

## LIČNE INFORMACIJE



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## LIČNI PROFIL

Redovni profesor na Mašinskom fakultetu Univerziteta Crne Gore

## RADNO ISKUSTVO

16/03/2016–danas **Dekan Mašinskog fakulteta**

Univerzitet Crne Gore - Mašinski fakultet, Podgorica (Crna Gora)

27/06/2013–danas **Redovni profesor**

Univerzitet Crne Gore - Mašinski fakultet, Podgorica (Crna Gora)

01/04/2008–27/06/2013 **Vanredni profesor**

Univerzitet Crne Gore - Mašinski fakultet, Podgorica (Crna Gora)

27/12/2002–01/04/2008 **Docent**

Univerzitet Crne Gore - Mašinski fakultet, Podgorica (Crna Gora)

12/12/1996–27/12/2002 **Asistent**

Univerzitet Crne Gore - Mašinski fakultet, Podgorica (Crna Gora)

01/06/1992–12/12/1996 **Asistent pripravnik**

Univerzitet Crne Gore - Mašinski fakultet, Podgorica (Crna Gora)

## OBRAZOVANJE I OBUKE

05/04/1996–12/03/2002 **Doktor Tehničkih nauka**

Univerzitet Crne Gore - Mašinski fakultet, Podgorica (Crna Gora)

15/06/1992–05/04/1996 **Magistar Tehničkih nauka**

Univerzitet Crne Gore - Mašinski fakultet, Podgorica (Crna Gora)

01/10/1987–15/05/1992 **Diplomirani mašinski inženjer**

Mašinski fakultet Univerziteta u Beogradu, Beograd (Srbija)

## LIČNE VEŠTINE

Maternji jezik/ci cmnogorski, srpski

| Strani jezik/ci   | RAZUMEVANJE   |                   | GOVOR              |                    | PISANJE             |
|---|---|-------------------|--------------------|--------------------|---------------------|
|   | Slušanje  | Čitanje           | Usmena interakcija | Usmeno izražavanje |                     |
| engleski  | C2  | C2                | C2                 | C2                 | C2                  |
| ruski   | A1  | A1                | A1                 | A1                 | A1                  |
| <b>Nivoi: A1 i A2: Osnovna upotreba jezika - B1 i B2: Samostalna upotreba jezika - C1 i C2: Napredna upotreba jezika<br/>Zajednički evropski referentni okvir za jezike</b> |   |                   |                    |                    |                     |
| Organizacione / upravljačke veštine   | Od Marta 2016 obavljam dužnost Dekana Mašinskog fakulteta |                   |                    |                    |                     |
| Digitalne kompetencije  | <b>SAMOPROCENA</b>  |                   |                    |                    |                     |
|   | Obrada informacija  | Komunikacija      | Stvaranje sadržaja | Bezbednost         | Rešavanje problema  |
|   | Napredna upotreba   | Napredna upotreba | Napredna upotreba  | Napredna upotreba  | Samostalna upotreba |

Digitalne kompetencije - tabela za samoprocenu

## DODATNE INFORMACIJE

### Biografija

Rođen sam 13.05.1968. u Titogradu (Crna Gora, SFR Jugoslavija). Osnovnu školu "Maksim Gorki" završio sam 1982, a Gimnaziju Slobodan Škerović 1986. godine. Školske 1986/1987 upisao sam se na Mašinski fakultet Univerziteta Crne Gore, a nakon završetka prve dvije godine studija, nastavio sam školovanje na Mašinskom fakultetu Univerziteta u Beogradu, gdje sam diplomirao 1992 godine kao najbolji student generacije.

Magistarski rad pod nazivom "**Analiza procesa stvaranja i otapanja leda primjenom modifikovane entalpijske metode u akumulatorima rashladne energije**" odbranio sam 1996. Godine na Univerzitetu Crne Gore. Doktorsku disertaciju pod nazivom "**Analiza fenomena faznog prelaza u multikomponentnim sistemima sa aspektima tehničke primjene**" odbranio sam 2002. na Univerzitetu Crne Gore.

