

## CURRICULUM VITAE



<b>Name:</b>	TODORKA
<b>Surname:</b>	SAMARDZIOSKA
<b>Born:</b>	10/01/1971, Prilep, R. Macedonia
<b>Telephone:</b>	+389 2 3116066/133
<b>Address:</b>	Faculty of Civil Engineering, "Ss. Cyril and Methodius" University in Skopje, 24, Partizanski Odredi blvd, 1000 Skopje, R.Macedonia, P.O.box 560
<b>e-mail:</b>	samardzioska@gf.ukim.edu.mk
<b>Nationality:</b>	Macedonian
<b>Education:</b>	<ul style="list-style-type: none"><li>• 2002-2006 PhD studies at Wessex Institute of Technology, University of Wales, UK. PhD thesis "Boundary Element Dual Reciprocity Method with Multi Domains for Modelling Fractured Porous Media: Single and Two-Phase Flow and Transport", November 2006.</li><li>• 1995-1999 postgraduate studies of civil engineering. M.Sc. thesis "Prestressed hyperbolic parabolic cable-nets over elliptical layout", May 1999</li><li>• 1989 – 1994 "St. Cyril and Methodius" - University, Skopje. Civil Engineering Faculty. Structural Division</li><li>• 1985 – 1989 High School "Mirce Acev" in Prilep. Specialization: mathematics and informatics</li></ul>
<b>Career Upgrade:</b>	<ul style="list-style-type: none"><li>• 2019-present Head of the School of Doctoral studies at the Faculty of Civil Engineering, UKIM, Skopje.</li><li>• 2017 - present as Full Professor at the Department of Mechanics and Materials, Faculty of Civil Engineering, "Ss. Cyril and Methodius" University in Skopje, R. Macedonia.</li><li>• 2015-2019 as Vice Dean of science and international cooperation at the Faculty of Civil Engineering, "Ss. Cyril and Methodius" University in Skopje, R. Macedonia.</li><li>• 2011-2015 as Vice Dean of lectures at the Faculty of Civil Engineering, "Ss. Cyril and Methodius" University in Skopje, R. Macedonia.</li><li>• 2012 - 2017 as Associate Professor at the Department of Technical Mechanics and Strength of Materials, Faculty of Civil Engineering, "Ss. Cyril and Methodius" University in Skopje, R. Macedonia.</li><li>• 2007 - 2012 as Assistant Professor at the Department of Technical Mechanics and Strength of Materials, Faculty of Civil Engineering, "Ss. Cyril and Methodius" University in Skopje, R. Macedonia.</li><li>• 1999 as Assistant at the Department of Technical Mechanics and Strength of Materials, Faculty of Civil Engineering, "Ss. Cyril and Methodius" University in Skopje, R. Macedonia.</li><li>• 1996 Employed as Younger assistant at the Department of Technical Mechanics and Strength of Materials, Faculty of Civil Engineering, "Ss. Cyril and Methodius" University in Skopje, R. Macedonia.</li></ul>
<b>Teaching Subjects:</b>	<ul style="list-style-type: none"><li>• Solid Mechanics, Building Materials, Building Physics, Energy Efficiency in Buildings, Boundary Element Methods for Engineers, Sustainability of Buildings, Sound and Acoustics.</li></ul>

**Specific Area of Interest:**

- Energy efficiency in buildings; Building materials, Building physics, Sound and acoustics, Sustainable development; Fluid flow and transport contaminants through fractured media Boundary elements; Cable supported roofs.

**Publication:**

Books:

1. Samardzioska Todorka, "Building materials", 2015, Faculty of Civil Engineering, UKIM, Skopje, ISBN 978-608-4510-21-5.
2. Trombeva-Gavriloska Ana, Samardzioska Todorka, "Principles of statics", 2016, Faculty of Architecture, UKIM, Skopje.

