

Unknown about the known

Prof. emeritus **Zlatko Kniewald** PhD, MSc, BSc, Biotechnology Engineer
President of the Croatian Academy of Engineering
in the mandates of 2003-2005 and 2005-2009
on the occasion of the 30th anniversary of the foundation
Croatian Academy of Engineering (HATZ)

We still remember the long and stormy year of 1993, when a group of enthusiastic engineers decided to found the highest professional association in the field of technical and biotechnical sciences in Croatia called the Croatian Academy of Technical Sciences. The head of that group was academician, Josip Božičević PhD in cooperation with prof. Juraj Božičević, PhD and other scientists who formed the founding core of HATZ. The fact that all HATZ members are at least PhD in the following text, names without titles are given for HATZ members.

The history of HATZ since its foundation is described in the reports of their presidents in the yearbooks on the occasion of HATZ's 20th and 25th anniversaries. In this Jubilee edition, on the occasion of the 30th anniversary of the founding of HATZ, it will be possible to recall some details that were not emphasized enough on the occasion of earlier anniversaries. Presenting my report from 2003-2009 I want to focus on the meaning of the word engineer.

These were my motives when I became a member of HATZ in 1998, and its president in 2003. As the president of the Faculty of Food Technology and Biotechnology (PBF) Science Committee, I followed and supported all the activities of the establishment of HATZ from the very beginning. It should be mentioned here that since the founding of HATZ, in addition to acad. Josip Božičević and Juraj Božičević as first and second presidents of HATZ Dražen Aničić and Darko Maljković also played a significant role as a members of the Management Bord at that time.

Today, out of a total of 277 HATZ members, 20.5% are women, and this ratio varies according to individual HATZ Departments and has not changed significantly in the past period. An increasing number of women are participating in STEM (Science, Technology, Engineering, Math) field studies, so their participation as HATZ mem-

bers should be gradually harmonized. The basic idea at the founding of HATZ was the expertise of each of its members, who will pay a membership fee for their membership in HATZ and perform all their activities on a volunteer basis. This also applies to the Board and members of all working bodies. We wish for an even more significant involvement of engineers in all levels of management of the Republic of Croatia and a faster development of our economy and Croatia as a whole. This also implies the strengthening of regional centers other than Zagreb, such as Osijek, Rijeka and Split respectively, where a significant number of HATZ members come from. Participation in international cooperation through CAETS and EuroCASE spread worldwide knowledge about the state and quality of technical and biotechnical sciences in Croatia. Perhaps our English name “Croatian Academy of Engineering” says it best.



Fig. 1.

In these few words, I have summarized the guidelines by which I, as President of HATZ, guided myself in the operation and further development of HATZ. After my first mandate in 2003-2005 and the second one from 2005-2009, I entrusted the completed and started activities to the next president, Stanko Tonković, with the desire to continue and improve the state in which HATZ remained in 2009. The Handover Record (Fig. 1.) contains all important documents from the past period.

During my terms in office, an archive was collected and preserved, which is available to all interested parties. Regardless of modern data storage media, paper storage is still the most secure way of archiving. Computer scientists will not agree with that, and I ask myself how does one read the record on punched cards or magnetic tapes today, when my new PC doesn't even have a CD input. I mentioned this, because in our archive there are Registers with numbers 9-49 (item 6 of the handover minutes dated June 30th 2009) in which there are collected essential documents from 2003-2009. The registers from 01 to 08 contain materials from the establishment of HATZ until the assumption of mandate in 2003. It would be useful for HATZ members, as well as all those who want to know how HATZ was created and developed over the past 30 years, to study some earlier discussions and conclusions both domestically and internationally (We have been a member of CAETS since 2000 and an associate member EuroCASE since 2005, and full-fledged since 2009). Towards the end of my first mandate in 2005, the Presidency proposed, and the Assembly accepted, that the mandate of the HATZ President be four years with the possibility of another four-year re-election, and that decision was written into the HATZ Statute. (Art. 33) I did not use another mandate of four years, although due to changes in the Statute there was a formal possibility.

To obtain summary information during my terms of office 2003-2009. the reader has at his disposal:

1. HATZ Jubilee Yearbook on the occasion of the 20th anniversary of its establishment ISBN 978-953-7076-22-1, "TWENTY YEARS OF THE CROATIAN ACADEMY OF ENGINEERING (HATZ) 1993-2013", Zagreb, 2014
 - "Prof Emer Zlatko Kniewald, PhD Croatian Academy of Engineering 2003–2009" pp. 63-74,
 - "Prof Zdravko Terze, PhD, Prof Jasna Kniewald, PhD, Prof Vladimir Medved, PhD International Cooperation of the Croatian Academy of Engineering for the period 1997-2014" pp 93-105,
2. HATZ Jubilee Yearbook on the occasion of the 25th anniversary of its establishment ISSN 1332-3482, "JUBILEE ANNUAL 2017-2018 OF THE CROATIAN ACADEMY OF ENGINEERING," Zagreb, 2018,
 - "Croatian Academy of Engineering 2003-2009"¹, Kniewald, Z. Past-President of the Academy (2003-2009)¹ pp 49 -66.
 - "International Cooperation of the Croatian Academy of Engineering in the Period 1997-2018" Terze Z., Kniewald† J., Medved V. pp. 105–120.