Od perioda od 2004 – 2015 godine sa strane Crne Gore bio sam nosilac pet međunarodnih naučnih projekta i to: "**Modeliranje promjena faza u Al legurama**" (2004 i 2005), "**Modeliranje makro i mikro segregacije trokomponentnih legura dobijenih postupkom DC livenja i kontinuiranim livenjem trake**" (2006 i 2007), "**Multiskalarno modeliranje conntinuiranog livenja čelika**" (2010-2011) i "**Napredno modeliranje continuiranog livenja čelika**" (2012 – 2013) i "**Modeliranje industrijskih procesa očvršćavanja pod uticajem elektromagnetnog polja**" (2013 – 2015) koji su realizovani u saradnji sa Laboratorijom za Višefazne Procese Univerziteta iz Nove Gorice.

Tokom 2004 i 2005 godine radio sam na izradi "**Strategija energetske efikasnosti za Crnu Goru sa akcionim planom 2005 – 2006**" u saradnji sa Prof. dr. Ilijom Vujoševićem sa Elektrotehničkog fakulteta, a koji je usvojen od Vlade Crne Gore u proleće 2005 godine. Bio sam član Savjeta za implementaciju Strategije EE za Crnu Goru, koje je formirano pri Ministarstvu za Ekonomiju Vlade Republike Crne Gore.

U periodu 2006 – 2007 kao predavač po pozivu boravio sam na Univerzitetu u Birmingham – u (UK) i Laboratorij **FAST** Univerziteta **Pierre et Marie Curie** u Parizu, i na **Purdue University (USA)** u okviru projekta usavršavanja kadrova Univerziteta Crne Gore.

Bio sam član Savjeta Agencije za Zaštitu životne sredine čija je nadležnost monitoring očuvanje životne sredine. Aktivan sam član Inženjerske Komore Crne Gore od 2009.

Tokom 2010 godine radio sam kao dio tima na kapitalnom projektu CANU "**Crna Gora u XXI stoljeću u eri kompetitivnosti**", u okviru podprojekta **ENERGIJA**.

U 2012 godini u okviru bilateralnih projekata rukovodilac sam naučnog projekta u saradnji sa HOHAI Univerzitetom, NANJING iz Kine pod nazivom: "**Fast meshless simulation of heat transfer in large-scale thin-walled structures**".

U septembru 2012 godine bio sam organizator renomiranog Naučnog simpozijuma **ICCES MM '12** koji je okupio sam svjetski vrh istraživača iz oblasti bemeđenih numeričkih metoda, a koji je organizovan pod pokroviteljstvom Univerziteta Crne Gore, Ministarstva za Nauku Vlade Crne Gore i

COBIK-a centra uspješnosti iz Ljubljane.

Od marta 2013 obavljam funkciju Predsjednika Skupštine strukovne komore mašinskih inženjera Crne Gore.

U periodu 2012 – 2015 radio sam kao član Komisije za izdavanje energetskih dozvola u Ministarstvu ekonomije Crne Gore.

Od marta 2016 obavljam funkciju Dekana Mašinskog fakulteta, i član sam Senata Univerziteta Crne Gore.

Gоворим, пишем и текно читам енглески језик и слуžим се руским језиком.

