



**Personal Data (CV)**

<b>Surname</b>	Natriashvili	<b>First Name</b>	Tamazi
<b>Address (work, home)</b>	0194, Tbilisi, Panaskerteli str. № 17, ft. 45	<b>Date and place of birth</b>	09.05.1950 Georgia
<b>Citizenship</b>	Georgian	<b>Telephone number(s)</b>	+995 577 39 20 80 +995 599 22 24 20 Work: +995 32 232 56 39 Home: +995 32 2 36 29 17
<b>E-mail</b>	<a href="mailto:t_natriashvili@yahoo.com">t_natriashvili@yahoo.com</a>		

**3. Education**

Education	Institution	Learning Time
Secondary	Maiakovski, Egn. Ninoshvili Secondary School	1957-1967
Higher	Georgian Polytechnical Institute	1967-1972
Postgraduate study, doctoral candidacy		

**4. Knowledge of Languages**

Foreign languages	Level of language proficiency (fluent, intermediate, beginning with the help of a dictionary)
Georgian	Fluent
Russian	Fluent
French	Intermediate
English	With the help of a dictionary

**5. Scientific or Academic Degree and Rank**

	Title of the thesis	Date of conferment
Ph.D. thesis	“Rise of the supercharging tractor diesel effectiveness in the high-altitude conditions”.	08.02.1982
Doctoral thesis	“Development of the methods and means of perfection of the forced auto-tractor diesels characteristics working in	05.12.2003

	the high-altitude conditions”.	
Academician Doctor		
Professor		
Corresponding Member of the Academy		
Member of the Academy	Machine Mechanics	26.12.2018.

## 6. Work Experience

Date	Institution	Position
2006- to present	LEPL R. Dvali Institute of Mechanics of Machines	Director
1995-2006,	Institute of Mechanics of Machines of the Georgian Academy of Sciences	Deputy Director
1991-1995	Institute of Mechanics of Machines of the Georgian Academy of Sciences	Head of the Department
1984-1991	Institute of Mechanics of Machines of the Georgian Academy of Sciences	Senior Scientific Worker
1974-1984	Institute of Mechanics of Machines of the Georgian Academy of Sciences	Junior Scientific Worker
1972-1974	Institute of Mechanics of Machines of the Georgian Academy of Sciences	Senior Technician

### 6.1 Teaching Activity

Date	Institution	Position
2011- to present	Georgian Technical University	Invited Professor
1985-1991	Georgian Polytechnic Institute	Lecturer

### 6.2 Work Abroad

Form of activity	Date	Place and Institution
Delivering a course of lectures at foreign higher education institutions	1989-1990	Pierre and Marie Curie University, Paris, France.
	1987-1988	Institute “AutoCut”, Hungary.
Long-term academic mission to research institutions	1991	The Weizmann Institute of Science, Israel.
	1988-1991	Pierre and Marie Curie University (University Paris-6), Paris, France
	1986-1988	Institute “AutoCut”, Hungary.
Other		

## 7. Sphere of Scientific Interests

Research and Improvement of Capacity, Economical and Ecological Indicators of Automobile Engines and Using Alternative Fuels on Motor Engines
Development of new technological machines
Research of dynamic processes of motor systems
Study of solid body shock processes
Robotized systems processing
Use of non-traditional sources of energy

## 8. Publications (Total number, indicating the Citation Index (*number*))

Over 160 scientific works

### 8.1 Monographs

Years	
2010	R. Adamia, T. Natriashvili, S. Mebonia. The engineer methods of calculation of parameters of the impact interaction of rigid bodies. (Monograph), "Technical University", Tbilisi, p.230;
2011	R. Adamia, T. Natriashvili, S. Mebonia. Optimization of dynamical processes of the machine systems. (Monograph), Publishing House of National Academy of Sciences of Georgia, Tbilisi, p. 373;
2016	V. Kldiashvili, T. Natriashvili, S. Mebonia. Calculations of induction motors at rewinding. Tbilisi, p. 216;
2017	T. Natriashvili, S. Mebonia. Methods of calculation of the impact loads in heavy loaded machines. Tbilisi, p. 235.