¹ This is an updated and amended version of the original article by the same author, originally published under the same title in 2014, in the Jubilee Monograph "Twenty Years of the Croatian Academy of Engineering (HATZ) 1993-2013".

Creation of prerequisites for the successful operation of HATZ

Since the establishment of the Croatian Academy of Technical Sciences (under that name it was registered on the occasion of its establishment in 1993), the administration and all activities have been housed in the building of the Faculty of Chemistry and Technology in Zagreb, Savska c. courtyard (Juraj Božičević's Department). The meetings of the working bodies and the assembly were held at different locations in Zagreb, and financial operations were managed by a private person on a part-time basis.

At the moment of the opening of the candidacy procedure for the new president of HATZ in 2003, the issue of finding a permanent space for the work of HATZ was also opened. As stated in the report of the previous president Juraj Božičević, together with the Dean of PBF Damir Karlović and the Rector of the University of Zagreb, Prof Helena Jasna Mencer PhD, it was agreed to conclude the Agreement on the accommodation of HATZ at Kačićeva St 28 with the obligation to provide funds for the renovation and improvement of the space from by HATZ.

Until the renovation of the HATZ space at Kačićeva St 28, all HATZ activities and obligations assumed by the previous HATZ president, new activities as well as the accommodation of the administrative employee Melanija Strika were carried out at the PBF premises at Kačićeva St 30 in the Laboratory for Animal and Plant Cell Technology and biotransformation (head Zlatko Kniewald). The space was used free of charge, due to the cooperation with PBF, which has been a member of HATZ since its foundation.

At the time of taking over the space, in addition to the current building, there were two other old buildings on the site that first had to be removed and the environment cleaned (Fig. 2. and Fig. 3.).



Fig. 2. The building was the Dean's Office in 1956.



Fig. 3. The building was the Biochemistry Laboratory



Fig. 4. The view on the HATZ place from Kačićeva Street before the renovation

The Ministry of Science, and Technology of the Republic of Croatia (MSES) provided funds for construction reconstruction and improvement of the HATZ building and environment. (request for funds from July 15, 2003 below).

Tender announcement and selection of the most favorable contractor, monitoring of works, completion of construction works, furnishing of space with furniture and necessary technical means was carried out under the supervision and in excellent cooperation with HATZ member Jure Radić. The landscaping of the building was carried out according to the project of the Faculty of Architecture of the University of Zagreb, organized and under the leadership of HATZ member Mladen Obad-Šćitaroci.



Fig. 5. Letter dated July 15th, 2003 to MSES



Fig. 6. The approach to the HATZ building is decorated for people with reduced mobility



Fig. 7. One of the first laurel groves and cherry trees for a green fence in the city

Landscaping in the park and setting up a green fence around the park, planting trees in the park and creating a parking lot in the HATZ park for the needs of its members was carried out simultaneously with the decoration of the HATZ building.



Fig. 8. Arrangement of the external appearance of the HATZ building



Fig. 9. HATZ Presidency

The first session of the HATZ Presidency in the area of the reconstructed, renovated and fully furnished HATZ building was on February 13th, 2004, on the first floor of the building (Fig. 9), that is, approximately 7 months after the start of the design documentation.

In 2003, HATZ had a Management Board consisting of: Zlatko Kniewald - President, Tomislav Filetin - Vice President, Stanko Tonković - Vice President, Miljenko Lapaine - Secretary General, and Juraj Božičević - former President, and the members of the Presidency were:

Secretaries of 13 HATZ Departments, Zvonko Benčić, Mladen Figurić, Zoran Gomzi, Slavko Krajcar, Vladimir Medved, Mladen Obad-Šćitaroci, Franko Rotim, Branko Salopek, Siniša Srbljić, Mate Sršen, Ivica Veža, Branka Zovko-Cihlar and Vilko Žiljak.

Chairs of the Standing Committees: Marin Hraste – For Promotion, Miljenko Lapaine – Cooperation with Academies and Scientific Societies, Jasna Kniewald – International Cooperation between Academies, Ivan Ilić – Cooperation with Scientists Abroad, Vilko Žiljak – Cooperation with Towns, Petar Đukan – Cooperation with Economy, Borivoj Modlic – for Awards, Marijan Bošnjak – for Ethics. (HATZ Annual 2004. pp 173-174)

The HATZ library (Fig. 10) was arranged in the room on the ground floor on the right thanks to a donation from Croatian Electricity Company (HEP). A plaque with the name of the donor was placed on the door of the HATZ library as a sign of gratitude.



Fig. 10. HATZ library



Fig. 11. HATZ flag

Fig. 12. Flags in the HATZ park

Fig. 13. HATZ park at night

The installation of the flags carrier and installation of the flag of the Republic of Croatia and the HATZ flag (Fig 11.) in the park of the HATZ headquarters was completed in 2006, and the EU flag was installed in 2009, when HATZ became a full member of EuroCASE (Fig. 12.), and before the entry of the Republic of Croatia into the EU. HATZ headquarters and surroundings at the night (Fig. 13.)

The HATZ Assembly, at its session held on February 28, 2006, adopted an amended and clarified text of the HATZ Statute, where, among other things, in Art. 4. determined what the HATZ Flag looks like. In addition to the Flag in dimensions according to the HATZ Statute, commemorative small table flags were made and distributed to interested HATZ members for their work space.

