PAGES FROM HISTORY

IN EUROPEAN HISTORY, the eighteenth century stands out as the age of the popularisation of science and encyclopaedias, of the emergence of new forms of educational institutions and learned academies. Martynas Počobutas-Odlianičkis (Marcin Poczobutt-Odlanicki), a professor at Vilnius University, followed the spirit of the epoch and together with some of his colleagues developed a programme for the establishment of an academy in Vilnius. Their plans did not materialise at that time, and it was in the late nineteenth-early twentieth century, during the national revival movement, that the idea of an academy of sciences was rekindled. Prominent intellectuals of Lithuania perceived an academy of sciences as an independent centre for scientific research and its organisation, as a symbol of the country’s prestige. Due to various reasons the implementation of this project began only in 1939 when the Institute of Lithuanian Studies, named after Antanas Smetona, the president of the country, was established.

The Academy was founded on 16 January 1941, already under Soviet occupation, and Vincas Krėvė-Mickevičius, a Lithuanian writer and a public figure, was appointed its first president. Initially, the Academy of Sciences was dominated by the humanities, while physics, mathematics, and some of the natural sciences gained impetus when the Academy was re-established after the war. The main research trends evolved, and widely known and globally recognised scientific results were achieved.

The Lithuanian Academy of Sciences was among the first to declare its independence from the Academy of Sciences of the USSR in the autumn of 1989. At the
time, it comprised 17 scientific research institutes and a number of auxiliary scientific and industrial enterprises. It had a staff of over 5600, including 2000 scientists engaged in research.

On 12 February 1991, the Law of the Republic of Lithuania on Research and Studies was passed, which affected the status of the Lithuanian Academy of Sciences. The law abolished the existing institutional attributes and reorganised the Lithuanian Academy of Sciences into a personal academy. The research institutes that previously used to be part of the Academy’s network became independent research institutions.

The period between 1992 and 2003 was the time of the search for and consolidation of new forms of activity and of expansion of international cooperation. In 1993, a new Statute of the Lithuanian Academy of Sciences, along with its new aims and objectives, was approved by the Seimas of the Republic of Lithuania.

The amendments to the Law on Higher Education and Research of the Republic of Lithuania resulted in more reorganisations of the Academy’s Statute (Charter). On 6 June 2017, the current wording of the Charter was approved by the Seimas.
MISSION AND ACTIVITIES

LOOKING FROM A GLOBAL PERSPECTIVE, academies of sciences are not homogeneous. They differ in their aims, methods of their activities, and their importance within the system of studies and research of their countries. Still, the overall mission of all academies of sciences is focused on rallying the most outstanding researchers and undertaking initiatives that would enhance the country’s well-being and scientific, social, cultural, and economic development. Academies are also united by traditional objectives: consistent encouragement of high-level studies and scientific research, cultivation of critical scientific thinking among the general public, nurturing of academic and scholarly freedom and the ethics of scientific research.

The Lithuanian Academy of Sciences carries out its mission by ensuring permanent and active promotion of education and research. This is achieved through thematic conferences, meetings, seminars, and discussions, which are organised not only among the Academy members but also between the Academy and other institutions of research and studies, both in Lithuania and abroad. The dispersion of education and research, which is crucial for progress, is always international and encompasses publishing.

Together with its members and partners, the Lithuanian Academy of Sciences promotes critical thinking among the general public and a scientific approach to the processes in the country and in society. An important function of the Academy is provision of expert advice. The Academy forms and implements a policy of science promotion and dissemination, publication of state-funded research periodicals, and coordinates projects and activities in these fields.

The ever-renewing Academy and the community of the academicians are fully capable of undertaking initiatives and projects, stimulating increasingly advanced scientific research that would enhance the country’s prosperity, contribute to scientific, economic, social, and cultural progress, and representing Lithuania in the international arena.
The Lithuanian Academy of Sciences is an **INDEPENDENT EXPERT AND ADVISOR** for the Seimas, the Government of the Republic of Lithuania, and its subordinate institutions on research and higher education, culture, social development, economy, environment protection, health care, technologies, and in other areas. On behalf of the Government, Academy organises the work of the Commission for Lithuanian Science Prizes.

Also, the Academy annually awards **TEN PRIZES** to young scientists and doctoral students and **FIFTEEN PRIZES** to the students engaged in research in higher education. It has established fifteen scholarships for young scientists. With the aim of evaluating the achievements of scientific research conducted in various fields in Lithuania and to stimulate scientists’ creative activity, the Academy periodically holds competitions for **NINETEEN PRIZES** named after outstanding Lithuanian scientists and scholars.

The Academy represents Lithuania at international organisations uniting academies of sciences and other research institutions: the European Federation of Academies of Sciences and Humanities (ALLEA), the International Council for Science (ISC), the European Academies Science Advisory Council (EASAC), the InterAcademy Partnership (IAP), and others. At present, research collaboration agreements have been signed with **27 FOREIGN NATIONAL ACADEMIES OF SCIENCES AND FOUNDATIONS**.

WITH THE AIM OF SPREADING INFORMATION about the achievements of Lithuanian scientists and strategic objectives in different regions of the country, the Lithuanian Academy of Sciences has signed cooperation agreements with eleven municipalities. In order to fully unlock its expertise potential, the Academy has concluded agreements with ministries, nine state research institutes, the Lithuanian Olympic Academy, the INFOBALT association, the Lithuanian Laser Association, and various business organisations.

