19th INTERNATIONAL OLYMPIAD IN INFORMATICS OFFICIALLY FINISHED

and the IOI 2007 winner is...   **Tomasz Kulczyński**

tomek57@gmail.com

Medals at past International Olympiads

> **Tomasz won a gold medal and 1st place with the 574 (max=600) points score.**

Baltic Olympiad in Informatics 2005 *(Pasvalys, Lithuania)*	Silver medal
Baltic Olympiad in Informatics 2006 *(Heinola, Finland)*	Gold medal
International Olympiad in Informatics 2005 *(Nowy Sącz, Poland)*	Silver medal

The best one in Croatian team is...   **Goran Žužić**

zuza777@gmail.com

Medals at past International Olympiads

> **Goran won a gold medal and 4th place with the 514 points score.**

Central European Olympiad in Informatics 2006 *(Vrsar, Croatia)*	Gold medal
Central European Olympiad in Informatics 2007 *(Brno, Czech Republic)*	Bronze medal
International Olympiad in Informatics 2006 *(Merida, Mexico)*	Bronze Medal

> **The best team (4 gold medals) came from China**

IOI 2007 Organizers

19th International Olympiad in Informatics – IOI 2007 has been officially closed on Tuesday, August 21, 2007. All of the participants of IOI 2007 (wearing their team's official colours this time) and numerous guests (among which we should point out the presence of renown politicians, sponsors and esteemed young computer scientists, former Olympiad contestants) gathered at the «Globus» Congress Centre at the Zagreb Fair.

Awarding & closing ceremony began at 6.30 p.m. with a short movie showing the course of the Olympiad. Ms Dinka Matić, one of the hosts of the ceremony, introduced Mr **Tomislav Vujec**, IOI 2007 General Assembly President, who congratulated all of the contestants for the results achieved and wished them luck and success in future life.

Dragan Primorac, M.D., Ph.D., Minister of Science, Education and Sports of the Republic of Croatia greeted everyone present and pointed out the importance of this knowledge contest but also it's cultural dimension. Minister talked of his personal experiences during schooling in the USA and informed young programmers of the world of the efforts Croatia is making to become a land of knowledge. Mr. Primorac also congratulated the organizers, emphasizing personal contribution of **IOI 2007 Chairman Ivo Šeparović** and his associates and announced a visit of Croatian delegation to next IOI, to Egypt.

The ceremony was continued by dance and songs of Zagreb surroundings performed by young members of **folklore ensemble Dučec** from Mraclin.

Mr **Alen Spiegl**, Host Organizing Committee President, reminded everyone present of the course of events of the last 8 days, saying that IOI 2007 is the Olympiad with the greatest number of participating countries **(77)** and with the number of guests and observers twice as big than the one last year in Mexico (100). Mr. Spiegl then invited members of the Host Organizing Committee to the stage. Mr **Ivo Šeparović** joined them and introduced everyone with IOI 2007 Executive Committee members.

IFIP President, IOI Executive Director, Mr **Jari Koivisto** from Finland and **Pieter Waker** from South Africa presented the IFIP (International Federation for Information Processing) to the youngest IOI 2007 contestant, 12-year-old **Henadzi Karatkevich** from Belarus.

Next speaker was Mr **Zide Du**, President of the International Olympiad in Informatics. Mr Du congratulated all the contestants and emphasised the importance of such gatherings of best young programmers. He commended the organization of IOI 2007 saying it was the best so far, thanking everyone who supported this knowledge manifestation and pointing out the personal contribution of the President of the Republic of Croatia, Mr **Stjepan Mesić** and his close associates as well as Vice Prime Minister and Minister of the Family, Veterans' Affairs and Intergenerational Solidarity, Mrs **Jadranka Kosor**. A special thanks was given to Croatian Informatics Clubs Association and Mr Šeparović at its head, whose associates have done most of the work. Afterwards he gave Mr Šeparović an Outstanding Contribution Award for 15 years of active participation in IOI movement and successfully accomplished role of IOI 2007 Chairman.

