

Hrvatsko metalurško društvo (HMD) 1952. – 2026. i časopis Metalurgija 1962.-2026.

Croatian Metallurgical Society (CMS) 1952 – 2026 and Journal Metalurgija 1962 - 2026

Prikaz - Review

HMD-e je nastao iz Društva inženjera i tehničara Željezare Sisak (DITŽS) utemeljenog 1952. god., na Republičkoj razini. Postao sam član već 1960. god. izravno uključen u sekciju metalurga. Pri obilježavanju 20 godišnjice utemeljenja DIT - a 1972– god., sudjelovao sam u nazočnosti najodgovornijih čelnika kombinata Željezare Sisak (slika 1).

Već tada, uspoređujući aktivnosti Društva od početka moga članstva 1960. i do 1972. god., aktivnosti se jako smanjuju. Odlučio, iz DIT-a ŽS izdvojiti sekciju metalurga sa cca 1 000 članova inženjera i tehničara,

CMS-e was created from the Society of Engineers and Technicians of the Sisak Ironworks (SETS-Sisak) founded in 1952, at the Republic level. I became a member already in 1960 directly involved in the metallurgical section. During the celebration of the 20 th anniversary of the founding of SETS-Sisak in 1972, I participated in the presence of the most responsible leaders of the Sisak Iron and Steel Company (Figure 1).

Even then, comparing the activities of the Society from the beginning of my membership in 1960 and until 1972, the activities were greatly reduced. I decided to separate the metallurgical section from SETS-Sisak, with approximately 1 000 members of engineers and technicians, and in 1978 I founded the Society of Metallurgical Mining and Geological Engineers and Technicians Sisak (SMMGET-SISAK). I was elected president. This Society became a member of the Association of Mining, Geological and Metallurgical Engineers and Technicians of Croatia (AMGMET-Croatia), and became a member of the same Association at the ex-Yu level. I was even the president of AMGMET-Croatia in 1988-1990 year and Vice president at the ex-Yu level. 1991 was supposed to be the president of AMGMET-Yu, but due to the beginning of war events, this was not realized. The independent state of the Republic of Croatia was founded.

April 6, 1992, while serving as dean of the Faculty of Metallurgy (FM), during the war and bombing of Sisak, immediately organized and implemented by the Society of Metallurgical, Mining and Geological Engineers and Technicians Sisak, growing into the Croatian Metallurgical Society (CMS), meaning at **the state level**. Mining and geological engineers and technicians left CMS, but new members joined from Valjaonica Kumrovec, TLM Šibenik, Željezara Split, etc., especially metallurgists from the Faculty where there were some. For example Faculty of Metallurgy (FM) – Sisak, Faculty of Mechanical Engineering and Shipbuilding (FSB) – Zagreb, Faculty of Mechanical Engineering (SF) – Slavonski Brod, Faculty of Engineering Rijeka, etc. The number of members continued to be approximately 1 000 of which more than 70 % were from the metallurgical profession.



Poziv za jubilarnu 20 skupštinu DITŽS, 22.04.1972.
Call for the jubile 20th Assembly of SETSS, 1972-04-22

Slika / Figure 1. Poziv na skupštinu / Invitation to the assembly

<http://ilija-mamuzic.from.hr>
<http://ilija-mamuzic.com>

i 1978 godine utemeljio sam Društvo metalurških rudarskih i geoloških inženjera i tehničara Sisak (DMGIT – SISAK). Izabran sam za predsjednika.

Ovo je Društvo postalo članica Saveza rudarskih, geoloških i metalurških inženjera i tehničara Hrvatske (SRMGITH), te učlanjen i u isti Savez na razini ex-Yu. Tu sam čak bio predsjednik SRGMITH 1988.-1990. god. te i dopredsjednik na razini ex-Yu. 1991. god. trebao biti i predsjednik SRGMITYu, ali glede početka ratnih događanja, to se nije realiziralo. Utemeljena je samostalna država Republike Hrvatske.