President Jūras Banys
MEMBERS, STRUCTURE, AND DIVISIONS

MEMBERS OF THE LITHUANIAN ACADEMY OF SCIENCES

THE LITHUANIAN ACADEMY OF SCIENCES is a state budget institution that brings together the most outstanding Lithuanian scientists and scholars and those prominent foreign researchers whose work associates them with Lithuania. In exceptional cases, recognised artists and writers are also elected to the Academy. The members of the Lithuanian Academy of Sciences — the academicians — are full members, members emeriti, and foreign members. The Academy may have **UP TO 120 FULL MEMBERS**, who become members emeriti at the age of 75. The number of members emeriti and foreign members is not limited. Each academician is also a member of one of the scientific divisions of the Lithuanian Academy of Sciences. Members of the academy are elected for life. The full members of the academy have the right to vote in full member and foreign member elections.

FULL MEMBERS OF THE LITHUANIAN ACADEMY OF SCIENCES


**MEMBERS EMERITI OF THE LITHUANIAN ACADEMY OF SCIENCES**

FOREIGN MEMBERS
OF THE LITHUANIAN ACADEMY OF SCIENCES

General Assembly of the Members of the Academy. June 2023
PRESIDENT AND PRESIDIUM

Between sessions of the general assembly of the members of the Academy, its activities are managed by the president of the Academy and the presidium. The president and presidium members are elected from among the full members of the Academy by its full members and members emeriti.

As of 2022, members of the presidium of the Academy are professors Jūras Banys (president), Zenonas Dabkevičius (vice-president), Gintautas Dzemyda, Limas Kupčinskas, Leonas Valkūnas, Vytautas Nekrošius, Rimvydas Petrauskas, Vidmantas Stanys, and Raimundas Šiaučiūnas.

PRESIDUIM

PROF. JŪRAS BANYNS, PRESIDENT
j.banys@lma.lt
+370 602 65 354

PROF. ZENONAS DABKEVIČIUS, VICE-PRESIDENT
z.dabkevicius@lma.lt
+370 602 68 660,
+370 686 37 631

PROF. RIMVYDAS PETRAUSKAS
rimvydas.petrauskas@cr.vu.lt

PROF. RAIMUNDAS ŠIAUČIŪNAS
raimundas.siauciunas@ktu.lt
+370 686 70 547

PROF. VIDMANTAS STANYS, CHAIR OF THE DIVISION OF AGRICULTURAL AND FORESTRY SCIENCES
vidmantas.stanys@lammc.lt
+370 682 13563

PROF. GINTAUTAS DZEMYDA, CHAIR OF THE DIVISION OF TECHNICAL SCIENCES
gintautas.dzemyda@mif.vu.lt
+370 687 91278

PROF. VYTAUTAS NEKROŠIUS, CHAIR OF THE DIVISION OF THE HUMANITIES AND SOCIAL SCIENCES
vytautas.nekrosius@tf.vu.lt
+370 686 15 296
HUMANISTIC THOUGHT IS AN INSEPARABLE LINK BETWEEN LITHUANIAN SCIENCE AND CULTURE, and thus it is not surprising that as soon as it was founded, the Lithuanian Academy of Sciences was dominated by the humanities. In the process of concentration of research institutions, the Division of the Humanities included the Institute of the Lithuanian Language, the Institute of Lithuanian Literature, the Institute of Ethnology, and the Institute of History. The Division of Social Sciences comprised the Institute of Economics and the Institute of Lithuanian Law and Economy. Activities of the academicians were not interrupted even during the years of the German occupation: they were engaged in compiling the volumes of the academic dictionary of the Lithuanian language, managing collections of folklore, archival documents, materials of earlier archaeological explorations, and statistical data on the country’s social and political development. During the post-war years, humanities and social sciences were coercively ideologised, but the ideas of the nation’s statehood and sovereignty, intellectual maturity of the Lithuanian people, and their moral and economic well-being were not forgotten in the Academy of Sciences. Even in Soviet times, the Lithuanian Academy of Sciences resisted Russification and Sovietisation of research and upheld Lithuanian as the main language of communication. The Academy provided shelter to the country’s outstanding figures who were victims of political persecution. With the support of the creative intellectuals, the Lithuanian Academy of Sciences became the hotbed of the initiatives of the Sąjūdis (the Lithuanian Reform Movement), the Greens (Žalieji), and other democratic movements. It was here that the draft of the Constitution of the Republic of Lithuania was produced.

Members of the division are active in fostering research into the Lithuanian language and literature, folklore, the history of Lithuania, cultural and ethno-cultural heritage, philosophy, the country’s finance, economics, social changes, and international and civil law. Founded by the members of the academy, schools in various disciplines have gained international renown: Vilnius has deservedly become a world centre of Baltic studies, applications of gambling theory in
economics have gained recognition, the works in medieval and other historical studies are well known and widely cited, and so are the achievements of Lithuanian scholars in cultural studies.

