalized understanding of material fracture*";
Procedia Engineering, Structural and Physical Aspects of Construction Engineering (2017), 190; 126 - 133.

8. I. Havlíková, P. Frantik, J. Masek, J. Sobek, H. Simonová, V. Veselý, Z. Kersner, S. Seitl, I. Merta, A. Schneemayer:
"*Evaluation of Fracture Tests of Concrete Specimens via Advanced Tool for Experimental Data Processing*";
Applied Mechanics and Materials, **821** (2016), 585 - 590. **(M23)**

9. H. Simonová, I. Havlíková, J. Sobek, A. Abdulrahman, Z. Kersner, I. Merta:
"*Evaluation of Wedge Splitting Fracture Tests using the Double-K Model: Analysis of the Effect of Hemp Fibre Dosage and Length in Concrete Specimens*";
Solid State Phenomena, **249** (2016), 142 - 146.

10. I. Havlíková, I. Merta, A. Schneemayer, V. Veselý, H. Simonová, B. Koryčanská, Z. Kersner:
"*Effect of Fibre Type in Concrete on Crack Initiation*";
Applied Mechanics and Materials, **769** (2015), 308 - 311. **(M23)**

11. S. Seitl, I. Merta, V. Veselý:
"*Wedge Splitting Test of Foam Concrete Specimens: Calibration Curves*";
Key Engineering Materials, **627** (2015), 281 - 284. **(M23)**

12. E. Tschegg, A. Schneemayer, I. Merta, K. A. Rieder:
"*Energy dissipation capacity of fibre reinforced concrete under biaxial tension-compression load. Part I: Test equipment and work of fracture*";
Cement and Concrete Composites, **62** (2015), 195 - 203. **(M21a)**

13. E. Tschegg, A. Schneemayer, I. Merta, K. A. Rieder:
"*Energy dissipation capacity of fibre reinforced concrete under biaxial tension-compression load. Part II: Determination of the fracture process zone with the acoustic emission technique*";
Cement and Concrete Composites, **62** (2015), 187 - 194. **(M21a)**

14. I. Merta:
"*Hemp Fibre Reinforced Foam Concrete: Discussion of the Wedge Splitting Test Method*";
International Journal of Research in Engineering and Technology, 0X (2014), 1 - 5.

15. I. Merta:
"*Building Materials Innovations: Concrete with Hemp (Baustoffinovationen: Beton mit Hanf, Pulver für Ziegel)*";
Die Presse (invited), **2013** (2013), 9./10. March; 6.

16. I. Merta, E. Tschegg:
"*Fracture energy of natural fibre reinforced concrete*";
Construction and Building Materials, **40** (2013), 991 - 997. **(M21a)**

17. I. Merta, A. Kolbitsch:
"*Die Schubtragfähigkeit kreisförmiger Stahlbetonbauteile mit Schubbewehrung*";
ÖIAZ - Österreichische Ingenieur- und Architektenzeitschrift, **153** (2008), 10-12; 393 - 396.

18. I. Merta, A. Kolbitsch:
"*Shear Capacity of Reinforced Concrete Circular Cross Section Members without Shear Reinforcement*";
Österreichische Ingenieur- und Architekten-Zeitschrift, **4-6** (2006), 151; 88 - 90.

19. I. Merta, L. Sparowitz, B. S. Bedenik:
"*Shear Strength Investigation of Reinforced Concrete Circular Cross Section Members*";
Gradbeni Vestnik (Slovenian Civil Engineer Journal), **4** (2003), 81 - 86.