6. travnja 1992., uz obnašanje funkcija dekana Metalurškog fakulteta (MF), u tijeku rata i bombardiranja Siska, odmah organizirao i realizirao, Društvo metalurških, rudarskih i geoloških inženjera i tehničara Sisak (DMRGIT Sisak), prerasta u Hrvatsko metalurško društvo (HMD), znači na **državnoj razini**. Rudarski i geološki inženjeri i tehničari su napustili HMD-e, ali su pristupili novi članovi iz Valjaonice Kumrovec, TLM-a Šibenik, Željezare Split itd., posebice i metalurzi sa Fakulteta gdje ih je bilo. npr. Metalurški fakultet (MF) – Sisak, Fakultet strojarstva i brodogradnje (FSB) – Zagreb, Strojarski fakultet (SF) – Slavonski Brod, Tehnički fakultet Rijeka itd. Broj članova se i dalje kretao cca 1 000, od kojih više od 70 % metalurške struke.

HMD – je već 1992. god. imao 3 razine aktivnosti:

1. Organizacija Društva, prostor, Upravni odbor, Skupštine itd., tj. sve vezano za tekuće poslovanje uz registracije na državnoj razini (svake četiri godina, po Statutu HMD-a)
2. Tisak časopisa Metalurgije, gdje sam već 1985. preuzeo obnašanje funkcije Glavnog i odgovornog urednika.
3. Utemeljenje i organizacija simpozija HMD-a „Materijali i metalurgija“ (Početak održavanja od 1993. god.)

Ad.1.

Tijekom Domovinskog rata i poslije, dolazi do kolapsa metalurgije, tako je od cca 3 000 000 tona godišnje proizvodnje, sa preko 35 000 zaposlenika, smanjila se nešto iznad sto tisuća tona godišnje, cca 150 zaposlenika. Razumljivo, to je uvjetovano i katastrofalno osipanje članova HMD-a, i od razine cca 1 000 članova bilo svedeno na tek 30-ak, inženjera i tehničara većinom metalurške struke. Preko suradnje sa Sveučilištima i tvrtkama u sada Europskoj uniji (EU) od 1973. god., uspio sam iz EU učlaniti 968 metalurga znanstvenika sa zvanjima iznad docenta, sa preko 20 Sveučilišta. Nažalost, 2015. **Hrvatska Vlada donosi ZAKON** po kome članovi Udruga iz inozemstva, trebaju imati Hrvatski osobni identifikacijski broj (OIB), što razumljivo nisu pristali. Jedino je izuzetak Borut Kosec, dr. strojarstva, ali on je imao od prije naš OIB (slika 2).

HMD-e sada ima 23 člana, od kojih samo 7 metalurga, 9 strojara i 7 ostalo. Sve to dovodi, do obstojnosti HMD-a, glede da Udruge iz bilo koje struke, treba imati 50 % + 1 član svoje struke, po kojoj nosi naziv. To

CMS already in 1992 had 3 levels of activity:

- 1 Organization of the Company, space, Board of Directors, Assemblies, etc., i.e. everything related to current business with registrations at the state level (every four years, according to the CMS Statute)
- 2 Printing of the magazine Metalurgije, where I already assumed the position of Chief and Editor-in-Chief in 1985
- 3 Establishment and organization of the CMS Symposium “Materials and Metallurgy” (Starting in 1993)

Ad 1

During the Homeland War and after, there was a collapse of metallurgy, so from approx. 3 000 000 tons of annual production, with over 35 000 employees, it decreased to slightly over one hundred thousand tons per year, approx. 150 employees. Understandably, this was a conditioned and catastrophic attrition of HMD members, and from the level of approx. 1 000 members, it was reduced to only 30, engineers and technicians mostly in the metallurgical profession. Through cooperation with universities and companies in what is now the European Union (EU) since 1973, I managed to enroll 968 metallurgical scientists from the EU with titles above assistant professor, from over 20 universities. Unfortunately, in 2015, **the Croatian Government passed a LAW** according to which members of Associations from abroad should have a Croatian personal identification number (OIB), which they understandably did not agree to. The only exception is Borut Kosec, PhD in mechanical engineering, but he already had our OIB (Figure 2).

