# Prof. Dr. Vakhtang Balavadze

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# I. EDUCATION

Georgian Technical University, Faculty of Civil Engineering, Georgia, Tbilisi.

Ph.D. Scientific Degree of Candidate of Technical Sciences, 2006

**Major:** Structural mechanics (05.23.17)

Dissertation Title: Analysis of the linear asymmetric deformation of compound structures

Dissertation Topic: Creation of a mathematical model, algorithm, and calculation program for the analysis of

linear asymmetric deformation of compound structures

Master's degrees in construction management, 2002

Graduate with Honor

Master's Thesis: "Problems of labor productivity analysis in construction firms"

• Bachelor's degrees in economics and management in Construction, 1999

Graduate with Honor

Diploma Project: "9-storey, 40-apartment block section in Tbilisi"

# II. LICENSURE, CERTIFICATION, SPECIALTY BOARD STATUS

• None (Not Required in Georgia)

#### III. PROFESSIONAL ORGANIZATION MEMBERSHIPS

- Georgian Engineering Academy, Corresponding Member.
- Georgian Association of Consulting Engineers, Voting Member.
- American Society of Civil Engineers (ASCE), Elected Member.
- American Society of Engineering Education, Member.
- Institution of Engineers of Ireland, Member.
- Project Management Institute, **Member**.

# IV. PROFESSIONAL HONORS AND AWARDS

The presidential order of excellence, 2013

**Issuer:** The President of Georgia.

**Description:** Awarded to individuals for outstanding achievements in the spheres of culture, education, science, art, sport, etc. and for the significant achievements in the relevant fields of social life and meritorious service for Georgia.

# V. LANGUAGES

	Speaking	Reading	Writing
Georgian	Native	Native	Native
English	Excellent	Excellent	Excellent
Russian	Excellent	Excellent	Excellent

#### VI. EMPLOYMENT HISTORY

# Academic and Scientific Work Background

Ilia State University, Tbilisi, Georgia. (From October 1, 2020, to Present)

- **Professor** of Civil Engineering, School of Technology. (From October 1, 2020, to Present)
- **Director** of Civil Engineering Research Centers, Faculty of Business, Technology and Education. (From January 18, 2022, to Present)
- **Head of Program**, Civil Engineering Bachelor Program. (GEO) (From April 21, 2022, to Present)
- Head of Program, Civil Engineering Bachelor Program. (ENG) (From September 20, 2021, to Present)
- **Head of the School** of Technology, Faculty of Business, Technology and Education. (From August 13, 2021, to January 1, 2023)
- **Head of the Faculty Quality Assurance Service**, Faculty of Business, Technology and Education. (From November 2, 2020, to August 13, 2021)

# San Diego State University Georgia, Tbilisi, Georgia. (From August 26, 2019, to Present)

- Coordinator of Civil and Construction Engineering Programs. (From September 29, 2021, to June 30, 2023.)
- Adjunct Professor, (From August 26, 2019, to June 30, 2023.)

#### Georgian Technical University, Georgia, Tbilisi.

- Program Supervisor, Construction Management Bachelor Program. (From October 1, 2018, to October 15, 2020)
- **Professor**, Faculty of Civil Engineering, Department of Construction Economics and Management. (From October 2, 2017, to October 15, 2020)
- **Visiting Professor**, Faculty of Civil Engineering, Roads Department (From October 10, 2016, to September 11, 2017)
- **Visiting Associate Professor**, Faculty of Civil Engineering, Roads Department (From September 29, 2014, to September 29, 2016)
- **Research Fellow**, Educational-Scientific Center for Bridge Testing (From September 29, 2014, to September 29, 2016)

#### National Center for Educational Quality Enhancement, Georgia, Tbilisi. (From 1 October 2019 to Present.)

• Accreditation Expert, Higher Education Programs (From 1 October 2019 to Present)

#### Professional: Civil Engineer Work Background

HVL Engineering Group LLC., Prague, Czech Republic. (From 23 August 2022 to Present.)

Engineering consultancy services firms

• **CO-Founder** (From 23 August 2022 to Present.)