The academicians’ recent oeuvres have had a major impact on today’s humanities and cultural maturity. Viktorija Daujotytė-Pakerienė’s books on literary phenomenology offer original insights into connections of literature with other layers of spiritual life. Giedrius Kuprevičius’s music and its actualisation reflect modern shifts in musical culture. Rolandas Palekas’s architectural designs have been recognised in Lithuania and abroad and have won prestigious awards. The fields of the humanities and social sciences in Lithuania are expanded by the works of historians Egidijus Aleksandravičius, Zigmantas Kiaupa, Rimvydas Petrauskas, Darius Staliunas, archaeologists Eugenijus Jovaiša, Albinas Kuncevičius, and Vladas Žulkus, the researcher in Lithuanian books and cultural historian Domas Kaunas, literary scholars Vytautas Martinkus, Dainora Pociūtė-Abukevičienė, and Jūratė Sprindytė, Baltic and Prussian scholars Grasilda Blažienė and Bonifacas Stundžia, art historians Algirdas Gaižutis, Rūta Janonienė, and Dalia Klaumienė, the comparativist and philosopher of Lithuanian culture and art Antanas Andrijauskas, the philosopher indologist Audrius Beinoriūs, philosophers-political scientists Alvydas Jokubaitis and Evaldas Nekrašas, sociologists Romualdas Grigas, Aušra Maslauskaitė, Arvydas Virgilijus Matulionis, and Zenonas Norkus, economists Antanas Buračas, Romas Lazutka, lawyers Pranas Kūris, Valentinus Mikelėnas, and Vytautas Nekrošius, the psychologist Evaldas Kazlauskas. In pursuit of the mission of the Lithuanian Academy of Sciences, members of the Division of the Humanities and Social Sciences participate in the public life of Lithuania by contributing significantly to public education and civic initiatives, influencing contemporary humanities and culture, strengthening public confidence in science, fostering humanistic values, and making significant contributions to the nurturing of the civic spirit of the population and of academic youth.

Currently headed by Vytautas Nekrošius, the division annually organises academic conferences and roundtable discussions on topical issues of research, art, culture, and preservation of heritage values; it carries out various expert evaluations on behalf of national and foreign institutions, participates in national and international programmes, in the activities of governmental institutions and NGOs, and in the work of the editorial boards of national and foreign scientific publications.

The division conducts its activities in three sections: THE HUMANITIES (chaired by Grasilda Blažienė), THE SOCIAL SCIENCES (Arvydas Virgilijus Matulionis), and THE ARTS (Rūta Janonienė).
Left to right, Prof. Jūras Banys, president of the Lithuanian Academy of Sciences, foreign members Prof. Rein Raud and Prof. Algis Mickūnas, and Prof. Vytautas Nekrošius, chair of the Division of the Humanities and Social Sciences
Left to right, Pranas Kūris, Giedrius Kuprevičius, and Arvydas Virgilijus Matulionis
Dainora Pociūtė-Abukevičienė, *left*, and Aušra Maslauskaitė

*Left to right*, Darius Staliūnas, Viktorija Daujotytė-Pakerienė, Jūratė Sprindytė, Dalia Klajumienė, Rūta Janonienė, and Audrius Beinorius
DIVISION OF MATHEMATICAL, PHYSICAL, AND CHEMICAL SCIENCES

THE DIVISION OF MATHEMATICAL, NATURAL, AND APPLIED SCIENCES was founded in 1945. It has undergone a number of reorganisations. In 1990, the Division of Physical, Technical, and Mathematical Sciences was reorganised into two divisions; the addition of chemical sciences completed the reorganisation of the division that at the time was placed in charge of Algirdas Šileika. The current head of the division is Leonas Valkūnas.

The division has 27 full members, 12 members emeriti, and 13 foreign members, with Prof. Gérard Mourou, a recipient of the 2018 Nobel Prize in physics among them. Activities of the division are organised in three sections: MATHEMATICS (chaired by Raimondas Čiegis), PHYSICS (Gintautas Tamulaitis), and CHEMISTRY (Ričardas Makuška).

The first mathematician to be elected a full member of the Lithuanian Academy of Sciences in 1962 was Jonas Kubilius, who was later followed by Vytautas Statulevičius and Bronius Grigelionis. These outstanding scientists raised a large group of disciples and formed the Lithuanian school of the probability theory. Its main areas of development are limit theorems, the random process theory, probability theory in infinite-dimensional spaces, probabilistic and analytic number theories. The members of the division develop other branches of mathematics as well. Significant results have been achieved in the fields of differential equations and computational mathematics.

The main scientific directions of the physics section were developed by its first academicians, professors Adolfas Jucys and Povilas Brazdžiūnas. Later, Paulius Slavėnas, Juras Požela, Jurgis Viščakas, Zenonas Rokus Rudzikas, and Algis Petras Piskarskas developed research on physics problems covering almost all relevant branches of physics. The results obtained in the development of atomic and molecular theory, semiconductor physics, stellar photometry, nonlinear optics and spectroscopy, laser physics, as well as in the development of new technologies based on these results earned global fame to the Lithuanian school of physics.

Juozas Matulis and Jonas Janickis formulated first fundamental trends of research in the section of
chemical sciences. Later the thematic field expanded to include all main branches of chemistry. Significant results have been achieved in electrochemical and chemical precipitation of metals, organic synthesis, inorganic and analytical chemistry, polymer synthesis and analysis, and biochemistry.

Members of the division provide expert advice and take part in the commissions and expert groups of the Research Council of Lithuania and the Ministry of Education, Science, and Sport. They are members and experts on the councils, committees, and commissions of the EU and other international organisations, as well as reviewers of projects and reports of state research programmes, and of works and projects submitted for various competitions. They also participate in the work of the commission for Lithuanian Science Prizes.

