



## Catch a Unicorn

This title is inspired by a study, carried-out by JRC IPTS – Seville, in co-operation with DG CONNECT, on IT companies with high market capitalization. We are pleased to publish a preview.

The Issue contains an update on procedural thinking and programming for kids, based on the experience and developments within AICA - *Associazione Italiana per l'Informatica ed il Calcolo Automatica* – IT STAR's Member.

Our forthcoming 10<sup>th</sup> IT STAR Workshop on IT Security is presented with a Call for Papers, and an overview

of the conference venue – Turin.

The Spring issue contains a section marking the 15<sup>th</sup> Anniversary of IT STAR with a background on the origins of the Association.

It also includes news on recent developments within IT STAR's members and forthcoming IT-related events.

Take the Journey,

*Plamen Nedkov*

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## Letters to the Editor

[Extracts from emails]

*... Still keeping an eye on the IT STAR - mailings!*

*So glad for you to see that you have succeeded in building a very flourishing association. Congratulations.*

**Prof. Rita De Caluwe**  
Ghent, Belgium

*... I am impressed with how your organization keeps growing.*

**John V. Atanasoff II**  
Boulder CO, USA



## Partner Publication



<http://mondodigitale.aicanet.net/ultimo/index.xml>

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*Ex officio:* IT STAR MS representatives (see page 1)

## EDITORIAL POLICY

This Newsletter maintains a world-class standard in providing researched material on ICT and Information Society activities from the perspective of Central, Eastern and Southern Europe (CESE) within a global context. It facilitates the information and communication flow within the region and internationally by supporting a recognized platform and networking media and thus enhancing the visibility and activities of the IT STAR Association.

The stakeholders whose interests this newspaper is addressing are

- IT STAR member societies and members
- ICT professionals, practitioners and institutions across the broad range of activities related to ICTs in government, business, academia and the public sector in general
- International organizations

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Special arrangements for the production and circulation of the Newsletter could be negotiated.

The newsletter is circulated to leading CESE ICT societies and professionals, as well as to other societies and IT professionals internationally. Everyone interested in CESE developments and working in the ICT field is welcome to contribute with original material. Proposals for articles and material for the Newsletter should be sent two months before the publication date to [info@starbus.org](mailto:info@starbus.org).

## Procedural reasoning and programming for kids and AICA's "LOGIC" initiative

Pierfranco Ravotto, Giuseppe Albano



**Pierfranco Ravotto** is an expert in technology enhanced learning and IT certifications. He has coordinated several European projects and training courses for teachers.



**Giuseppe Albano** is expert in educational planning and learning processes and is currently coordinator on behalf of AICA of the LOGIC Program.

### CEPIS Call for Action

In 2012 CEPIS – the Council of European Professional Informatics Societies – launched the working group “Computing in School”, coordinated by Bob McLaughlin from BCS (British Computer Society). In 2014 the group drew up a document that CEPIS has taken up and spread: **“Computing in schools. A Call for Action from Informatics Societies”**. It is an appeal to policy makers and those responsible for education and training which starts from a consideration: *“As ICT increasingly pervades society and the economy, the demand for IT personnel is growing fast, outpacing the current supply of qualified professionals and producing chronic shortages in the computing industry. The low numbers of students choosing computing as a career is exacerbating the situation.*

*Immediate action is needed to better integrate Computer Science in the school system and change the perception of computing among young people”* [CEPIS 2014].

The call proposes actions addressing students, teachers and parents.

According to the call: *“Children and young people now use computers, smart phones and tablets every day to communicate with their peers, play music, access information and media. However, they are rarely encouraged to understand the basic principles upon which this global phenomenon of personal devices is based. Where computing is indicated as a separate subject on the curriculum, it often focuses on the necessary user-level skills often through programmes such as ECDL”*.

Coming from CEPIS, the promoter of ECDL and closely related to ECDL Foundation, this is not a negative judgment on ECDL. ECDL certifies the competence of use, the Digital literacy. Its success is perhaps due to the choice of the name “Computer Driving Licence”, but no one has

ever confused the car-driving licence with the “mechanical” skills owned by the ones who actually build or repair cars or by the ones who design them.

Nobody believes that someone holding a driver’s licence is a mechanic or a mechanical engineer. Nowadays knowing how to “drive” a computer is for all of us - at work and in everyday life - even more necessary than knowing how to drive a car. And there is a lot to do in this direction, as revealed by the research carried out by AICA on the cost of digital illiteracy. But as well as skilled and conscious users are requested, also maintainers, builders, designers and planners are required too. Digital literacy is necessary, but also Computer science: *“The school ICT curricula need to reflect a balance between the development of Digital Literacy and Computer Science. Students should all acquire a set of digital literacy skills, to enable them to participate in today’s increasingly digital society, but also **understand the fundamentals** of the technology so that they have the choice to develop more advanced skills related to Computer Science”*.