**Radovi u Internacionalnim  
časopisima sa rezencijom i SCI  
indeksom**

1. I. Vušanović, V. R. Voller, "Best practice for measuring grid convergence in numerical models of alloy solidification", *International Journal of Numerical Methods for Heat and Fluid Flow*, Vol. 26 No. 2, pp. 427-439 (2016)
2. I. Vušanović, V. R. Voller, "Simple metrics for verification and validation of macrosegregation model predictions", *IOP Conference Series: Materials Science and Engineering* 117 (2016) 012062.
3. I. Vušanović, "Transient permeability in macrosegregation of static casting in binary al-loys: Use of CDF statistical model for analysis", *IOP Conference Series: Materials Science and Engineering* 84 (2015) 012008.
4. V. R. Voller, I. Vušanović "Frequency Analysis of Macrosegregation Measurements and Simulations", *International Journal of Heat and Mass Transfer* 79 (2014) 468–471.
5. I. Vušanović, V. R. Voller, "Understanding channel segregates in numerical models of al-loy solidification: A case of converge first and ask questions later", *Materials Science Forum*, Vols. 790-791, pp. 73-78, (2014), Trans Tech Publications, Switzerland (doi:10.4028/www.scientific.net/MSF.790-791.732013).
6. E. Tombarević, V.R. Voller, I. Vušanović, "Detailed CVFEM Algorithm for Three Dimensional Advection-diffusion Problems", (2013), *Computer Modeling in Engineering and Science CMES*, Vol. 96, no.1, pp. 1 – 29.
7. B. Šarler, R. Vertnik, A.Z. Lorbiecka, I. Vušanović, B. Senčič. Application of continuous casting simulation at Štore Steel, II. *BHM Berg Huettenmaennische Monatshefte*, (2013), str. 1-9, doi: 10.1007/s0050101301477.
8. B. Šarler, R. Vertnik, A. Z. Lorbiecka, I. Vušanović, B. Senčič, "A multiscale slice model for continuous casting of steel", *IOP Conference Series: Materials Science and Engineering* 33 (2012) 012021.
9. J. D. Jovanović, E. M. Tombarević, I. C. Vušanović, "Control volume finite element method for modeling of spur gear frictional heat", (2013), *Technics Technologies Education Management – TTEM*, Vol. 8, No 2. 5/6.
10. I. Vušanović, M. J. M. Krane, "Macrosegregation in horizontal direct chill casting of ternary Al alloys: Investigation of solid motion", *IOP Conference Series: Materials Science and Engineering* 27 (2011) 012069.
11. I. Vušanović, R. Vertnik, B. Šarler, "A simple slice model for prediction of macrosegregation in continuously cast billets", *IOP Conference Series: Materials Science and Engineering* 27 (2011) 012056.
12. E. Tombarević, I. Vušanović, "Modeling of ice-water phase change in horizontal annulus using modified enthalpy method", (2011), *Advances in Applied Mathematics and Mechanics*, Vol. 3, No 3, pp. 354 – 369.
13. I. Vušanović, "Macrosegregation of ternary Al – 4.5Cu – 1.0Mg alloy in horizontal direct chill casting: implementation of non-equilibrium microsegregation model", (2009), *International Journal of Cast Metal Research*, Vol. 22, No 1 – 4, pp. 314 – 317.
14. M. J. M. Krane, I. Vušanović "Macrosegregation in horizontal direct chill casting of aluminum slabs", (2009), *Materials Science & Technology*, Vol. 25, No. 1, pp. 102 – 107.
15. I. Vušanović, B. Šarler, M.J.M. Krane, "Microsegregation during the solidification of an Al–Mg–Si alloy in the presence of back diffusion and macrosegregation", (2005), *Materials Science Engineering (A)*, Vol. 413 – 414, pp. 217 – 222.
16. A. Bergant, U. Karadžić, J. Vitkovsky, I. Vušanović, A. R. Simpson, "A Discrete Gas-Cavity Model that Considers the Frictional Effects of Unsteady Pipe Flow", (2005), *Strojniški vestnik – Journal of Mechanical Engineering*, Vol. 51(11), pp. 692 – 710.
17. I. Vušanović, M. J. M. Krane, "Microsegregation during solidification of Al-Cu-Mg alloys with varying composition", (2002), *International Communications in Heat and Mass Transfer*, Vol. 29, No 1,