Certificate of Appreciation was given to Tomislav Vujec, Alen Spiegl, Bojan Antolović, Zvonimir Bujanović and Lovro Pužar from Croatia and Cesar Cepeda from Mexico, President of International Scientific Committee. In the end, Mr Du thanked a person who chaired IOI Scientific Committee for many years, Mr **Tom Verhoeff** from The Netherlands.

Finally the most important part of the awarding & closing ceremony – medal distribution – began! General Assembly held during the morning decided that, according to the rules (maximum 50% of the contestants can get medals), contestants at the IOI 2007 get 142 medals. Contestants had known their score already on Sunday, August 19, only three minutes after the contest had finished but could only guess on medals until the announcement at the this ceremony.

Saša Stublić, Olympiad contestant who won the first medal in informatics competitions for Croatia, a bronze one, on 5th IOI in Argentina in 1993, had the honour to give the first bronze medal. Groups of 10 bronze medallists exchanged at the stage until all of seventy-one medals was distributed. Bronze medals were given to contestants from forty-one IOI 2007 participating countries (two were won by Croatian contestants).

Silver medallists were awarded next. Contestants from thirty-one IOI 2007 participating countries won forty-eight silver medals (one was won by a Croatian contestant).

Shining, golden medals were given to twenty-five contestants from fifteen countries, IOI 2007 participants. First group of winners were awarded with golden medals by Mr Spiegl and second group by Mr Šeparović. Mr **Darinko Bago**, President of Končar Board, IOI 2007 General Sponsor, gave a golden medal to **Goran Žužić**, most successful Croatian contestant, ranking fourth.

Hua-Yang Guo from China won third place and a gold medal, presented to him by Mr **Alen Spiegl**, president of Host Organizing Committee. Gold medal for second place went also to China, to **Yi Yang** who was awarded by Mrs **Ljiljana Kuhta Jeličić**, vice-mayor of the City of Zagreb and vice-president of the City Government.

The most successful contestant of the 19th International Olympiad in Informatics is **Tomasz Kulczyński** with 574 from 600 possible points. Medal was given to him by Mr **Izet Aganović**, Ph.D., M.D., special advisor to the President of the Republic of Croatia for Science and Education. He also got IOI trophy presented to him by Mr. **Zide Du**. These four golden medallists also won valuable prizes – laptops, under the colourful 'rain' of confetti.

The moment of the announcement of the next year's, 20th International Olympiad in Informatics host country approached. IOI 2007 Chairman, Ivo Šeparović gave the orange coloured IOI flag that was a beautiful ornament to CICA premises during the past year to IOI President, Mr Zide Du and he presented it to IOI 2008 Chairman from Egypt. Upon receiving the flag, Mr **Ekram Abdel Gawad** gave a short speech, inviting everyone present to Egypt next year.

In the end, Mr **Izet Aganović** congratulated and thanked everyone on behalf of himself and especially on the behalf of the President of the Republic of Croatia, Mr **Stjepan Mesić** whom he represented.
Mr. Aganović closed the 19th International Olympiad in Informatics.

Dragan Primorac, Ph.D., M.D.
Minister of Science, Education and Sports of the Republic of Croatia

Dear organizers,
Dear young fellows,
Dear professors,

I will be short, because after the movie we have just seen, I am going to use just a few minutes to welcome you and wish you all the best.

Certainly, the International Olympiad in Informatics, I would say, is one of the most prominent events in the computer science and generally in the competitions all around the world and I am very happy to see in Croatia almost 80 countries which participated with about 600 professors, students and all other accompanying people.

I think beside informatics, it is very important for all of us to know about each other. This is a message I got from my studying for almost 7 years in the States, and I would say the great benefit that you can get from this event is to learn about each other. Learn about culture, friendship, but also potentials for the future, because certainly a new generation, such as your generation are the future for all of us. Let me just say that I am extremely proud and happy for all results you were able to achieve during this Olympiad. It's a huge competition, it's not easy to compete with such prestige young fellows and it's also very important, I would say, that we get the chance to use the open systems, such as Linux, a system that everyone can use to show the best capacity.