### 8.2 Principal Papers (no more than 50)

Years	
1977	<b>Натриашвили Т.М., Кордзадзе Б.И., Гвинианидзе И.</b> Влияние охлаждения наддувочного воздуха на работу дизеля Д-249Т в высотных условиях. Сб. «Механика машин», Изд-во «Мецниереба», Тбилиси, 1977, ст. 134-142;
1978	<b>Натриашвили Т.М., Гвинианидзе И.</b> Влияние величины сечения безлопаточного направляющего аппарата турбины на работу дизеля Д-240Т в различных климатических условиях. Сб. «Механика машин», Изд-во «Мецниереба», Тбилиси, 1978, ст.32-42;
1978	<b>Натриашвили Т.М., Каминский В., Каминский М. Кордзадзе Б.И, Гвинианидзе И.</b> Выбор оптимальных параметров системы наддува форсированных тракторных дизелей при эксплуатации в высокогорных условиях. Труды НАТИ, вып. 258, Москва, 1978, ст. 61-66;
1980	<b>Натриашвили Т.М., Кордзадзе Б.И.</b> Исследование влияния атмосферных условий на активное тепловыделение и показатели работы дизеля. Сб. «Механика машин», Изд-во «Мецниереба», Тбилиси, 1980, ст.158-166;
1983	<b>Натриашвили Т.М.</b> Методика и результаты расчёта оптимальной системы наддува для дизеля работающего в высокогории. Труды, ГПИ №13(270), Тбилиси, 1983, ст. 43-48;
1984	<b>Натриашвили Т.М.</b> Уточнение формул пересчёта мощности для тракторных дизелей с турбонаддувом. Сб. «Механика машин», Изд-во «Мецниереба», Тбилиси, 1983, ст. 34-42;
1997	<b>Натриашвили Т.М.</b> К возможности улучшения работы дизелей с наддувом в высокогорных условиях. Georgian Engineering News, #4, Tbilisi, 1997, p.83-85;
1997	<b>Натриашвили Т.М.</b> Исследование форсированных автотракторных двигателей при различных режимах нагрузки высокогорных условиях. Georgian Engineering News, #4, Tbilisi, 1997, p.78-82;
1998	<b>T. Natriashvili, B. Kordzadze, I. Djebashvili.</b> Fonctionnement des moteurs diesel rapides turbo-suralimentés en altitude a regime variable. Entropie, #148, Paris, 1989, p. 77-78;
2001	<b>A. Mandjgaladze, T. Natriashvili.</b> Calculation of the tree-dimensional twisted flow. Georgian Engineering News, Publ. GFID, #1, Tbilisi, 2001, p.33-36;
2003	<b>Адамия Р. Ш., Манджгаладзе А.А., Натриашвили Т. М.</b> Расчёт и усовершенствование конструкции разветвленных участков газоздушного тракта (ГВТ) дизеля. Труды Кутаисского научного центра АН Грузии, № 7, Кутаиси, 2003, ст. 5-12;
2004	<b>T. Natriashvili, R. Kenkishvili.</b> Measuring System to Improve Ecological Indexes of Internal Combustion Engines. Georgian Engineering News, Publ. GFID, #3, Tbilisi, 2004, p.145-150;