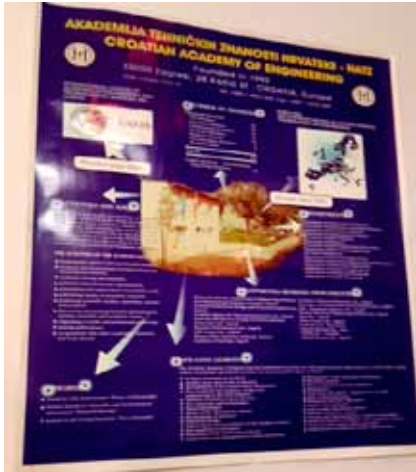


Fig.14. Stainless steel entrance door to the HATZ park with stylized letters H A T Z, (Design by Z. Kniewald)



Fig. 15. The appearance of the green fence cherry laurel after 18 years (picture taken in January 2023)

During the adaptation of the space, regular HATZ activities were held according to the annual plan and program. A HATZ promotional poster (Fig. 16.) with HATZ activities was created and delivered to all cooperating HATZ institutions in the Republic of Croatia. The poster lists, among other information, 28 specialized courses that HATZ members can organize for the needs of the economy in HATZ Centers or in their home institutions, but under the auspices of HATZ.



The establishment of HATZ Centers and the improvement of their activities continued.

Fig. 16. HATZ promotional poster

In the period from 2003-2009 the following Centers operated in HATZ:

1. Center for development studies and projects. Leader Juraj Božičević
2. Center for accidents and disasters. Leader Dražen Aničić
3. Biotechnical center. Leader Zlatko Kniewald
4. Center for lifelong education. Leader Tomislav Filetin
5. Center for geoinformatics and cartography. Leader Nedjeljko Frančula
6. Center for graphic engineering. Leader Vilko Žiljak
7. Center for environmental protection and development of sustainable technologies. Leader Đurđa Vasić-Rački.



Fig. 17. Attendees and employees from Belupo inc. and teachers course in Animal Cell Technology in the organization of the HATZ Biotechnical Center on February 22, 2008.

The activities of the HATZ Biotechnical Center on the domestic and international level were particularly intensive with PLIVA Inc. on joint projects on the application of animal cells in the production of vaccines and holding international meetings on important areas of biotechnology. The meetings were held in the large hall of the Ministry of Economy of the Republic of Croatia in English language, without registration fee and with the participation of scientists from the Republic of Croatia and abroad.

The following institutions participated in the organization of the scientific meetings on Biotechnology: HATZ, Scientific Council for Agriculture and Forestry and the Department of Technical Sciences of the Croatian Academy of Sciences and Arts (HAZU), the Croatian Society of Biotechnology, the Academy of Medical Sciences of Croatia, PBF and PLIVA inc.

After the meetings Proceedings were published in the Edition “Current Studies of Biotechnology volume I–IV:

Biomedicine 2000, Environment 2001, Food, 2003, and Immunomodulatory Drugs 2005.

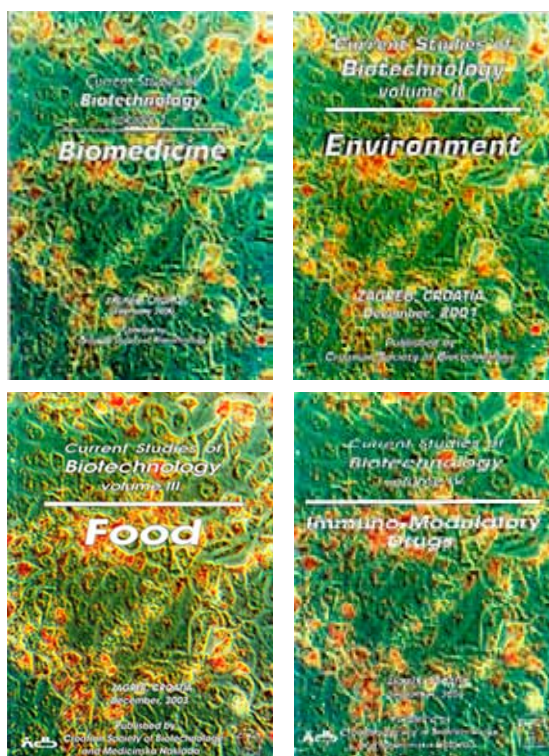


Fig. 18. Current Studies of Biotechnology vol. I - IV



PREFACE

Dear reader,

It is my great pleasure that I can present you the 4th Volume «Biotechnology and Immunomodulatory Drugs» of the scientific edition «Current Studies of Biotechnology». The entire edition is a result of the scientific conferences that have started in 1999 in Zagreb, Croatia with the Croatian participants, but also with the scientists from several countries all around the world.

The topics that were previously presented were Biomedicine, Environment and Food, and now we are glad that we can present you the selected papers related to Immunomodulatory Drugs as the topic of this Volume.

This Conference, as the previous ones were, was organized jointly with the Croatian Society of Biotechnology, Croatian Academy of Engineering, Croatian Academy of Medical Sciences, Scientific Council for Technological Development of the Croatian Academy of Sciences and Arts, PLIVA Croatia, Ltd. and Faculty of Food Technology and Biotechnology, University of Zagreb.