Members of the Division of Mathematical, Physical, and Chemical Sciences. April 2023
Left to right, Aivaras Kareiva, Prof. Jūras Banys, president of the Lithuanian Academy of Sciences, and Leonas Valkūnas

Left to right, Algirdas Petras Stabinis, Vidmantas Gulbinas, Valdas Laurinavičius, Eugenijus Norkus (standing), and Leonas Valkūnas
Left to right, Vytautas Getautis, Albertas Malinauskas, and Ričardas Makuška

Left to right, Eugenijus Manstavičius, Vygantas Paulauskas, and Vilijandas Bagdonavičius
DIVISION OF BIOLOGICAL, MEDICAL, AND GEOSCIENCES

THE DIVISION OF THE NATURAL SCIENCES (Nature Research, Mathematics, and Technology), which included biology, medicine, chemistry, agriculture, forestry, and other natural sciences, was established in 1941. Juozas Matulis was the first head of this division. Since 2022, the head of the division is Limas Kupčinskas.

The activities of the Division of Biological, Medical, and Geosciences are carried out in four sections: (general biology, biophysical sciences, geosciences, and medical and health sciences) and two commissions (allergology, mother and child). The Lithuanian Allergy and Asthma Association, the Lithuanian Biochemists’ Association, the Lithuanian Immunologists’ Association, and the Ignas Domeika (Ignacy Domeyko) Society are affiliated to this division.

The members of the division founded the Nature Research Centre, the Zoological Museum, the Žuvintas Reserve, the bird-ringing station in Ventė Cape, and the Institute for Digestive System Research; they established scientific schools of parasitology, allergology, geology, biochemistry, biotechnology, genetics and genomics, cardiothoracic surgery, gastroenterology, plant physiology, ornithology, marine and coastal sciences, immunology, and geology. The most significant monographs of recent years were authored by Gediminas Valkiūnas, Juozas Kulys, Vaidutis Kučinskas, and Mečislovas Žalakevičius. The work of the division members and the teams they lead has been honoured with Lithuanian Science Prizes, the Baltic Assembly Prize, the National Progress Prize, and state decorations of the Republic of Lithuania. For outstanding scientific achievements in the development of new methods of gene editing, Virginijus Šikšnys was awarded the Warren Alpert Foundation Prize (Harvard University, USA), the Novozymes Prize (Denmark), and the Kavli Prize (Norway); Zita Aušrelė Kučinskenė is a recipient of the Albert Schweitzer Gold Medal of the Polish Academy of Medicine, while Saulius Klimašauskas is the first among Lithuanian researchers to have received a prestigious grant of the European Research Council.
The **GENERAL BIOLOGY** section brings together leading scientists in the fields of general and human genetics, ecology, zoology, botany, ornithology, immunology, and parasitology. The members of the section have been conducting research into the prevalence of the *de novo* mutations in the Lithuanian population, natural selection, and functional genome studies (Vaidutis Kučinskas); studies in hazardous pathogens in sea ports (Sergej Olenin); they investigated the diversity of East Asian mosquitoes, described new species from Korea and India (Sigitas Podénas), gained new information on the development of vertebrate parasites (Gediminas Valkiūnas), and isolated and synthesised fly aggregation pheromones (Vincas Būda).

The section of **BIOPHYSICAL SCIENCES** brings together leading scientists in molecular biology, biochemistry, immunology, biotechnology, biophysics, and bioinformatics. Virginijus Šikšnys continues developing CRISPR-Cas genome editing, V. A. Bumelis is improving recombinant protein production technologies, Saulius Klimašauskas is developing new molecular tools for epigenome profiling, Aurelija Žvirblienė is working on new antibodies for immunodiagnostics, and Ėslovos Venclovas is perfecting bioinformatic methods for the identification of protein structures. Vilmantė Borutaitė focuses her research on the mechanisms of protection of brain cells against ischemia and neurodegenerative diseases and chairs the Committee of Natural and Technical Sciences of the Research Council of Lithuania, while Arvydas Janulaitis founded the Future Biomedicine Foundation to support research into personalised medicine.

The section of **MEDICAL AND HEALTH SCIENCES** brings together leading specialists in cardiology, cardiac surgery, surgery, gastroenterology, allergology, neurology, and anatomy, who have been conducting long-term research in the fields of digestive diseases (Limas Kupčinskas), abdominal surgery (Kęstutis Strupas), cardiovascular diseases (Remigijus Žaliūnas, Aleksandras Laucevičius, Rimantas Benetis), nervous diseases (Daiva Rastenytė), and anthropology (Rimantas Jankauskas).

The section of **GEOSCIENCES** brings together representatives from the fields of geography, geology, hydrogeology, hydrology, and climatology. Members of this section have been conducting research on climate change and its impact on the environment (Arūnas Bukantis, Zita Kriauciuënienė), migration of radionuclides in the environment and the use of isotopic markers in chronology (Jonas Mažeika), and research in the geology and geomorphology of the Quaternary (Albertas Bitinas).

The latest advances in biomedicine and geosciences are presented to the public at the
annual conferences ‘Biofuture: Perspectives of the Natural and Life Sciences’, ‘DNA Day in Lithuania’, and at the conference for biology teachers in Lithuanian schools. Meetings of the members of the division on issues of relevance to the general public are held with presentations by Lithuanian and foreign members of the Lithuanian Academy of Sciences. The division organises scientific forums on the Hepatitis C elimination programme in Lithuania.
Jūras Banys, president of the Lithuanian Academy of Sciences, Limas Kupčinskas, head of the division, and Dr Jadvyga Olechnovičienė, chief coordinator of the division, are congratulating Eugenijus Arvydas Janulaitis on his birthday.