4. Референце националног нивоа у другим државама (публикације у страним националним часописима, самосталне или колективне изложбе, уметнички или спортски наступи на билатералном нивоу):

5. Референце националног нивоа (публикације у домаћим часописима, самосталне или колективне домаће изложбе и уметнички или спортски

наступи у земљи:

6. Саопштења на међународним научним скуповима:

1. B. Poletanovic, I. Merta, A. Sajna, A. Mauko Pranjic, A. Mladenovic:
"*Comparison Of Physical And Mechanical Properties Of Cementitious Mortars Reinforced With Natural And Synthetic Fibres Prior And After Wet/dry Cycles*";
Talk: ICBBM2019 3th International Conference On Bio-Based Building Materials, Belfast, UK; 2019-06-26 - 2019-06-28; in: "*Proceedings of the 3th International Conference On Bio-Based Building Materials*", (2019), ISBN: 978-2-35158-229-9; 433 - 437. **(M33)**

2. H. Simonová, B. Kucharczykova, Z. Kersner, I. Merta, B. Poletanovic, L. Malikova, S. Seitl:
"*Effect Of Softening Function Type In Double-K Fracture Model: Alkali-Activated Fly Ash Mortar With Hemp Fibres*";
Talk: FraMCoS-X : Fracture Mechanics of Concrete and Concrete Structures, Bayonne (France; 2019-06-24 - 2019-06-26; in: "*Proceedings of the Xth Fracture Mechanics of Concrete and Concrete Structures*", (2019). **(M33)**

3. I. Merta:
"*Novel sustainable composites - potentials and challenges*";
Keynote Lecture: International Conference "CONTEMPORARY CIVIL ENGINEERING PRACTICE 2019", Novi Sad, Serbia (invited); 2019-06-06 - 2019-06-07; in: "*Proceedings of the Contemporary Civil Engineering Practice 2019*", International Conference "CONTEMPORARY CIVIL ENGINEERING PRACTICE 2019", (2019), 8 pages. **(M31)**

4. B. Poletanovic, I. Janotka, M. Bačuvčik, I. Merta:
"*Durability Of Fly Ash-Based Alkali-Activated Mortars Reinforced With Short Hemp Fibres*";
Talk: RILEM SPRING CONVENTION and SUSTAINABLE MATERIALS, SYSTEMS AND STRUCTURES CONFERENCE, Rovinj, Croatia; 2019-03-18 - 2019-03-22; in: "*Proceedings of the International Conference on Sustainable Materials, Systems and Structures (SMSS2019) New Generation of Construction Materials*", RILEM Publications S.A.R.L., Vol 1. (2019), ISBN: 978-2-35158-217-6; 133 - 140. **(M33)**

5. B. Poletanovic, K. Kopecsko, I. Merta:
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"*Influence of natural fibres on mechanical properties and durability of cementitious mortars*";
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11. I. Merta, A. Schneemayer, K. A. Rieder, E. Tschegg:
"*Correlation between the energy dissipation capacity and the extend of the fracture process zone of fibre reinforced concrete*";
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30. **I. Merta**, S. Kravanja:
"*Multi-parametric NLP Optimization of singly reinforced concrete rectangular beams*";
Talk: Third international fib Congress- Annual Convention and Bridge Conference, Washington, USA; 2010-05-29 - 2010-06-02; in: "*Third international fib Congress*", (2010), 1 - 10.

31. **I. Merta**, S. Kravanja:
"*Optimum design of singly reinforced concrete rectangular beams*";
Talk: ECCOMAS, Paris, France; 2010-05-16 - 2010-05-21; in: "*IV European Congress on Computational Mechanics Solids, Structures and Coupled Problems in Engineering*", (2010).

32. **I. Merta**, E. Tschegg, A. Kolbitsch:
"*Fracture Mechanical Properties of Concrete Reinforced with Straw Fibres*";
Poster: COST Strategic Workshop: Principles and Development of Bio-Inspired Materials, Wien; 2010-04-13 - 2010-04-15; in: "*Principles and Development of Bio-Inspired Materials*", S. Tschegg, R. Seidel (ed.); (2010), 145 - 146.

33. **I. Merta**, S. Kravanja:
"*Cost Optimum Design of Reinforced Concrete Simply Supported One-way Slabs*";
Talk: ASCE 2010 - 12th International Conference on Engineering, Science, Construction, and Operations in Challenging Environments, Honolulu, Hawaii, USA; 2010-03-14 - 2010-03-17; in: "*Earth & Space*", ASCE, (2010), 2670 - 2678.