CMS now has 23 members, of which only 7 metallurgists, 9 Engineering of Mechanical Engineering and 7 others. All this leads to the sustainability of the CMS, considering that Associations from any profession should have 50 % + 1 member of their profession, after which it bears its name. This means that the legal CMS for holding the Assembly, etc. should have 33 members, 17 of whom are metallurgists (and not only 7). In addition, there is a difficulty, if in general Associations want to be scientific, they should have 50 % + 1 member of the profession in scientific and teaching positions. That would be as many as 9 members for CMS. Today, there are only 3 such scientists in CMS, Prof. I. Vitez, Slavonski Brod, Dr. Sc. R. Križanić, Sisak, and I, I. Mamuzić. We are all members of the Board of Directors, which has a total of 5 members, i.e. 3 of us metallurgists, 1 Engineer of Mechanical Engineering and 1 other profession (the only one without a scientific title). The 3 of us metallurgists ensure the legality of the work of the Board of Directors, but this alone is legally insufficient at the level of the Company, regarding the Board of Directors only implements Decisions, for example: of the Assembly.

Unfortunately, the three of us metallurgists are over 80 years old. At the same time, in addition to holding the position of Editor-in-chief of the Journal Metalurgije since 1985, I have also been the President of the



Slika / Figure 2. Posljednja Godišnja skupština HMD-a, 2015. god. gdje su bili nazočni zastupnici iz EU (iz Poljske, Češke, Slovačke, Njemačke, Slovenije) / The last Annual General Assembly of HMD, 2015 where representatives from the EU were present (from Poland, the Czech Republic, Slovakia, Germany, Slovenia)

znači da bi zakonski HMD-e za održavanje Skupštine itd. trebao imati 33 člana od kojih 17 metalurga (a ne samo 7). Dodatno je i poteškoća, ako općenito Udruge hoće biti znanstvene, trebaju imati 50 % + 1 člana struke u znanstveno-nastavnim zvanjima. To bi za HMD-e bilo čak 9 članova. Danas su u HMD-e samo 3 takova znanstvenika, Prof. I. Vitez, Slavonski Brod, Dr. Sc. R. Križanić, Sisak, i ja, I. Mamuzić. Svi smo i članovi Upravnog odbora koji ima ukupno 5 članova, tj. nas 3 metalurga, 1 strojar i 1 druge struke (jedini koji nema znanstveno zvanje). Nas 3 metalurga osigurava zakonitost rada Upravnog odbora, samo to je zakonski nedovoljno na razini Društva, glede Upravno odbor provodi samo Odluke npr.: Skupštine.

Nažalost, nas trojica metalurga su iznad 80 godina, dosta bolesni, ujedno sam uz obnašanje funkcije Glavnog i odgovornog urednika časopisa Metalurgije od 1985. god., i predsjednik Upravnog odbora i Društva od 1977. god. Nas trojica, nismo u mogućnosti više obnašati odgovorne dužnosti, osim biti „na papiru“ članovi, i samo evidentirani kao znanstveno-nastavni članovi.

Državna tijela su nas upozorila na strukturu članova, te poslije više mojih obilazaka, intervencija, zamolbi produžili su nam rad do završetka ožujka 2025. god., kako bi uspješno savladali sadašnje poteškoće u HMD-u.

Zaključak: Do travnja 2025. god. treba uskladiti strukturu članova 50 % + 1 metalurg (tj. 17 članova, sada 7), a kao znanstvene Udruge i 50 % + 1 član u znanstveno-nastavnim zvanjima (9, sada 3). To bi produžilo obstojnost HMD-a.

Jednako, nažalost, HMD-e ima i dodatno veliki problem. – Ad.2.

Ad.2.

Časopis Metalurgija je utemeljio DIT Željezare Sisak 1962. god. Obnašanje funkcije / dužnosti Glavnog i odgovornog urednika časopisa, na zamolbu direktora Instituta za metalurgiju Prof. Pallera sam preuzeo

Board of Directors and the Society since 1977. The three of us are no longer able to hold responsible positions, except to be “on paper” members, and only registered as scientific and teaching members.

The state bodies warned us about the structure of the members, and after several of my visits, interventions, requests, they extended our work until the end of March 2025, in order to successfully overcome the current difficulties in CMS.

Conclusion: By April 2025 the structure of members 50 % + 1 metallurgist (i.e. 17 members, now 7) should be harmonized, and as scientific associations, 50 % + 1 member in scientific-teaching titles (9, now 3). This would extend the durability of the HMD.

