



KHARKIV NATIONAL AUTOMOBILE AND HIGHWAY UNIVERSITY – WAYS OF FORMATION AND NEW HORIZONS

It was in 1930... The industrialization of the country needed a powerful labor and scientific background. By the order of the People's Commissariat of Communications there were established five universities for the motor transport industry of the country. Kharkov Automobile and Highway Institute (KhAHI – KhSAHTU – KhNAHU), the official founding date of which is July 7, 1930, by still insecure steps went down in history of the country, industry and education. In 1934, premises for the institute were allocated in 25 Baseinaia Str. (now 25 Petrovskoho Str.). The elders of the given higher educational institution – the automobile, road-building and mechanical departments actively developed: there were opened new departments, graduates actively defended graduation papers, and postgraduates and doctoral students – theses... KhAHI was the first higher education institution of the State whose historic mission was to create new specialties and subjects, to establish new scientific schools, which will become the basis for the future automotive industry of the state. This mission was fully fulfilled by the Automobile and Highway University, winning the university status, known in every region of the country and far beyond, on every continent of our planet. Today, KhNAHU is a leading National Technical University of Ukraine, alma mater of hundreds of thousands of engineers of the automotive and road-building industries, among which – well-known designers and inventors, scientists and public figures, recognized sportsmen-racers and famous artists.

In 1966, there was created a powerful educational and scientific-industrial complex of KhNAHU which includes schools, lyceums, technical schools and colleges, 12 branches of university departments, operating in the industrial sector: KhPVC, KhPTE, KhARP, «Malyshev» plant, «Krasnyi Oktiabr» plant, «Svet Shakhtiora» plant, and other.

After rapid development, having gone through the war years and the period of reconstruction and firmly standing its ground, in April 1993, KhAHI was accredited the IVth level and renamed Kharkov State Automobile and Highway Technical University.

On the eve of the celebration of the 10th anniversary of independence of Ukraine, the University was awarded the national status (2001). This appreciation of the contributions of KhNAHU staff in raising the educational, scientific and technical levels of the Ukrainian nation in reforming the higher education and formation and development of Ukrainian statehood shows that the university staff is on the right path.

Today, the university trains engineers for the automotive and road-building sectors at seven faculties: the automotive, road-building, mechanical, business and management, transport systems, computer science and mechatronics, training of foreign citizens, as well as at three centers: part-time and distance training; further training and individual postgraduate education; vocational and

pre-university training, which includes training courses of one year, nine-, six-, three- and one-month period of training, centers of international education and cooperation as well as an educational and consulting center.

39 departments of the university employ highly-skilled faculty-members: 600 teachers, among them – 79 doctors of sciences, professors; 335 assistant professors, PhDs; 11 winners of the State Prize of Ukraine in science and technology; 62 academicians and corresponding members of a number of domestic and foreign academies, 10 honored workers of science and technology and honored workers of Ukraine. 55 teachers bear the honorary title of «Excellence in Education of Ukraine».

Over the years, the University has trained more than 70,000 profession-



The building of KhAHI before the war



als, including nearly 3,000 foreign nationals from 76 countries of Europe, Asia, Africa and Latin America. Over the last five years, the University has trained more than 6,000 engineers and specialists for the motor transport industry of Ukraine. In 2013–2014, KhNAHU turned out 1300 full-time and part-time specialists. Now, more than 10 thousand students are involved in all modes of study to get higher education.

Today, the university is going through turbulent times, quality changes, providing training of specialists in 18 fields, 25 specialties (20 specialties have the IVth level of accreditation), 27 specializations and profilisations that promote cross-cutting step – by – step training for all education and qualification levels. KhNAHU is one of the first technical universities in Ukraine, which in 1990 launched a step – by – step specialist training programme «bachelor – specialist – master». Besides, they provide the individual post-graduate education and training of industry professionals, graduates can obtain the second higher education, there is a Master's degree programme, as well as postgraduate and doctoral studies.

In order to join the European educational space and speed up the integration processes at KhNAHU, in 2014–2015 academic year, all the courses in all specialties are taught according to the credit-transfer system.