34. **I. Merta**, S. Kravanja:
"*Minimum Cost Design of Reinforced Concrete Beams using a Nonlinear Programming Approach*";
Talk: The Twelfth International Conference on Civil, Structural and Environmental Engineering Computing, Funchal, Madeira; 2009-09-01 - 2009-09-04; in: "*The Twelfth International Conference on Civil, Structural and Environmental Engineering Computing*", Civil-Comp Press, (2009), ISBN: 978-1-905088-31-7; Paper ID 124, 11 pages.

35. **I. Merta**, A. Kolbitsch:
"*The Deviatoric Shear Capacity Mechanism by Reinforced Concrete Circular Members*";
Talk: Second International Workshop on Performance, Protection and Strengthening of Structures under Extreme Loading, Hayama, Japan; 2009-08-19 - 2009-08-21; in: "*Structures under Extreme Loading*", Y. Sonoda, N. Banthia, K. Fujikake (ed.); (2009), ISBN: 978-4-9904806-0-8; 9 pages.

36. **I. Merta**, S. Kravanja, A. Kolbitsch:
"*Optimization Based Cost Comparison of RC Beams Rectangular Cross Section with Different Aspect Ratios*";
Talk: 3rd International Conferences on Experiments / Process / System, Athens, Greece; 2009-07-08 - 2009-07-11; in: "*3rd International Conferences on Experiments / Process / System*", D. T. Tsahalis (ed.); (2009), 8 pages.

37. **I. Merta**:
"*Shear strength model of reinforced concrete circular cross-section members*";
Talk: Third International Conference on Structural Engineering Mechanics and Computation, Cape Town, South Africa; 2007-09-10 - 2007-09-12; in: "*Recent Developments in Structural Engineering, Mechanics and Computation*", A. Zingoni (ed.); Millpress Science Publishers, Rotterdam, The Netherlands, (2007), ISBN: 9789059660540; 6 pages.

38. **I. Merta**, A. Kolbitsch:
"*Analytical Evaluation of the Effective Area of Reinforced Concrete Circular Sections under Shear*";
Talk: The Tenth East Asia-Pacific Conference on Structural Engineering & Construction (EASEC-10), Bangkok, Thailand; 2006-08-03 - 2006-08-05; in: "*Real Structures: Bridges and Tall Buildings*", (2006), ISBN: 974-8257-17-7; 735 - 740.

39. **I. Merta**:
"*Design of Reinforced Concrete T-Cross Sections Subjected to Flexure*";

Talk: 22nd Biennial Conference - Concrete 05, Melbourne, Australia; 2005-10-17 - 2005-10-19; in: "*Concrete-Issues, Opportunities, Innovations*", The Concrete Institute of Australia, (2005), 6 pages.

40. **I. Merta**:
"*Flexural Design of Reinforced Concrete Beams with T-Section*";
Talk: Third International Conference on Construction Materials ConMat`05, Vancouver, Canada; 2005-08-22 - 2005-08-24; in: "*Construction Materials*", N. Banthia, T Uomoto, A. Bentur, S. P. Shah (ed.); The University of British Columbia, (2005), ISBN: 0-88865-810-9; 7 pages.