2004	<b>G. Badrishvili, T. Natriashvili.</b> Complex System of Monitoring. Georgian Engineering News, Publ. GFID, # 3, Tbilisi, 2004, p. 150-153;
2006	<b>R. Adamia, A. Milnikov, T. Natriashvili.</b> The oscillation beatings in machines and their preventing methods, "Problems of Mechanics", Tbilisi, № 4(25), 2006, p.9-16;
2008	<b>T. Natriashvili, B. Kordzadze, R. Demetrashvili.</b> Maintenance of principle indices of the turbo-supercharged diesel operation under high altitude conditions. " Problems of Mechanics", Tbilisi, № 4(33), 2008, p.29-34;
2008	<b>V. Zviadauri, G. Tumanishvili, T. Natriashvili.</b> Influence of spatial resonant oscillations of the vibratory machine working organ on the technological load behavior. Institute of Mechanics RTU Rare attractors and rare phenomena in nonlinear dynamics, Riga, RTU, 2008, p. 127-130;
2008	<b>R. Adamia, T. Natriashvili.</b> On the method of dynamical loads restriction and quality raising of the metal produce of high speed rolling mills. HUTNIK 1, Zakopane, 2008, p. 9-11;
2009	<b>T. Natriashvili, D. Iosebidge, O. Gelashvili.</b> Elaboration of the model of logistical system- "Ecological safety of automobiles-diesel oil properties". "Problems of Mechanics", Tbilisi, № 4(37), 2009, p.32-42;
2010	<b>T. Natriashvili, M. Glonti, R. Qavtaradze, Z. Qavtaradze, A. Zelencov.</b> Solutions of some Problems of improvement of Ecological Characteristics of the Diesel Engine converted in the Gas Engine. "Problems of Mechanics", Tbilisi, № 1(38), 2010, p.13-28;
2011	<b>Lomsadze L., Natriashvili T., Lomsadze Z., Mebonia S.</b> Obtaining of the profiles with the exact pitch by means of the combined processes of rolling and drawing. " Problems of Mechanics", Tbilisi, № 2(43), 2011, p. 36-41;
2012	<b>J. Aneli, T. Natriashvili, M. Ben Chaim, G. Basilaia.</b> Electric conductivity of polymer composites at relaxation and phase transitions. "The seventh international conference on materials technologies and modeling". Ariel university center of Samaria, Israel, 2012, 3-33-3-40;
2012	<b>T. Natriashvili, S. Mebonia, M. Mikautadze, D. Demetradze,</b> "Definitions of impact interaction parameters at grip of metal by mill rollers". "Problems of Mechanics", Tbilisi, № 3(48), 2012, p. 54-59;
2013	<b>T. Natriashvili, R. Kavtaradze, Z. Kavtaradze, A. Zelencov, D. Onishchenko,</b> "Modeling radiative – convective heat transfer in the diesel engine". " Problems of Mechanics", Tbilisi, №2 (51), 2013, p. 5-13;
2013	<b>T. Natriashvili, S. Mebonia, M. Mikautadze,</b> "Definition of deformation rate in the helical piercing of billets", " Problems of Mechanics", Tbilisi, № 3 (52), p. 45-49;
2014	<b>T. Natriashvili, S. Mebonia, M. Glonti, M. Mikautadze,</b> "The new scheme of the pipe-rolling unit for receiving seamless hot-rolled pipes", " Problems of Mechanics", Tbilisi, № 2(55), 2014, p.99-105;
2014	<b>Jimsher Aneli, Michael Ben Haim, Tamaz Natriashvili, Elyasaf Laybovitch,</b> " Structuring and Electric Conductivity of Polymer Composites pyrolysed at High Temperatures", International Journal of Latest Research in Science and Technology ISSN (Online): 2278-5299 Volume 3, Issue 3: Page No. 29-34. May-June 2014, <a href="http://www.mnkjournals.com/ijlrst.htm">http://www.mnkjournals.com/ijlrst.htm</a> ;
2015	<b>R. Kavtaradze, T. Natriashvili, A. Zelentsov.</b> Ignition Delay and Emission the Noxious Substances in Double-Fuel Engines Working on Natural Gas and Syngas. Innovative Methods for Improvement of Technical, Economic and Ecological Efficiency of Motor Cars. Nova Publishers, USA, New York, pp. 106-120;
2015	<b>T. Natriashvili, S. Mebonia, G. Chagelishvili, M. Baakashvili-Antelava.</b> „Determination of the Conditions of uniformity rotation of the eccentric shaft of the Radial-forging Machine. International Scientific Journal "Problems of Mechanics", 4, 61 (2015), Tbilisi, pp. 55-61;
2015	<b>T. Natriashvili, S. Mebonia,</b> "Determination of the Deformation Rate at the Rolling of Tubes", International Review of Education and Science, №1(8),v.2, Ottava, 2015, p. 514-521;
2015	<b>R. Kavtaradze, T. Natriashvili,</b> "Research into radiative-convective heat transfer in the cylinder of the diesel engine", European Journal of Scientific Research, №1(11), vol. III, Paris, 2015, p. 708-715;