## Radovi na Internacionalnim kongresima

- (2002), pp. 1037-1046.
18. I. Vušanović, D. Voronjec, M.J.M. Krane, "Microsegregation phenomena in Al-Cu-Mg alloy with considering of diffusion phenomena in primary phase" *Facta Universitatis*, Vol. 1, No 8, (2001), pp. 965 - 980.
19. V. Asanovic, B. Perovic, Z. Markovic, I. Vušanović, A. Kostov, "The influence of heat treatment on shape memory effect, *Materials Science Forum*, Vol. 352. (2000) pp. 165-170.
- V. Asanović, B. Perović, Z. Marković-Leka, A. Kostov, I. Vušanović, "Thermoelastic Martensitic Transformation and Shape Memory Effect in Cu-Zn-Al Alloys," *Acta periodica technologica*, Vol. 31, (2000), Issue B, pp. 515-523.
1. E. Tombarević, I. Vušanović "Experimental validation of a quasi-3D CVFEM model of borehole heat exchangers", Fourth International Conference on Computational Methods for Thermal Problems, THERMACOMP 2016, July 6-8, 2016, Georgia Tech, Atlanta, USA, N. Massarotti, P. Nithiarasu and Y. Joshi (Eds.)
2. I. Vušanović, "Transient permeability in macrosegregation of static casting in binary alloys: Use of CDF statistical model for analysis ", Modeling of Casting, Welding and Advanced Solidification Processes (MCWASP XV 2015) Awaji Island, Japan, June 2015.
3. I. Vušanović, V. R. Voller, "Simple metrics for verification and validation of macrosegregation model predictions", 4th International Conference on Advances in Solidification Processes, Beaumont Estates, Old Windsor, UK, 2014.
4. I. Vušanović, V. R. Voller, "Effect of domain size on grid convergence in numerical models of alloy solidification", Third International Conference on Computational Methods for Thermal Problems, THERMACOMP 2014, June 2-4, 2014, Lake Bled, Slovenia, (N. Massarotti, P. Nithiarasu and B. Šarler (Eds.)
5. E. Tombarević, I. Vušanović, "Numerical Model of Heat flow in a Geothermal borehole heat exchanger ", Third International Conference on Computational Methods for Thermal Problems, THERMACOMP 2014, June 2-4, 2014, Lake Bled, Slovenia, (N. Massarotti, P. Nithiarasu and B. Šarler (Eds.)
6. B. Šarler, A. Z. Lorbiecka, U. Hanoglu, R. Vertnik, I. Vušanović, "A meshless slice model for continuous casting and hot rolling of steel. " V: LIU, Gui-Rong (ur.), LIU, Z. S. (ur.). Proceedings of the 5th Asia Pacific Congress on Computational Mechanics (APCOM2013) and 4<sup>th</sup> International Symposium on Computational Mechanics (ISCM2013), 11th -14th December 2013, Singapore.
7. I. Vušanović, V. R. Voller, "Understanding channel segregates in numerical models of alloy solidification: A case of converge first and ask questions later ", The 6th International Conference on Solidification and Gravity, Miskolc Lillafured, Hungary, 2 – 6th September 2013.
8. B. Šarler, R. Vertnik, A. Z. Lorbiecka, U. Hanoglu, I. Vušanović, " An Extended Heat and Mass Transfer Slice Model for Continuous Casting of Steel", ECCOMAS Special Interest Conference Numerical Heat Transfer , Gliwice-Wroclaw, Poland , 4-6 September 2012. Eds.: A. Nowak, R.A. Bialecki
9. E. Tombarević, I. Vušanović, "Control Volume Finite Element Method for two and three dimensional advection-diffusion problems", ICCEES Special Symposium on Meshless & Other Novel Computational Methods, Budva, Montenegro, September 2012.
10. B. Šarler, R. Vertnik, A. Z. Lorbiecka, I. Vušanović, B. Senčič, "A multiscale slice model for continuous casting of steel", Modeling of Casting, Welding and Advanced Solidification Processes (MCWASP XIII 2012), Schladming, Austria, June 2012
11. I. Vušanović, R. Vertnik, B. Šarler, "A simple slice model for prediction of macrosegregation in continuously cast billets: influence of different solid diffusion models", International symposium on liquid metal processing and casting, LMPC, Nancy, France, September 2011
12. I. Vušanović, R. Vertnik, B. Šarler, "A simple slice model for prediction of macrosegregation in continuously cast billets", 3rd International Conference on Advances in Solidification Processes, Rolduc Abbey/Aachen, Germany, June 2011
13. I. Vušanović, M. J. M. Krane, "Macrosegregation in horizontal direct chill casting of ternary Al alloys: Investigation of solid motion", 3rd International Conference on Advances in Solidification Processes, Rolduc Abbey/Aachen, Germany, June 2011
14. E. Tombarević, I. Vušanović, "3D Numerical model of the borehole heat exchanger", Slovensian-Italian Conference on Materials and Technologies for Sustainable Growth, University of Nova Gorica, Ajdovščina, Slovenia, May 2011
15. I. Vušanović, "Energy efficiency in building sector: solutions for heating and air conditioning in