# Georgian Engineering Business Group (GEBG) LLC, Tbilisi, Georgia. (From 25 November 2020 to Present) Construction Engineering and Management Consulting firms

• Director/Senior Project Engineer. (From 25 November 2020 to Present)

#### Kavtransproject (KTP) LLC., Tbilisi, Georgia. (From October 2016 to Present)

Civil engineering consultancy services firms.

- Business Partner/ Senior Civil Engineer. (From 2022 to Present)
- Civil Engineer. (From October 2016 to 2022)

### Force LLC., Tbilisi, Georgia (From 26 February 2015 to Present)

Architectural and Structural engineering consultancy services firm.

- Founder /Consulting Engineer (From 2016 to Present.)
- Founder /CEO / Consulting Engineer (From 2015 to 2016.)

#### Saktransproject LLC, Tbilisi, Georgia. (From 1 May 2001 to 28 November 2003)

- **Junior Civil Engineer** (From 2002 to 2003)
- **Design Engineering Intern** (From 2001 to 2002)

#### Political and Civil service Work Background

Tbilisi city hall, Tbilisi, Georgia. (From 18 November 2013 to 1 August 2014)

• **Head of Nadzaladevi District** (From 18 November 2013 to 1 August 2014)

# Government of Georgia. Kutaisi, Georgia (From 17 October 2012 to 15 November 2013)

• State Representative-Governor in Imereti, (From 17 October 2012 to 15 November 2013)

### Government of Georgia. Tbilisi, Georgia. (From 13 August 2012 to 17 October 2012)

• Minister of Energy and Natural Resources (From 13 August 2012 to 17 October 2012)

# Parliament of Georgia. Tbilisi, Georgia. (From 28 November 2003 to 13 August 2012)

# 7th Term of the Parliament of Georgia

- Member of Parliament, (2008 to 2012)
- Chairperson of the Committee of Region Policy, Self-Government, and Mountainous Regions (From 23 February 2010 to 21 February 2012)
- **Deputy Chairperson** of the Budget and Finance Committee (From 19 October 2009 to 23 February 2010) 6th Term of the Parliament of Georgia
- Member of Parliament, (2004 to 2008)

# Office of the Parliament of Georgia

• First Deputy-Secretary General (From 28 November 2003 to 22 April 2004)

#### United Democrats. Tbilisi, Georgia (From July 2002 to November 2003)

- Executive Secretary, Tbilisi City Organization, 2002 To 2004
- Member of the Political Council, 2002 To 2004

# Union of Citizens of Georgia. Young Citizens' Union of Georgia. Tbilisi, Georgia (From December 1998 to July 2002)

- General Secretary of Young Citizens Union of Georgia (2001 -2002)
- Head of the Regional Department of Young Citizens' Union of Georgia (2000 –2001)
- **Deputy Head** of the Regional Department of Young Citizens' Union of Georgia (1999 –2000)
- Inspector of the Regional Department of Young Citizens' Union of Georgia (1998 –1999)

# VII. ACADEMIC EXPERIENCE

### 1. CURRENT ACADEMIC APPOINTMENTS

#### Ilia State University, Tbilisi, Georgia. (From October 1, 2020, to Present)

- **Professor** of Civil Engineering, School of Technology. (From October 1, 2020, to Present)
- **Director** of Civil Engineering Research Centers, Faculty of Business, Technology and Education. (From January 18, 2022, to Present)
- **Head of Program**, Civil Engineering Bachelor Program. (GEO) (From April 21, 2022, to Present)
- Head of Program, Civil Engineering Bachelor Program. (ENG) (From September 20, 2021, to Present)

#### San Diego State University Georgia, Tbilisi, Georgia. (From August 26, 2019, to June 30, 2023.)

- Coordinator of Civil and Construction Engineering Programs. (From September 29, 2021, to June 30, 2023.)
- Adjunct Professor, (From August 26, 2019, to June 30, 2023.)