2015	<b>T. Natriashvili, S. Mebonia</b> , “Determination of the Deformation Rate at the Rolling of Tubes”, International Review of Education and Science, №1(8), v. 2, Ottawa, 2015, p. 514-521;
2016	<b>T. Natriashvili, S. Mebonia, M. Ben Chaim</b> . „Determination of the dynamic stresses and deformations of the rolls at the metal capture“. International Scientific Journal „Problems of Mechanics“, № 1 (62), Tbilisi, 2016, pp. 59-64;
2016	<b>T. Natriashvili, S. Mebonia</b> . „Determination of the forces of shock interaction in the system “Pillows of rolls-bed” of the rolling mill“. International Scientific Journal „Problems of Mechanics“, № 3 (64), Tbilisi, 2016, pp. 41-47.
2016	<b>T. Natriashvili, S. Mebonia, M. Ben Chaim</b> . „Determination of the dynamic stresses and deformations of the rolls at the metal capture“. International Scientific Journal „Problems of Mechanics“, № 1 (62), Tbilisi, 2016, pp. 59-64;
2016	<b>T. Natriashvili, S. Mebonia</b> . „Determination of the forces of shock interaction in the system “Pillows of rolls-bed” of the rolling mill“. International Scientific Journal „Problems of Mechanics“, № 3 (64), Tbilisi, 2016, pp. 41-47;
2016	<b>G. Tumanishvili, T. Natriashvili, G. Goletiani, G. Zviadauri</b> . „Improvement of working conditions of the freight locomotive running gear“. “Transport Problems”, volume 11, issue 3, Wydawnictwo Politechniki Slaskiej Gliwice 2016, pp. 103-110;
2016	<b>V. Kldiashvili, T. Natriashvili, S. Mebonia, A. Shermazanashvili</b> . „Analysis of the parameters of the ore restoration furnaces of equal power on the self-baking and graphitized electrodes“. Journal of Energy and Power Engineering, David Publishing Company USA, New York, 2016, № 12, pp. 786-791;
2016	<b>Natriashvili Tamaz, Zviadauri Viktor, Tumanishvili Giorgi</b> . THE FEATURES OF MODELING OF THE FRIABLE MATERIALMOVEMENT ALONG THE SPATIALLY VIBRATING SURFACE OF THE VIBRATORY MACHINE WORKING MEMBER. Mechanics of Machines, Mechanisms and Materials, Minsk,2017, pp.
2017	<b>G. Tumanishvili, T. Natriashvili, T. Nadiradze, G.G. Tumanishvili</b> . Estimation of Parameters of the Rail Corrug-ation, Internat.” Jour. of Advancement in Engineering Technology, Management and Applied Science” (IJAETMAS), India, pp. 94-102;
2018	<b>George Tumanishvili, Tamaz Natriashvili, Tengiz Nadiradze</b> . Perfection of Technical Characteristics of the Railway Transport System Europe-Caucasus-Asia (TRACECA). pp. 303-368. In the book: Transport Systems and Delivery of Cargo on East–West Routes. 421p. Ed. A. Sladkowski. Springer, 2018. <a href="https://link.springer.com/book/10.1007%2F978-3-319-78295-9">https://link.springer.com/book/10.1007%2F978-3-319-78295-9</a> ;

### 8.3 Textbooks, Additional Manuals, and other Methodological Literature and Training means

Years	
2016	S. Mebonia, T. Natriashvili, Z. Lomsadze. Exploitation and maintenance of the metal forming machines. Publishing house of Georgian Technical University, Tbilisi, 520 p.
2017	S. Mebonia, T. Natriashvili, D. Nozadze. Auxiliary devices of the milling shops. Publishing house of Georgian Technical University, Tbilisi, 228 p.

