

**2022 Call for Applied Research State Grants
Ranking Lists in accordance with the research type**

I. Ranking List for the Proof of Concept type research

#	Project ID	Project Title	Host Institution	I Stage Evaluation	II Stage Evaluation	Final Score
1	AR-22-470	Borates-containing graphene/ceramic thermoelectric composites — a step toward commercialization	Georgian Technical University	17	35	52
2	AR-22-1998	Wine Microfiltration (MF) and Water Ultrafiltration (UF) Flat Sheet Industrial Membrane Unit	Georgian Technical University	15	36	51
3	AR-22-2048	Household Spiral-Type Membrane Unit for Dead-End and Tangential Water Ultrafiltration	Georgian Technical University	15	32	47
4	AR-22-636	Multiplex PCR technology for detection of oil crops	Ilia State University	14	33	47
5	AR-22-610	Production of paper with bactericidal and improved surface properties	Ivane Javakhishvili Tbilisi State University	17	29	46
6	AR-22-1908	Turbulent micro-HPP with siphon water intake	Akaki Tsereteli State University	14	31	45
7	AR-22-3264	Electricity receiving power air turbine device	Akaki Tsereteli State University	12	32	44
8	AR-22-1445	Production of multifunctional metal-polymer laminate with high mechanical characteristics and determination of technological parameters	LEPL G.Tsulukidze Mining Institute	15	28	43
9	AR-22-2439	Obtaining the catalyst neutralizer of exhaust gases by self-propagation high-temperature synthesis	Akaki Tsereteli State University	15	27	42
10	AR-22-2204	Prediction and improvement of operational properties of the train wheels and brakes	Raphael Dvali Institute of Machine Mechanics	13	29	42

11	AR-22-1730	The method of cement production to clean flue gases from (CO ₂ , SO _x , NO _x), before emission into the atmosphere by passing through a clinophthylolite sorber, to determine the applicability by experimenting	Georgian Technical University	14	27	41
12	AR-22-2017	Natural Zeolite-Based Sorbents for CO ₂ Capture, concept formulation for the technological idea of synthesis, use, and utilization; Determination of applicability and confirmation by laboratory experiments	Georgian Technical University	13	27	40
13	AR-22-668	Real-time rolling stock identification systems	Georgian Technical University	15	24	39
14	AR-22-1234	River paddle hydropower plant	LEPL- Teaching University- Batumi State Maritime Academy	13	26	39
15	AR-22-1494	Local bentonites and Bacillus probiotic as a new adsorbent of heavy metals in rabbit and broiler feed	Agricultural University of Georgia	13	26	39
16	AR-22-571	Development of a new metal and energy-saving technology of obtaining high-precision tubes	Raphiel Dvali Institute of Machine Mechanics	13	23	36

II. Ranking List for the Pilot research

#	Project ID	Project Title	Host Institution	I Stage Evaluation	II Stage Evaluation	Final Score
1	AR-22-955	Development of consolidated material containing of ceramic nanostructure and preparation of pilot samples based on Ti-B-N system	Ferdinand Tavadze Institute of Metallurgy and Materials Science	16	34	50
2	AR-22-3166	Pilot-level validation and commercialization of technologies for the production of probiotic preparations and polysaccharide hydrolases for economic benefit and environmental protection in Georgia	Agricultural University of Georgia	16	33	49
3	AR-22-2370	Pilot study of solar powered sustainable pesticide-free technology for export oriented bio-organic wine production by Georgian small and medium size wine producers	Georgian Technical University	18	30	48
4	AR-22-1672	Development of new green tea energy-saving machine technology and testing in real environment	Agricultural University of Georgia	16	30	46
5	AR-22-476	Increasing the aircrafts flight safety using a protective net system on gas turbine engines	Georgian Aviation University	17	28	45
6	AR-22-3231	Method of cement production - modification of zeolitic tuff by sorption capture of (CO ₂ , SO _x , NO _x) during drying with flue gases, validation of its use as a cement additive, industrially grinding together with clinker,	Georgian Technical University	16	28	44
7	AR-22-2064	Complex mineral additive for concretes, validation of production - suitability by testing in an industrial environment	Georgian Technical University	16	26	42
8	AR-22-1411	"Obtaining composite (layered) materials from less compatible metal pairs (iron-aluminum, titanium-aluminum) on the basis of aluminum alloys by Ingotless Rolling method	Ferdinand Tavadze Institute of Metallurgy and Materials Science	14	25	39
9	AR-22-621	Creation of a flexible small production site for the production of stair lifts for Persons with disabilities	Georgian Technical University	14	24	38
10	AR-22-1783	Development of industrial technology of plant analogues of sour-milk preventive-purpose products	Akaki Tsereteli State University	12	26	38
11	AR-22-959	Vertical parking for four places	Georgian Technical University	19	18	37

III. Ranking List for the Implementation research

#	Project ID	Project Title	Host Institution	I Stage Evaluation	II Stage Evaluation	Final Score
1	AR-22-1495	Unified Device for Hydro-Vacuum Dispersion of Melts to produce Various Types of Activated Powders	Raphael Dvali Institute of Machine Mechanics	19	31	50
2	AR-22-509	Implementation of Low Emission Innovative Technology for Efficient Use of Local Fuel	Georgian Technical University	18	32	50
3	AR-22-3114	PowerPhage™ – Sustainable Alternative to Antibiotics in livestock production	Non-Entrepreneurial (Non-commercial) Legal Person Union Biochimpharm	18	31	49
4	AR-22-2210	Production of phage pastilles	G. Eliava Institute of Bacteriophages, Microbiology and Virology	16	31	47
5	AR-22-848	Introduction of new food technologies by creating complete production electro dialysis equipment for the normalization of milk whey	Akaki Tsereteli State University	13	32	45
6	AR-22-1686	Production of Polyvalent Bacteriophage Preparation for Prevention and Treatment of Polyetiologi cal Salmonella Infections in Poultry	G. Eliava Institute of Bacteriophages, Microbiology and Virology	14	19	33
7	AR-22-2533	Researching the possibilities of multi-functional use of solar modules and creating a mini-enterprise to demonstrate their effectiveness in real operating conditions	Georgian Technical University	12	21	33