The 4th Volume, «Biotechnology and Immunomodulatory Drugs», was published at crucial time when the environmental influence has all the greater impact on the human immune system, and the pharmaceutical industry, biotechnologists and physicians are trying to find the best way to overcome all visible effects as well as those still unknown.

Our next conference, «Biotechnology and Energy», is scheduled for February, 2007, and the next volume (5th Volume – «Energy»), will be issued somewhere at the end of 2007.

Instead of printing of the reprints, each author will receive the author's copy and CD with full text of this Volume.

Zagreb, December, 2005

Editor-in-Chief

Fig. 19. Impressum and Preface for vol. IV. Immunomodulatory Drugs

Through HATZ, the Biotechnical Center actively participated in the Annual Exhibition of Innovations ARCA, where the exhibited works of the HATZ Biotechnical Center received special awards in 2005 and 2006 (Fig. 20.)



Fig. 20. participation of HATZ at the ARCA exhibitions

By connecting to the University Computing Center (SRCE), permanent internet communication was achieved. Therefore, already in 2003, and thanks to the activities of HATZ secretary and HATZ member Miljenko Lapaine, the first HATZ websites prepared earlier were put into operation. The pages were well visited because of their content. Interest in the pages was followed by visits, which were expressed numerically and HATZ members were informed about them. Due to the international co-

operation with CAETS and EuroCASE, the pages were in Croatian and English. By 2009, the website had more than 350,000 hits.

The Committee for International Cooperation chaired by Jasna Kniewald played an important role between 2003 and 2009 due to the inclusion of HATZ in several significant projects in the Republic of Croatia, the conclusion of bilateral agreements, as well as obligations towards CAETS and EuroCASE in the activities in which HATZ participated. Lectures were held at meetings in Cairns, Tokyo and Budapest and published in HATZ yearbooks.

Project “Meaning and role of the profession of engineer”



Fig. 21. Hungarian Parliament



Fig. 22.

At the beginning of this text, I listed all my titles, but which any individual can acquire during his working life and training. And that should be appreciated, but by studying at technical and biotechnical faculties today, during the undergraduate studies, the basic title of bachelor's degree in professional engineering is acquired. Everything else, including the bachelor's degree, is an upgrade and improvement, so the bachelor's degree ends with the title of Master of Science in Engineering, with further improvement in other titles. The profession of engineer is fundamentally different from all other professions in higher education, which should always be emphasized. The Hungarian Academy of Engineering (HAE) invited us to be present at the founding of their Engineers' Day in 2006 and at the same time take an active part in the 7th World Federation of Engineering Organizations (WFEO) World Congress in Budapest on 3-7. March 2006. The solemn ceremony of declaring the Day of Hungarian Engineers was held in the Parliament (Fig. 21.) under the chairmanship of the President of Hungary HAE Prof. Janosz Gintzler PhD. At the invitation of the organizers of the 7th WFEO Congress, I participated in a lecture on the development of

the profession of biotechnology engineer in Croatia over the past 45 years (Fig. 22.). On that occasion, I pointed out the fact that the title of engineer in the Republic of Croatia has been abolished. After the discussion that took place on that occasion, the chairman thought that I was confused, when I confirmed the fact, it was concluded that the Government of the Republic of Croatia should be informed in writing that a mistake had been made. This was done, and in the coming period, MSES, with the great cooperation of the Deputy Minister prof. Slobodan Uzelac PhD corrected the resulting error.

Based on the agreement with the President of HAE during my stay in Budapest, an agreement on bilateral cooperation between HATZ and HAE was signed later on June 28, 2006, in the HATZ Headquarters in Zagreb, in the presence of representatives of the Hungarian Embassy in Croatia. During my stay in Budapest, a visit to the Intellectual Property Office of Hungary was organized, where I introduced their representatives to the translation of the International Patent Classification (IPC) 6th (1995) and 7th (2000) editions into Croatian that has been completed. Croatia is one of the few countries which has a translation into its own language (Fig. 23).

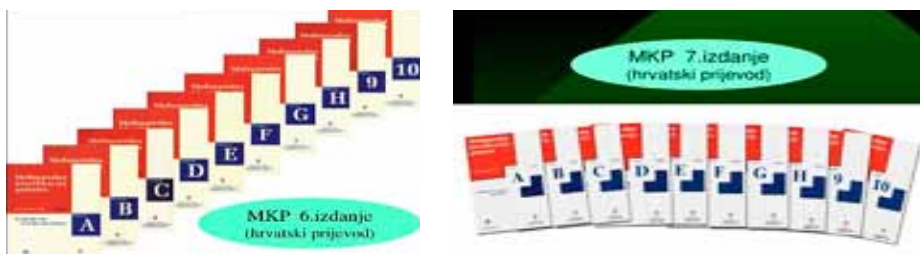


Fig. 23. Croatian editions of IPC

I was a member of the Editorial Board of the editions, Editor of Section C and one of several translators from PBF.