Members of the Division of Biological, Medical, and Geosciences at the annual report meeting chaired by Prof. Limas Kupčinskas, head of the division
Right to left, Vincas Büda, Limas Kupčinskas, Vaidutis Kučinskis, Gediminas Valkiūnas, Sigitas Podėnas

Left to right, Virginijus Šikšnys, Vacis Tatarūnas, Saulius Klimašauskas
DIVISION OF AGRICULTURAL AND FORESTRY SCIENCES

THE DIVISION OF AGRICULTURAL AND FORESTRY SCIENCES was established in 1995, after the reorganisation of the Division of Biological, Medical, and Agricultural Sciences. Currently, the division is chaired by Vidmantas Stanys. At present, the division has 19 full members, eight members emeriti, and ten foreign members. The division works in five sections: AGRONOMY (chair Giedrė Samuolienė), FORESTRY (Darius Danusevičius), VETERINARY MEDICINE AND ANIMAL SCIENCES (Henrikas Žilinskas), AGRICULTURE AND ENVIRONMENTAL ENGINEERING (Algirdas Raila), and FOOD SCIENCES (Pranas Viškelis Vitunskienė). THE LITHUANIAN SOIL SCIENCE SOCIETY (chair Jonas Volungevičius) is affiliated to this division, which also supervises the work of the WATER COUNCIL of the Lithuanian Academy of Sciences (chair Arvydas Povilaitis).

The activities of the division are concentrated on the solution of the most relevant scientific issues in agriculture and forestry, food, husbandry and veterinary, environmental engineering, plant and animal biology and parallel fields and directions, on the promotion of research results, the development of and innovation in experimental agriculture. Considerable attention is paid to inter-institutional, interdisciplinary, and international relations, and to the promotion of the prestige of the agrarian sciences. The division organises international and local scientific conferences, discussions, and seminars; it is actively promoting activities of young scientists. Members of this division have conducted numerous significant research studies: Stasys Karazija is the author of the forest typology theory, and Algirdas Sliesaravičius pioneered research into plant biotechnology in Lithuania. Veronika Vasiliauskienė is one of the authors of the school of grassland husbandry, Albinas Kusta is one of the initiators of the ‘Nemunas’ valley for research, studies, and business, and Zenonas Dabkevičius is a nurturer of the school of plant pathology. Vidmantas Stanys focuses on research into genetics, biotechnology, breeding, and creation of new varieties of horticultural plants, Vytautas Ruzgas concentrates on winter wheat, and Darius Danusevičius on forest plants. Alfas Pliūra investigates the genetic variety of forest plants. Česlovas Jukna and Vytautas Konstantinas Sirvydis...
have developed modern nutritional technologies for domestic birds and animals, respectively; Henrikas Žilinskas has been working on the improvement of animal reproductive qualities, Vidmantas Bižokas’s research is focused on veterinary surgery and lymphology. Antanas Sederavičius conducts and organises research into diagnostics of the digestive tract of livestock. Povilas Duchovskis is a promoter of the school of plant ontogenesis, phytophysiology, and ecophysiology; Algirdas Juozas Motuzas examines the soils of Lithuania and has compiled their classification. Arvydas Povilaitis’s scientific research deals with water resources and their use, and Algirdas Raila focuses on thermoenergetic processes in biotechnologies. Pranas Viškelis has developed products and innovative technologies for processing biologically valuable plant-based food. Žydrė Kadžiuliene conducts research on and is an expert in meadows, agroecology, and environmental science; Gediminas Staugaitis is an expert in agrochemistry and soil science, and Egidijus Šarauskis is interested in engineering of tillage technologies. Giedrė Samuolienė focuses her research on physiology, photophysiology, and ecophysiology of plant productivity and initiations of morphogenesis and flowering; Elena Bartkienė’s fields of research include primary production of agricultural food raw materials, development of food (bio)technologies, and factors influencing consumers’ food choices. Kęstutis Armolaitis is an expert in forestry, ecology, and environmental science; Mindaugas Malakauskas conducts research in epidemiology of bacteria pathogenic to animals, prevention of their spread, and antibiotic resistance by using molecular biology methods; Dainius Steponavičius is a researcher of the working processes of harvesting machines and of the constructional and technological parameters of harvesting machines and an expert in the systems of precision agricultural machines.

Members of the division take part in various local and international research programmes and projects and provide qualified expert examinations. They collaborate with businesses in developing biologically valuable foods, designing new technologies and the prototypes of functional food, in implementing science and innovation projects, and in providing consultancy.
Members of the Division of The Division of Agricultural and Forestry Sciences. June 2023
Scientific conference ‘Quo vaditis, silvae’ dedicated to the commemoration of the centenary of university studies of forestry and the sources of forestry sciences in Lithuania. Left to right, Darius Danusevičius, Simonas Gentvilas, environment minister of the Republic of Lithuania, Vidmantas Stanys, Prof. Astrida Miceikienė, chancellor of Vytautas Magnus University Agriculture Academy, Dr Gintaras Brazauskas, director of the Lithuanian Research Centre for Agriculture and Forestry. September 2022

At the commemorative event dedicated to the 120th birth anniversary of Professor Jonas Bulavas (1903–1984), a corresponding member of the Academy of Sciences. Left to right, Vytautas Ruzgas, Giedrė Samuolienė, Žydrė Kadžiuliienė, Pavalas Duchovskis, and Vidmantas Stanys are learning about the work of the breeders of the Institute of Agriculture of the Lithuanian Research Centre for Agriculture and Forestry. June 2023. Photo Gintarė Naujokienė
Participants in the scientific-practical conference ‘Smart Engineering’ are inspecting smart agricultural machinery of UAB Baltic Agro Machinery.