Encouraging young people to take up informatics professions depends both on political choices - for example introducing Informatics in curricula - and on parents and teachers. Regarding to these latter, one of CEPIS documents offers the following consideration: *“The proliferation of games and social media has motivated the young to become familiar with the use of technology. As a result students are perceived as more proficient in the use of devices and teachers are embarrassed by their lack of expertise in the field. Many do not even use the technology available as a teaching tool. Very few have any formal education in computing since teacher training does not normally require any fundamental knowledge of computational thinking”*. But an effective intervention on students requires an effective action on teachers. LOGIC, a project developed in Italy by AICA and ANFOR, is an attempt to meet the need of spreading *computational thinking* in schools starting from actions aimed at teachers.

### AICA & Computational Thinking: the LOGIC programme

In response to the public consultation launched by the Renzi government on “La buona scuola” (good school), AICA - together with ANDINF (National Association of Teachers of Computer Science), Confindustria, CINI (National Inter-University Consortium for Information Technology), ITD-CNR (National Research Council - Institute for Educational Technology) and Network Robotics in School - presented a paper - “Informatics and computational thinking in the curriculum” - which proposes the inclusion of computational thinking in the curricula of all Italian schools. *“Computational thinking ... refers to a set of knowledge, both conceptual and methodological, and the ability to contextualize application that must become everyone’s heritage and should therefore be present in the curricula from the primary to the secondary level. Knowing how to use computational thinking in a variety of contexts - scientific, social*



*and of application – allows us to experiment its full potential, limitations and implications as far as social and active citizenship is concerned” [AICA and others 2014].*

*Computational Thinking* is the basis of informatics, it involves knowing how to analyze a problem, making a hypothesis of solution, describing it in a formal way, implementing it in a specific language that a machine could make it run (coding), testing it and correcting it if necessary and finally documenting it.

Computational thinking activities can be offered to students of all ages, and therefore to every level of school. Only the complexity of the problems, machines and languages will change from level to level.

LOGIC is a programme purposely designed for compulsory education: Infant Schools (3-6 years), Primary Schools (6-11 years), Lower Secondary (11-14 years).

### LOGIC Programme

LOGIC programme is, first, a proposal for teachers’ training, to help teachers both understand the pedagogical, meta-cognitive value of computational thinking and specific “mediation environments” and acquire the necessary knowledge and skills to train their students to computational thinking.

Teachers themselves could also design learning environments - age-appropriate to their targets – to support their students in developing ability of problem posing and problem solving and coding skills.

LOGIC proposes a methodology based on the Pedagogy of error and Constructivism by Simon Papert, the inventor of LOGO, which is one of the learning environments proposed.

As a starting point, LOGIC programme takes up the Educational Robotics with laboratory-based activities and the characteristics of the resources used (small robots programmable in a “stand-alone” mode or through a computer). It proposes the use of resources easy to find (open and free for most environments and directly delivered to the teachers).

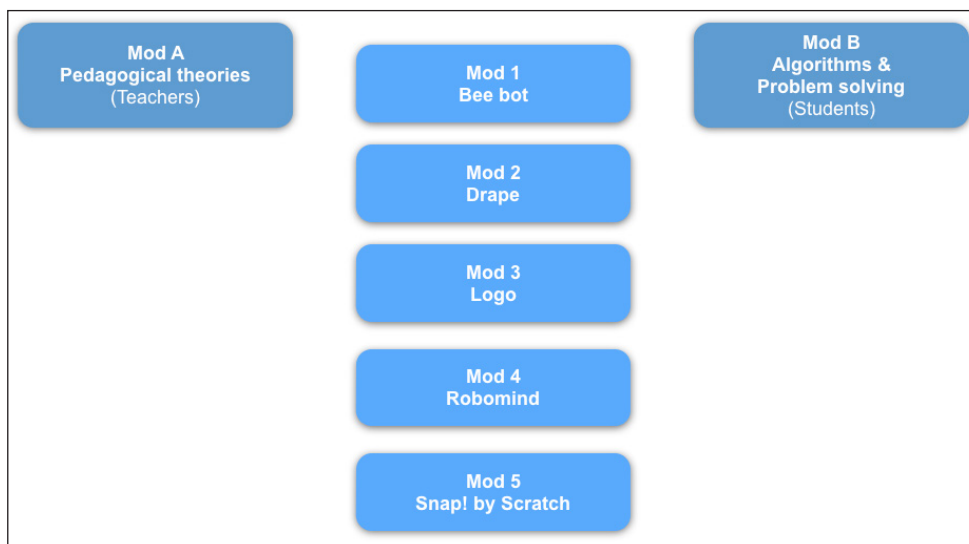
LOGIC encourages students to focus on those logical and sequential procedures, informatics-based, allowing them to “pose and solve problems,” regardless the disciplinary context of reference, thus pursuing the key objective of “Learning to learn”, which is one of the eight key-competences for lifelong learning.