Unfortunately, it would be little consolation for us that dozens of Associations in Croatia have ceased to exist. Even more, not Associations, but for example: Union of Mechanical and Shipbuilding Engineers, behind which stood the 4 most powerful Faculties of Mechanical Engineering: Zagreb, Rijeka, Split, Slavonski Brod. With thousands of members, it was deleted from the list of the Society at the state level.

Equally, unfortunately, CMS has an additional big problem. – Ad 2.

Ad 2

Metalurgija Journal was founded by SITS - Sisak in 1962. Performance of the function / duties of the Editor-in-chief of the Journal, at the request of the director of the Institute of Metallurgy, Prof. I took over Paller in 1985 until 2024 i.e. 41 years. From the factory Journal, which was already in 1985. was threatened with closure (that's why I was given the position), I raised the Journal to the world level. Today, authors from over 30 countries publish, and up to 150 articles are published annually in 4 issues (the maximum number of articles in 2016 was 216, of which only 5 were from Croatia). The condition for the recognition of the journal is also given in the “Rule - Book of the Metallurgical Journal” from

1985. god. i sada 2024. god. tj. 41 godina. Od tvorničkog časopisa kome je već 1984. god. prijetilo gašenje (zato mi je i dana funkcija), podigao sam časopis na svjetsku razinu. Danas objavljuju autori iz 30-ak država, a godišnje se objavljuje do 150 članaka u 4 broja (max. broj članaka bio 2016. god. – 216 od toga iz Hrvatske samo 5). Uvjet za priznavanje časopisa, dan je i u „Pravilniku časopisa Metalurgija“ iz 1990. god., a to je međunarodni Urednički odbor od kojih od 15 članova samo mogu biti 2 iz Hrvatske, struke metalurgija, tj. Glavni i odgovorni urednik i njegov zamjenik. Svi članovi trebaju biti redoviti profesori bar sa 1 reizborom. Sve je to godinama teklo redovito, osim što je u nekoliko slučajeva, zamjenik bio iz druge tehničke struke, najčešće strojari.

Izuzetno je važan tisak časopisa Metalurgija, jer preko njega se osigurava 98 % prihoda HMD-a. Bez časopisa, nema mogućnosti obstanka i HMD-a, tim prije što metalurških poduzeća nema, pa ni donacija ni sponzorstva. Čak bi izostala i pomoć Ministarstva znanosti i obrazovanja (MZO) u iznosu do 15 % ukupnih prihoda HMD-a. Naime, MZO daje novčanu podršku na temelju rezultata aktivnosti Udruge, a ako nema časopisa nema ni aktivnosti.

Nesreća ne dolazi sama nego i dodatno. To je prestanak suradnje sa nekim Sveučilištima iz EU. Oni su od 2015. god. i kada nisu bili članovi godišnje nam osiguravali i do 200 članaka, od kojih smo objavlivali do 150. Za njihov prinos HMD-u i časopisu je dovoljan podatak autori iz Hrvatske objave godišnje max. do 4 članka, najčešće 1-2. Svi iz EU su moje dugogodišnje kolege (još od 1973.), te nestaju sa radne ili životne scene, jedan po jedan. Više puta su odbijali nastavak suradnje, ali poslije mojih zamolba i objašnjenja po autorima članaka iz Hrvatske, ne bi tiskali nijedan broj, pa su našu zamolbu usvojili i produživali.

Nažalost, polovicom 2024. godine, definitivno je proveden prekid suradnje i podpore.

Ipak su profesionalno uz sve članke tiskane u 2024. godine osigurali i tridesetak članka za Metalurgiju 64 (2025) 1 – 2, 1 – 244. Posebice i većinu sažetaka za 18. međunarodni simpozij „Materijali i metalurgija“, travanj 2025. god. Sve je to već tiskano u Metalurgija 63 (2024) 1 – 4, 1 – 496 i Metalurgija 64 (2025) 1 – 2, 1 – 244. Unatoč teškoj tjelesnoj ozljedi i narušenog zdravlja, uspio sam objediniti cjelokupne materijale za časopis Metalurgija od prvog broja 1962. god. do posljednjeg za mene kao glavnog i odgovornog urednika. To je prvo prikaz povijesti i razvitka časopisa koji je od malog tvorničkog časopisa Željezare Sisak od 1985. god. kada sam preuzeo obnašanje funkcije glavnog i odgovornog časopis prepoznat na svjetskoj razini. **Tiskani su članci autora iz preko 50 država, a dokaz vrijednosti su ponude za prodaju časopisa i iznad 700 000 \$.**

Dat je i ukupni očevid Liste tijela i suradnika časopisa, Lista svih objavljenih radova, ukupno 3 487 članaka, te Lista autora i suautora ukupno 4 396.