International cooperation is rapidly developing at the university. Only in recent years, there were signed 61 agreements with universities, companies and firms of Germany, USA, Poland, France, Russia, China, Jordan, Syria, Lithuania, Latvia, Bulgaria and other countries, according to which the cooperation of scientists, teachers and university students is successfully carried out.

The University took an active part in the implementation of the European TEMPUS-project (2003–2008), following which the participants developed a modern multimedia textbook on Engineering Education (including an electronic version), there was also created the Ukraine's only multimedia class with super-modern equipment to conduct special training courses for teaching staff training, improvement of pedagogical skills, development of multimedia software and distance learning courses for their further implementation in the education process.

In 2014, the University won the European grant (up to 2017) and became the executor of the international project TEMPUS-EANET comprised of 12 universities of Germany, Holland, Romania, Georgia and Moldova, whose main task is to create an international Alumni Association of Entrepreneurs.

The University staff actively competes for numerous international individual grants for training and undertaking the scientific and professional internship in leading universities, research institutes and laboratories, enterprises and companies of the world, as well as participation in international scientific international conferences, symposiums and seminars.

According to the results of the international project cooperation with the German Center for Migration and Development, at the University there was created the German-Ukrainian Centre (GUC) that is equipped with modern computers, office equipment and furniture, being the real



A. M. Turenko at a technical conference in India in 1994

«headquarters» of the active international cooperation of KhNAHU.

The University is the only higher educational institution of the country where there is a unique school for training students in design, manufacture and operation of special vehicles for motor racing; a laboratory of racing cars (LRC), in which for over half a century the laboratory staff has designed and produced 34 record-racing cars and set 42 speed records (16 of which according to the time of arrivals exceeded the world achievements). Currently, the experts of the laboratory are conducting theoretical and experimental determination of parameters of new designs of competitive sports cars for car circuit racing that is necessary to revive the prestige of the road transport of Ukraine and approval of new technical solutions.

In May 2010, there was completed the work on a new racing car «Hadi-34», which took part in international competitions in fuel economy «Shell Eco-Marathon», covering the distance of 575 km, using 1 liter of petrol and was included for this achievement to the Book of Records of Ukraine. Since then, the first and the only team of the country «LRC Hadi – KhNAHU» annually participates in international student competitions on energy efficiency «Shell Eco-marathon». At current, a team of engineers, developers, seeking to exceed the 1,000-kilometer barrier, is engaged in modernization of the eco-mobile, which requires millions of hryvnias. This project, like the former developments of the laboratory of racing cars, is targeted to the international image of our country.

Embodying into the teaching process new information technologies, at the University they constantly updated the computer fleet, which includes more than 1,650 PCs installed in 45 computer classes and university departments, including the sixth hostels, which are connected via the Ethernet with access to the Internet. Satellite and cable TV channels are actively used in the university educational process; distance education of students is being developed.

To ensure the educational process with appropriate literature, automation of the library fund is carried out with success rates. Today, the Scientific Library of KhNAHU is among the six best libraries of Ukrainian universities, whose funds include more than 400 thousand copies. It is a real library town with an extensive library service sys-



tem used by more than 14,000 readers. Each year, more than 5000 visitors get registered; two reading rooms lend about a hundred thousand pieces of literature per year, and 7 delivery desks — more than five hundred thousand books and periodicals. The five service points for readers are located outside the main academic building of the University. Library services in the past academic year benefited almost 300,000 visitors.

The material and technical base consists of 12 buildings, 7 dormitories, more than 20 departments and units, 5 NGOs, 9 sports halls, 16 playgrounds and more.

The University has a modern powerful publishing house, founded in 1998 on the basis of the editorial and publishing department, whose work was launched back in 1977. The material and technical base allows publishers to produce all types of original models, perform full color printing, modern binding, advertising, photo and art-design products. This university unit completely provides the University with education and teaching literature and complete advertising, publishes scientific, technical, journalistic, historical, philosophical, artistic and other works.