Members of the Department of Agriculture and Forestry Sciences at the off-site meeting ‘Advanced Feed Production Technologies for Small Animals’ visit UAB Mars Lietuva in Gargždai. September 2022
The Division of Technical Sciences was established in 1990. Since 2022, the division is headed by Gintautas Dzemyda. The research areas of the division have been shaped by experienced and authoritative academicians: Algirdas Žukauskas (energetics), Antanas Kudzys (construction mechanics), Jonas Mockus (cybernetics), Kazimieras Ragulskis (mechanics), Adolfas Laimutis Telksnys (electronics and informatics), Jurgis Vilemas (nuclear power), and Liudvikas Pranevičius (materials sciences).

The activities of the division are conducted in five sections: **Electronics and Informatics** (chaired by Romas Baronas), **Energy** (Algirdas Kaliatka), **Mechanics** (Minvydas Kazys Ragulskis), **Materials Engineering** (Sigitas Tamulevičius), and **Civil Engineering** (Gintarė Kaklauskaitė).

The members of the division analyse the themes and results of research in the branches of technological sciences, evaluate scientific research projects, studies, innovation, competitive research projects, applications under the assignments and on behalf of the Government and other institutions, provide consultancy and proposals, participate in the preparation of programmes and projects for high-tech development, projects for the development of co-operation between science, higher education, and businesses, and in the promotion of scientific activity of young scientists.

Members of the electronics and informatics section have contributed significantly to the design and development of information and environmental technologies. They have developed innovative algorithms for solving complex global optimisation and are working on the problems in data analysis through the development and application of artificial intelligence technologies; research has been carried out in the field of numerical models based on physical behaviour and in methods of ultrasound diagnostics. The influence of bacterial oxygen consumption functions on the formation of population structure was investigated using computer modelling.

The scientists of the energy section focus on the development of the accelerating use of renewable
energy sources in the world and in Lithuania, the role and perspectives of nuclear energy, including small modular reactors (SMRs); numerical investigations of heat and mass transfer in the power industry and thermal engineering, the search for solutions to energy security in the assessment of critical infrastructures, system reliability, and the preparation of a plan for the decommissioning of a final disposal facility.

In the mechanics section, the members of the scientific school of vibromechanics and vibrotechnics founded by Kazimieras Ragulskis have developed their own fields: microelectromechanical system technologies, research in non-linear dynamic systems, and dynamics of mechanical, hydraulic, and pneumatic systems. New functional and technological mechanisms are being developed for the defence, machinery, and device industries in the field of innovative industrial, computing, microelectronics, and defence mechanisms and devices with a focus on the application of additive manufacturing technologies for the development of multifunctional (bio)mechatronic systems.

Members of the materials engineering section develop organic semiconductors for optoelectronic devices, work on vacuum and plasma technology, study the welding processes of ferrous and non-ferrous metals, the formation of surface coatings, and high-temperature structural ageing of materials, develop instrumental analytical methods and apply them to the molecular analysis of biological objects. Scientists in this section are working on modelling of mass transfer processes and mechanisms in stainless steels during nitriding and post-nitriding isothermal annealing processes, create new-structure synthesis of electroactive materials and use in the construction of organic light bulbs.

Civil engineering research focuses on engineering structures, their elements, and materials, on the design of numerical macro- and microscopic models of composite structures, on computational mechanics, mechanics of decomposition, modelling of building materials and structures. Scientists in this section develop construction technology and organisation, work on decision theory and automated design, expert and decision support systems, the internet of things, and biometric technologies. Their fields of research include mechanics of reinforced concrete structures, digital modelling of concrete structures, chemistry and technology of cement, and synthesis and properties of calcium hydroxyl silicates.

Members of the division are foreign members of academies of sciences of other countries, honorary doctors of universities, members of international scientific organisations, journals, committees and federations, and qualified experts in the evaluation of projects in international programmes.
Discussion at the General Assembly of the Members of the Academy. Centre, Gintautas Žintelis. June 2023

Members of the Division of Technical Sciences. June 2023
A visit of the Division of Technical Sciences to VšĮ Panevėžio mechatronikos centras. *Left to right*, Algirdas Vaclovas Valiulis and Gintautas Dzemyda

A visit of the Division of Technical Sciences to UAB Elinta. *First right*, Dr Vytautas Jokužis, CEO Elinta
THE YOUNG ACADEMY

THE YOUNG ACADEMY OF THE LITHUANIAN ACADEMY OF SCIENCES was established late in 2018. This subdivision of the Academy represents the most active mid-career young researchers of Lithuania. The Young Academy of Lithuania conducts activities in the three main directions: represent the interests of young scientists, address the challenges of Lithuanian research policy, particularly related to the scientific career path of young researchers, and disseminate science-based information in the community. It raises the prestige of science and the accessibility of science-based knowledge in society and activates mentoring work of the academicians.

