

ARCHIL ELIASHVILI  
CONTROL SYSTEMS INSTITUTE  
Scientific Report

2015B

Direction - Control Processes

The Department of Information Disclosure Problems

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

**I. 2.**

#	Planned and Implemented work with the indication of scientific field and direction	Work Supervisor	Work Performers
1	<p>Development of equipment for converting information by using modern technologies (2014-2016).</p> <p style="text-align: center;"><b>Task 1</b></p> <p>Processing and research of microprocessor system of contactless adaptive control of sem-positional dynamic object</p> <p>Control systems, elements and equipment of management systems and computing machines.</p> <p style="text-align: center;"><b>Task 2</b></p> <p>Development and construction</p>	Otar Labadze	<p style="text-align: center;">M. Tsertsvadze L. Gvaramadze Z.Buachidze V.Bakhtadze P. Stavrianid G.Kiknadze</p> <p style="text-align: center;">M. Tsertsvadze</p>

	<p>of multi-sector non-inertial contactless half-spherical inductive and inter-inductive primary transformer of angular displacement of 3D-type.</p> <p><b>Task 3</b></p> <p>A large constant optothyristor power source controlled in a wide input range</p> <p><b>Direction:</b> Control systems, elements and equipment of management systems and computing machines.</p>		<p>L. Gvaramadze P. Stavrianid G.Kiknadze D. Furtskhvanidze V.Bakhtadze</p> <p>T. Saanishvili L. Gvaramadze G.Kiknadze D. Furtskhvanidze P. Stavrianid T. khutsishvili</p>
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### Department of Optimal Control Problems

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

#### I. 2.

#	Implemented work with the indication of scientific field and direction	Work Supervisor	Work Performers
1	Research of the identification of control systems and vector optimization problems on the	Besarion Shanshiashvili	Mindia Salukvadze Besarion Shanshiashvili Nely Kilasonia

	basis of modern information technologies (2014-2016).  Control theory,  Identification of control systems,  Optimal control.		Dali Sikharulidze Dudukhana Tsintsadze Ketevan Omiadze Nugzar Dadiani Soso Gogodze Victor Khutsishvili
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**Department of Management Systems and Modeling**

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

**I.2.**

#	Implemented work with the indication of scientific field and direction	Work Supervisor	Work Performers
1	Construction and testing of the sample of the control device for the frequency regulator of the Hydro Power; Study of the problem of using noise oscillations of movable mechanisms in control and diagnostics (2014_2016)  <b>Scientific field:</b>  Engineering science  <b>Scientific direction:</b>	T. Trokashvili	1. Urushadze Guram 2. Shengelia Nodari 3. Gegechkori Mery 4. Doghonadze Nino 5. Geliashvili Lia

	Control in technical systems		
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Direction - **Informatics**

**V. Chavchanidze**

**Artificial Intelligence Problems Department**

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

**I. 2.**

#	Implemented work with the indication of scientific field and direction	Work Supervisor	Work Performers
1	<p><b>Title:</b> Establish an intellectual system designed to diagnose, predict and select ways of treatment for a certain class of diseases (2014-2016).</p> <p><b>Field:</b> Informatics</p> <p><b>Direction:</b> Artificial intelligence, models of information systems</p>	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 Funded by the State  
Budget of Georgia**

**I.2.**

#	Planned and Implemented work with the indication of scientific field and direction	Work Supervisor	Work Performers
1	Computer analysis of Georgian sentence in interactive mode  (2014-2016)	Giorgi Chikoidze	Nino Amirezashvili Liana Lortkipanidze Liana Samsonadze Ana Chutkerashvili Nino Javakhishvili Mikheil Tushishvili Guram Kapanadze, Ala Tushishvili

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

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

**I. 2.**

#	Implemented work with the indication of scientific field and direction	Work Supervisor	Work Performers
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

	(2015-2016)		Ts. Shengelia I. Mantidze N. Mirianashvili N. Gdzhelishvili V. Khatashvili
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