The announcement about the Proclamation of Engineers' Day held in Budapest was published in *Tehničke znanosti HATZ* 14(1)2007. p16. Back in 2006, the HATZ Presidency and Assembly accepted a proposal to establish Engineers' Day in Croatia. The initiative was launched together with the Croatian Engineering Association (HIS), but it was not established until March 13, 2015. That day leaders and associates of HAZU, HATZ, HIS, the Rectorate of the University of Zagreb, the Croatian Military Academy "Petar Zrinski" and Končar-Elektroindustrije inc. solemnly declared the establishment of the Day of Engineers in Croatia in the hall of the Ministry of Economy of the Republic of Croatia. It was only at its 40th session held in November 2019 that UNESCO made the decision to hold "World Engineering Day for Sustainable Development to raise awareness of the role of engineering in modern life" every

year on March 4. The Day of Engineers is a day to mark a tradition of the engineering profession, but also a moment when experts in the basic profession of engineer talk with other participants from Croatia and abroad and agree on how to apply and adapt modern technology to nature, the environment and man.

Project “2006 Year of Nikola Tesla”

(extensive presentations published at Annual 2006 of the Croatian Academy of Engineering pp 77-431)

In 2005, the Parliament of the Republic of Croatia decided to declare 2006 the year of “Nikola Tesla” on the occasion of the 150th anniversary of his birth. Under the chairmanship of the Speaker of Parliament Vladimir Šeks, a Committee was organized to which I was elected as President of HATZ. At the suggestion of the Minister of MSES, Prof Dragan Primorac PhD, HATZ was in charge of organizing all the major events during the “Year of Nikola Tesla”.

The central event was a celebration in the Vatroslav Lisinski Concert Hall on June 27, 2006, which was already written about in the jubilee editions on the occasion of the 20th and 25th anniversary of HATZ, as well as the HATZ periodicals Tehničke znanosti and Engineering Power.



Fig. 24.



Fig. 25.

The celebration was organized under the patronage of the President of the Republic of Croatia, HE Stjepan Mesić. The anthem of the Republic of Croatia, „Our Beautiful Homeland“, was performed at the beginning of the celebration by primadonna Ivanka

Boljkovac (Fig. 24, 25). Due to Nikola Tesla's significant contribution during his life and work in the USA, the US Embassy in Zagreb participated in the organization of the central celebration, which ensured the arrival and introductory lecture of Prof. Harold Forsen PhD.. The celebration was also attended by the doyen of electrical engineering in Croatia, prof. Vladimir Muljević PhD at the age of 93 years (Fig. 27.).



Fig.26. Mr. and Mrs Forsen



Fig. 27.

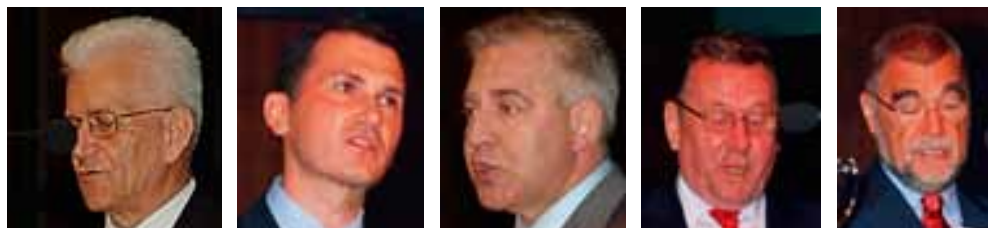
The celebration was attended by the President of the Republic of Croatia Stjepan Mesić, President of the Parliament of the Republic of Croatia Vladimir Šeks, Prime Minister of the Republic of Croatia Ivo Sanader, the mayor of Zagreb Milan Bandić, ambassadors or their representatives who were invited to celebrate the Year of Nikola Tesla, and other guests Fig. 28, 29).



Fig. 28



Fig. 29



Zlatko Kniewald

Dragan Primorac

Ivo Sanader

Vladimir Šeks

Stjepan Mesić

Fig. 30.

Harold Forsen

Carl-Henric Svanberg

Kurt Richter

Aleksandar Marinčić

Stjepan Car

Nikola Toljan

Fig. 31.

After the introductory presentations, the celebration was opened by the President of the Republic of Croatia, HE Stjepan Mesić (Fig. 30.), and then thematic lectures on the life and works of Nikola Tesla were held. Those presentations were addressed by Harold Forsen PhD. USA, Carl-Henric Svanberg, CEO Ericsson Inc. Sweden, Kurt Richter, the Austrian Academy of Sciences, Aleksandar Marinčić PhD the Serbian Academy of Sciences and Arts, Prof. Stjepan Car PhD, R. Končar Inc., Nikola Toljan PhD, Ericsson Nikola Tesla, Zagreb (Fig. 31.).

On June 28, in the morning, was a trip by bus to Gospić and the birthplace of Nikola Tesla Smiljan. Visit was organized also to the Tesla's memorial museum built in 2006, in the year which in the Republic of Croatia is marked with his name.

28.–29. June 2006. The international scientific and professional meeting “Life and work of Nikola Tesla” was held under the chairmanship of Stanko Tonković, in the hall of the Faculty of Electrical Engineering and Computing, University of Zagreb (Fig. 32.).



Fig. 32. Proceedings and organizational bodies

From 7-11 October 2006, in the organization of Marie Skłodowska-Curie Actions (MSCA) in Zagreb and then in Belgrade, a meeting of previous MSCA scholarship holders was organized with the aim of exchanging experiences and informing each other about the possibilities of future cooperation (Fig. 33, 34). The Youth Scholarship Foundation was organized by the EU/European Commission to support research in the European research area. About 100 participants from Croatia, Serbia and EU took part in the meeting.