Lectures scripts:

3. Lectures Script of "Building structures and materials", 2014.
4. Lectures Script of "Solid Mechanics", 2008. (in English)
5. Lectures Script of "Mechanics of Solid Body", 2009.
6. Lectures Script of "Technical Mechanics and Strength of Materials", 2009.
7. Lectures Script of "Building physics", 2009.
8. Lectures Script of "Methods of boundary elements for engineers", 2008.
9. Lectures Script of "Energy Efficiency in Buildings", 2009.
10. Lectures Script of "Sound and Acoustics", 2017.

Papers at conferences and symposiums (last 5 years):

1. T. Samardzioska, "Energy efficient buildings and alternative energy in Republic of Macedonia", 2015 International Conference on Environmental Science and Energy Engineering (ICESEE2015), invited opening paper, July 26-27, 2015, Phuket, Thailand. (in English)
2. T. Samardzioska, "Determination of U-value of new type façade walls", 2015 International Conference on Environmental Science and Energy Engineering (ICESEE2015), July 26-27, 2015, Phuket, Thailand. (in English)
3. V. Grujoska, T. Samardzioska, "Application of infrared thermography in buildings research", 16th international symposium of Macedonian Association of Structural Engineering (MASE), Ohrid, Macedonia, 2015, pp. 247 – 252. (in English)
4. M. Jovanoska, T. Samardzioska, C. Chifliganec, "Sound insulation of partition walls in practice", 16th international symposium of Macedonian Association of Structural Engineering (MASE), Ohrid, Macedonia, 2015, pp.261 – 266. (in English)
5. M. Mateska, T. Samardzioska, A. Trombeva- Gavriloska, S. Lepitkova, M. Jovanovski "Mechanical properties of zeolit samples from Strmosh mine, Republic of Macedonia", 16th international symposium of Macedonian Association of Structural Engineering (MASE), Ohrid, Macedonia, 2015, pp.359 – 264. (in English)
6. A. Gavriloska-Trombeva, M. Cvetkovska, V. Gavriloski, M. Lazarevska, T. Samardzioska, "Experimental analysis of mechanical characteristics of FRP materials", 16th international symposium of Macedonian Association of Structural Engineering (MASE), Ohrid, Macedonia, 2015, pp. 405 – 410. (in English)
7. Grujoska V., Samardzioska T., "Infrared thermography as a method for buildings investigation", VI International Symposium GNP 2016, Zabljak, Montenegro, 7-11.03.2016, pp 1117-1123. (in Macedonian)
8. Samardzioska T., Gjorgjiev V., Aceski S., "Embedding the co-factor of energy classes in the methodology for estimation of real estate value", VI International Symposium GNP 2016, Zabljak, Montenegro, 7-11.03.2016, pp 1117-1123. (in English)
9. Samardzioska T., Grujoska V., "Measures for energy conservation in the elementary school in Skopje", VI International Symposium GNP 2016, Zabljak, Montenegro, 7-11.03.2016, pp 1211-1218. (in English)
10. Samardzioska T., Grujoska J., Grujoska V., Moslavac D., "Use of waste glass as aggregate in concrete", Proceedings of the 1<sup>st</sup> International Conference CoMS 2017, Zadar, Croatia, 19-21.04.2017, pp 157-163. (in English)
11. Samardzioska, T., Jovanovski, M., Lepitkova, S., "Zeolites – sustainable building material", Proceedings of the 1st International Conference CoMS 2017, Zadar, Croatia, 19-21.04.2017, pp 146-151. (in English)
12. Samardzioska, T., "Ventilated facades" lecture in the frame of the Lifelong learning program, Chamber of certified architects and engineers of Macedonia, 15.06.2017, Skopje.
13. Zileska – Pancovska, V., Petrusseva, S., Samardzioska, T., "Buildings energy