### LOGIC Modules

LOGIC programme is composed of a series of modules (each of them ending up with an examination).

The 5 modules that refer to specific environments - Bee bots, Drape, Logo, RoboMind and Snap! - are undifferentiated, while the Module A is reserved to teachers and Module B to students. The list is completed by a structured exam for those who want to achieve the Expert certificate.

Here is the list of LOGIC modules and examinations:



### LOGIC Modules (and examinations).

#### Module A: Reference Theories (for teachers)

This module, mandatory and designed for teachers, analyzes the theoretical foundations that justify and contextualize the use of Coding and Computational Thinking activities for educational purposes. It lays the basis for a correct approach to the proposed activities within the remaining modules, setting them in educational terms and working as reference context.

#### Module B: Algorithms and problem solving (students only)

The module focuses on the design and implementation of an algorithm and considers its possible applications in mathematics, from “computing machines” to the concept of relationship and function.

It is advisable to deal with this module, which is more abstract, after having concretely developed algorithms in other modules.

#### Module 1: Bee Bot

Bee Bot is a small bee-shaped robot, programmable by means of a few buttons present on the device itself and capable of storing a sequence of 40 instructions. It is proposed to teachers of nursery schools or of the first years of Primary School.

The child, projecting himself in the manipulated object and controlling its movements, gradually learns how to set up a good relationship with the surrounding space, get oriented thanks to the reference points offered.

Simultaneously, it learns how to analyze the phases of the movement, becomes familiar with the concepts of direction and rotation, plans paths and set relations and topological relations in a proper way, being able to master the space, be it “perceptive” or “representative”.

#### **Module 2: Drape**

DRAPE is software specifically designed to promote a first approach to programming. Preparatory to LOGO is suitable to be used since Primary School, and offers a programming environment in which instructions and procedures are provided by icons, corresponding to the various functions, useful to make the “Turtle” move in its operating space.

The software has three levels of difficulty (Easy, Medium, Advanced), with increasingly complex functions that put into play the different primitives and procedures that compose it. DRAPE allows the setting up of paths leading to the construction of very complex figures.

#### **Module 3: Logo**

Created by Seymour Papert at the Artificial Intelligence Laboratory at MIT in Boston, LOGO can be defined as the first example of “cognitive artefacts” that can simulate the behaviour of a robot (the “Turtle”) in a virtual environment (the “micro world”). The language used, formally strict but at the same time intuitive, promotes the ability to “learn” through the construction of procedures that “teach” the robot what to do in the presence of a specific instruction.

#### **Module 4: RoboMind**

By means of “RoboMind” - created at the University of Amsterdam - the student gets engaged in the running of a real virtual robot, equipped with “sensors” and “actuators” that allow it to interact with an articulated environment full of obstacles; properly programmed, “Robo” moves in every direction, grabs and releases objects, finds the way out of a labyrinth, draws on the ground the white or black lines it needs to follow a path; it is also able to “feel” the colour of the traced rail.

#### **Module 5: Snap! by Scratch**

Snap! is a programming environment that borrows from Scratch the “block” graphics and structure but evolving them into more complex forms of programming. It is worth mentioning both the use of a “Sprite” (i.e. a virtual robot), shaped like a cursor clearly recalling the LOGO “Turtle” and the possibility for the students to create their own control blocks, real subroutines to be used in their listings.

Not let the graphical interface, very friendly and attractive, deceives you: SNAP! proves to be good at leading the student towards forms of very complex programming, to the development of products that have nothing to envy to

professional programming environments: also in this case the heuristic process (trial and error) reveals to be the most effective.

### **LOGIC Certifications**

#### **LOGIC Teacher Certification**

To get Logic Teacher certification one has to pass exams of three modules chosen by the candidate among 1, 2, 3, 4 and 5.

Nursery and Primary School teachers are recommended to choose Module 1, Bee Bot, module 2, Drape, and 3, Logo, while Secondary school teachers can leave out the Bee Bot Module.

#### **LOGIC EXPERT Certification**

LOGIC Expert certification is issued to anyone who, in addition to the tests required for Teacher certification, passes a further examination consisting of Module A, Reference theories.

#### **LOGIC Student Certification**

LOGIC Student Certification is provided to the ones who pass two exams - chosen among the modules 2, 3, 4 and 5 – plus Module B examination.

The teachers are recommended to give priority to the operating modules chosen, dealing with in-depth content provided by the module B at the end of the training, in view of the fact that this latter requires greater capacity of abstraction and conceptualization.

### **Training courses for teachers**

LOGIC programme provides teachers with a training course that works as a prerequisite to the certification and as further support to the design of successful teaching paths assigned to students.