9. Индекс компетентности

3xM21a + 1xM21 + 1xM22 + 5xM23 + 1xM31+45xM33 = 106,5

VII. СТРУЧНИ РАД (прихваћени или реализовани пројекти, патенти, законски текстови и др).

ИСТРАЖИВАЧКИ ПРОЈЕКТИ (у раду)

Climate Resilient Concrete Paving Block (CRICK) 01/2020-12/2021
funded by the Federal Ministry of Science, Research and Economy (BMWFW), international cooperation project (WTZ) with scientific partner: University of Zagreb grant nr. HR 09/2020

Leader of the Austrian team, project budget: €16,000 (TU Wien share: €8,000)

Integrity and durability aspects of recycled aggregates composites (InDuRAC) 01/2020-12/2021
funded by the Federal Ministry of Science, Research and Economy (BMWFW), international cooperation project (WTZ) with scientific partner: TU Brno and Czech Academy of Science, grant nr. CZ 17/2020

Leader of the Austrian team, project budget: €14,000 (TU Wien share: €7,000)

Evaluation of Red Mud Tailings in the ESEE region (Restore) 01/2020-12/2022
funded by the European Institute of Innovation & Technology (EIT) KIC Raw Materials, consortium of 11 partners from 11 EU countries from research, industry and education

Leader of the Austrian team, project budget: € 1.474,521 (TU Wien share: € 33,450)

RawMaterials@Schools-ESEE (RM@School) 01/2020-12/2022
funded by the European Institute of Innovation & Technology (EIT) KIC Raw Materials, consortium of 11 partners from 10 EU countries from research, industry and education

Leader of the Austrian team, project budget: ~€1mill (TU Wien share: €49,275)

Structured mobilities for ESEE raw materials master programs *(MOBI-us)* 01/2020-07/2021
funded by the European Institute of Innovation & Technology (EIT) KIC Raw Materials, consortium of 7 partners from 6 EU countries from research, industry and education

Leader of the Austrian team, project budget: €257,371 (TU Wien share: €48,536)

Training trainers in East and Souteastern Europe (Train ESEE) 01/2020-12/2021
funded by the European Institute of Innovation & Technology (EIT) KIC Raw Materials, consortium of 10 partners from 8 EU countries from research, industry and education

Leader of the Austrian team, project budget: €723,751 (TU Wien share: €86,195)

Al-rich industrial residues for mineral binders in ESEE region (Alice) 01/2019-12/2021
funded by the European Institute of Innovation & Technology (EIT) KIC Raw Materials, consortium of 16 partners from 10 EU countries from research, industry and education

Leader of the Austrian team, project budget: €932,339 (TU Wien share: €79,946)

Natural fibre reinforced cementitious composites for sustainable infrastructure (India) 07/2018-06/2020
funded by the Federal Ministry of Science, Research and Economy (BMWFW), international cooperation project (WTZ) with scientific partner: Indian Institute of Technology Roorkee, Dpt. of Civil Engineering, grant nr. IN 18/2018

Leader of the Austrian team, project budget: ~€28,000 (TU Wien share: €14,000)

Improvement of durability of natural fibres in alkali-activated materials (Alkali) 01/2019-12/2019
funded by the Federal Ministry of Science, Research and Economy (BMWFW), international cooperation project (AKTION A-H) with scientific partner: Budapest University of Technology, grant nr. 101öu10

Leader of the Austrian team, project budget: ~€10,000 (TU Wien share: €1,530)

ИСТРАЖИВАЧКИ ПРОЈЕКТИ (завршени)

Failure initiation and fracture of quasi-brittle building materials (FInFraM) 01/2018-12/2019
funded by the Federal Ministry of Science, Research and Economy (BMWFW), international cooperation project (WTZ) with scientific partner: Czech Academy of Science, grant nr. CZ 10/2018

Leader of the Austrian team, project budget: ~€13,000 (TU Wien share: ~€6,500)

Fiber reinforced alkali activated composites - properties and selected durability aspects (MULT_DR 08/2017) 01/2017-06/2019
Multilateral Scientific and Technological Cooperation Projects in the Danube Region, with scientific partners: University of Belgrade, Czech Academy of Science

Leader of the Austrian team, applied budget: €25,260 (TU Wien share: €9,920)

Green Concrete (GreenCrete) 11/2017-11/2018
funded by the Austrian Research Promotion Agency (FFG), industrial partner OPUS Innovations GesmbH