Posebice i nekoliko odabranih materijala i galerija slika.

Bio bi to prikaz zahvalnosti svim nositeljima / dužnosnicima u časopisu, svim autorima i suautorima iz

1990, which is an international Editorial Board, of which only 2 of the 15 members can be from Croatia, metallurgists, i.e. the Editor-in-chief and his deputy. All members should be full professors with at least 1 re-election. All this went on regularly for years, except that in a few cases, the deputy was from another technical profession, most often mechanics.

The printing of Metalurgija Journal is extremely important, because it provides 98 % of CMS's income. Without the Journal, there is no possibility for CMS to survive, especially since there are no metallurgical companies, and neither donations nor sponsorships. Even the assistance of the Ministry of Science and Education (MSE) in the amount of up to 15 % of the total income of the CMS would be missing. Namely, the MSE provides financial support based on the results of the Association's activities, and if there is no magazine, there are no activities.

Unhappiness does not come alone, but additionally. This is the termination of cooperation with some universities from the EU. They have been since 2015. and when they were not members, they provided us with up to 200 articles per year, of which we published up to 150. For their contribution to CMS - in the journal, it is sufficient data that authors from Croatia publish max. up to 4 articles, usually 1-2. All of them from the EU are my long-term colleagues (since 1973), and they disappear from the work or life scene, one by one. They repeatedly refused the continuation of cooperation, but after my requests and explanations according to the authors of the articles from Croatia, they would not print any issue, so they accepted our request and extended it.

Unfortunately, in the middle of 2024, the cooperation and support was definitively terminated.

Nevertheless, professionally, in addition to all the Articles printed in 2024, they also provided thirty Articles for Metalurgija 64 (2025) 1 – 2, 1 – 244. In particular, most of the abstracts for the 18th International Symposium “Materials and Metallurgy”, April 2025. All this has already been printed in Metalurgija 63 (2024) 1 – 4, 1 – 496 and Metalurgija 64 (2025) 1 – 2, 1 – 244. Despite a serious physical injury and impaired health, I managed to gather all the materials for the Journal Metalurgija from the first number 1962 to the last for me as Editor-in-Chief. It is firstly an account of the history and development of the Journal, which has been a small factory Journal of the Sisak Ironworks since 1985. when I assumed the position of Editor-in-Chief and responsible Journal recognized at the world level. **Published authors from over 50 countries, and the proof of value are offers for the sale of Journal over 700 000 \$.**

An overall overview of the List of authorities and contributors of the Journal is also given, with a list of all published works, a total of 3 487 Articles, and a List of Authors and co-authors totaling 4 396.

Especially a few selected materials and picture galleries.

It would be a show of gratitude to all holders/officials in the magazine, all authors and co-authors from the homeland and abroad, who checked their ideas and



Slika / Figure 3.



domovine i tuđine, koje su svoje ideje i rezultate provjeravali ili ih našli na stranicama časopisa Metalurgija.

Očividno, Hrvatska preko svog nacionalnog časopisa Metalurgija, priznatim i prestižnim i u svijetu, ima djelotvorni i suvremeni medij za bogatu međunarodnu suradnju i predstavljanje znanosti iz tuzemstva i inozemstva i u polju istraživanja u metalurgiji. Tu sam izravno sudjelovao sa ponosom, ljubavi prema časopisu Metalurgija, 41 godinu. Zub vremena čini svoje, starost i bolest, trebam priznati, nestala je potrebna energija.

Ad.3.

Odmah od utemeljenja HMD-a 1992. god., već 1993. god. sam organizirao prvi simpozij HMD-a.