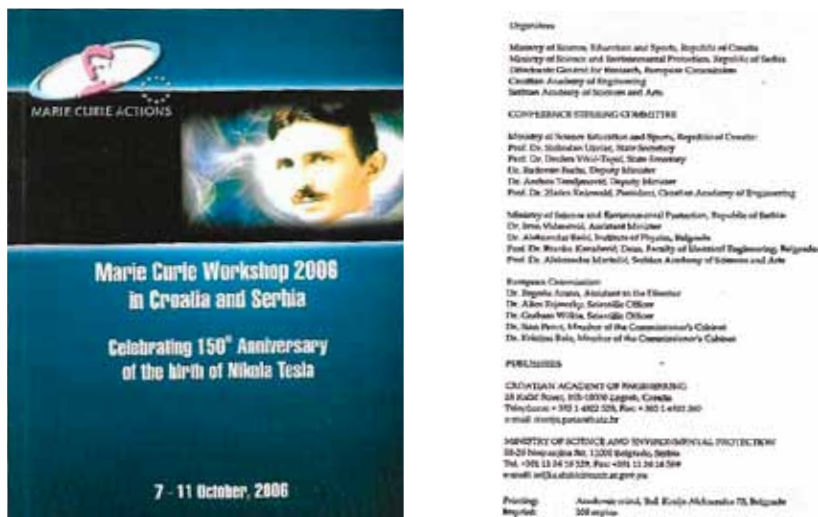


Fig. 33. Marie Curie Workshop 2006

Year 2006 is marked with the celebration of the 150th anniversary of the birth of Nikola Tesla, one of the world's greatest inventors in the field of electricity and magnetism. This anniversary is of special national importance in Croatia and in Serbia, having in mind that Nikola Tesla was an ethnic Serb born in Croatia. The Serbian and Croatian governments therefore initiated a joint event to commemorate Nikola Tesla and asked the European Commission for its auspices. The Commission kindly offered a workshop under the Marie Curie scheme to be organized in Zagreb and Belgrade, 7-11 October 2006. The workshop is held on 7-9 in Zagreb, and 9-11 in Belgrade. Commissioner Janaz Potočnik takes part at both venues giving support to this joint event.

For this event about 100 participants have been registered, Marie Curie fellows from EU countries and Serbian and Croatian research fellows. They contribute their poster and oral presentations, representing their institutions and their work in different topics: electronics, automatics and devices, computing science, material and physical sciences, environmental and life sciences. There are also several contributions that cover more general problems and also the advantages and challenges of the Marie Curie Programme itself. There are 72 submitted abstracts that make the body of this Proceedings. The length of abstracts has been limited to 200 words, and the editors did not intervene in the contributions. The conference will be addressed by about 40 senior speakers ranging from politicians, prominent researchers, science managers and industrial captains.

We hope that this workshop will enhance the information exchange between the young researchers that are using the benefits of being associated to the EU research scheme, with those in Croatia and Serbia who are aiming to use these benefits. We deeply believe that the personal contact of these young people will enrich them by providing new counterparts in research and by sharing the joint experience of visiting Zagreb and Belgrade. We also believe that this joint effort will further support the collaboration between Serbian and Croatian researchers and administrations, on the common way of the two countries towards the EU association.

Prof. Dr. Zlatko Kniewald, President
Croatian Academy of Engineering

Dr. Ivan Vidanović, Assistant Minister
Serbian Ministry of Science and
Environmental Protection

Fig. 34. Text of the Introduction

In the booklet with the program in Zagreb and Belgrade and summaries Lectures.

On **November 24, 2006**, HATZ organized the Tesla evening “With Tesla in the development of Croatia.” The scientific evening was held in the MIMARA Museum with the participation of leading businessmen, scientists and representatives of state institutions and diplomatic missions (Fig. 35, 36).



Fig. 35. Scientific evening program



On that occasion, the President of the Management Board of Končar - Elektroindustrije d.d.: Darinko Bago presented “New products based on the inventions of Nikola Tesla” and on that occasion all those present had an exclusive opportunity to learn about the newly announced achievement of this company, namely the low-floor regional train.

Fig. 36. Program booklet of the scientific evening

On **September 13, 2006**, the “Tesla in Croatia” conference was organized at the UNESCO headquarters in Paris under the auspices of the President of the Republic of Croatia, HE Stjepan Mesić. The conference was led by Stanko Tonković, and the leader through the program was Helga Vlahović. On behalf of the sponsor, the conference was attended by Prof Izet Aganović PhD. Among the other participants at the conference the lecture was given by the president of Ericsson Nikola Tesla, Gordana Kovačević. (Fig. 37, 38)