Project leadership, project budget: €5,000

Improvement of durability of sustainable cementitious composites by means of fibre protection (IMPREG) 01/2017-01/2018
funded by the Federal Ministry of Science, Research and Economy (BMWFW), international cooperation project (AKTION A-H) with scientific partner: Budapest University of Technology and Economics

Project leadership, project budget: €8,548 (TU Wien share: €3,170)

Natural fibre concrete under biaxial load – advanced evaluation of experimental results using complex fracture mechanics methods 2017 (3 months)
funded by the Federal Ministry of Science, Research and Economy (BMWFW), AKTION A-CZ, outgoing visiting research fellowship, TU Brno

Principal investigator, grant: €2,997 (81,000 CZK)

Durability of sustainable natural fibre cementitious composites in Alpine regions (DuS NFCC) 01/2016-12/2017
funded by the Federal Ministry of Science, Research and Economy (BMWFW), international cooperation project (WTZ) with scientific partner: Slovenian National Building and Civil Engineering Institute, grant nr. SI 18/2016

Project leadership, project budget: €12,000 (TU Wien share: €6,580)

Corrosion of fibre reinforcement in durable concrete barrier walls (KORRFASBE) 03/2016-12/2017
funded by the Austrian research promotion agency (FFG) within a COMET- K1-Centers program, scientific partner: Competence centre for electrochemical surface technology (CEST), industrial partner: DeltaBloc International GmbH

Leader of the TU Wien team, project budget: €100,000

Feasibility study for DeltaBloc - application of different types of fibres (DeltaBloc A) 10/2015-12/2017
funded by industrial partner: DeltaBloc International GmbH and ecoplus – The business agency of Lower Austria

Principal investigator, project budget: €66,000

Development of new testing configurations for relevant values of fracture characteristics of cementitious composites (DeTeCon) 01/2014-03/2016
funded by the Federal Ministry of Science, Research and Economy (BMWFW), international cooperation project (WTZ) with scientific partners: TU Brno and Czech Academy of Science, grant nr. CZ 07/2014

Leader of the Austrian team, project budget: €11,000 (TU Wien share: €5,528)

Foam concrete reinforced with hemp fibers (Foam Hemp) 02/2013-6/2017
funded by Austrian Research Promotion Agency (FFG), grant nr. 840149, industrial partner: GIS-HP e.U. Green, innovative, safe and healthy products

Principal investigator, project budget: €12,500

Biaxial fracture mechanical properties of natural fibre concrete (Biaxial NFC) 06/2012-06/2017

funded by Austrian Science Fund (FWF), Hertha Firnberg post-doc fellowship for outstanding female researchers, grant nr. T503-N13

Principal investigator, project budget: €217,106

Durability of hemp fibres in the alkaline environment of cement matrix, 01/2011-03/2011
funded by Austrian Research Association (ÖFG),
outgoing post-doc fellowship TU Budapest, grant nr. 469

Principal investigator, grant: €9,450

Mixed-Integer Non-Linear Programming (MINLP) optimization of simply supported reinforced concrete beams with rectangular cross-section, 04/2010-04/2010
funded by Austrian Research Association (ÖFG),
outgoing post-doc fellowship TU Maribor, grant nr. 425

Principal investigator, grant: €7,600

VIII. ПРИЗНАЊА, НАГРАДЕ И ОДЛИКОВАЊА ЗА ПРОФЕСИОНАЛНИ РАД:

Energy Globe Award 2019 Vienna, for the research project Hemp concrete
(one of the world most prestigious sustainability awards) 2019

NÖ Cluster Award, (Cluster Award of Lower Austria) nomination for the research project "Zero Debris Concrete", awarded by eco-plus Economic Chamber of NÖ 2017
(4 out of over 90 projects)

Sustainability Award 2016 2016
in the category of research for the research project: Natural Fibre Concrete;
Austrian Federal Ministry of Science, Research and Economy (BMWFW) and
Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW)

BAWAG PSK "Frauenpreis" 2013
award for excellent achievements in research as a female scientist in Austria

