# Mamuka Sanikidze

## Personal Information

Name Surname: Mamuka Sanikidze

Date of Birth: 1958-02-03
Sex: Male
Citizenship: Georgian
Phone: 599950443

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### Education

Academic Degree: Ph.D./Equivalent to Ph.D

Educational Institution: Moscow Construction Engineering Institute
Qualification: Construction structures, buildings and facilities

Date of grant: 2006-06-21 Country: Russia

Academic Degree: Bachelor

Educational Institution: Military-Engineering Academy of General Staff of

Georgian Armed Forces

Qualification: Officer with higher military-engineering,

operational-strategic education

Date of grant: 2004-07-30 Country: Georgia

Academic Degree: Master's/Equivalent to Master's Educational Institution: Georgian Polytechnic Institute

Qualification: Builder Engineer
Date of grant: 1980-07-05
Country: Georgia

## Work Experience

Organization: Georgian Technical University

Structural Unit: The Institute of Constructions, Special Systems

and Engineering Support

Position: Chairman of the Scientific Board of the Institute

Date of commencement of work: 2021-12-27 Date of completion of work: 2024-02-21

Organization: Georgian Technical University

Structural Unit: Construction Faculty, Department of civil and

industrial engineering

Position: Associate professor

Date of commencement of work: 2021-10-01 Date of completion of work: 2024-02-21

Organization: Georgian Technical University

Structural Unit: Construction Faculty, Department of civil and

industrial engineering

Position: Visiting professor

Date of commencement of work: 2015-01-14 Date of completion of work: 2021-07-31

Organization: Georgian Technical University

Structural Unit: The Institute of Constructions, Special Systems

and Engineering Support

Position: he head of surface transformative structures

department (chief research fellow)

Date of commencement of work: 2011-01-03 Date of completion of work: 2024-02-21

Organization: Georgian Technical University

Structural Unit: The Institute of Constructions, Special Systems

and Engineering Support

Position: Head of the Theoretical studies of military

engineering arts and education programs

department (senior research fellow)

Date of commencement of work: 2006-04-18 Date of completion of work: 2010-12-30

Organization: Georgian Technical University

Structural Unit: Military-Engineering Academy of General Staff of

Georgian Armed Forces

Position: Head of training methodology departmen

Date of commencement of work: 2000-11-08
Date of completion of work: 2006-04-17

Organization: Special Engineering State Center of Georgia Structural Unit: Department of transformable constructions

Position: Senior research fellow

Date of commencement of work: 1999-10-11 Date of completion of work: 2000-11-07

Organization: Georgian Technical University
Structural Unit: Institute of Space Structures
Position: Senior research fellow

Date of commencement of work: 1992-10-20

Georgian Technical University 2/9 <a href="https://gtu.ge">https://gtu.ge</a>

Date of completion of work: 1999-10-11

Organization: Georgian Technical University

Structural Unit: Institute of Transformable Constructions

Position: Senior research fellow

Date of commencement of work: 1991-05-01 Date of completion of work: 1992-10-19

Organization: Georgian Polytechnic Institute
Structural Unit: Special Construction Bureau

Position: Head of the Department of Construction and

Prospective Works - Deputy Chief Designer

Date of commencement of work: 1988-12-30 Date of completion of work: 1991-04-30

Organization: Georgian Polytechnic Institute Structural Unit: Special Construction Bureau

Position: head of the sector

Date of commencement of work: 1987-09-02 Date of completion of work: 1988-12-28

Organization: Georgian Polytechnic Institute Structural Unit: Special Construction Bureau

Position: Scientific employee

Date of commencement of work: 1986-07-17 Date of completion of work: 1987-09-01

Organization: Moscow Construction Engineering Institut

Structural Unit: Department of metal constructions

Position: Graduate student

Date of commencement of work: 1983-01-02
Date of completion of work: 1986-07-16

Organization: Georgian Polytechnic Institute Structural Unit: Construction Research Bureau

Position: Engineer
Date of commencement of work: 1981-06-01
Date of completion of work: 1982-12-27

Organization: Georgian Polytechnic Institute
Structural Unit: Department of metal constructions

Position: Senior technician

Date of commencement of work: 1980-11-01 Date of completion of work: 1981-05-31

## Qualification Raising

### **Trainings**

Organization: International Committee of the Red Cross

Subject: Law of Armed Conflict

Country: Georgia
Date: 2004-03-27

# **Projects & Grants**

Name of the project/grant: Quick-build inventory transformable and

transportable civil and military extreme bridges

Position: Chief scientist-collaborator
Donor: Georgian Technical University

Leader Organization: The Institute of Constructions, Special Systems

and Engineering Support

Start | End Date: 2022-01-01 - 2024-12-31

Name of the project/grant: Assessment of the existing engineering situation in

the selected special direction in the conditions of total defense and development of the methodology of the engineering arrangement of the territory