I find particularly important just to tell you a few words about what is happening in Croatia these days. I am proud to tell you that 4 years ago, when this Croatian government started its duty, we decided to establish Croatia as a knowledge-based society to have one of the best education systems as a part of Europe. In the last 4 years we were able to increase the budget for almost 40%, we were able to introduce informatics classes in every single primary and secondary school, we were able to establish a network with these schools and Croatian universities and what is more important, we were able to change the philosophy why informatics is important. Informatics is becoming a style of life, it's not just the issue of competition or particular work in school. That's why I am particularly happy to see you and I would say, I am also happy to see the great enthusiasm that all of you put in together.

From the beautiful pictures we were able to see that Croatia is a small, but a great country, a beautiful country. And please count on us, count on our hospitability and count on all possibilities for the future to establish, I would say, cooperation between our countries, but also between each other, between friends. And I am sure that you have made many, many friends.

I am also very happy to say that the Croatian Informatics Clubs Association and prof. Šeparović did an excellent job. And I would like, professor, just to congratulate you once again and please give a big hand for professor Šeparović and his group.

If I have received the correct information, there are no complaints so far or anything has happened, so I think that shows a great achievement.
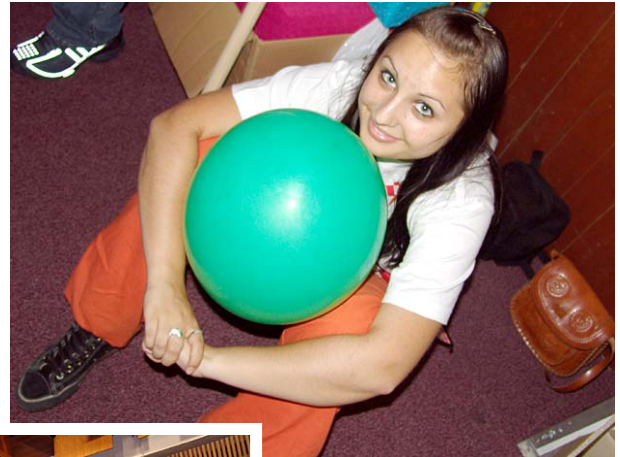
Particularly in the end I would like to welcome our friends from Egypt and I am very happy to say that we have great trust that the event you will put together for the next year is going to be a great event. I can tell you at this moment that a very strong Croatian delegation will come to Egypt and enjoy the event you are going to organize.

Finally, I wish you all the best, God bless you and all the best in the future!

Thank you very much.

Marco Gallotta from South Africa commented IOI 2007 results like that:

«A Polish has won again and the Chinese have got all gold's once again!»

Interview: **Ivo Šeparović, IOI 2007 Chairman**

- *IOI 2007 has finished. What are your first impressions?*

If we say 'all's well that ends well' then this our conversation wouldn't even be necessary. But the accomplished success of organizing the biggest international event for young programmers of the world in the smallest participating country requires my serious comment.

It is generally known that ten years have passed since the idea until the fulfilment of organizing this event in our small Croatia, which has been a long and enduring period for me and CICA. During those ten years it has been easier to prove ourselves to and gain the trust of the International Committee (IC) then of responsible persons and organizations in Croatia.

The discussions of the Croatian delegation with important persons in IOI organization about Croatia hosting the IOI in the near future have started already in Cape Town in 1997.

Proposal of Croatia being a host of the IOI 2005 was denied in Finland in 2001. but already in 2003. in the USA IC has brought a unanimous decision on nominating Croatia for the host of 19th IOI 2007.

My satisfaction with what has been done in organizing IOI 2007 can be described by the words of Mr. Zide Du, IOI President at the IOI Closing Ceremony: "Ivo Šeparović and his colleagues have done a step further in organizing the IOI and in all respects have made the best IOI ever." and this was followed by a strong applause of around 800 IOI 2007 participants.