In order to ensure the quality and effectiveness of training, as well as the success of the final exam, AICA, in collaboration with ANFOR, offers teachers, and schools interested in delivering this Programme (member of Loginet network), training paths provided by experts, preliminarily certified and enrolled in the relevant National Register.

The courses have an average duration of 30 hours, are delivered face-to-face and are rich with useful material for personal in-depth research. The courses are mainly based on laboratory activities and provide, among other things, simulation and assessment sessions, as well as the design of projects for a correct setting of the educational activity. As further support, Web seminars (webinars) kept by experts and run in groups of teachers with the support of tutors will be provided; the aim is to promote further discussions on the content and strategies presented in the training courses.

## How to catch a unicorn: An exploration of the universe of tech companies with high market capitalisation

Jean Paul Simon



*Jean Paul Simon has been Senior Researcher at the Information Society Unit of IPTS. Currently he is involved in public policy consulting as director of JPS Public Policy Consulting.*

The JRC-IPTS will publish in springtime a report exploring the universe of tech companies with high market capitalisation.

Technology companies with high market capitalisation, often called unicorns, have been getting a lot of attention and media coverage recently. This report aims at documenting the phenomenon through the investigation of a qualitative sample of 30 companies that have been valued above a one billion US\$ threshold in their (recent) history. It identifies some of their characteristics and draws some potential lessons. In total, 30 companies were included in the sample:

- US: 10 unicorns and 5 “gems”<sup>1</sup>,
- Asia: 7 unicorns (India, Singapore, South Korea and 4 for China) and 1 gem (China),
- EU: 5 unicorns for the EU (France, Germany, UK and 2 for Sweden) and 1 gem (Italy/Japan),
- Africa: 1 unicorn.

### The unicorns: A quick view

Companies	Size of market
<b>US</b>	
Airbnb	25 million guests, in 34 000 cities, 190 countries
Akamai	Serves top 30 media and entertainment companies. 170 000 servers in more than 1 300 networks and over 100 countries.
Amazon	10 online marketplaces, 2 in North America, 5 in Europe, 3 in Asia.
Apple	460 retail stores in 17 countries and an online store available in 39 countries.
Cloudera	20 countries, 1 400 partners
Facebook	1.248 billion active users
Google	More than 100 languages and in more than 50 countries
Twitter	288 million active users
Uber	56 countries, 200 cities
Zynga	100 million monthly users

<sup>1</sup> A potential unicorn close to reach the threshold.

<b>ASIA</b>	
Alibaba	255 million active buyers worldwide
Baidu	642 million users
Flipkart	26 million registered users
Garena	17 million monthly active users on PC, 11 on mobile
Kakao	140 million users
Tencent	QQ 848 million active users WeChat 549 million active users N°1 worldwide for video games
Xiaomi	61.12 million phones sold in 2015
<b>EU</b>	
Criteo (FR)	37 countries, 4000 e-commerce companies
King (UK)	356 million average monthly unique users
Rocket Internet (D)	110 countries (Not US, China)
Shazam (UK)	100 million active users
Spotify (SW)	58 markets, 60 million active users
<b>RoW</b>	
Naspers	More than 130 countries

In general, unicorns are IT-based (software mostly but hardware as well), rather young global companies that bridge pent-up demand and supply through innovative scalable services and products, often offered at very affordable prices. Their services and products are mostly rooted in the mobile internet wave, relying on connectivity (high speed networks, mobile and fixed), new devices (smartphones, tablets, phablets...) and the opportunities these bring along. Their economics are grounded in networks effects, demand side economics of scale and scope. They rely on a strong favourable business environment, developing mainly through an organic growth model building on fast expanding markets (emerging economies, middle classes). They are VC dependent and the competition for funding can generate impressive (inflated?) valuations. These companies can be disruptive for other sectors and firms.

The report is based on a review of dedicated literature, of technical journals and trade press articles, and on the analysis of annual reports of publicly traded companies. Although the available information is scarce and highly heterogeneous, still the information gathered allows listing some main observations about those companies:

1. Companies growing organically dominate in the sample. A minority of the companies grew through the acquisition of new businesses by way of mergers, acquisitions and take-overs.
2. Unicorns are relying on venture capital for their initial funding, their developments, and their exits. The extent to which the companies in the sample rely on VC funds does vary, as the amount of money needed is linked to the strategy adopted, for instance an organic growth strategy requires less money than an inorganic model.
3. The dominance of US companies can be linked to a

EU/US gap for funding. The level of VC and angel investments is significantly higher in the US than in Europe: in the US, EUR 26 billion is invested annually by VC firms and EUR 20 billion by Angel investors, while in Europe these amounts are EUR 5 billion and EUR 6 billion respectively.