Hertha Firnberg Post-doc Fellow 2012-2017
highly competitive program for excellent female scientists of the Austrian Science Fund (FWF)

IX АНАЛИЗА РАДА КАНДИДАТА (на једној страници куцаног текста):

Др Илдико Мерта (Доцент на Универзитету у Марибору, Факултет за грађевинарство и Научни саветник на TU Wien, Institute of Material Technology, Building Physics and Building Ecology) је остварила изузетне научно-истраживачке резултате у свом раду. Поред великог броја објављених радова у часописима на СЦИ листи и на међународним конференцијама, добила је и престижне међународне и нацоналне награде:

Energy Globe Award 2019 Vienna, for the research project Hemp concrete
(one of the world most prestigious sustainability awards) 2019

NÖ Cluster Award, (Cluster Award of Lower Austria) nomination for the research project "Zero Debris Concrete", awarded by eco-plus Economic Chamber of NÖ 2017
(4 out of over 90 projects)

Sustainability Award 2016 2016
in the category of research for the research project: Natural Fibre Concrete;
Austrian Federal Ministry of Science, Research and Economy (BMWFW) and
Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW)

BAWAG PSK "Frauenpreis" 2013
award for excellent achievements in research as a female scientist in Austria

Hertha Firnberg Post-doc Fellow 2012-2017
highly competitive program for excellent female scientists of the Austrian Science Fund (FWF)

Др Илдико Мерта поседује богато наставно искуство, укључујући наставу на 15 предмета на TU Wien у Бечу, гостујућа предавања на Универзитетима у Европи, увођење нових наставних метода, руковођење израдом и одбраном дипломских и мастер радова, као и докторских дисертација. Најзначајније резултате у свом

истраживачком раду остварила је у областима одрживог грађевинарства и употреби рециклираних и отпадних материјала у цементним композитима. У последњих 5 година има 232 цитата.

X МИШЉЕЊЕ О ИСПУЊЕНОСТИ УСЛОВА ЗА ИЗБОР У ЗВАЊЕ СВАКОГ КАНДИДАТА ПОЈЕДИНАЧНО на 1 / 2 стране куцаног текста, са називом звања за које је конкурс расписан.

На основу анализе презентованих резултата научне, стручне и педагошке активности кандидата Комисија је мишљења да др Илдико Мерта испуњава све услове утврђене Законом о високом образовању, Правилником о ближим условима за звање наставника Универзитета у Новом Саду и Статутом Факултета техничких наука, за избор у звање гостујућег професора за ужу област Грађевински материјали, процена стања и санација конструкција.

XI ПРЕДЛОГ ЗА ИЗБОР КАНДИДАТА У ОДРЕЂЕНО ЗВАЊЕ НАСТАВНИКА

Имајући у виду све чињенице презентоване у овом извештају, предлажемо да др Илдико Мерта буде изабрана у звање гостујући професор за ужу област Грађевински материјали, процена стања и санација конструкција на Факултету техничких наука Универзитета у Новом Саду.

ПОТПИСИ ЧЛАНОВА КОМИСИЈЕ

др Властимир Радоњанин, ред. проф. (ФТН, Нови Сад)

_____

др Снежана Маринковић, ред. проф. (Грађевински факултет, Београд)

_____

др Мирјна Малешев, ред. проф. (ФТН, Нови Сад)

_____

др Ђорђе Лађиновић, ред. проф. (ФТН, Нови Сад)

_____

др Мирослава Радека, ред. проф. у пензији (ФТН, Нови Сад)

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НАПОМЕНА: Извештај се пише навођењем кратких одговора, са валидним подацима, у облику обрасца, без непотребног текста.

Рангирање радова и индекс компентенције врше се односно израчунавају према правилнику надлежног министарства.

Члан комисије који не жели да потпише извештај јер се не слаже са мишљењем већине чланова комисије, дужан је да унесе у извештај образложење, односно разлоге због којих не жели да потпише извештај.