- Montenegro", Third International Conference GNP 2010, Žabljak, Montenegro, 2010.
16. E. Tombarević, I. Vušanović, "Modelling of ice melting in horizontal annulus using en-thalpy method", First International Conference on Computational Methods for Thermal Problems, ThermaComp 2009, Naples, Italy, 2009.
  17. E. Tombarević, I. Vušanović, "Influence of inner pipe wall temperature on freezing of water in a horizontal cylindrical annulus", EUROTHERM Nr. 84 Thermodynamics of phase change, Namur, Belgium, 2009.
  18. I. Vušanović, "Macrosegregation of ternary Al – 4.5wt%Cu – 1.0wt% Mg alloy in horizontal direct chill casting – implementation of non-equilibrium microsegregation model" Proceedings of the Second International Conference on Advances in Solidification Processing, Graz/Seggau, Austria, June 2008.
  19. M. Šekularac, I. Vušanović, "Mathematical modeling of HVAC installations", Klima Forum 2007, Godovič, Slovenia, September 2007
  20. I. Vušanović, I. Vujošević, "Energy efficiency strategy in Montenegro – implementation and challenges", Klima Forum 2007, Godovič, Slovenia, September 2007.
  21. I. Vušanović, B. Šarler, "Modeling of micro and macro segregation in DC casting of ternary Al based alloys", EUROMAT 2007, Nurnberg, Germany, September 2007.
  22. I. Vušanović, M. J. M. Krane, "Macrosegregation in horizontal direct chill casting (HDC) of aluminium binary alloys billets- influence of casting parameters," in Solidification Processing 07, H. Jones et al. (eds.), pp 428-432 (2007).
  23. I. Vušanović, M.J.M. Krane, "Macrosegregation In Horizontal Direct Chill Casting (HDC) Of Aluminum Alloy Billets – Influence Of Casting Parameters", Proceedings of the 5th Decennial International Conference on Solidification Processing, Sheffield, UK, July 2007.
  24. U. Karadžić, A. Bergant, I. Vušanović, "Influence of unsteady friction on transients in hydraulic pipeline systems", 12th Symposium on thermal science, Sokobanja, Serbia, October 2005.
  25. N. Kažić, I. Vušanović, "Exergy and HVAC", Klima forum 2006, Godovič, Slovenia, September 2006.
  26. Šarler, B., Kovačević, I., Vernik, R., Hartman, S., Vušanović, I., Založnik, M., Šafhalter, R., Slaček, E., Dragojević, V., Jelen, M., Strnad, V., Robič, A. : Integrated numerical simulation approach in IMPOL aluminium industry casthouse, International Conference on Aluminium in conjunction with the 6th World Trade Fair, Essen, Germany, September, 2006.
  27. I. Vušanović, B. Šarler, M.J.M. Krane, "Microsegregation during the solidification of an Al–Mg–Si alloy in the presence of back diffusion and macrosegregation", International Conference on Advances in Solidification Processes, Stockholm, Sweden, 2005.
  28. I. Vušanović, M.J.M. Krane, "Mathematical model for microsegregation of Al rich Al-Cu-Mg alloys with considering of diffusion in primary phase", II International Symposium LIGHT METALS AND COMPOSITE MATERIALS, Belgrade, Serbia & Montenegro, 2004.
  29. I. Vušanović, M.J.M. Krane, "Numerical and Experimental study of Macrosegregation During the Casting of Al-Cu-Mg Alloys", EUROTHERM 69 Heat and Mass Transfer in Solid – Liquid Phase Change Processes, Ljubljana, Slovenia, 2003.
  30. V.D. Asanovic, I. Vušanović, Z.B. Markovic, A. Kostov, B. Bosnjak, B. Radulovic, "The influence of the heat treatment on martensitic transformation and properties of Cu-Zn-Al shape memory alloys", 3rd Macedonian Conference of Metallurgy, Ohrid, 2000.
  31. V.D. Asanovic, Z.B. Markovic, I. Vušanović, B. T. Bosnjak, B. Radulovic, A. Kostov, "Iso-thermal decomposition of  $\alpha$  phase in Cu-Zn-Al shape memory alloy", 2nd International Conference on "Chemical Sciences for Sustainable Development", Greece, 2000.
  32. V.D. Asanovic, B. Perovic, Z. Markovic, A. Kostov, I. Vušanović, "Thermoelastic martensitic transformation and shape memory effect in Cu-Zn-Al alloys", YUCFPCE (Yugoslav Congress of food, pharmaceutical and Chemical engineering), Novi Sad, 1999.
  33. I. Vušanović, "Numerical modeling of phase change in ice-water system by using modified enthalphy method", 10th Symposium YU - TERM '97, Zlatibor, 1997.
  34. I. Vušanović, N. Kažić, "One numerical approach to the process in the ice storage device", 12th International Congress of Chemical and Process Engineering - CHISA '96, Prague, 1996.
  35. I. Vušanović, V. Stevanovic, M. Studovic, "Transferring of waves in evaporator channel with disturbances of intake fluid flow", 24th Congress KGH, Belgrade, 1993.
  36. I. Vušanović, V. Stevanovic, M. Studovic, "Mathematical model of forced and natural circulation – Modular approach", 23rd Congress KGH, Belgrade, 1992.