4. “Serial entrepreneurs” that have created other companies before are prevalent among the founders. Most of them are seasoned business people with, very frequently, a strong and legitimate academic background (e.g. Cornell, Harvard, MIT, Stanford, Yale in the US or similar in the EU e.g. Ecole des Mines). The sample includes 7 out of 63 entrepreneurs from Stanford highlighting the role of the Silicon Valley cluster. This also stresses the role of dense ecosystems where would-be entrepreneurs can find the relevant support.
5. Many unicorns have a significant level of R&D expenditures. 11 out of 23 of the companies sampled are among the top global 2500 R&D investors (in 2014).

Overall, these observations and the information found in each case study (Part II of the report contains the case studies) point to two hypotheses as regards the conditions in which the unicorn phenomenon developed:

- Fully-fledged and fast evolving mobile internet networks had emerged, supported by the mobile internet wave, and increased device capabilities. These factors, combined with faster, higher bandwidth and more intelligent networks, paved the way to the wide adoption of advanced multimedia applications. As handsets become cheaper, and data connections more affordable, this phenomenon is gaining pace. It allows access to a wide range of new apps, building on changes in patterns of consumption. It is moving from legacy push models to pull models, and is consumer driven and data centric.
- The current pattern of transformation of the economy which, the report calls the third phase of convergence. This convergence means “the transformation of everything else”, that is the digital transformation of what makes up most of the economy. This is likely to include the sectors less affected up until now by this transformation. Peer-to-peer services, such as Uber, bridge the digital and the physical worlds in novel ways. The companies of the sample are extending the realm of products and services offered.

Complementary elements can be found in each case study (Part II of this report).

The report was prepared in the context of the three - year research project on European Innovation Policies for the Digital Shift (EURIPIDIS), jointly launched in 2013 by JRC-IPTS and DG CONNECT of the European Commission. EURIPIDIS aims to improve understanding of innovation in the ICT sector and of ICT-enabled innovation in the rest of the economy.

It will soon be available at:

<http://is.jrc.ec.europa.eu/pages/ISG/EURIPIDIS/EURIPIDIS.index.html> ■

## MultiCulti

### Turin' 16 – Venue of IT STAR's 10<sup>th</sup> WS on IT Security

*Dorothy Hayden*



AICA and IT STAR have announced the 10<sup>th</sup> IT STAR WS on IT Security for 26 October 2016 in Turin, a great place to visit as many of the participants of this event would also be considering the offerings of the Venue. With this in mind I thought a short introduction could be appreciated.



The capital of Piedmont is located on the Po river and is surrounded by the Alps. It can be easily reached by any mode of transportation. Its location made it the perfect host of the 2006 Winter Olympic Games.

Turin is a leading Italian industrial center – ranked third after Milan and Rome for economic strength – home to FIAT, Alfa Romeo, Iveco and many other industries. It is the home base of the famous Juventus FC.

Industry and sport are just part of the scene – its art galleries, palaces, opera houses, restaurants, and culture in general make it a great cultural milieu in Italy and Europe.

Turin was Italy's first capital city, home to the House of Savoy, and a cradle of Italian liberty.

The academic community is strongly intertwined within Turin's social fiber with great institutions such as the six-century-old University of Turin and the Turin Polytechnic. Interestingly, AICA's President (2010 –2013) Prof. Rodolfo Zich served as Rector of Politecnico di Torino from 1987 to 2001.

For further information you are welcome to visit <http://www.italia.it/en/travel-ideas/art-cities/turin.html> ■



# 10th IT STAR WS on IT Security

28 October 2016, Turin, Italy

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## Save the Date & Call for Papers

### Save the Date & Call for Papers

### 10th IT STAR Workshop on IT Security

We are pleased to announce that the 10th IT STAR Workshop on IT Security will be held on

**28 October 2016 in Turin, Italy**

The event will follow the AICA Congress on 27 October, and will provide a forum to 60-85 representatives of academia, government, business and professional organizations to investigate the current state, challenges and policy implications with respect to IT Security and to identify best practices and key issues of common interest and concern.

Three thematic sessions are envisaged on

**EU and National Strategies for Information Security**  
**Business Strategies and Best Practices**  
**Information Security Competences, Education and Research**

Individual topics include, but are not limited to

- EU information security directives
- Legislation
- International cooperation on IS issues
- Digital identity
- Privacy protection
- Cyber-crime and information protection
- Digital forensics
- The company's strategic business requirements to overcome information security threats to critical infrastructure and management
- Internet of Things – existing threats
- Cloud, Mobile and Big Data security
- Curricula development
- Knowledge and skills – training, assessment and certification
- eCFplus and IS related issues
- Standardization activities
- IS research topics
- Awareness, and other

### Papers & Publication

The post-conference proceedings will be published within the IT STAR series.