Members of the Young Academy are promising young researchers with outstanding scientific achievements, who have obtained their PhD within the last ten years and are below 40 years of age. In four years of its existence, the number of the members of the Young Academy has grown to 40. Each year, scientific divisions of the Lithuanian Academy of Sciences hold competition for ten new members of the Young Academy. The members whose four-year term has finished become alumni of the Young Academy. The first Young Academy Bureau, which consists of five members representing separate fields of science, was elected in 2022.

The Young Academy of the Lithuanian Academy of Sciences is a member of the Young Academies Science Advice Structure (YASAS). Dr Viktorija Vaštakaitė-Kairienė is the standing delegate and board member and Dr Petras Prakas is an observer at the YASAS.

Moreover, members of the Young Academy participate and advise the Committee for the Future of the Seimas of Lithuania. Dr Jurgita Skiecevičienė and Dr Ieva Plikusienė act as experts in international programmes evaluating proposals for the L’Oréal-UNESCO for Women in Science programme. Dr Giedrius Gasiūnas and Dr Mantas Šimėnas are advisors in working groups at the Ministry of Environment and the Ministry of Education, Science, and Sport. Dr Rūta Ubarevičienė participates in the project ‘Occupational Change, Mobility, and
the Changing Spatial Patterns of Inequalities’ which is implemented together with the Estonian Academy of Sciences. The members of the Young Academy are actively engaged in other international activities. Dr Karolis Ažukaitis is an invited speaker in international seminars and conferences dedicated to the research integrity and critical appraisal of scientific literature. Board members are also active in international collaboration with young academies in other countries.
WITH ITS PUBLISHING ACTIVITIES, the Lithuanian Academy of Sciences aims to promote science, publicise, and disseminate the results of scientific research and experimental development in Lithuania and abroad. The Academy prepares and publishes monographs, science popularisation books, periodical scientific journals, reports on the Academy’s activities, conference proceedings, feasibility studies, etc. Currently, the Lithuanian Academy of Sciences publishes the following PERIODICAL RESEARCH JOURNALS: Biologija, Chemija, Energetika, Filosofija. Sociologija, Lithuanian Journal of Physics, Lituanistica, Menotyra, and Žemės ūkio mokslai. Four annual issues of each of these journals appear in print and online. The journal Acta medica Lithuanica is published jointly with Vilnius University and the National Cancer Institute, and the journal Intelektinė ekonomika is published in partnership with Mykolas Romeris University. The periodical journals publish original articles on the most important issues in biology, ecology, chemistry, physics, philosophy, sociology, Lithuanian studies, history, art history, and the like. The journals are internationally recognised and included in international databases of scientific information. Scientific articles are published using the Open Journal Systems (OJS) electronic publishing platform, digitised articles have permanent Digital Object Identifiers (DOIs) registered by the Crossref agency and are available on the website of the Publishing Department.

Scientific journals are available through subscription; they are supplied to national and foreign libraries under exchange programmes. From 16 to 80 copies of each journal are allocated to these programmes and sent to 33 libraries of research institutions around the world.

The year 2012 marked the launch of the series of science popularisation books ‘Science for All’ funded by the European Social Fund (project ‘Development and Implementation of the National System of Science Popularisation’). The series consists of books by foreign and
Lithuanian authors, which reveal, in a detailed, attractive, and comprehensible way, the connections between different fields of science and explain trends in modern science and technology.

The conferences organised by the Lithuanian Academy of Sciences help to disseminate information on the latest fundamental and applied research, achievements in various fields of science, their significance and practical application, to strengthen links between research and higher education institutions, and to promote cooperation among scientists. The abstracts of conference presentations are produced as separate publications.

Feasibility studies analyse trends in science and technology, summarise the results of analyses and discussions, provide useful and original insights, and propose solutions to problems that can be expected to lead to future breakthroughs.

The quarterly online periodical *Lietuvos mokslų akademijos žinios* (News of the Lithuanian Academy of Sciences) provides information on major events, the activities of the president and the presidium of the Academy, events in the divisions, international and inter-institutional relations. It also highlights the lives and activities of the members of the Academy and their scientific achievements.

The annual publication *Lietuvos mokslų akademijos ataskaita* (Activity Report of the Lithuanian Academy of Sciences) summarises the activities of the members, divisions, and subdivisions of the Lithuanian Academy of Sciences during a particular year.
THE DIVISION ‘THE PALACE OF SCIENTISTS’ organises science, art, and cultural events for the general public. It aims to promote science and culture in society and to encourage the dialogue between the general public and researchers. The division aims to raise the visibility of the activities of the Lithuanian Academy of Sciences, mobilises the scientific community for the promotion of science and culture, and contributes to raising the prestige of a scientist’s career and the dissemination of science and culture. The division provides an opportunity for the public to learn more about scientific advances and trends in different fields. The ‘Palace of Scientists’ promotes science, disseminates scientifically advanced ideas to an interested public and fosters the spread of scientific knowledge and intellectual development through face-to-face encounters with the creators of Lithuanian science and culture.