### 8.4 Electronic Publications

Years	Title	Address of Source

### 8.5 Participation in Scientific Symposiums, Conferences for the last ten years

Years	Title	Event title
2009	<b>Натриашвили Т. М., Б.И. Кордзадзе, Р.А. Деметрашвили.</b> Теоретическое исследование изменения мощности дизеля с турбо-наддувом по температуре охлаждения наддувочного воздуха.	Международная конференция «Турбо-наддув автомобильных и тракторных двигателей», Протвино, Россия, ст. 22-25;
2009	<b>Натриашвили Т. М., Кенкишвили Р. А., М. Г. Глонти.</b> Система питания автомобильного дизеля работающего газодизельным циклом.	Международная конференция «Турбо-наддув автомобильных и тракторных двигателей», Протвино, Россия, ст. 25-27;
2010	<b>Адамия Р. Ш., Мебония С. А., Натриашвили Т. М.</b> Рациональные конструкции вспомогательных механизмов автоматических станков.	Труды международной научно-технической конференции. «Обработка металлов давлением», Краматорск, №1(22), ст. 266-269;
2011	<b>Натриашвили Т. М.</b> Работа транспортного дизеля с турбонаддувом в высокогорных условиях.	V Международная научная конференция «Современные достижения в науке и образовании», Нетания, Израель, ст. 87-89;
2011	<b>Milnikov A., Natriashvili T.</b> Solution of Kinematics Inverse Problem by means of Group Representations Theory.	V Международная научная конференция «Современные достижения в науке и образовании», Нетания, Израель, ст. 85-87;
2011	<b>Мебония С. А., Натриашвили Т. М., Микаутадзе М. М.</b> Разработка устройства для радиальнойковки длиномерных осесимметричных изделий со сложной конфигурацией внутренней поверхности.	Труды международной научно-технической конференции. «Обработка металлов давлением», Краматорск, Украина, № 2(27), ст. 177-182;
2011	<b>Milnikov A., Natriashvili T.</b> Spinor Geometry Based Robots Spatial Rotations Terminal Control.	Mathematical Models and Methods in Modern Science. Puerto de la Cruz, Tenerife, Spain, p. 133-138;
2012	<b>თ. ნატრიაშვილი, ბ. კორძაძე, რ. დემეტრაშვილი.</b> შიგაწვის ძრავას სამუხრუჭო სიმძლავრის ფორსირების ოპტიმალური ზღვარი.	II საერთაშორისო კონფერენცია “მექანიკის არაკლასიკური ამოცანები“, ქუთაისი, გვ. 356-360;
2012	<b>Мебония С. А., Натриашвили Т. М., Бен Хаим М.,</b> Методы расчета ударных нагрузок в трубопрокатных станках.	II международная конференция «Неклассические задачи механики», Кутаиси, ст. 368-371;
2013	<b>T. Natriashvili, R. Demetrashvili, M. Begiashvili,</b> “The result of theoretical and experimental researches into improved design of the mountain engine brake”.	Proceedings of IX international conference on the improvement of the quality, reliability and long usage of technical systems and technological processes, Israel, Eilat, November 12-20, p. 3-5;
2013	<b>Натриашвили Т. М., Деметрашвили Р. С.,</b> «Улучшение тормозных показателей автомобильного Двигателя»,	Труды IV Белорусского конгресса по теоретической и прикладной механике, Белоруссия, г. Минск, 2013г.23-25 октября, ст. 69-72;
2014	<b>Натриашвили Т. М., Мебония С. А., Бен Хаим М.,</b> «Новые схемы процессов прокатки бесшовных труб» Пластическая деформация металлов.	Украина, г. Днепропетровск, Труды международной научно-технической конференции «Пластическая деформация металлов», том 2, 2014, ст. 121-125

2014	<b>R. Melkadze, L. Shamanauri, T. Natriashvili.</b> Integrated Technology of Garlic.	The Improvement of the Quality, Reliability and Long Usage of Technical Systems and Technological Processes; XII International Conference, Taba, Egypt, pp.64-67;
2014	<b>Natriashvili T., Partskhaladze R., Melkadze R.</b> Autonomous System of Control and Diagnostics of the Phyto-Sanitary Situation For small Farming Economy.	The Improvement of the Quality, Reliability and Long Usage of Technical Systems and Technological Processes; XII International Conference, Taba, Egypt, pp.96-98;
2014	<b>Натриашвили Т.М., Мебония С. А., Мшвилдадзе П.К.</b> „Определение сил ударного взаимодействия при захвате металла валками трубопрокатного стана“.	Труды V Международная научно-практическая конференция „Современные концепции научных исследований“. Москва, 2014 г. стр. 81-83
2015	<b>В. Клдиашвили, Т. Натриашвили, С. Мебония,</b> «Рациональная конструкция короткой сети для дуговой печи»,	Сб.Трудов Межд.конф. »Мультинаучные исследования как тренд развития современной науки«, Киев, Украина, ст. 25-29
2015	<b>В. Клдиашвили, Т. Натриашвили, А. Шермазанашвили, С. Мебония,</b> «Методика пересчета параметров электродвигателя для регулируемого асинхронного элпривода транспортных средств»,	Сб. науч. публ. II междун. науч-практ. Конференции, 2ч., Киев, Украина, 2015, стр. 86-89
2015	<b>G. Tumanishvili, T. Natriashvili, T. Nadiradze,</b> ”Research into Tribomechanical Characteristics of the Friction Modifiers for Rails and Wheels”,	Труды VI Белорусского конгресса по теоретической и прикладной механике, Белоруссия, г. Минск, 2015г.,стр.189-193
2015	<b>T. Natriashvili, S. Mebonia,</b> „The New Construction of Machine for Rolling Profile Ring Semi Manufactures“,	The XVI International Academy Congress “History, Problems and Prospects of Development in Modern Civilization”, vol .II , Tokyo, p. 399-404;
2015	<b>Клдиашвили, Т. Натриашвили, С. Мебония.</b> В Сравнительный анализ рудовосстановительных печей равной мощности на самоспекающих и графитированных электродах»,	Труды XII Межд. науч-практ. конф. «Научные перспективы XXI века. Достижения и перспективы нового столетия», Ч. I, №5(12), Новосибирск, Россия, ст. 84-86;
2015	<b>Т. Натриашвили,</b> «Результаты исследования тормозных показателей автомобильного двигателя»,	Межд. науч.-практич. конф. «Разработка и производство двигателей и других агрегатов и систем транспортных средств с применением информационных технологий», Протвино, Россия, ст. 26-28;
2016	<b>T. Natriashvili, R. Melkadze, P. Dolidze.</b> “Technology and facilitate receipt of caffeine”.	International Scientific Conference “Modern Technologies to produce ecologically pure products for sustainable development of agriculture”, 28-30 September, 2016, Tbilisi, Georgia, pp. 592-595.
2016	<b>У. В. Дзодзуашвили, Т.М. Натриашвили, С.А. Мебония, М. Бен Хаим.</b> „Анализ моделей деформирования при определении ударных нагрузок в элементах конструкции“.	№ 2 Полско-Грузинская конференция „Транспортный мост Европа-Азия“, Тбилиси, 2016, стр. 154-161.