Key Dates for papers and presentations:

- Submission of extended abstracts of about 200 words by **5 May**
- Notification of acceptance by **5 June**
- Submission of full papers and slide presentations by **5 September**

### Contacts

Please submit your expressions of interest and abstracts to P. Nedkov  
<[nedkov@utanet.at](mailto:nedkov@utanet.at)>

## Organization

- [IT STAR](#)
- [Conference Co-Chairs](#)
- [Contact](#)

## Venue

- [Turin, Italy](#)
- [\[Conference location to be communicated soon\]](#)

## Host

- [AICA](#)

## Member Societies

- [IT STAR Member Societies](#)

<http://www.starbus.org/ws10>



## Member Society News & Events

### Austria

#### **eHealth2016 - 10th Annual Conference on Health Informatics meets eHealth**

24 – 25 May 2016

Schönbrunn Palace- Vienna, AT

<http://www.ehealth2016.at/>

#### **ICKM 2016 – 12th International Conference on Knowledge Management**

10 – 11 October 2016

Vienna, AT

<http://ickm2016.ocg.at/>

### Bulgaria

New BAS representative to IT STAR.



**Prof. Ivan Dimov** replaces Acad. Kiril Boyanov as representative to IT STAR. Ivan chairs the Scientific Council of the Institute for ICT and is Head of its Parallel Algorithms Department. He is Scientific Secretary of the Bulgarian Academy of Sciences (BAS).

#### **17<sup>th</sup> International Conference on Artificial Intelligence: Methodology, Systems, Applications – AIMS 2016**

7 – 9 September 2016

Varna, BG

<http://www.aimsconference.org/>

### Italy

#### **43rd International Colloquium on Automata, Languages and Programming (ICALP 2016)**

12 – 15 July 2016, Rome, IT

<http://www.easyconferences.eu/icalp2016/>

#### **Medical Informatics Summer School 2016 (MISS 2016)**

*1<sup>st</sup> AICA and 2<sup>nd</sup> IEEE Italy Section Summer School*

13 – 17 September 2016

Trani, Puglia, Italy

MISS 2016 aims to provide basic and advanced knowledge in several fields of applications such security and safety for hospitals, decision support systems in medicine for diagnosis, prognosis, and therapy, bioinformatics, biometry, robotics for therapy, virtual/augmented reality for surgery, ambient assisted living. Several courses and workshops for each session will be delivered by international academic and industrial experts and will cover different aspects of Medical Informatics making the summer school accessible to a wide range of PhD Students and Researchers.

For further information check <http://miss2016.it/>

### Poland



The Polish Information Processing Society will mark its 35<sup>th</sup> Anniversary in 2016. Details about the Jubilee will be provided in one of the next NL issues

#### **Federated Conference on Computer Science and Information Systems (FedCSIS Multiconference)**

11 – 14 September 2016

Gdansk, PL

<https://fedcsis.org/>

### Slovenia

#### **28<sup>th</sup> International Conference on Advanced Information systems Engineering – CAISE 2016**

*Information Systems for Connecting People*

13 – 17 June 2016, Ljubljana, SI

<http://caise2016.si/>

#### **6<sup>th</sup> Danube eRegion Conference – DeRC 2016: Cross-border eSolutions & eServices Prototypes Development**

19 – 20 September 2016, Ljubljana, SI

<http://eregion.eu/conferences/derc-2016/>

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## Forthcoming IT STAR Events

### 2016

#### **10<sup>th</sup> IT STAR Workshop on IT Security**

28 October 2016, Turin, Italy

<http://starbus.org/ws10>

### 2017

#### **11<sup>th</sup> IT STAR Workshop, Bulgaria**

*Topic, dates and place to be communicated in due time*



## Other News and Events

### WORLD SUMMIT OF THE INFORMATION SOCIETY FORUM



The World Summit on the Information Society Forum 2016 represents the world's largest annual gathering of the 'ICT for development' community. The WSIS Forum, co-organized by ITU, UNESCO, UNDP and UNCTAD, in close collaboration with all WSIS Action Line Facilitators/Co-Facilitators, has proven to be an efficient mechanism for coordination of multistakeholder implementation activities, information exchange, creation of knowledge, sharing of best practices and continues to provide assistance in developing multistakeholder and public/private partnerships to advance development goals.

#### WSIS 2016

2 – 6 May 2016

Geneva, CH

<http://www.itu.int/net4/wsis/forum/2016/>

### European Commission



A European Commission statement on Building on modern and unified rules to strengthen fundamental rights and create a Digital Single Market made on 28 January by Vice-President Ansip and Commissioner Jourová on the occasion of the 2016 Data Protection Day is published at [http://europa.eu/rapid/press-release\\_STATEMENT-16-181\\_en.htm](http://europa.eu/rapid/press-release_STATEMENT-16-181_en.htm)

The Digital Economy & Society Index (DESI) is a composite index which tracks the evolution of EU member states in digital competitiveness. It is structured around 5 principal dimensions – Connectivity, Human Capital, Use of Internet, Integration of Digital Technology and Digital Public Services.