#### 2. PROFESSIONAL DEVELOPMENT

- Recognition for satisfying the requirements for the San Diego University, SDSU-Georgia Faculty Development Program. February 9, 2019. San Diego, California, USA.
- Training-course "Active Learning in the Flipped Classroom" (obtained 1 ECTS). GTU & ERASMUS+ Project PRINTel, 11-15 March 2019-Tbilisi, Georgia.
- Fundamentals of Program Assessment workshop, 7 PDHs, Professional Development Hours, ABET April 10, 2019. Dallas, Texas, USA.
- ABET Symposium, obtained 14 PDHs Professional Development Hours for participation April 11-12, 2019.
   Dallas, Texas, USA.
- Training-course Flipped Classroom and Open Educational Resources (OER) in innovative pedagogy (obtained 1 ECTS). GTU & ERASMUS+ Project PRINTel, 27-28 February 2020-Tbilisi, Georgia.
- Online Course, Flexible Course Design Summer Institute, Instructional Technology Services at San Diego State University. July 6, 2020.
- Training-course "Designing Meaningful Online Learning", GTU & ERASMUS+ Project PRINTel, 19 21 April, 2021 -Tbilisi, Georgia.
- EU Framework Programme for Research and Innovation (Horizon Europe) Practical aspects, 14-15 December 2021- Tbilisi, Georgia.
- Online Course, ABET Accreditation & Assessment Essentials, obtained 12 PDHs, Professional Development Hours, ABET April 11-13, 2022.
- The 19th international scientific and technical conference "Materials and Energy saving technologies.
   Construction of optimized energy potential", Częstochowa University of Technology, 16-18 of November 2022, Czestochowa, Poland.

#### 3. RESEARCH AND TEACHING INTERESTS

My main research and teaching interests embrace, but are not limited to, the following areas:

- Construction Engineering and Management
- Structural Engineering
- Transport Engineering

#### 4. RESEARCH EXPERIENCE

**Civil Engineering Research Centers**, Faculty of Business, Technology and Education, Ilia State University. Tbilisi, Georgia. (2022 to Present)

• **Director of Research Centers,** directs the center, and directly resolves the issues under the center's authority; ensures the effective progress of research work and coordinates the scientific and organizational activities of the center.

**Educational-Scientific Center for Bridge Testing**, Faculty of Civil Engineering, Georgian Technical University, Georgia, Tbilisi. (2014 to 2016)

• Research fellow, perform field work and data processing; Conducting visual and measurement tests; Quantify defects of bridge decks, superstructures, substructures, culverts, and other bridge elements; Prepare, organize, and track structures inspection files.

#### 5. TEACHING EXPERIENCE

Ilia State University, Tbilisi, Georgia. Faculty of Business, Technology and Education, School of Technology

#### **Undergraduate Courses**

Course Title	Format	Instruction language	Term	Enrollment
Introduction to Solid Mechanics		English	Fall 2023	
Project Management for Engineers		English	Fall 2023	
Principles of Engineering Economy		English	Fall 2023	
Introduction to Civil Engineering		English	Fall 2023	
Introduction to Civil Engineering		Georgian	Fall 2023	
Introduction to Solid Mechanics		English	Spring 2023	
Principles of Engineering Economy		English	Spring 2023	
Construction Process and Management		Georgian	Spring 2023	
Introduction to Solid Mechanics		English	Fall 2022	
Principles of Engineering Economy		English	Fall 2022	
Introduction to Civil Engineering		English	Fall 2022	
Surveying for Civil Engineering and Construction		English	Spring 2022	
Introduction to Civil Engineering		English	Fall 2021	
Design Management		Georgian	Fall 2021	
Introduction to Civil Engineering		English	Fall 2020	
Construction and culture		English	Fall 2020	

# **Graduate Courses**

Course Title	Format	Instruction language	Term	Enrollment
Construction Business Management		Georgian	Fall 2023	

# San Diego State University Georgia, Tbilisi, Georgia. Civil and Construction Engineering Department

# **Undergraduate Courses**

Course Title	Format	Instruction language	Term	Enrollment
Introduction to Civil Engineering		English	Fall 2023	
Capstone Senior Design Project in Civil Engineering		English	Spring 2023	
Construction Planning and Scheduling		English	Fall 2022	
Construction Planning and Scheduling		English	Spring 2022	
Capstone Senior Design Project in Civil Engineering		English	Spring 2021	
Construction Planning and Scheduling		English	Spring 2021	
Construction Planning and Scheduling		English	Fall 2021	
Principles of Engineering Economy		English	Fall 2021	
Construction Planning and Scheduling		English	Fall 2020	
Principles of Engineering Economy		English	Fall 2020	
Construction Methods		English	Spring 2020	
Principles of Engineering Economy		English	Fall 2019	
Construction Methods		English	Spring 2019	

