

ARCHIL ELIASHVILI
CONTROL SYSTEMS INSTITUTE

Program of scientific researches in 2015-2017:

Theory of control, identification, optimization and construction of technical systems and equipment, modeling of intellectual processes

Scientific activity report/basic theoretical and practical results according to the main directions of the Institute

Direction - Control Processes

I. 1. Scientific-Research Works Planned and Implemented in 2015-2017 Funded by the State Budget of Georgia

№	Implemented work with the indication of scientific field and direction	Work Supervisor	Work Performers
1	2	3	4
1	<p>Development of equipment for converting information by using modern technologies</p> <p>Field of science and direction: Processing of electromagnetic transformers for control systems</p> <p>Task 1</p> <p>Processing and research of microprocessor system of contactless adaptive control of sem-positional dynamic object</p> <p>Task 2</p> <p>Development and construction of multi-sector non-inertial contactless half-spherical inductive and inter-</p>	O. Labadze	<p>T. Saanishvili D. Furtskhvanidze Z. Buachidze L. Gvaramadze M. Tsertsvadze V. Bakhtadze P. Stavrianid T. Khutsishvili G.Kiknadze</p>

	inductive primary transformer of angular displacement of 3D-type. Task 3 Processing of calibrator control device - large constant optothyristor power source.		
--	--	--	--

Department of Optimal Control Problems

I. 1. Scientific-Research Works Planned and Implemented in 2015-2017 Funded by the State Budget of Georgia

№	Implemented work with the indication of scientific field and direction	Work Supervisor	Work Performers
1	2	3	4
1	Research of the identification of control systems and vector optimization problems on the basis of modern information Control theory, Identification of control systems, Optimal control.	Besarion Shanshiashvili	Besarion Shanshiashvili Mindia Salukvadze Vladimer Gabisonia Soso Gogodze Victor Khutsishvili Nugzar Dadiani Nely Kilasonia Dali Sikharulidze Dudukhana Tsintsadze Ketevan Omiadze

Department of Management Systems and Modeling

I. 1. Scientific-Research Works Planned and Implemented in 2015-2017 Funded by the State Budget of Georgia

№	Implemented work with the indication of scientific field and direction	Work Supervisor	Work Performers
1	2	3	4
1	<p>Topic: Construction and testing of the sample of the control device for the frequency regulator of the Hydro Power;</p> <p>Study of the problem of using noise oscillations of movable mechanisms in control and diagnostics (2015_2017)</p> <p>Scientific field - Engineering science</p> <p>Scientific direction - Control in technical systems</p>	T. Trokashvili	<ol style="list-style-type: none"> 1. Urushadze Guram 2. Shengelia Nodari 3. Gegechkori Mery 4. Doghonadze Nino 5. Gventsadze Giorgi

Direction - **Informatics**

V. Chavchanidze

Artificial Intelligence Problems Department

I. 1. Scientific-Research Works Planned and Implemented in 2015-2017 Funded by the State Budget of Georgia

№	Implemented work with the indication of scientific field and	Work Supervisor	Work Performers
---	--	-----------------	-----------------

	direction		
1	2	3	4
1	Establish an intellectual system designed to diagnose, predict and select ways of treatment for a certain class of diseases Field: Informatics Direction: Artificial intelligence, models of information systems	Maia Mikeladze	Vadim Radzievski Nora Jaliabova Gela Besiashvili Papuna Karchava Dimitri Radzievski

Department of Language and Speech Systems

I. 1. Scientific-Research Works Planned and Implemented in 2015-2017 Funded by the State Budget of Georgia

N ^o	Implemented work with the indication of scientific field and direction	Work Supervisor	Work Performers
1	2	3	4
1	Computer analysis of Georgian sentence in interactive mode (2015-2017)	Giorgi Chikoidze	Nino Amirezashvili Liana Lortkipanidze Liana Samsonadze Ana Chutkerashvili Mikheil Tushishvili Ala Tushishvili

Direction - **Power Engineering Problems**
V. Gomelauri
 Department of **Power Engineering Problems**

I. 1. Scientific-Research Works Planned and Implemented in 2015-2017 Funded by the State Budget of Georgia

№	Implemented work with the indication of scientific field and direction	Work Supervisor	Work Performers
1	2	3	4
1	The study of optimization of structures of Georgia's power stations and increasing the efficiency of energy equipment	T. Magrakvelidze	N. Bantsadze Kh. Lomidze M. Janikashvili I. Archuadze A. Miqashavidze Ts. Shengelia I. Mantidze N. Mirianashvili N. Gdzhelishvili V. Khatashvili