The results of the 2016 Edition of DESI were published in late February 2016 and are available at <https://ec.europa.eu/digital-single-market/desi>

### Grand Coalition for Digital Jobs

Many of our partners are already aware and involved in activities related to the EU Grand Coalition for Digital Jobs.

If not yet involved, take a moment and visit <https://ec.europa.eu/digital-agenda/en/how-get-involved>

There are many ways to be involved such as making a pledge to take positive action in supporting the ICT skills gap, joining initiatives of national or local coalitions, raising awareness, and other. ■



### Skilling up for the future of Europe

eSkills for Jobs 2016 campaign

**High Level Conference under the EU Dutch Presidency**

16 March 2016

The Hague, Netherlands

[www.eskills4jobs.nl](http://www.eskills4jobs.nl)

**Closing high-level event of the eSkills for Jobs campaign, organized under the EU Slovakian Presidency**

17-18 October 2016

Bratislava, Slovakia

*Topic and website to be communicated in Summer NL issue* ■

### ITU News



#### ICT Development Index 2015

The ICT development index provides the level of developments in 167 countries worldwide.

IDI 2015 is available at

<http://www.itu.int/net4/ITU-D/idi/2015/>

The 2015 edition of the Measuring the Information Society Report provides key ICT data and benchmarking tools to measure the information society, including the ICT Development Index (IDI). A free publications is available for downloading at <http://www.itu.int/en/ITU-D/Statistics/Documents/publications/misr2015/MISR2015-w5.pdf> ■

## UNESCO



Mr. Philippe Couillard, Premier of Québec (Canada) recently announced an international conference of high-level experts to be held in autumn 2016 as a follow-up to UNESCO's first international conference "Youth and the Internet: Fighting Radicalization and Extremism" (June 2015, UNESCO Headquarters in Paris).

Further details are available at

[http://www.unesco.org/new/en/communication-and-information/resources/news-and-in-focus-articles/all-news/news/unesco\\_to\\_organize\\_a\\_high\\_level\\_international\\_expert\\_meeting\\_on\\_youth\\_radicalization\\_in\\_cyberspace\\_with\\_quebec\\_canada/](http://www.unesco.org/new/en/communication-and-information/resources/news-and-in-focus-articles/all-news/news/unesco_to_organize_a_high_level_international_expert_meeting_on_youth_radicalization_in_cyberspace_with_quebec_canada/)

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## International Olympiad in Informatics



### 28<sup>th</sup> IOI

12 – 19 August 2016

Kazan, Russia

<http://ioi2016.ru/>

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## Selected IT Exhibitions and Trade Fairs in Europe

### ConHit – Connecting Health IT

19 – 22 April 2016

Berlin, Germany

[www.conhit.de](http://www.conhit.de)

### Hannover Messe

25 – 29 April 2016

Hannover, Germany

<http://www.hannovermesse.de/home>

### E-Commerce Berlin Expo

27 April

Berlin, Germany

<http://www.infosecurityeurope.com/>

### Login Tech Conference

5 – 6 May 2016, LITEXPO

Vilnius, Lithuania

[www.login.lt](http://www.login.lt)

### ICT Spring

10 – 11 May 2016

Luxembourg, Luxembourg

<http://www.ictspring.com/>

### Sviaz – Expocomm

10 – 13 May 2016

Moscow, Russia

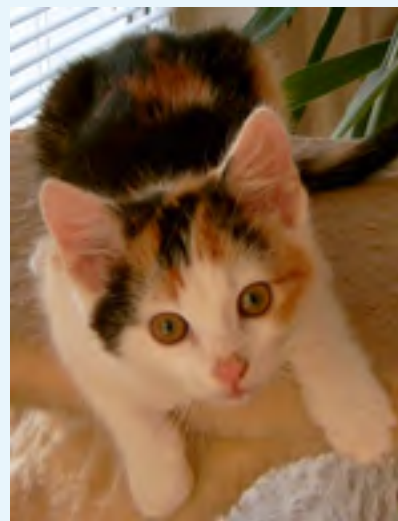
<http://www.sviaz-expo.ru/en/>

### Infosecurity Europe

7 – 9 June 2016

London, UK

<http://www.infosecurityeurope.com/>



Let's talk Central and Eastern Europe:

We would be pleased to assist you in reaching academia, government, business and professional societies in the Region and the Continent.

**curious?**

Contact us at [info@starbus.org](mailto:info@starbus.org)



## 15<sup>th</sup> Anniversary of IT STAR

On 18 April 2016 IT STAR - the Regional ICT Association in Central, Eastern and Southern Europe - turns 15.

An article on the Origins of IT STAR was published in the Newsletter - Vol. 9, no.1, Spring 2011 on the occasion of its 10<sup>th</sup> Anniversary., which was celebrated with a festive session on 15 and 16 April 2011 in Portoroz, Slovenia.