# Georgian Technical University, Tbilisi, Georgia, Faculty of Civil Engineering

# **Undergraduate Courses**

Course Title	Format	Instruction language	Term	Enrollment
Capstone project in Construction Management	Lecture	Georgian	Spring 2019	
Construction organization and management	Lecture	Georgian	Spring 2018	
Organization of construction production	Lecture	Georgian	Spring 2018	
Organization of construction production	Lecture	Georgian	Fall 2017	
Introduction to Transportation Engineering	Lecture	Georgian	Fall 2016	
Introduction to Transportation Engineering	Lecture	Georgian	Fall 2015	
Transport construction and landscape	Lecture	Georgian	Spring 2015	

# **Graduate Courses**

Course Title	Format	Instruction language	Term	Enrollment
Project Management in Construction	Lecture	Georgian	Fall 2019	
Logistics	Lecture	Georgian	Fall 2018	
Project Management in Construction	Lecture	Georgian	Fall 2017	
Project and Risk Management in Transport Construction	Lecture	Georgian	Fall 2014	
Transport Planning, Considering the Peculiarities of	Lecture	Georgian	Fall 2014	
Landscape				
Environmental and Social Impact Assessment and Analysis of Investment projects in Rail Transport	Lecture	Georgian	Fall 2014	

#### 6. GRANT FUNDING

None

# 7. PATENTS

None

# 8. SERVICE

# a. University Service (University, School, Department)

Council of the Faculty of Business, Technology and Education	Member	2022 to present
University Committee for ABET Accreditation Processes of STEM Programs at the Faculty of Business, Technology and Education, Ilia State University, Tbilisi, Georgia.	Member	
Doctoral Dissertation Defenses Committee, Faculty of Civil Engineering, Georgian Technical University, Tbilisi, Georgia	Member	2018 to 2020
Master's Thesis Defense Committee, Construction Economics and Management Department, Georgian Technical University, Tbilisi, Georgia	Member	2018 To 2020

#### b. Service to Journals

Scientific-Technical journal "BILDING," Tbilisi, Georgia Editorial Board Member 2006 to 2008

#### c. Service as Grant Reviewer

# LEPL "Shota Rustaveli national scientific foundation of Georgia," under the aegis of the Ministry of Education and Science of Georgia Tbilisi, Georgia

• Independent expert, Competition Commission for Evaluation of Projects Submitted within the Grant Competition on Publishing State Scientific Grants.

#### d. Consultations-Service

Agency	Role	Dates
German International	Short-Term Expert, Participation in revision and	09.02.2022 to
Cooperation Agency (GIZ)	development of new qualifications in the construction	30.09.2022
GmbH.	sector based on the new methodology; In cooperation with	
	Infrastructure Construction Companies Association (ICCA)	
	facilitating sectorial working groups to develop	
	occupational standards, prepare needed documents;	
	Participation in development of sector map; Participation	
	in development of education standard; Participation in the validation of final documents	
German International	<b>Consultant</b> , 1. Participate in the preparation of the two	28.09.2021 to
Cooperation Agency (GIZ)	focus groups (In cooperation with Infrastructure	30.11.2021
GmbH.	Construction Companies Association (ICCA) and GIZ PSD	
	TVET representatives develop selection criteria for the	

focus group participants, elaborate questioners, and focus group protocol). 2. Conducting two focus groups with the involvement of private sector representatives from the construction sector 3. Creating focus group report, negotiating with the Infrastructure Construction Companies Association (ICCA) and GIZ, and submitting the definitive version.