- *What was the hardest thing, were there any obstacles?*

There were many obstacles, and I will say only a couple of them:
- the change of IOI competition site from Faculty of Kinesiology to Zagreb Fair in February 2007 has disturbed the beginning of the preparations of communications and power supply project. We had to improvise our reports at IC and ISC March meetings
- promises of financing IOI 2007 we got from the City of Zagreb and the Ministry of Science, Education and Sports weren't fulfilled by then so the entire financing of the preparations was left to CICA and it's savings
- bigger problem was the offer we got from the Ministry, of loaning us the computers for the competition, but these weren't fitting so our team of experts had to make an expertise to prove it
- sponsor response was small, except from our general sponsor, Končar, who ensured the most important at the IOI 2007 – loan of 400 equal, technically correct computers
- the problem was also organizing 2007 Croatian National Competition in the middle of preparations for the IOI, but that was in a way a small help because we got to test the software prepared for the IOI 2007.

- *What are you proud of and what do you consider to be your biggest success?*

I am personally very proud of what IOI President has told me: "You were at the head of the best organized IOI ever." Except my renowned enthusiasm, I have put many hours of work into this IOI, both mine and my family's to whom I heartly thank once more.

Besides this, I find that the great success of this organization is the offer of future organizers of IOI 2008 in Egypt who want our help in all parts of the organization, especially in the technical part and with the evaluation software which is, at the moment, the most effective one in the world.

In the end of this interview, I would like to thank all of the members of IOI 2007 Organising Committee, all sponsors and coorganisers and especially small but strong team of IOI 2007 Executive Committee: above all scientific, technical and evaluation committee, then the newsletter team, infodesk, supplies' team, people working at controlling alimentation and excursions, team in charge of transport and accommodation of IOI 2007 participants and to all the guides and their leader.

> Every IOI 2007 contestant awarded with medal also got valuable gifts:
> o Software package *Mathematica 6* from **WOLFRAM Research**
> o Keyboard and mouse from **Perpetuum mobile**
> o USB memory stick from **King ICT**

Interview: **Predrag Brođanac, Croatian Teams Leader**

- *Was it harder to prepare and lead the Croatian delegation at Croatian or at neutral ground?*

I believe it is harder to be a team leader at the known territory. Somehow, everyone's eyes are turned in the direction of our team here. The organizers, the publicity…everyone is expecting a lot. The entire team was under a much greater pressure than it would have been if the contest were taking place someplace else.

- *Are you pleased with the results of our two teams?*

My satisfaction with the success our teams accomplished at this IOI is really hard to describe in words. Just like everyone else, I expected we would be richer in a couple of medals after the Olympiad. I was secretly hoping there would be a gold medal among them but at the time wouldn't admit it to myself. I knew that the first team was really good and that they are all capable of winning medals but I was also aware that they had strong rivals and that, besides knowledge, many other factors, such as luck, concentrating abilities.., influence the final result. This time everything went great, the contestants showed the maximum of their knowledge, and the luck served them too. So except the first team, for whom we expected would get medals (1 gold, 1 silver and 2 bronze), two contestants from the second team also won medals (2 bronze). Overall ranking is far above my expectations.

- *Were we a good host of the IOI 2007?*

I believe we were very good hosts, especially taking into consideration the remark made by IOI President, Mr. Zide Du at the closing ceremony. Although a small number of people worked at organizing this IOI, much smaller number than at previous IOIs, for sure, everyone gave the most they could, often working both day and night, so on the outside it seemed that at least five times greater number of people was involved. From the eyes of a spectator everything went great, opening and closing ceremony, both competition days went without a single remark…and these are the most important moments of the IOI.