Position: Chief scientist-collaborator
Donor: Georgian Technical University

Leader Organization: The Institute of Constructions, Special Systems

and Engineering Support

Start | End Date: 2021-01-01 - 2024-12-31

Name of the project/grant: Development and creation of extendable reflector

antenna for satellite bases. Joint project - USA,

Ukraine, Georgia

Position: Engineer-researcher, technologist

Donor: "EOS Data Analytics", "Noosphere Ventures"

Leader Organization: "T.S.Georgia"

Start | End Date: 2019-07-01 - 2021-09-30

Name of the project/grant: A quick-build, reusable, transportable metal

bridge for use in extreme situations

Position: Chief scientist-collaborator
Donor: Georgian Technical University

Leader Organization: The Institute of Constructions, Special Systems

and Engineering Support

Start | End Date: 2018-01-01 - 2019-12-20

Name of the project/grant: Determination of a systematic and classified

> concept of engineering preparedness, battle activities and operations, also engineering maintenance of natural and artificial extreme situations for Georgian infrastructure and territory

defense

Position: Chief scientist-collaborator Donor: Georgian Technical University

Leader Organization: The Institute of Constructions, Special Systems

and Engineering Support

2016-01-10 - 2020-06-30 Start | End Date:

Inventory, transformable, multispan, transportable Name of the project/grant:

rapidly builds bridge

Chief scientist-collaborator Position: Donor: Georgian Technical University

The Institute of Constructions, Special Systems Leader Organization:

and Engineering Support

Start | End Date: 2016-01-08 - 2016-12-31

Name of the project/grant: 19.2 m long emergency bridge Position: 19.2 m long emergency bridge Georgian Technical University Donor:

Leader Organization: The Institute of Constructions, Special Systems

and Engineering Support

2016-01-01 - 2016-12-31 Start | End Date:

Name of the project/grant: Creation of the single-span folding-unfolding

commercial bridge and definition of its

transportation and assembly schemes and features

Chief scientist-collaborator Position: Donor: Georgian Technical University

The Institute of Constructions, Special Systems Leader Organization:

and Engineering Support

Start | End Date: 2015-01-03 - 2015-12-31

Name of the project/grant: Transformable, deployable, transportable military

assault tank bridge-installer Chief scientist-collaborator

Position: Georgian Technical University Donor:

Leader Organization: The Institute of Constructions, Special Systems

> and Engineering Support 2014-01-01 - 2014-12-20

Extendable reflector hanging stand Name of the project/grant:

Chief scientist-collaborator Position: Donor: Georgian Technical University

Leader Organization: The Institute of Constructions, Special Systems

and Engineering Support

Start | End Date:

Start | End Date: 2013-01-15 - 2013-11-30

Name of the project/grant: Increase of the mobility and manoeuvring of

assault tank bridge-lay by means of minimization 18-24 meter bridges package outer dimensions

Position: Chief scientist-collaborator
Donor: Georgian Technical University

Leader Organization: The Institute of Constructions, Special Systems

and Engineering Support

Start | End Date: 2013-01-03 - 2013-12-31

Name of the project/grant: Mechanized bridge and bridge- installation device

Position: Chief scientist-collaborator
Donor: Georgian Technical University

Leader Organization: The Institute of Constructions, Special Systems

and Engineering Support

Start | End Date: 2012-01-10 - 2012-12-31

Name of the project/grant: Autonomous hail protection deployable system for

grapes

Position: Chief scientist-collaborator
Donor: Georgian Technical University

Leader Organization: The Institute of Constructions, Special Systems

and Engineering Support

Start | End Date: 2012-01-10 - 2014-12-31

Name of the project/grant: Construction of a New Transformable Power Ring-

Grant #32

Position: Project manager

Donor: Georgian Technical University

Leader Organization: The Institute of Constructions, Special Systems

and Engineering Support

Start | End Date: 2010-04-01 - 2010-12-30

Name of the project/grant: Technical evaluation of large folding structures

Position: Senior research fellow

Donor: The Technical University of Munich, European

Space Agency (ESA)

Leader Organization: The Institute of Constructions, Special Systems

and Engineering Support

Start | End Date: 2010-01-15 - 2012-12-20

Name of the project/grant: Deployable bridge with 48m span

Position: Senior research fellow

Donor: Georgian Technical University

Leader Organization: The Institute of Constructions, Special Systems

and Engineering Support

Start | End Date: 2007-01-10 - 2011-12-31

Name of the project/grant: Fast erected, disassemble, metal multi-span bridge

KM-02T. Span Length 37 m. Order of the President of Georgia #101-b. 26.03.1997

Position: Senior research fellow

Donor: Georgian Technical University
Leader Organization: Institute of Space Structures
Start | End Date: 1997-04-01 - 1998-12-20