- consumption forecasting – a model based on general regression neural network”, Proceedings of CIRRE 3rd Conference of Interdisciplinary Research on Real Estate, Groningen, Netherlands, September 20-21, 2018, pp. 186 – 196. (in English)
14. Samardzioska T., Gjorgjiev V., Aceski S., “Towards a real valuation of the contemporary sustainable energy efficient building”, International Conference on Real Estate and Land Planning 2018, 04-08 September, Mykonos island, Greece. (in English).
  15. Jovanoska M., Samardzioska T., “Sustainable Panels with Recycled Textile Materials for Improving Classroom Acoustics”, Noise Control for a Better Environment, INTER.Noise 2019, Madrid, Spain, 16-19 June 2019, (in English)
  16. Samardzioska, T., Zileska – Pancovska, V., Petrusseva, S., Gosheva M., Naumovski M., “Predicting energy consumption of buildings based on their geometrical properties using artificial neural network”, Proceedings of CIRRE 4rd Conference of Interdisciplinary Research on Real Estate, Trondheim, Norway, September 12-13, 2019. (in English)
  17. Samardzioska T., Salih N., Grujoska V. and Jovanoska M., “Design of Earthship for Climate Conditions in Macedonia”, Sustainable Built Environment Conference, Cardiff Wales, UK, September 24-25. (in English)
  18. Jovanoska M., Samardzioska T., “Assessment of classroom acoustic parameters”, 18th international symposium of Macedonian Association of Structural Engineering (MASE), Ohrid, Macedonia, 2019, (in Macedonian)
  19. Grujoska V., Samardzioska T., Grujoska J., “Improvement of thermal conductivity of mortar with slag”, 18th international symposium of Macedonian Association of Structural Engineering (MASE), Ohrid, Macedonia, 2019, (in Macedonian)
  20. Jovanoska M., Samardzioska T., Vitanov V., Todorov K., Chifliganec C., “Current developments towards seismic metamaterials”, 18th international symposium of Macedonian Association of Structural Engineering (MASE), Ohrid, Macedonia, 2019, (in English)
  21. Samardzioska T., Grujoska V., Abazi S., “Testing thermal conductivity of a liquid coating – water based acrylic mixture”, VII International Symposium GNP 2020, Kolashin, Montenegro, 10-14.03.2020, (in English)
  22. Grujoska V., Grujoska J., Samardzioska T., Jovanoska M., “Waste glass effects on fresh and hardened concrete”, VII International Symposium GNP 2020, Kolashin, Montenegro, 10-14.03.2020, (in English)
  23. Jovanoska M., Samardzioska T., Grujoska V., “Modeling classroom acoustics using in situ measurements”, VII International Symposium GNP 2020, Kolashin, Montenegro, 10-14.03.2020, (in English)
  24. Samardzioska T. “Energy independent houses made of recycled materials”, plenary lecture at the VIII Student Conference SKEEOR, December 2020 (in English)
  25. Samardzioska T., “Life cycle analysis of ceramic products” – Webinar for architects and designers, Winerberger, 22.04.2021.
  26. Jovanoska M., Samardzioska T., Enhancing the sound transmission loss of a single panel in the coincidence-controlled region through theoretical optimization of metamaterial design, 9th Congress of the Alps Adria Acoustics Association, 23-24.09.2021, Budapest, Hungary. (in English)
  27. Jovanoska M., Samardzioska T., “Numerical investigation on sound transmission behavior of multilayered panels with periodic arrays of spring-mass resonators”, Euroregio, BNAM2022, Joint Acoustics Conference, 9<sup>th</sup> – 11<sup>th</sup> of May, 2022, Aalborg, Danmark. (in English)
  28. Jovanoska M., Samardzioska T., “Numerical investigation of sound transmission through single and double walls with periodic arrays of resonators”, Internoise, 21-24 August, 2022, Scotich Event Campus, Glasgow, UK. (in English)
  29. Taskova B., Samardzioska T., “Influence of the building basis on energy consumption”, SKEEOR – 10<sup>th</sup> Student Conference, 26-29 October 2022, Skopje.
  30. Farenvald I., Samardzioska T., “Life cycle analysis of building”, SKEEOR – 10<sup>th</sup> Student Conference, 26-29 October 2022, Skopje.
  31. Ristov R., Jovanoska M., Samardzioska T., Mijoski G., “Comparative analysis of calculated and measured noise on motorway Miladinovci – Sveti Nikole”, Second Macedonian Road Congress”, 3-4 November, 2022, Skopje.