Some "Less Important" Statistics from Evaluation System

Total number of submitted solutions: 5769
Submissions during day 1: 2819
Submissions during day 2: 2950
Average interval between two submissions during day 1: 5.52 seconds
Average interval between two submissions during day 2: 5.73 seconds
First correct submission for the task aliens: 00:44:53
First correct submission for the task flood: 01:56:04
First correct submission for the task sails: 01:05:57
First correct submission for the task miners: 00:24:36
First correct submission for the task pairs: 02:12:00
First correct submission for the task training: 02:29:30
Smallest correct submission for the task aliens: 968 bytes
Smallest correct submission for the task flood: 1724 bytes
Smallest correct submission for the task sails: 627 bytes
Smallest correct submission for the task miners: 710 bytes
Smallest correct submission for the task pairs: 2387 bytes
Smallest correct submission for the task training: 1920 bytes
Average submission size during day 1: 2838.32 bytes
Average submission size during day 2: 2050.29 bytes
Total size of all submitted solutions: 14236975 bytes

President of the Evaluation Committee
Goran Horak

Alen Spiegl,
President of IOI 2007 Host Organizing Committee

*Dear distinguished guests, contestants, leaders, observers and guests
of the 19th International Olympiad in Informatics!*

Another IOI came to the end. Usually, at such occasions we look at what we've done. We have tried to offer you a competition that would be as interesting as possible choosing tasks that are interesting but hard enough, as it suits the best young people in the world.

Technical part of competition is made by highest standards using top quality equipment and the knowledge of our people.

Evaluator, product of our best people, proved as a bulletproof solution for such a big and complex competition.

I hope you are satisfied with our guides, young people who were with you during this days showing you Croatian hospitality.

We tried to make newsletter as informative as it can be, publishing information that can be helpful while you are our guests.

Our infodesk people were working hard to help you find lost baggage, to give you information about almost everything and everytime.

For us Croats, Croatia is the most beautiful country. We tried to show you why we love her so much. I hope that you have found some of these beauties on trips we made for you around Zagreb and just a little part of Croatia.

I would like to thank to all the people that worked hard in:
- *Host Scientific Committee for preparing challenging tasks with carefully selected test data and our own evaluator.*
- *Technical Committee who gave us state of the art technical background for competition and all the supporting events.*
- *Journalists group that fed us with useful news and information with superior technical quality of all printed materials.*
- *Guides and people who led them for giving you all the time they had last week.*
- *People at infodesk for patience and kindness while they tried to fulfil your requests.*
- *People from dormitory for all their work.*
- *All the people in the background that made this event possible.*

I wish to thank to President of Republic of Croatia, Stipe Mesić for being honorary patron of this competition; Ministry of Science, Education and Sport; City of Zagreb and Croatian Community of Technical Culture that helped us organize this event. Also, a big thank to our General sponsor Končar for providing almost all technical equipment for the competition site.

I hope that Croatia left good impressions on you. I hope that you will bring nice memories from our town and country that you will spread among your friends and colleagues.

New International Scientific Committee Member List:

Cesar Cepeda, Mexico, President
Representative of **Croatia**
Ossama Ismail, Egypt
Velin Tzanov, Bulgaria – new member
Mikhal Forisek, Slovakia
Martin Mares, Czeech Republic
Marcin Kubica, Poland – new member

THE WINNERS OF THE 19th IOI ON THEIR WAY HOME

19th International Olympiad in Informatics has officially finished on Tuesday, 21st of August 2007. The only state having four gold medallists on team is People's Republic of China. Persuaded by IOI President, Mr Zide Du, Chinese delegation, somewhat extended in number (Ye Wang, who competed for USA, joined them), had stayed in Croatia two days longer and toured a part of the Adriatic coast, from Rijeka to Zadar.

Thrilled by what they had seen, on Friday before their flight, members of the Chinese delegation were guests of Mr Ivo Šeparović, IOI 2007 Executive Director, his associates and their guide Mateja Ivanda.

We have found out that a state competition in informatics is currently taking place in China, after which the best 20 students prepare for the next IOI during the following year. Interesting thing about the competition is that China representatives can compete at the IOI only once.

In the end, IOI President pointed out once more that 19th International Olympiad in Informatics is the most successfully organised olympiad so far.