#### 9. BIBLIOGRAPHY

- Balavadze, V. Christosiashvili, L. "Effective management methods of construction projects". BUILDING scientific-technical journal #2, Tbilisi, 2022.
- Balavadze, V. Christosiashvili, L. "Modern information systems of project management". BUILDING scientific-technical journal #2, Tbilisi, 2022.
- Balavadze, V. Christosiashvili, L. Bakradze, M. Zakashvili, D. "Peculiarities of management and marketing in construction". BUILDING scientific-technical journal #3(52), Tbilisi, 2019.
- Balavadze, V. Christosiashvili, L. Christosiashvili, E. Gasitashvili, L. "Methods of construction marketing evaluation at the modern stage". Students' inter-university conference SIUEC 2018, Akaki Tsereteli State University, December 8, 2019.
- Kapanadze, G. Balavadze, V. Kristesiashvili, L. Archvadze, V. "Search for an equal-strength contour inside a
  viscoelastic rectangle." The 19th international scientific and technical conference "Materials and Energy saving
  technologies. Construction of optimized energy potential," Częstochowa University of Technology, November
  2022, Czestochowa, Poland.
- Balavadze, V. Dzotenidze, M. Qristesiashvili, L. "Problems of innovation management in construction." BUILDING scientific-technical journal N4(47). ISSN 1512-3936. (2018): P.77-79.
- Balavadze, V. Bliadze, S. Lagundaridze, G. Gardapkhadze, T. "A Comparison of some Finite Element Models
  used in the analysis of constructions. BUILDING scientific-technical journal N01. ISSN 1512-3936. (2006): P.912.
- Balavadze, V. Lagundaridze, G. Gognadze, G. Mazanashvili, D. Seskuria, Z. "A Comparison of some Finite Element Models Employed in the analysis of thin wall constructions." journal Energy N1(33). ISSN 1512-0120. (2005): P.87-90.
- Balavadze, V. Bliadze, S. Goguadze, G. Katsitadze, A. Tsakadze, A. "Questions of treatment of new mathematical models for evaluation of capacity for work of geometrically complex systems." Problems of Applied Mechanics -International scientific journal N1. (18). ISSN 1512-0740. (2005): P.49-52.
- Balavadze, V. Bliadze, S. Seskuria, Z. Kharatishvili, I. Lagundaridze, G. "Formulate of problems by final elements methods." Problems of Applied Mechanics - International scientific journal N4. (17). ISSN 1512-0740. (2004): P.69-72.

# VIII. PROFESIONAL EXPERIENCE

# 1. CURRENT PROFESSIONAL APPOINTMENTS

HVL Engineering Group LLC., Prague, Czech Republic. (From 23 August 2022 to Present.)

Engineering consultancy services firms

• **CO-Founder** (From 23 August 2022 to Present.)

Georgian Engineering Business Group (GEBG) LLC, Tbilisi, Georgia. (From 25 November 2020 to Present)

Construction Engineering and Management Consulting firms

• Director/Senior Project Engineer. (From 25 November 2020 to Present)

Kavtransproject (KTP) LLC., Tbilisi, Georgia. (From October 2016 to Present)

Civil engineering consultancy services firms.

• Business Partner/ Senior Civil Engineer. (From 2022 to Present)

# Force LLC., Tbilisi, Georgia (From 26 February 2015 to Present)

Architectural and Structural engineering consultancy services firm.

Founder /Consulting Engineer (From 2016 to Present.)

#### 2. CUNTRIES OF WORK EXPERIENCE

Georgia

# 3. KEY PROJECTS UNDERTAKEN

1 Name of the project: Concept Design and Feasibility Study for Development of Superblocks in Tbilisi

**Duration:** Oct. 2022 to Present

Location: Georgia

Client: Tbilisi Development Fund

Funding: Asian Development Bank (ADB)

Approx. project investment cost: (10.000,000USD)

Main Project features: Prepare conceptual design for Superblocks in the three identified areas and a feasibility

report.

Position: National engineering team manager

3 Name of the project: Tbilisi Bakurtsikhe and Tsnori-Lagodekhi road improvement feasibility study and Tbilisi-Sagarejo-Sagarejo-Bakurtsikhe improvement project within the framework of a detailed project of Lot II artificial buildings

**Duration:** September 2019 –June 2021

Location: Georgia

Client: Department of Highways of Georgia Funding: Department of Highways of Georgia

Approx. project investment cost: (10,000,000USD)

Main Project features: Detailed design of new bridges (21 pieces) Project progress control, engineering decisions, design drawings, calculations, workloads.