2016	V. Kldiashvili, T. Natriashvili, S. Mebonia, A. Shermazanashvili. "The comparative analysis of the ore restoration furnaces of equal power on the self-baking and graphitized electrodes".	The International Scientific Conference on Mechanics 2016, Tbilisi, pp. 127-133
2016	Т.М. Натриашвили, В.О. Маргвелашвили, Р.И. Парцхаладзе. „Разработка мобильных дистанционно управляемых робототехнических систем“.	Труды VII Белорусского конгресса по теоретической и прикладной механике, Белоруссия, г. Минск, 2016г., стр. 21-24.
2017	J. Aneli, T. Natriashvili, L. Shamanauri, D. Gventsadze, G. Basilaia, A.. Absorbing radio waves polymer composites with electrical conducting and magnetic fillers.	5 <sup>th</sup> International Caucasian Symposium on Polymers and Advanced Materials, ICSP & AM4, Tbilisi, 2017, pp. 17-18
2017	T. Natriashvili, S. Mebonia. Анализ динамического последствия удара при захвате металла валками прокатного стана.	Межд. научно-технич. Конференция “Иновации в машиностроении-2017”, 185-189, сентября, 2017 г.
2017	R. Kavtaradze, T. Natriashvili, M. Glonti. Improvement of ecological characteristics of the hydrogen diesel engine	Reports of a International Automobile Scientific Forum IASF-2017 `Intelligent Transport System`, Moscow: NAMI, 18-19 October, 2017, -7 p., iasf@nami.ru. To cite this article: T. Natriashvili et al 2018, IOP Conference Series: Materials Science and Engineering, v. 315/1/012018, -7 p. <a href="http://iopscience.iop.org/article/10.1088/1757-899X/315/1/012018">http://iopscience.iop.org/article/10.1088/1757-899X/315/1/012018</a>
2018	Т. Натриашвили, С. Мебония. „Определение сил ударного взаимодействия зубьев шестеренных валков прокатного стана“.	Сб. тр. Международной научно-технической конфции „Иновации в Машиностроении - 2018“. Минск, Белорусия, стр.
2018	Revaz Kavtaradze, Tamaz Natriashvili, Yichun Wang. "Modeling of Combustion and Local Heat Transfer Processes in Diesel Engine with Direct Hydrogen Injection".	7th International Conference on Mathematical Modeling in Physical Sciences. August 27-31, 2018, Lomonosov University, Moscow.
2019	Revaz Kavtaradze, Tamaz Natriashvili, Sergei Gladishev. „Hydrogen-Diesel Engine: Problems and Prospects of Improving the Working Process“.	SAE International Symposium, Detroit, USA.