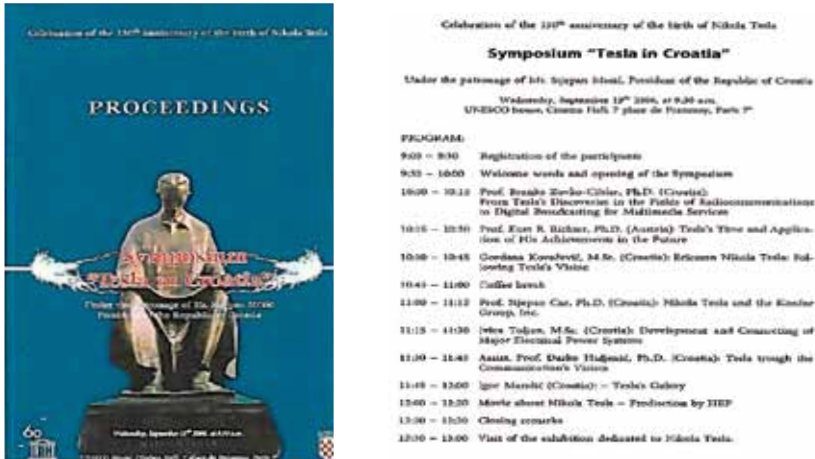
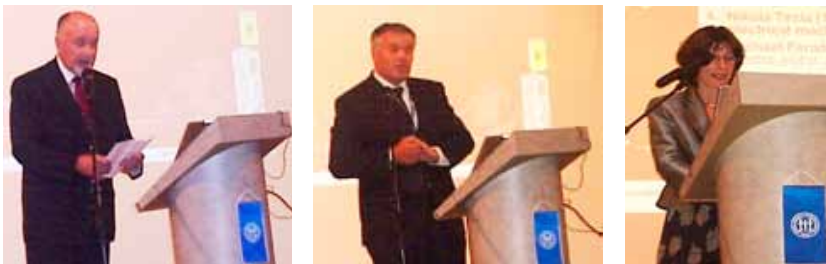


Fig. 37. Program booklet



Stanko Tonković

Izet Aganović

Gordana Kovačević

Fig. 38.

Before the conference, the Ministry of Culture of the Republic of Croatia in the presence of Božidar Galić, Ambassador of the Republic of Croatia in France opened an exhibition dedicated to the life and work of Nikola Tesla (Fig. 39).



Fig. 39. Opening of the exhibition dedicated to Nikola Tesla at the UNESCO headquarters in Paris.

At the proposal of the Minister of MSES, prof. Dragan Primorac PhD I participated in the „Nikola Tesla Days“ in Madrid, where an exhibition from the Republic of Croatia about Nikola Tesla was open from October 24 to December 12, 2008.

On **November 12, 2008**, I gave a lecture “Nikola Tesla - From Childhood to the New Yorker Hotel” at the Technical College.

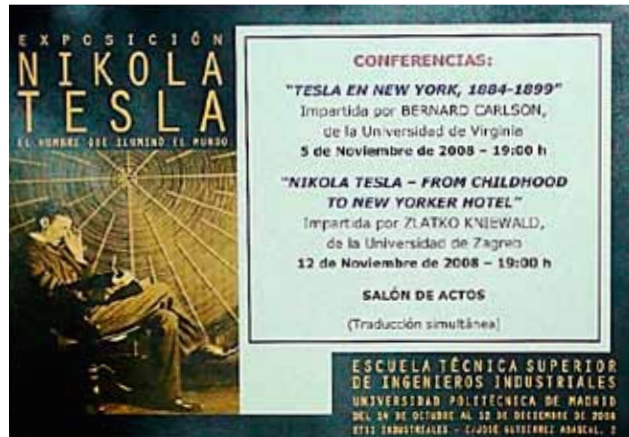


Fig 40. Notice of lectures in Madrid

The New Yorker Hotel was Nikola Tesla’s last residence in the USA, where he died on January 7, 1943. This year (2023), the 80th anniversary of his death is being mentioned in the Republic of Croatia.

The Embassy of the Republic of Croatia in the Kingdom of Spain announced on October 14, 2008. a wider text, a part of which is attached below.

“Several accompanying events are planned during the two months of the exhibition. First of all, it is a series of lectures by world-renowned scientists and experts. From the Spanish side, Brian Bowers from Great Britain, author of the books “Lengthening the Day” and “A History of Electric Light and Power” and Bernard Carson, a professor at the University of Virginia, USA, who is currently writing a book about Tesla, were invited. According to the proposal of the Ministry of Science, Education and Sports of the Republic of Croatia, on the Croatian side, the lecture will be held on November 12 of this year by a Ph.D. Zlatko Kniewald, director of the Croatian Academy of Technical Sciences.” *Downloaded from Google on 1/30/2023. at 23.42.*

December 8, 2009. The HRT show “Među nama” (Fig. 41) was hosted by Jasna Burić PhD in duration 54 min. Topic “Life and work of Nikola Tesla”. On that occasion, a CD with all the patents of “Nikola Tesla” prepared by HATZ in 600 copies back in 2006 was available to all viewers. A video recording of the entire show on USB is available in the HATZ library as well as CD with all the patents of „Nikola Tesla“.



Fig. 41. HRT show

Among other activities, in 2006, the moving of the “Nikola Tesla” monument from the Ruđer Bošković Institute to the beginning of Nikola Tesla Street in Zagreb should be mentioned. The monument is the work of sculptor Ivan Meštrović. The transfer was organized by the city of Zagreb in cooperation with the Ministry of Science, Education and Sports of the Republic of Croatia.

Projects

The first congress of Croatian scientists from the country and abroad Zagreb–Vukovar 15.-19. November 2004

The second congress of Croatian scientists from the country and abroad Split 7.-10. May 2007

At the proposal of the Prof. Dragan Primorac PhD Minister of MSES, HATZ actively participated in the organization of the First and Second Congress of Croatian scientists from the country and abroad. At the First Congress, personal research results were published in oral presentations in all scientific fields.