Nažalost, glede ratnih događanja, bombardiranja Siska, prvi simpozij je održan veljača 1994. god. na FSB – u Zagreb. Do sada je održano 17 simpozija, 18. – travanj 2025. (slika 3).

Objavljeno je do sada preko 7 500 referata, sa 10-ak tisuća autora i suautora i to sve u časopisu Metalurgija u „Zborniku sažetaka“. Održavanje ovih Simpozija se odlično usklađuje i sa objavljenim člancima, te je međusobno dopuna. Po tome smo jedinstveni u Hrvatskoj, ali i u svijetu.

ZAKLJUČAK

Štovane kolege, prijatelji, suradnici, svi dobro namjerni iz domovine i tuđine, zamolba za razumijevanje, prisiljen sam se povući:

- 65 godina sam član metalurške udruge od toga predsjednik 48 godina.
- 41 godina Glavni i odgovorni urednik časopisa Metalurgije.
- Glavni organizator, ali i izvršitelj svih do sada održanih 18. Simpozija HMD-a od 1993. do 2026. god.
- Uz put, sam bio sam stalni nastavnik Sveučilišta u Zagrebu 1963. - 2010. god., tj. 48 godina, sudjelovao u obrazovanju čak 47 generacija studenata. Uz ostale mnogobrojne funkcije bio i „ratni“ dekan Metalurškog fakulteta (MF) u Sisku 1990.-1997. god., kad je crta bojišnice bila na nekoliko

results or found them on the pages of the Metalurgija Journal.

Obviously, through its national Journal Metalurgija, recognized and prestigious in the world, Croatia has an effective and modern medium for rich international cooperation and presentation of science from home and abroad and in the field of research in metallurgy. I directly participated there with pride, love for Metalurgija Journal, for 41 years. Time takes its toll, old age and illness, I must admit, the necessary energy has disappeared.

Ad 3

Right from the founding of CMS in 1992, already in 1993. I organized the first CMS symposium.

Unfortunately, regarding the war events, the bombing of Sisak, the first symposium was held in February 1994 at the FSB - in Zagreb. 17 symposia have been held so far, and the 18th – April 2025 (Figure 3).

More than 7 500 papers have been published so far, with 10 000 or so authors and co-authors, all in the Journal Metalurgija in the “Book of Abstracts”. The holding of these Symposia is perfectly coordinated with the published articles, and complement each other. This makes us unique in Croatia, but also in the world.

CONCLUSION

Dear colleagues, friends, colleagues, all well-wishers from the homeland and abroad, a request for understanding, I am forced to withdraw:

- I have been a member of the metallurgical association for 65 years, of which I have been president for 48 years.
- 41 years old Editor-in-chief of Metalurgije Journal.
- The main organizer, but also the executor of all 18 CMS Symposia, held so far, since 1993 - 2026
- By the way, I was a permanent teacher at the University of Zagreb from 1963 to 2010 y, i.e. 48 years, participated in the education of as many as 47 generations of students. In addition to other numerous functions, I was the “wartime” dean of the Faculty of Metallurgy (FM) in Sisak from 1990 to 1997 year, when the front line was several kilometers away from the college. It should

kilometara udaljenosti od fakulteta. Treba navesti i podatak, unatoč zabrani djelatnosti jedino je u širokom području, MF bio jedina ustanova, gdje sam organizirao aktivnosti.

- Ujedno sam po našoj bazi podataka CROSBİ, prvi u Listi objavljenih radova u području Tehničke znanosti u Hrvatskoj, zasad 1 414 radova.

Poznata je izreka: „Metalurgija je i u svijetu išla gore ili dolje, ali nikad nije prestala“, tako se i ufam u budućnost HMD-a, časopisa, simpozija. Sve postoji, i osoblje i materijalna sredstva samo treba pokazati i dokazati ljubav prema struci. Vidi str. 248.

also be noted that, despite the ban on activities, the Faculty of Metallurgy, was the only institution in a wide area where I organized activities.

- At the same time, according to our database CROSBİ, I am the first in the list of published works in the field of technical science in Croatia, so far 1 414 works.

There is a well-known saying: “Metallurgy has gone up and down in the world, but it has never stopped”, and that’s how I trust in the future of CMS, the Journal, the symposium. Everything is there, both personnel and material means, you just need to show and prove your love for the profession. See page 248.