Papers in journals (last 5 years):

1. Samardzioska T., "Acoustic performance residential buildings (for example Macedonia)", Journal "Construction of Unique Buildings and Structures", ISSN 2304-6295, № 6 (21), 2014, pp 7-16.
2. Samardzioska T., COST Action TU0901: Integrating and Harmonizing Sound Insulation Aspects in Sustainable Urban Housing Constructions; Building acoustics throughout Europe, e-book Volume 2: Housing and construction types country by country, Macedonia, Chapter 15, pp 259-272.
3. Apostolska R., Samardzioska T., Country contribution – Macedonia, in Handbook of COST Action TU1104 Smart Energy Regions (Ed.: Jones, Phil; Lang, Werner; Patterson, Jo; Geyer, Philipp). Strasbourg: COST Office, pp 75-84.
4. Samardzioska T., Jovanoska M., "Acoustic performance of partition walls in buildings", Proceedings Faculty of Civil Engineering in Skopje, 65<sup>th</sup> anniversary (2014), pp 53-60.
5. Samardzioska T., Apostolska R., „Supply chains, country contribution – Macedonia“, in Handbook of WG2 - COST Action TU1104 Smart Energy Regions.
6. Samardzioska T., Apostolska R., „Training and skills, country contribution – Macedonia, in Handbook of WG2 - COST Action TU1104 Smart Energy Regions.
7. Samardzioska T., Goxha L., "Integrated active solar systems for energy efficient façade structures", Scientific Journal of Civil Engineering, SJCE, Volume 4, Issue 2, December 2015. ISSN 1857-839X, pp. 39-45.
8. Samardzioska T., Apostolska R., "Measurement of Heat-Flux of New Type Façade Walls", Sustainability 2016, 8(10), 1031; doi:10.3390/su8101031, (IF=3.052).
9. Samardzioska T., Moslavac D., "Boundary elements for modelling two-phase flow through porous media", KASMERIA ISI indexed journal, Vol. 44, no 3, Year 2016, (IF=0.167)
10. Samardzioska T., Grujoska J., Grujoska V., Moslavac D., Donevska K., "Effects of waste glass on properties of hardened concrete", Scientific Journal of Civil Engineering, SJCE, Volume 5, Issue 1, July 2017. ISSN 1857-839X, pp. 25-32.
11. Gjorgjiev V., Samardzioska T., Aceski S., "Impact of energy classes on the real estate market in Macedonia", Scientific Journal of Civil Engineering, SJCE, Volume 6, Issue 2, December 2017, ISSN 1857-839X, pp. 111-117.
12. Jovanoska M., Samardzioska T., "Classroom acoustics assessment", Scientific Journal of Civil Engineering, SJCE, Volume 8, Issue 2, December 2019, ISSN 1857-839X, pp. 87-90.
13. Samardzioska T., Salih N., Grujoska V. and Jovanoska M., "Design of Earthship for Climate Conditions in Macedonia", IOP Conf. Series: Earth and Environmental Science 329 (2019) 012052 IOP Publishing doi:10.1088/1755-1315/329/1/012052
14. Mijoski G., Moslavac D., Kralutovski Z., Samardzioska T., "Analysis and measuring the noise on the A2 motorway (E-65) "Mother Teresa" section: Skopje - Tetovo", Gradjevinar 72(2020)3, pp 253–262 DOI: <https://doi.org/10.14256/JCE.1680.2016>, (IF=0.689).
15. Samardzioska, T., Zileska – Pancovska, V., Petruseva, S., Gosheva M., Naumovski M., "Predicting energy consumption of buildings based on their geometrical properties using artificial neural network", South Florida Journal of Development, Miami, v.2, n.1, p. 852-865,. 2021. ISSN 2675-5459
16. Samardzioska, T., Zileska – Pancovska, V., Petruseva, S., Sekovska B., "Prediction of Energy Consumption in Buildings Using Support Vector Machine", Technical Gazette, Vol. 28 No. 2, 2021, <https://doi.org/10.17559/TV-20190822153751> (IF=0.670).
17. Kontovourkis O., Del Rio Merino M., Villoria Saez P., Romano R., Grujoska V., Samardzioska T., Gramatikov K., "Emerging Technologies", in the Book of COST action RESTORE WG5, (Ed. Reith A. and Brajkovic J.) "Scale Jumping: Regenerative Systems Thinking within the Built Environment. A guidebook for regenerative implementation: Interactions, tools, platforms, metrics, practice" 2021, pp. 232 to 249.
18. Samardzioska T., "Energy Efficient, Economic and Ecological Reuse of Waste Textiles in Civil Engineering", Presing, 57/10, 2022, ISSN 1857-7 44X.
19. Mickovski V., Iannace G., Jovanoska-Mitrevska M., Samardzioska T., "Rebounded Polyurethane Flexible Foam as Sound Absorbing Material", Scientific Journal of Civil Engineering, SJCE, Volume 11, Issue 1, July 2022, ISSN 1857-839X, pp. 27-33.