Occasional oral presentations were made in the second part of the Congress held in Vukovar on November 18 and 19 2004. The presented results were published in the Proceedings (Fig. 42.), which contains contributions to presentations at the first congress of Croatian scientists from the country and abroad, and are organized around the following units: economy, natural sciences, technical sciences, biomedicine and health, social sciences, humanities and biotechnical sciences. Domestic and foreign achievements were presented and conclusions were accepted. Editor Prof Pavo Barišić PhD



Fig. 42. Proceedings

The goal was to motivate young scientists to actively promote the results of their work outside their narrow professional community. Therefore, in the program of the First Congress, HATZ organized a section of works by scientific novices who were presented at scientific gatherings abroad in 2002, 2003 and 2004. In the preparation of the congress, it was observed that the best new scientific results of young scientists are presented abroad, and that scientists, as well as the economy and society as a whole in the Republic of Croatia, are not aware of this. Therefore, a large poster section was arranged at the Westin Hotel Zagreb, where the congress was also held and posters from all scientific fields were presented (Fig. 43-46).



Fig. 43. Collection of poster presentations

Abstracts of the posters were published in the book Part I for Natural Technical and Biotechnical Sciences and Part II. Section for Biomedicine and Health, Social Sciences and Humanities.



Fig. 44. Research novices – volunteers during participant registration



Fig.45. HATZ labels on T-shirts student volunteers.



Fig. 46. Among other participants the poster section was visited by Director of PBZ Božidar Prka



Fig. 47. Memorial cemetery

The first Congress was organized so that after arriving in Vukovar from Zagreb on November 17th 2004, Congress participants took part in the memory procession from the hospital to the memorial cemetery (Fig. 47.) on November 18th 2004 in the morning. Then transportation to Ovcara and the visit to the memorial was organized. *(A more detailed presentation of HATZ participation in the Memorial Procession was described by HATZ member Milena Mandić from Osijek. It was published in Engineering Power/Tehničke Znanosti 2007).* After the memorial visit to the victims of Vukovar, the working part of the Congress was held (Fig. 48, 49), which ended with the adoption of a joint declaration.



Fig. 48. Presidency of the Congress in Vukovar



Fig. 49. One of the lecturers at the Congress.

The Second Congress of Croatian Scientists from Homeland and Abroad

Second congress of Croatian scientists from home and abroad in 2007. (Fig. 50.) was a continuation of the connection of scientists from Croatia and abroad, which began at the First Congress held from November 15 to 19, 2004 in Zagreb and Vukovar. This time the goal of the Congress was “Croatia 2010 - a Society based on knowledge”, and the activities during the Congress tried to point out the possibilities of Croatia’s intellectual capacities for faster connection with European and world trends in technological and social development.



Fig. 50. Proceedings of the 2nd congress

The image shows a detailed program schedule for the 2nd congress. It is organized into columns with dates and times. The schedule includes various sessions such as 'Inauguration of the 2nd Congress of Croatian Scientists from the Homeland and Abroad', 'Plenary Session', and 'Workshops'. The topics cover a wide range of scientific fields including natural sciences, technical sciences, biotechnology, and healthcare. The program is held from November 10 to 12, 2007, at the University of Zagreb.

Fig. 51. Program of the 2nd congress

On the first day, (Fig. 51.) presentations were held by leaders of all scientific fields: natural, technical, biotechnical, biomedical and healthcare, as well as humanistic and social sections.

On the second day of the Congress, several workshops were held in different thematic areas, for which the organizers believed that there were real possibilities and a need to connect scientists and economy for the development of 21st century technologies.

On the third day, a Plenary session was held with the conclusions of the thematic units, which were formulated into a single document, which was adopted and signed. The conclusions were signed by: the Minister of MSES, the President of the National Council for Science, the President of the National Council for Higher Education, and the rectors of all Croatian universities.



Thank you note by MSES that the HATZ activity existed at the First and Second Congresses (Fig. 52.).

Fig. 52.

Some of the wider activities of HATZ in the period 2003-2009



Fig. 53. HATZ members actively participated in above-mentioned activities

The END

It was an honor to be the president of HATZ from 2003 to 2009. and I want to thank all members of HATZ as well as the administrative staff for their unreserved help

*Zlatko Kniewald
President of the Croatian Academy of Engineering
2003-2005 and 2005-2009.*

*Zlatko Kniewald –
essential parts of the CV that allowed me to always be an engineer*

- 1962.-1967. Yeast and spirit factory “Žumberak” Savski Marof,
1968.-1970. Ford Foundation scholarship. Institute of Pharmacology,
University of Milan, Italy
1972.-1979. Grant of the Ford Foundation for research in Zagreb in the field of
reproductive biology,(252.000 US\$)
1976.-1987. Secretary of the Assembly of the Republican Community for
Scientific Work of SRH,
1986. Annual prize for scientific work “Ruđer Bošković” of the Parliament of
SRH, field of chemistry,
1991. “The British Council” Seminar “Research Management in Higher
Education”, Manchester, Great Britain
1995. “The British Council” seminar “Industry and higher education working
together”, Southampton, Great Britain,
2000. - present European Science Foundation, ARRS, MSES expert, reviewer:
Biotechnology, Biochemical engineering, Environmental protection*