Annually, KhNAHU publishes more than 500 items of teaching and educational materials totaling nearly 1350 printed pages, more than 100 scientific, technical, journalistic, historical, philosophical and other publications, the authors of the majority of which are university professors and researchers; the newspaper «Avtodorozhnik», which in recent years has become more informative, and its volume has become more intense, has an edition of 1000 copies; three scientific collections were registered by HAC of Ukraine as professional ones: «Bulletin of KhNAHU», «Road Transport», «Economics of the Transport Sector».

For success in the publication of textbooks and manuals of new generation for specialized educational institutions the publishing house was awarded by certificates and diplomas of the contest of the Ministry of Education and Science of Ukraine and the society «Knowledge»; diplomas of the Department of Information of Kharkiv regional state administration; certificates of the Executive Committee, Kharkiv Regional State Administration and Kharkiv Regional Council; during three consecutive years (2006–2008) — diploma laureate in the category «Publisher of the Year» as the best one among the universities of Ukraine at the publishers annual international book festival «World Book»; it was also



While testing the hybrid automobile

awarded for participation in the exhibition «Education — 2008» (Lviv).

The pride of the University is the permanent exhibition and fair complex of KhNAHU created in 2002. Among the higher schools of Kharkov it is the first active exhibition complex of such level, which from the first days of its existence traditionally takes part in various international, national, provincial and municipal scientific and educational exhibitions, receiving the highest quality award — the Grand Prix in the nomination «Publication of Textbooks of New Generation»; gold and silver medals in the categories: «Innovative Development of Education and Modern Educational Technology»; «Developments in Employment of Graduates» and so on.

During its operation, the exhibition and fair complex was attended by representatives of Syria, Egypt, Morocco, Spain, Germany, Russia, Belarus, Poland, employees of the Ministry of Education of Ukraine, the Ministry of Transport Management, the employees of road service and Ukravto-trans, as well as the staff members, university teachers and students. The university students eagerly get interested in its exhibits, getting acquainted with the work of their faculty as well as other faculties of KhNAHU.

The Museum of History of KhNAHU — KhNAHU plays an important role in the educational and mass work with students. Founded in 1967, to the present day it presents a complex consisting of an exhibition hall and a modern and tidy room for various round tables, meetings of students with prominent personalities of the University, creative review competitions, art exhibitions, literary readings, etc. This unit of the University is an important educational laboratory of students, and one of the means of patriotic education.

Studentship is one of the happiest times of youth. Anyone who studied at a higher education institution remembers those years throughout life. Every university has its own elite, its top students. Developing the established back in the prewar years' tradition in teaching to focus on the prize students, the University first among HEI of Ukraine introduced and is successfully implementing the program «Excellence». If in 1992 there were almost 60 standouts, today they account more than a thousand (12% of the total). The medal «Excellence» of KhNAHU is awarded to students for outstanding achievements in training (only excellent marks during six consecutive sessions), research and public activities. The details about those awarded by the honorary title «Outstanding Student of KhNAHU» are entered in the register, which belongs to the accounting documents and are constantly kept in the museum of the University.

Folloing the results of scientific conferences of the nationwide student research work contest in natural, technical and humanitarian sciences, gifted young people actively engaged in scientific work only for the last five years have worthily represented KhNAHU, which according to this indicator has entered the list of five top universities of Ukraine. Annually, 200–220 students win at national and international competitions, conferences, competitions in disciplines and specialties of the university profile. From year to year there increases not only the number of winners at various levels, but the number of students' publications (if in 2009 there were about 500, then in 2014 this number increased



more than twice). More than thirty students of KhNAHU were awarded scholarships.

Dozens of amateur groups that are characterized by high professionalism, showing decent standard genre skills, and incredible bang for the performing arts successfully work at the University. Five of them are winners of city and regional amateur competition. The people's brass band acts professionally, the vocal studio «Suziria», three dance groups: modern dance, ballroom dance «Formula Uspihu» and the modern pop dance group «Lelechenky», the literary-dramatic studio «Serdtza Naraspashku», the youth theater «Vivat», the fashion theater, etc. Review-competitions «Debut» of student amateur performances among faculties, competitions «Miss and Mister of KhNAHU», the vocal competition «Two Stars» and other art events are held interestingly and with enthusiasm.