The division organises series of events in the cycle ‘Days of Scientific Knowledge’ for schoolchildren and gymnasium pupils with trips to laboratories, museums, information and research centres. For the general public, it holds events in the cycles ‘Portraits of Famous People’ and ‘The Professor and Their School’. It also organises commemorations of public holidays and memorable dates with artistic programmes performed by the country’s famous artists and young performers.
A school trip to the Centre for Physical Sciences and Technology. *First right*, Dr Mantas Šimėnas, a member of the Young Academy of the Lithuanian Academy of Sciences. *Photo Diana Lekevičienė*

*Left to right*, Aldona Daučiūnienė, head of the ‘Palace of Scientists’, with Viktorija Daujotytė-Pakerienė, Jūratė Sprindytė, and Vytautas Martinkus
INTERNATIONAL RELATIONS

THE LITHUANIAN ACADEMY OF SCIENCES PROMOTES AND ORGANISES COLLABORATION between Lithuanian and foreign research centres and individual scientists by supporting relations of Lithuanian researchers with foreign academies of sciences and other institutions with the assistance of its foreign members and by organising international events relevant to research, development and innovation. The Lithuanian Academy of Sciences represents Lithuanian science in international associations: the Federation of All European Academies (ALLEA), the European Academies’ Science Advisory Council (EASAC), the SAPEA consortium of European academy networks, the Interacademy Partnership (IAP), the International Science Council (ISC), and several others. The Academy takes part in the work of these organisations by addressing global problems, spreads information in Lithuania about conducted analyses and proposed science-based solutions. Outstanding foreign scientists whose research activities are associated with the Republic of Lithuania are elected foreign members of the Lithuanian Academy of Sciences. At present, the Academy has 62 foreign members, and several foreign academies have members of Lithuanian Academy of Sciences as their foreign members as well. The Academy actively supports and funds international mobility of researchers through 27 BILATERAL AGREEMENTS with foreign partners: academies of Austria, Estonia, Latvia, Poland, Finland, Switzerland, the British Academy, the Council of Lindau Nobel Laureate Meetings and the Foundation of Lindau Nobel Laureate Meetings at Lake Constance, the Royal Society, the Norwegian Academy of Science and Letters, the Slovenian Academy of Sciences and Arts, and others. The exchange programmes provided by these agreements are accessible to researchers from all science and research organisations in Lithuania. They complement the opportunities for Lithuanian scientists to work at international research centres, to gain knowledge and experience abroad, to receive foreign partners, and to carry out joint research projects.
The 16th international conference of intellectual cooperation of the Baltic countries ‘Genes: From the Past to the Future’. Presidents of the academies of sciences of the Baltic countries: left to right, Prof. Ojārs Spārītis (Latvia), Prof. Jūras Banys (Lithuania), and Prof. Tarmo Soomere (Estonia). May 2019

Right, Dr Bedřich Rus, head of the High Power Laser Division of the Extreme Light Infrastructure (ELI) European Research Infrastructure Consortium, presents its activities to Eva Zažímalová, president of the Czech Academy of Sciences, and Jūras Banys, president of the Lithuanian Academy of Sciences. April 2023. Photo Zenonas Dabkevičius
THE WRÓBLEWSKI LIBRARY

The library was founded by Tadeusz Stanisław Wróblewski (1858–1925), a well-known lawyer, cultural activist, and bibliophile from Vilnius. In 1912, his personal library amounted to around 65,000 books, 1000 maps, and about 5000 manuscripts and autographs. Its most valuable part consisted of historical documents pertaining to Vilnius and the Grand Duchy of Lithuania.

Currently, the repositories of the Department of Rare Publications of the Wróblewski Library of the Lithuanian Academy of Sciences store over 450,000 publications: 63 incunabula, over 600 post-incunabula, about 160,000 newspapers and journals, and a unique collection of cuneiform tablets. This department acquires, catalogues, and keeps all books published before 1800, bibliographic and printing rarities, books in Lithuanian published before 1918 (before 1945, if published abroad), valuable Lithuania-related publications in foreign languages published from 1800 to 1944, nineteenth-twentieth-century Lithuanian and Lithuanian-studies-related periodical literature (before 1945), rare periodical literature unrelated to Lithuanian studies (before 1800), Lithuanian émigré periodicals, art books, engravings, postcards, photographs, small documents, and cartographic publications. Since the collections of the written heritage were shaped by historical circumstances, the library is one of the main institutions of research into the documentary heritage of the history of science and culture.

The Wroblewski Library is setting up a museum of the history of the Lithuanian book and scholarly thought. Most often established at the large libraries, book museums of this kind have long existed in many European cities. The Wroblewski library holds copious historic collections, from clay cuneiform tablets to various nineteenth-twentieth-century documents important for the history of Lithuania. After the reconstruction of the library, this cultural treasury will be open for public viewing.
STRUCTURE OF THE LITHUANIAN ACADEMY OF SCIENCES

General Assembly of the Members of the Lithuanian Academy of Sciences

President

Presidium

DEPARTMENTS

Organising Department

Publishing Department

Division 'Palace of Scientists'

Accounting Office

Maintenance Unit

SCIENTIFIC DIVISIONS

Division of the Humanities and Social Sciences
- 26 full members, 21 members emeriti, 8 foreign members

Division of Mathematical, Physical, and Chemical Sciences
- 27 full members, 18 members emeriti, 12 foreign members

Division of Biological, Medical, and Geosciences
- 25 full members, 18 members emeriti, 19 foreign members

Division of Agricultural and Forestry Sciences
- 19 full members, 15 members emeriti, 10 foreign members

Division of Technical Sciences
- 21 full members, 13 members emeriti, 11 foreign members

The Young Academy of the Lithuanian Academy of Sciences
- 40 members, 9 alumni members

The Wróblewski Library of the Lithuanian Academy of Sciences, subordinate to the Academy

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