#### 9. Organizational Work (Holding of Congresses and Conferences, Editorial Work)

Years	Name
2002-2019	Member of the organizational committees and a chairman of the section of various international scientific conferences and events; permanent member of the international program committee of the "IFTToMM" Ukraine National Committee scientific and technical conferences.
2006-2019	Member of the editorial boards of the scientific and technical journals "Problems of Mechanics", "Georgian Scientific News", "Novatsia" and journal "Internal Combustion Engines" of Academy of Sciences of Belarus. Member of the editorial board of the journal "Matsne" (with the security label) of Georgian National Academy of Sciences.



## 10. Inventions (Author's Certificate, Patents)

Years	Name
1991	Internal combustion engine. Author's Certificate of USSR #1698467. T. Natriashvili, I. jebashvili, B. Kordzadze, V. Kaminsky, Z. Napetvaridze.
1992	Rotary machine. Author's Certificate of USSR #1781461. T. Natriashvili, A. Maisuradze, I. jebashvili.
1992	Braking device. Author's Certificate of USSR #1809132. B. Kordzadze, T. Natriashvili, I. jebashvili, Z. Napetvaridze.
1998	Mode of operation of the internal combustion engine and internal combustion engine. Georgian Patent GE P 2000, 2193B. R. Kenkishvili, T. Natriashvili, I. jebashvili, T. Khukhuni.
2004	Feeding system of the gas-diesel engine. Georgian Patent GEU 1151U. R. Kenkishvili, T. Natriashvili. G. Badrishvili, G. Chanturia.
2014	Braking device of the automobile. Georgian Patent P6353. T. Natriashvili, B. Kordzadze, R. Demetrashvili.
2015	Drying device. Georgian Patent U 1917. T. Lezhava, K. Nikogosian, T. Natriashvili, J. Meskhi.
2016	Eccentric-wedge radial reducing machine. S. Mebonia, T. Natriashvili, M. Mikautadze, Proposal #14364/01.
2017	Frequency adjustable induction electromotor. Georgian Patent P6677, #10, 2017. T. Natriashvili. V. Kldiashvili, S. Mebonia, A. Shermazanashvili.
2017	Radial reducing machine for symmetric work-pieces. Georgian Patent P 6654; Bull. of inventions #7. S. Mebonia, T. Natriashvili, M. Antelava- Baakashvili.
2018	Radial reducing machine. Georgian Patent P 6862; Bull. of inventions #11. T. Natriashvili, S. Mebonia, M. Mikautadze.

## 11. International and Local Scientific grants

Years	Name
<b>Grants of Georgian National Academy of Sciences</b>	
1997-1999	Perfection of the working process and fuel-feeding device of the internal combustion engine working on the gas; <b>Leader</b>
2000-2001	Improvement of the internal combustion engine working process; <b>Leader</b>
2002-2003	Working out state standards on the automobile produce; <b>Implementer</b>
2004-2005	Working out state standards on the automobile produce; <b>Leader</b>
<b>Grants of Shota Rustaveli National Scientific Foundation</b>	
2014-2015	Study and development of the electromotor-wheel for the transport means. <b>Scientific leader.</b>
2015-2017	Modeling and study of a new alternative burning process for obtaining high ecological indices of the diesel with the use of the 3D non-stationary equations of Navier-Stokes. <b>Main executer.</b>
2017-2018	Industrial tests and optimization of the free innovative automobile catalyst obtained from precious metals. <b>Scientific leader.</b>
2019-2021	Researches into the processes of generation of the turbulent movement, combustion products and nitric oxides in the hydrogen diesel cylinder with the use of the 3D model based on the equations of type of Navier-Stokes. <b>Main executer.</b>

## 12. Scientific-Commercial Activity, author's certificate, Implementation

Years	Name
1980-1991	<b>In the Soviet Union</b> - the results of researches in the sphere of internal combustion engines were implemented in the tractor plants Belarus and Ukraine, in the automobile plants in Kutaisi (Georgia) and Naberezhnie Chelni (Russia).
1994-1997	<b>In Georgia</b> – the automobile engine feeding systems operating on the natural gas were implemented in various automobile enterprises of Tbilisi;

2011-to present	Participation in the development of the fighting machine “Didgori”, its modification and other fighting machines and weapons.
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### 13. Other Activities