## Radovi na Internacionalnim Kongresima

1. E. Tombarević, I. Vušanović "Experimental validation of a quasy-3D CVFEM model of borehole heat exchangers", Fourth International Conference on Computational Methods for Thermal Problems, THERMACOMP 2016, July 6-8, 2016, Georgia Tech, Atlanta, USA, N. Massarotti, P. Nithiarasu and Y. Joshi (Eds.)
2. I. Vušanović, "Transient permeability in macrosegregation of static casting in binary alloys: Use of CDF statistical model for analysis ",Modeling of Casting, Welding and Advanced Solidification Processes (MCWASP XV 2015) Awaji Island, Japan, June 2015.
3. I. Vušanović, V. R. Voller, "Simple metrics for verification and validation of macrosegregation model predictions", 4th International Conference on Advances in Solidification Processes, Beaumont Estates, Old Windsor, UK, 2014.
4. I. Vušanović, V. R. Voller, "Effect of domain size on grid convergence in numerical models of alloy solidification", Third International Conference on Computational Methods for Thermal Problems, THERMACOMP 2014, June 2-4, 2014, Lake Bled, Slovenia, (N. Massarotti, P. Nithiarasu and B. Šarler (Eds.)
5. E. Tombarević, I. Vušanović, "Numerical Model of Heat flow in a Geothermal borehole heat exchanger ", Third International Conference on Computational Methods for Thermal Problems, THERMACOMP 2014, June 2-4, 2014, Lake Bled, Slovenia, (N. Massarotti, P. Nithiarasu and B. Šarler (Eds.)
6. B. Šarler, A. Z. Lorbiecka, U. Hanoglu, R. Vertnik, I. Vušanović, "A meshless slice model for continuous casting and hot rolling of steel. " V: LIU, Gui-Rong (ur.), LIU, Z. S. (ur.). Proceedings of the 5th Asia Pacific Congress on Computational Mechanics (APCOM2013) and 4<sup>th</sup> International Symposium on Computational Mechanics (ISCM2013), 11th -14th December 2013, Singapore.
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8. B. Šarler, R. Vertnik, A. Z. Lorbiecka, U. Hanoglu, I. Vušanović, " An Extended Heat and Mass Transfer Slice Model for Continuous Casting of Steel", ECCOMAS Special Interest Conference Numerical Heat Transfer , Gliwice-Wroclaw, Poland , 4-6 September 2012. Eds.: A. Nowak, R.A. Bialecki
9. E. Tombarević, I. Vušanović, "Control Volume Finite Element Method for two and three dimensional advection-diffusion problems", ICCES Special Symposium on Meshless & Other Novel Computational Methods, Budva, Montenegro, September 2012.
10. B. Šarler, R. Vertnik, A. Z. Lorbiecka, I. Vušanović, B. Senčič, "A multiscale slice model for continuous casting of steel", Modeling of Casting, Welding and Advanced Solidification Processes (MCWASP XIII 2012), Schladming, Austria, June 2012
11. I. Vušanović, R. Vertnik, B. Šarler, "A simple slice model for prediction of macrosegregation in continuously cast billets: influence of different solid diffusion models", International symposium on liquid metal processing and casting, LMPC, Nancy, France, September, 2011
12. I. Vušanović, R. Vertnik, B. Šarler, "A simple slice model for prediction of macrosegregation in continuously cast billets", 3rd International Conference on Advances in Solidification Processes, Rolduc Abbey/Aachen, Germany, June 2011
13. I. Vušanović, M. J. M. Krane, "Macrosegregation in horizontal direct chill casting of ternary Al alloys: Investigation of solid motion", 3rd International Conference on Advances in Solidification Processes, Rolduc Abbey/Aachen, Germany, June 2011
14. E. Tombarević, I. Vušanović, "3D Numerical model of the borehole heat exchanger", Slo-venian-Italian Conference on Materials and Technologies for Sustainable Growth, University of Nova Gorica, Ajdovščina, Slovenia, May 2011
15. I. Vušanović, "Energy efficiency in building sector: solutions for heating and air conditioning in Montenegro", Third International Conference GNP 2010, Žabljak, Montenegro, 2010.
16. E. Tombarević, I. Vušanović, "Modelling of ice melting in horizontal annulus using enthalpy method", First International Conference on Computational Methods for Thermal Problems, ThermaComp 2009, Naples, Italy, 2009.
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18. I. Vušanović, "Macrosegregation of ternary Al – 4.5wt%Cu – 1.0wt% Mg alloy in horizontal direct chill casting – implementation of non-equilibrium microsegregation model" Proceedings of the Second International Conference on Advances in Solidification Processing, Graz/Seggau, Austria, June 2008.