Name of the project/grant: First Georgian space object Position: Senior research fellow

Donor: Georgian Technical University
Leader Organization: Institute of Space Structures
Start | End Date: 1996-01-10 - 1999-07-31

# Scientific Productivity

#### Scopus

Cited Index: 20 H Index: 2

Web of science Cited Index: 11 H Index: 2

Google scholar Cited Index: 24 H Index: 3

# Leadership of educational programs

1. Construction art course for the military(syllabus) - doctoral degree;

# Conference, Symposium, Award

- 2006-03-03 Earth & Space, League City/Houston, Texas, USA. A new design variant of the large deployable space reflector.
- 2009-10-14 International Scientific Conference Advanced Lightweight Structures and Reflector Antennas, European Space Agency, Technische Universitaet Muenchen, Georgian Technical University , 14-16 October 2009, Tbilisi, Georgia. New types of high-precision de
- 2009-10-15 International Scientific Conference Advanced Lightweight Structures and Reflector Antennas, European Space Agency, Technische Universitaet Muenchen, Georgian Technical University, 14-16 October 2009, Tbilisi, Georgia. Transformable rod shell's surfa
- 2009-10-16 International Scientific Conference Advanced Lightweight Structures and Reflector Antennas, European Space Agency, Technische Universitaet Muenchen, Georgian Technical

- University, 14-16 October 2009, Tbilisi, Georgia. Structure and kinematical synthes
- 2010-10-07 International Scientific Conference, 32th ESA Antenna Workshop on Antennas for Space Applications From technologies to Atchitectures. 5-8 October 2010, ESA/ESTEC, Noordwijk, The Netherlands. Spatial double conical ring-shaped reflector concepts for spac
- 2012-10-02 International Scientific Conference, Workshop on Larg Deployable Antennas. 2-3 October 2012, ESA/ESTEC, Noordwijk, The Netherlands. Theoretical and experimental study of load-bearing deploying ring designed by double pantograph principle and of reflector
- 2014-10-03 International Scientific Conference Advanced Lightweight Structures and Reflector Antennas, European Space Agency, Technische Universitaet Muenchen, Georgian Technical University, 1-3 October 2014, Tbilisi, Georgia. Erection cycle of deployable space
- 2016-11-16 International Scientific Conference, 37th ESA Antenna Workshop. 15-17 November 2016, ESA/ESTEC, Noordwijk, The Netherlands.Different scheme of reflective display attachment of deployable space refflector flexible center with V-foldede ring.
- 2017-12-07 2017 National Accelerated Bridge Construction Conference Florida International University, Miami, Florida, USA, December 7-8, 2017. Folding metal bridge with falcate modules – KM 02T
- 1999-08-02 • For participation in the first Georgian space object "Reflector" program conducted by order of the President of Georgia on August the 2-nd 1999, was awarded with the medal "For Fighting Merit".

# Languages

- Georgian
- Russian
- English

## Additional information

#### **Patent**

- 1. E. Medzmariashvili, N. Tsignadze, M. sanikidze, N. Medzmariashvili, G. Medzmariashvili. Plant protection device against hail. National Intellectual Property Center of Georgia, Sakpatenti, Patent P 5979, Tbilisi, 2014, 9 p. (in Georgian).
- 2. E. Medzmariashvili, N. Tsignadze, M. sanikidze, G. Medzmariashvili A. Chapodze, L. Filipenko, N. Medzmariashvili. Mechanized bridgeand bridge construction equipment. National Intellectual Property Center of Georgia, Sakpatenti, Patenti P 6066, Tbilisi, 2014, 45 p. (in Georgian).

#### **Manual**

1. Metal structures. General course: manual for students of higher technical schools / Mamuka Sanikidze, Nodar Kitadze, Giorgi Medzmariashvili, Gizo Fartskhaladze, Temur Kikava.; Edited by M. Sanikidze. - Tbilisi, LTD "Smarty", 2017 - 338 pp., ill. (in Georgian).

For participation in the first Georgian space object - "Reflector" program conducted by order of the President of Georgia on August the 2-nd 1999, was awarded with the medal "For Fighting Merit".
· Awarded the rank of Major of the Georgian Armed Forces, 2003.
· I am the chairman of the Scientific Council of the Institute of Buildings, Special Systems and Engineering Support of Stu.
· I am a member/chairman of the Doctoral Dissertation Board of the Faculty of Civil Engineering of STU in Military Engineering.