	Name	Years
<b>Supervision of Theses and Masters work</b>		
	<b>S. Sharashenidze</b> – “Reduction of dynamical loads in the crank-slider mechanism of the railway refrigerator wagon diesel engine by optimization of clearances in the junctions”. Candidate of Technical Sciences.	09.12.2005
	<b>P. Dolidze</b> – “Perfection of the working process indices of the engine-compressor with free piston with the use of synchronous transmission of the air in the compressor”. Candidate of Technical Sciences.	16.06.2006
	<b>N. Diasamidze</b> – “Rise of the power, economic and ecological indices of the petrol automobile engines by optimization of the gas-distribution phases”. Candidate of Technical Sciences.	17.02.2006
	<b>N. Dvalishvili</b> – “Conversion of the diesel into gas-diesel with the optimal structural and operating indices for working in the electro-generator plant”. Candidate of Technical Sciences.	30.11.2007
	<b>T. Aphkhazava</b> – “Perfection of the gas-diesel feeding system with generation of the internal mixture complex estimation of its ecological effectiveness”. Candidate of Technical Sciences.	2007
	<b>P. Mshvildadze</b> – “Study of the operating process and improvement of the exploitation indices of the transport diesel at working in the high-altitude conditions”. Academic Doctor.	27.03.2009
	<b>R. Kenkishvili</b> – “Study and perfection of the fuel-feeding equipment of the internal combustion engine operating on the gas fuel”. Academic Doctor.	2009
	<b>P. Bezhanishvili</b> – “Improvement of exploitation properties of buses working in urban conditions”. Academic Doctor.	31.07.2013
	<b>M. Begiashvili</b> – “Rise of effectiveness of the engine braking of the automobile by perfection of the gas-distribution mechanism”. Academic Doctor.	2014
	<b>M. Glonti</b> – “Research into possibility of rise of the automobile diesel ecological compatibility by modeling of the burning process”.	2018
	<b>N. Bashaleishvili</b> – competitor for doctor’s degree - “Development of the mobile machine meant for safety transportation of the load in difficult operational conditions”.	At present
	<b>G. Chagelishvili</b> - competitor for doctor’s degree – “Development and study of the small-sized special purpose mobile machine”.	At present
<b>Participation in International, State and Regional Programs</b>		
<b>Executer</b>	Research into the adjustable gas turbine supercharging of the spark-ignition internal combustion engine operating in thee high-altitude conditions and adjustment of the non-controlled supercharging system to the engine.	1970-1973

<b>Main executer</b>	Research into the auto-tractor engines with adjustable gas turbine system at operating in thee high-altitude conditions.	1974-1976
<b>Main executer</b>	Research into the ways of improvement of the systems of automatic adjustment of the gas turbine supercharging for the spark-ignition internal combustion engines.	1977-1980
<b>Main executer</b>	Development and study of the air intermediate cooling system of the turbo-supercharging transport diesel in the high-altitude conditions.	1982-1985
<b>Leader</b>	Development and manufacturing of the small power autonomous solar power engineering devices having a focusing collector and machine transformer of the power.	1987-1990
<b>Leader</b>	Perfection of the cooling system for the air to be supercharged at operation of the turbo-supercharging diesel ЯМЗ-КАЗ-642 in the high-altitude conditions.	1987-1989
<b>Leader</b>	Study and adjustment of the volume dilatation machine with rotary blades operating on the exhausted gases of the adiabatic diesel.	1989-1993
<b>Leader</b>	Improvement of exploitation indices of the diesels developed in the Kutaisi Automobile Plant for working in the non-standard atmospheric conditions.	1990-1992
<b>Leader</b>	Development and study of the fuel distributing apparatus of the internal combustion engine operating on the alternative fuel.	1994-1995
<b>Leader</b>	Improvement of the transport diesel operating process by perfection of the mixture formation at working on the natural gas.	1995-1997
<b>Leader</b>	Development and study of the low pressure gas reducers of the automobiles with gas-cylinders.	1997-1998
<b>Leader</b>	Perfection of the operating process and fuel-distributing apparatus of the internal combustion engine operating on the gas.	1998-2000
<b>Leader</b>	Study of dynamics of braking of the automobile with a new engine brake-decelerator by graphical and analytical method.	2003-2004
<b>Leader</b>	Mathematical modeling of the suction tract of the internal combustion engine.	2003-2005
<b>Coordinator</b>	Of the priority problem, "Development of innovative technologies in the machine-building and transport means".	2006- to present

#### 14. Awards and Prizes, Honorary Title

<b>Date</b>	<b>Name of Awards, Prizes, Honorary Title</b>
2011	Georgian National Prize in the sphere of science.

#### 15. Family Status

Married – a son and a daughter
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