Position: Civil Engineer

5 Name of the project: Preparation of detailed design documentation for the construction of the Khevi-Ubisa-Shorapani-Argveta highway (E-60 highway)

**Duration:** August 2017- September 2019

Location: Georgia

Client: Ministry of Regional Development and

Infrastructure of Georgia

Funding: Asian Development Bank (ADB)

Approx. project investment cost: (800,000,000USD)

Main Project features: Preparation of detailed design documentation, bidding documentation, environmental assessment, detailed land acquisition and resettlement for the construction of the Khevi-Ubisa-Shorapani-Argveta road section (E-60 highway).

**Position:** Civil Engineer

**Client:** Ministry of Regional Development Infrastructure of Georgia

Funding: Asian Development Bank (ADB)

Approx. project investment cost: (200,000,000USD) Main Project features: Provision of consulting services for preparation of detailed design documentation, bidding documentation, environmental assessment, detailed land acquisition and resettlement for the Batumi bypass-Sarpy

Name of the project: Development of prefeasibility study

for the hydroelectric station of "Tskhvereshi"

Approx. project investment cost: (2,000,000\$) Main Project features: The project envisages the preparation of a pre-feasibility study for the construction

of a 1.5 MW hydroelectric station on the Tskhvereshi

Name of the project: Preparation of detailed design

documentation for the construction of the Batumi bypass-

Sarpy (border of turkey) section of the international E-70.

**Duration:** Aug. 2022 to Present

**Funding:** Private investors

**Client:** A group of private investors

River in the municipality of Lentekhi.

**Duration:** September 2017-2023

Location: Georgia

Position: Senior Project Engineer/ Manager

**Location:** Georgia

(border of turkey) section of the international E-70 Position: Civil Engineer

Name of the project: Consultation services for the technical and economical reasoning of the E-60 highway Natakhtari-Rustavi (Tbilisi by-pass) section preparation of detailed project

**Duration:** August 2017-2023

Location: Georgia

**Client:** Ministry of Regional Development

Infrastructure of Georgia

Funding: Asian Development Bank (ADB)

Approx. project investment cost: (300,000,000USD

Main Project features: Consultation services for the technical and economical reasoning of the E-60 highway Natakhtari-Rustavi (Tbilisi by-pass) section

preparation of detailed project Position: Civil Engineer

and

7 Name of the project: Procurement of project expenditure documentation for the reconstruction of infrastructure damaged by the disaster in the village of Jabeshi, Mulakhi Territorial Unit, Mestia Municipality

**Duration:** June 2021-August 2021

Location: Georgia

**Client:** Department of Highways of Georgia **Funding:** Department of Highways of Georgia

Approx. project investment cost: (2,000,000USD) 
Main Project features: Detailed design for the reconstruction of infrastructure damaged by the disaster Project progress control, engineering decisions, design

drawings, calculations, and workloads

Position: Civil Engineer

9 Name of the project: Mtskheta Municipality,

Mukhrani village, preparation of full project documentation for construction of a walnut processing factory and office buildings on a 5000 sq.m non-

agricultural land owned by Rk Imedi **Duration:** (05/2019 – 11/2020)

Location: Georgia

Client: Cooperative "RK Imedi"
Funding: Private investors

Approx. Project investment cost: (2,000,000\$)
Main Project features: Constructive Projects

**Position:** Consulting Engineer

8 Name of the project: Project documentation for parking

and infrastructure construction in Gudauri

**Duration:** (05/2018-10/2018)

Location: Georgia

Client: LLC "Design, construction expertise"

**Funding:** N/A

**Approx. Project investment cost:** (3,000,000\$) **Main Project features:** Constructive Projects

**Position:** Consulting Engineer

**Name of the project:** Tbilisi, Jikia Str N32, Preparation of design documentation for a multi-storey residential

complex

**Duration:** (01/2017-12/2017)

Location: Georgia

Client: A group of private investors

**Funding:** Private investors

**Approx. Project investment cost:** (2,000,000\$) **Main Project features:** Constructive Projects

**Position:** Consulting Engineer