

Editorial



A result of the increase of technical science during centuries was gradual development of writing and technical education. From the 16th century scientists and artists showed their interest in technical output, and Leonardo da Vinci is considered to be a precursor of technical sciences. In the 17th century academics became interested in scientific achievements and technical schools, specialised, usually in one field, started to be opened for the need of the army. In the artillery school found in La Fere in France a term "engineer" was created, although civil construction and architecture schools were founded respectively in 1577 in Rome, in 1671 in Paris and in 1692 in Vienna. In 1701 at the University of Prague the first in the world engineering department was opened, and with time the next departments of mechanics and technology were created in Halle, Prussia in 1722 and in Frankfurt (Oder) in 1727. The development of technical universities was possible thanks to improvements of military and civil universities. In the 18th century in several European countries next military universities with technical programme were founded, including ones in Berlin, Prussia in 1705, in Petersburg, Russia in 1701, in Vienna, Austria in 1717, in Wiener Neustadt in 1725, in Budziejowice in 1744 and in several places in France, what was accompanied by analogous development of civil schools, within those specialised in one field, for example of road and bridge constructions, of mining and the central school of arts and handcraft with departments of mechanics, chemistry, mining and constructions. It became a model for the creation of the next European civil universities as for example a mining academy in Saxony in 1765 in Freiberg, in Russia in 1775 in Petersburg, in Austria in Schemnitz (Banska Stiavnica in Slovakia) in 1770. In Germany simultaneously "realschules", providing with handicraft education at the secondary level were founded, including ones created in 1706 in Halle, in 1745 in Braunschweig, in 1747 in Berlin, in 1771 in Vienna. After the French Revolution in 1794 in Paris the Central School of Public Works, later renamed in 1795 to a Polytechnic School and which gave its graduates the opportunity to specialise at civil or military technical universities, was created. The system of connections with universities specialised in one field has survived in Paris Polytechnic School till today, but excluding the name, it has not caught on in Europe. Successively founded European polytechnics adopted a concept of studies in many fields and in time shifted to educating in separate faculties, what was initiated by the Swiss – in 1845 Ferdinand Redtenbacher as the head of a polytechnic in Karlsruhe and in 1855 a Polytechnics in Zurich – and in time most of the technical universities called Polytechnics as well as technological institute in Russia. After the one in Paris, polytechnics were successively founded in Prague (1806), Vienna (1815), Glasgow (1820), London (1824), Karlsruhe (1825), Warsaw (1826-1831), Munich and Stockholm (1827), Dresden (1828), Goteborg and Copenhagen (1829), Kassel (1830), Hanover (1831), Stuttgart (1832), Augsburg (1833), Braunschweig (1835), Athens and Liege (1836), Mons (1837), Darmstadt (1838), Madrid and Delft (1842) and finally in 1844 in Lviv. Next polytechnics were founded in following years in many other places. During 1772 Lviv stayed under the Austrian rule. In September 1844 the Technical Academy headed by Florian Schindler, an Austrian coming from Galicia, the graduate of Vienna Polytechnics and doctor of philosophy of Vienna University was opened in Lviv. The solemn inauguration took place on 4th November 1844. Before the Springtime of Nations the foundations of technical university were made and six faculties were opened together with several supplementary lectures. For both departments of the Technical Academy and "realschules" 21 teachers and 4 caretakers were foreseen. The lecture language was German. On 20th September 1848 a newly created Ministry for Education agreed initially that lectures were given in Polish in Technical Academy, although as a result of the breaking of the liberation movement in Austria in 1848-1850, the academy was closed. In 1851 in Lviv 220 people were studying. The tsarist decree dated 4th October 1870 introduced Polish as lecture language, new faculties and a right to propose the staff of the departments and enact inner regulations by professors' board. From September 1872 Feliks Strzelecki became a first elected rector of the Academy. Most of professors who did not know Polish well left the university. In 1870 departments of civil engineering, constructions and chemistry – initially called schools and in 1875 the department of machine technology were found. In 1877 names of the departments and schools were officially changed to Faculties of Civil Engineering, Constructions, Chemistry and Machine Technology and the Technical Academy was transformed to the developed four-faculty polytechnic. On 23rd December 1893 engineer diplomas of Polytechnic in Lviv were made equal to those of the most

important European polytechnics in Berlin, Budapest, Aachen, Braunschweig, Dresden, Hanover, Karlsruhe, Munich, Stuttgart. Granting the University with a right to confer a title of doctor resulted with fair number of PhD studies.

The 20th century

brought that the this great University was in its heyday till 1918 within the framework of Austro-Hungarian Empire, but also within the Polish autonomy, from 1918 to 1939 as the greatest and best Polish Technical University known as Lviv Polytechnic as well as in tragic times of World War II, when many Polish students and University workers died a terrible death, successively functioning under the regime of Nazi German, Soviet Union and again Nazi German, changing its name consecutively to Lviv Polytechnic Institute, Staatliche Technische Institute renamed to Staatliche Technische

Fachkurse Lemberg and than Lviv Polytechnic Institute and at the same time during the whole World War II, in agreement with the Polish Government in Exile in underground education organised according to the Polish programme of 1938. The year of Lviv Polytechnic's 100-year jubilee (1944) could not have a proper setting. In 1945 after the official end of the World War II, as a result of Teheran and Yalta agreements, a majority of Polish professors and students left Lviv and Lviv Polytechnic was taken by the Soviet Union, so that after Ukraine regained its independence to become Ukrainian "Lviv Polytechnic State University" in June 1993, and in September 2000 – Lviv Polytechnic National University.

"Genius loci" – power of a place. The great main building of the University, designed in 1973 by Professor Julian Zachariewicz on the model of Munich Polytechnic frontage, was built in 1874-1877, starting on 7th October 1877 when a telephone was presented there as a new invention, because of a visit of the Emperor Franz Joseph the First on 13th September 1880, who donated 11 paintings ordered in Jan Matejko's atelier to the University, illustrating allegorically the history of mankind development, situated in the University Hall till today. The building was afterwards a witness of number of events including visits of many heads of the states, ceremonies of awarding an honorary degree to many outstanding scientists, beginning with the Nobel's prize laureate – Maria Skłodowska-Curie, and also as a witness of many surgeries executed in paraffin lamp light, because there was no electricity, when in tragic times of World Wars I and II army hospitals were organized there. In November 2009 Lviv Polytechnic National University will celebrate 165th anniversary of its founding, graced with presence of outstanding visitors from Ukraine and abroad. The highest State Authorities of Ukraine, within the Prime Minister of Ukraine Julia Tymoschenko, are expected to participate in the event.

The World Academy of Materials and Manufacturing Engineering and the Editorial Board of the Journal of Achievements of Materials and Manufacturing Engineering would like to wish Lviv Polytechnic National University on the hands of Professor Yuriy Bobalo – a current Rector of Lviv Polytechnic National University further magnificent years of heyday, scientific and didactic successes, outstanding international cooperation and for Professors and Students – satisfaction of scientific and professional achievements, health and best of luck.

Gliwice, 2009

Prof. Leszek A. Dobrzanski M Dr hc
Editor-in-Chief of the JAMME
President of the WAMME
President of the ACMSSSE