From the first days of its foundation KhNAHU carries out sports activities. The University has over 25 sports clubs in football, basket-ball, volley-ball, calisthenics, athletics, skiing, freestyle and Greco-Roman wrestling, boxing, kick-boxing, sports aerobics, rugby and other sports. Engaging students in active sports is the main task of the Department of Physical Education and Sports. Over the last 10 years, under the guidance of the head of department M. Kurilko, the Department of Physical Education and Sports shows good results in competitions at various levels. Most teachers of the department are highly qualified sportsmen. Among them, the honored coach of Ukraine: V. Shevchenko (taekwondo), E. Plotnikov (weight sport) and master of sports M. Kirsanov, A. Semenov, K. Panova, Yu. Bratchykov, I. Mukhina, V. Perebiinis, and others. The sports honor of KhNAHU is defended by dozens of world champions and masters of sports of international class, about 30 masters of sports of Ukraine and more than 60 candidates for master of sports.

An important achievement of the department staff is the annual traditional Olympics: university games in 11 sports, «Freshman» in 9 sports, «Health» among the teachers and the faculty staff members in 9 sports and Campus Olympics in 5 sports. Sports events in various kinds of sports are also held between the dormitories and faculties.

The picked team of kickboxing that is a major contender for top honors at the championship of Ukraine among students performs successfully. In the tournament of Student League «Metallist», the university football team, which is the absolute champion among universities of Kharkiv, is also on top of the podium.

The students of the University have at their disposal a sports recreation complex with a billiard room, a shooting gallery in hostel № 1, chess and drafts club in hostel № 4, a fitness center at hostel № 5, 9 gyms and 16 playgrounds.

An important indicator of development and a high level of the university is the administrative and economic part that during the years of university existence has undergone significant changes. From the earliest days of the university and to the present, an intensive process of construction, reconstruction and expansion of the material and technical base with significant positive changes in its equipment continues.

Only over the past ten years there was reconstructed the old and built a new building of the Faculty for Training Foreign Citizens (2005) in 22 Karazin Str.; built and

put into operation a 2 story 4-apartment house for graduate students (2006); reconstructed part of the main academic building, equipped with modern multimedia equipment the room space of the Academic Council and placed the rooms of the selection committee (2007) on the ground floor; built the 4th floor on the administrative and economic building (2010). The final stage in this chronology was the placement into service (2011) of dormitory № 7 for graduate students, teachers and university staff members. During this time they completely refurbished the second floor of dormitory № 3, as well as its basement. In the campus (dormitory № 5) there was equipped a laundry room. Especially for the Euro – 2012 there were capitally repaired four floors of hostel № 6. Extremely hard work was carried out for reconstructing the boxes of the Department of Military Training into a joiner's workshop, where using one's own resources they manufacture and replace window and door frame packaged units, they also reconstructed production workshops of the Automotive Electronics Department.

The current material and technical base of the University is a functional, branched complex of modern buildings with eight academic buildings, a unique test site of road building machinery and equipment, a number of new research laboratories, including the laboratory of race cars of KhNAHU known and recognized around the world for its design and sporting achievements, a sports complex with 9 gyms and 16 playgrounds. A complex of seven hostels that are part of the campus of KhNAHU can compete with any university campus of the city. They are all equipped with modern facilities and equipment, computer classes with access to the Internet.

Teachers and students of KhNAHU have at their disposal the newest medical center equipped with the latest medical diagnostic tools, a cafeteria and a student café, a laundry, a carpentry workshop and other things that, in fact, make up the infrastructure of the university, whose total floor area is 85,774 m².

Celebrating the 85th anniversary, the hardworking and friendly team members of Kharkiv National Automobile and Highway University boast glorious traditions, and are proud of the professionalism, dedication and love for their alma mater and what is most important – look to the future with optimism, which depends on everybody who got a great fortune to work and study here.



While holding a "Night of Science" in KhNAHU