19. M. Šekularac, I. Vušanović, "Mathematical modeling of HVAC instalations", Klima Forum 2007, Godovič, Slovenia, September 2007
20. I. Vušanović, I. Vujošević, "Energy efficiency strategy in Montenegro – implementation and challenges", Klima Forum 2007, Godovič, Slovenia, September 2007.
21. I. Vušanović, B. Šarler, "Modeling of micro and macro segregation in DC casting of ter-nary Al based alloys", EUROMAT 2007, Nurnberg, Germany, September 2007.
22. I. Vušanović, M. J. M. Krane, "Macrosegregation in horizontal direct chill casting (HDC) of aluminium binary alloys billets- influence of casting parameters," in Solidification Processing 07, H. Jones et al. (eds.), pp 428-432 (2007).
23. I. Vušanović, M.J.M. Krane, "Macrosegregation In Horizontal Direct Chill Casting (HDC) Of Aluminum Alloy Billets – Influence Of Casting Parameters", Proceedings of the 5th Decennial International Conference on Solidification Processing, Sheffield, UK, July 2007.
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25. N. Kažić, I. Vušanović, "Exergy and HVAC", Klima forum 2006, Godovič, Slovenia, Sep-tember 2006.
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1. I. Vušanović, "Current Challenges in Modeling Solidification Processes", Warren Lecture Series at Department of Civil, Environmental and Geo – Engineering, University of Minnesota, September 2017 (invited lecture).
2. I. Vušanović, "Modeling issues in transport phenomena with phase change in multicomponent systems ", Nanjing University, February 2014 (invited lecture)
3. I. Vušanović, "Micro and Macrosegregation during the DC casting in ternary Al", University Pierre & Marie CURIE, Fast Laboratory, September 2006, (seminar);
4. I. Vušanović, "Micro-macrosegregation in ternary alloys - review of previous work and future challenges", University of Birmingham, School of Engineering, June 2006, (invited lecture);
5. I. Vušanović, "Numerical and experimental modeling of macrosegregation in ternary aluminum alloys, Nova Gorica Polytechnic, March, 2004 (invited lecture)

**Strategije i ekspertize**

1. N. Kažić, P. Vukoslavčević, D. Ivanović, I. Vušanović, U. Karadžić, V. Ivanović, E. Tombarević, M. Šekularac, "Elaborat za rješavanje problema zagadenosti u Pljevljima, Centar za Energetiku, Mašinski fakultet UCG, Jun 2015.
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  4. Uroš Karadžić, "Analysis fluid transients phenomena in hydraulic systems", University of Montenegro, Faculty of Mechanical Engineering, October 2004. (A)
  5. Sanja Radović, "Investigation of controlled cooling in continuous rolling of iron bars", University of Montenegro, Faculty of Metallurgy and Technology, University of Montenegro, December 2004. (M)

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**Iskustvo u nastavi**

- Termodinamika,
- Rashladni uređaji,
- Parni kotlovi,
- Grijanje i ventilacija.
- Kompjuterske metode u energetici,
- Mjerenje i simulacije energetskih procesa,
- Klimatizacija,