Scientific-Research projects (last 5 years):

1. Samardzioska T. - leader, Cvetkovska Meri, Ana Trombeva – Gavriloska, Milica Jovanoska, Ivana Donevska, “Numerical modeling of porous media for testing flow and transport of contaminants”, Ministry of education and science of RM, scientific-research project, 10.2010-09.2012.
2. COST Action TU1104 “Smart Energy Regions”, 2012-2016.
3. Mijoski G., Samardzioska T., Moslavac D., Krakutovski Z., Ristov R., Manchev R., Gigovski V., “Analysis and protection of traffic noise on the roads with heavy traffic in Republic of Macedonia“, University Ss. Cyril and Methodius, scientific-research project, 2015.
4. COST Action TD 1406 “Innovation in intelligent management of heritage buildings (i2MHB)”, 2014-2018.
5. „Use of waste glass as aggregate in concrete“, Faculty of Civil Engineering, IEGE - GIM, Nula otpad, 2016, Leader: Samardzioska T. (members: T. Arangjelovski, J. Grujoska, V. Grujoska, G Prangovski, G. Goshev)
6. “Refurbishment of the Public Building Stock towards nZEB” – co-funded by Intelligent Energy Europe Programme of the EU, March 2013 – August 2016.
7. “MultEE Project – facilitating multi-level governance for Energy Efficiency” - Horizon 2020 Project, EC, grant agreement NO. 649829.
8. COST Action CA15125 “Designs for Noise Reducing Materials and Structures (DENORMS)”, 2015-2019.
9. COST Action CA17133 – Implementing nature based solutions for creating a resourceful circular city, 2018 – 2022
10. “Towards market-based skills for sustainable energy efficient construction (TRAINEE)”, financed by Horizon 2020, 2018-2020.
11. COST Action CA18120 - Reliable roadmap for certification of bonded primary structures (CERTBOND), 2019 – 2023.
12. Project "Development of insulation materials from textile waste", financed by Instrument for support of co-financed grants for improving the innovation of the Fund for innovations and technological development, with “Netam Dragan factory”, 2019.
13. Project "Design of the applicable self-heating textile", financed by Instrument for support of co-financed grants for commercialization of innovation by the Fund for innovations and technological development, with “Netam Dragan factory”, 2020.
14. Project “Development and production of rubber-steel elements and products from recycled polyurethane foam for protection against noise and vibration”- Support Instrument - Co-financed grants for start-up companies “start-up” and “spin-off” with M-Akustik DOOEL Skopje, 2021-22.
15. Project "Mitigation of air pollution in the city of Skopje - Support to households from Lisiche settlement for introduction of energy efficiency measures” – UNDP with Government of Sweden, 2021-22.
16. COST Action CA20109 “Modular energy islands for sustainability and resilience” – MODENERLANDS, 2021-2025.
17. Project “Ecological plasters for green facades”-financed by Support Instrument - Co-funded grants for the commercialization of innovations by FITR, with Interbild Dizajn DOOEL Skopje, 2022.
18. Scientific-research project "Numerical modeling and experimental examination of thermal and acoustic characteristics of building materials and elements and their optimization to increase the comfort of buildings" – AKUTERMOLAB, financed by the Ministry of education and Science in the Government of Macedonia, Leader: Samardzioska T., 2021-2023.

