

PREFACE

Dear Reader,

You are holding in your hand a special issue reflecting the results of the activities of the Department of Chemical and Food Engineering of the Faculty of Mechanical Engineering of the Technical University of Budapest. Before you read the publications I would like to introduce our Department.

The 'Chemical and Agroindustrial Mechanics' has formed a part of the history of the university for more than 100 years. As all around the world, the chemical and the food industry in Hungary have developed from the agricultural industries (distilleries, mills, sugar industry, etc.). One can understand this, since for example the first industrial production technology where almost all the classical chemical industrial processes appeared was the sugar production. The appearance of the coal-gas production marked further development of the processes. The development of the Department and later of the branch shows also similar progress.

The 'Mechanical Technology of Mills' was a regular subject from the 1875/76 schoolyear, later extended to paper production with some view on the chemical industry. The first professor of this subject was Ágoston Pilch.

From the school year of 1887/88 professor Pál Lázár gave lectures on 'Machinery of Agricultural Industry' covering machines and equipment of wine production, dairies, distilleries, breweries and sugar production.

From 1891/92 an independent Department called 'Department of Agricultural Mechanics' was founded headed by professor Lázár. In the framework of the subject 'General Industrial Mechanics' they taught – on descriptive and construction level – stampers, mills, mixers, kneading machines, juice presses, centrifuges and equipment of sugar and starch production, distilleries and breweries, but they had already started teaching factory design as well.

The subject 'Machines of the Chemical Industry' appears first in 1898/99 covering the equipment of mechanical processes. This subject was lectured by professor Sándor Rejtő.

The equipment of thermal and diffusional processes were introduced in the teaching of the above mentioned subject in 1920/21 delivered by professor Gusztáv Szabó.

From 1922 a part of this topic is also taught by the honorary lecturer Ödön Vajda in the framework of the Department of Agricultural Mechanics.

The Department of Chemical Industrial Machines headed by professor Ödön Vajda has been separated from the Department of Agricultural Mechanics. The subjects 'Chopping and Classification', 'Chemical Industrial Machines' and 'Agroindustry' were combined under the title: 'Chemical Industrial Machines' taught by this department from 1938. According to the state of the science of that time professor Vajda summarised and published as the first book in Hungarian on the theory and practice of filtration, evaporation and drying. It was professor Vajda also, who in the framework of the specialised training – ordered under the educational reform – worked out the training plan of the chemical and food industrial mechanical engineering which became a separate branch.

The 'Group of Agroindustry' was founded in 1948 as a part of the 'Department of Chemical Industrial Machinery' the subjects of which were taught by invited specialists until the beginning of the fifties.

From 1949 this group has appeared in the name of the Department, the name of which became Department of Chemical Industrial Machinery and Agroindustry.

In the schoolyear of 1948/49 – in the lack of department head – the teaching was started by the colleagues of professor Vajda according to the plan worked out previously.

A few weeks after the beginning of the semester Emil Bass was appointed to department head by the Ministry of Education.

A part of the special subjects of the branch of chemical mechanical engineering was taught by invited lecturers from the industry.

From the beginning of the fifties the 'Agroindustry' group was transformed to 'Branch of Food Industry' within the Department. The teaching of the special subjects had been directed by professor Jenő Gondár until his retirement. The teaching of the subject named 'Machines and Processes of the Food Industry' was continued under the leadership of associate professor Miklós Villányi.

The 'Branch of Silicate Industry' of the Department was founded in the fifties.

Mór Korach, a member of the Academy, was appointed as second professor to professor Bass at that time. He lectured the subjects of the silicate industry branch. After completing the training of two years, the 'Branch of Silicate Industry' was transferred to the University of Heavy Industries of Miskolc.

At the end of the schoolyear 1961/62 the direction of the Department was given to professor Balázs Szántay who served this office as a secondary employment until the beginning of 1966.

In 1966 associate professor Dr. Sándor Szentgyörgyi later full professor was appointed to the head of the department who served until the end of the first semester of 1988.

From the second semester of 1988 associate professor – and from 1990 full professor – Dr. Károly Molnár was entrusted with the direction of the Department and he is in charge at present.

From 1949 the Department has experienced several changes of educational plans. Following the introduction of the new 'reformed' educational plan of 1975 the Department supervises the teaching of the chemical and food industrial mechanical engineering of the Faculty. The students of this branch can graduate as chemical industrial or food industrial mechanical engineers. In 1990, according to this training structure the name has been changed to:

Department of Chemical and Food Engineering

I think that this special issue reflects well the history of the Department and the results attained on the changing and developing fields of education and research.

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