Civil engineering projects (last 5 years):

1. Design and strengthening of individual and collective buildings, reservoirs, sludge thickener tanks, antenna piers.
2. Revisions and audits of many civil engineering designs.
3. Energy efficiency audits on buildings.
4. Elaborates for energy efficiency in buildings, sound and acoustics in buildings, building physics.

5. Consultant and expert in the teams for Public enterprises of State Roads and Macedonian Railways.
6. Supervision of over 150 diploma works, more than 50 master theses and few PhD thesis in the field of building materials, building physics, energy efficiency in buildings and acoustics.
7. Professional Certificate for “Energy Auditor” and “Trainer on Energy Auditing on Buildings” after successfully completed training programme on “Energy Auditing of Buildings”; IX 2005 – V 2006; ENSI-Energy saving international AS –Kingdom of Norway, MACEF & Faculty of Mechanical Engineering – R Macedonia.
8. Professional Certificate for Energy Audit – Macedonian Agency of Energy, Ministry of economy, RM, 2014.

#### **Membership:**

- Member of Macedonian Association of Structural Engineers – MASE.
- Member of Macedonian Association for Theoretical and Applied Mechanics, MAM.
- Member of Macedonian Center for Energy Efficiency.
- Member of the Assembly in the Chamber of certified architects and certified engineers of Republic of Macedonia
- Member of Institute for Standardization of RM, President of TK 8 “Thermal performances of buildings”, President of TK 8 “Systems and equipment for thermal protection and fire safety in buildings” from 2011-2021.
- Member of Working group for establishing state net for monitoring of the environment
- Vice-dean of lectures and education in the period of 2011-2015 at the Faculty of Civil Engineering, UKIM, Skopje.
- Vice-dean of science and international cooperation in the period of 2015-2019 at the Faculty of Civil Engineering, UKIM, Skopje.
- Editor in chief of Scientific Journal of Civil Engineering, ISSN 1857-839X, in the period of 2015-2019.
- Head of the School of Doctoral studies at the Faculty of Civil Engineering, UKIM, Skopje, 2019-2023.

#### **Study Visits:**

- January 2002 - December 2003: PhD studies, Wessex Institute of Technology, University of Wales, UK.
- May 2007, June 2008, June 2012: CEEPUS mobility at the Faculty of Civil Engineering, University of Podgorica, Montenegro
- June 2011, CEEPUS mobility at the Faculty of Civil Engineering, University of Architecture, Geodesy and Civil Engineering, Sofia, Bulgaria
- May 2014, Erasmus LLL mobility at the University of Florence, Italy.
- February 2016, Wessex Institute of Technology, University of Wales, UK.
- June 2018, visiting lecturer at the Faculty of Civil Engineering, University of Architecture, Geodesy and Civil Engineering, Sofia, Bulgaria
- May 2019, Erasmus+ mobility at the University of Florence, Italy.

#### **Awards and Recognitions:**

- Best diploma student at the Faculty of Civil Engineering for year 1993/94, Ss. Cyril and Methodius University.
- MASE Award for 2006 for the scientific research project “BE DRM-MD for modeling fractured porous media: single and two-phase flow and transport” – PhD thesis.
- MASE Award for 2006 for the designs for strengthening and repair of the bridges on

the motorway section Katlanovo – Veles (with Working group TMCA/Bridges)

**Languages:**

Fluent English (Certificate in Advanced English - CAE, Council of Europe Level C1, University of Cambridge, ESOL Examinations, June 2003, Winchester, UK),

Fluent Bulgarian, Serbian.

Understanding Spanish, Italian, French.

**Other skills:**

Excellent knowledge of Microsoft Office, BASIC, PASCAL and FORTRAN programming language, COREL DRAW and AutoCAD.

Books, swimming, computers, piano playing