Since then, IT STAR has further reaffirmed itself as an association of leading computer societies providing a forum of representatives from academia, governments, industry and

professional organizations to debate critical information society issues of common European concern.

We take the occasion to congratulate IT STAR's 15 member societies on the occasion of the 15<sup>th</sup> Anniversary and to convey our appreciation for their support.

### *IT STAR Newsletter*

Selected photos from events during the last 5 years:



*IPTS – IT STAR International conference on ICT Research and Innovation Challenges in Eastern European Member States of the EU, 11 Nov. 2011, Budapest, HU*



*From left M. Holynski (PIPS), B. Domolki (JvNCS), D. Ikonomou (ENISA) and B. Rován (SSCS) – Panel on Internet privacy and data protection during 6<sup>th</sup> IT STAR WS on Digital Security, 30 March 2012, Bratislava, SK*



*Welcome Reception - 7<sup>th</sup> IT STAR WS on Electronic Business, 3-4 May 2013, Bari, IT*



*Keynote of W. Marciński, Digital Champion, Poland - 9<sup>th</sup> IT STAR WS on IT Strategies & Applications, 16 Oct. 2015, Warsaw, PL*



*Group photo - 8<sup>th</sup> IT STAR WS on History of Computing, 19 September 2014, Szeged, HU*



## The Origins of IT STAR<sup>1</sup>

Plamen Nedkov



*Plamen Nedkov was Head of Department for International Organizations at the Bulgarian Academy of Sciences and Executive Director of the Sofia Office, International Foundation for Survival and Development of Humanity. He served in various capacities in IFIP, including as IFIP Executive Director. He was delegate*

*to many sessions of UNESCO's General Conference and elected representative to the NGO-UNESCO Liaison Committee. Plamen is currently Chief Executive of IT STAR.*

In April 2000, I was in Portoroz, Slovenia by invitation of Niko Schlamberger, President of SSI "INFORMATIKA" and Slovenian representative to IFIP, to speak at the opening of their Annual Conference "Days of Slovenian Informatics". Following the opening Niko and I had some time to discuss various matters and we agreed that there is a need of a stronger regional ICT cooperation. We also agreed to prepare a meeting of senior representatives of computer societies, active in IFIP and within the immediate geographical vicinity, during the 2001 edition of "Days of Slovenian Informatics".

The meeting was organized and held on 18 April 2001 in Portoroz with the participation of Giulio Occhini, CEO of AICA-Italy, Balint Domolki, Honorary President of NJSZT-Hungary, Veith Risak, Past-President of OCG-Austria, Niko Schlamberger, President of SSI-Slovenia, Peter Bollerslev, President of IFIP and myself, IFIP Executive Director.

We had an exchange of opinion on the usefulness of encouraging regional cooperation and everyone was positive about the need to establish a mechanism to support this. I had prepared a draft for an agreement to be discussed in Portoroz - the proposal was to form a regional committee under the auspices of IFIP named **IT STAR (ST**anding **R**egional committee). My proposal was to consider the draft in Portoroz and then to allow time for the representatives to discuss it within their societies before confirming. The first to react was Giulio Occhini who said, "Why wait? We could sign this statement immediately." Everyone agreed and so it was decided to found a standing regional committee, under the auspices of IFIP, named IT STAR, with the purpose to assist regional contacts and cooperation on topics within the IT field.

Soon after this initiative was announced, some joked that it was a resurrection of the Austro-Hungarian Empire.

The founders however were dedicated, the idea of closer regional contacts was appealing and very soon there were more societies wishing to join. The geographical region

<sup>1</sup> First published in Newsletter Vol. 9 no. 1, Spring 2011

### IFIP Information Release distributed on 20 April 2001

Portoroz, Slovenia, 18 April 2001 - The IFIP President addressed the participants of the Annual Conference of IFIP's Slovenian Member Society and talked about IFIP's activities, priorities and challenges. The Minister of the newly established Ministry of Information Society was among the dignitaries and in his speech described the role of the Ministry as having to "bulldoze" the way of the information society in Slovenia.

Greetings were delivered by representatives of IFIP Member Societies from neighboring countries who earlier that day held a Regional meeting in Portoroz to consider more intense contacts and cooperation on a bilateral and multilateral basis.

The Regional meeting, jointly chaired by the IFIP Executive Director and the President of the Slovenian Society "Informatika", adopted the following Statement

#### MEETING OF REPRESENTATIVES OF THE COMPUTER SOCIETIES OF AUSTRIA, HUNGARY, ITALY AND SLOVENIA

Portoroz, 18 April 2001 - The Computer Societies of Austria, Hungary, Italy and Slovenia met today in Portoroz, Slovenia to inform each other of their national IT priorities, activities and initiatives and to explore areas of common interest for future regional and international cooperation.

The participating societies recognize IFIP's authority and potential to initiate important international activities and are grateful to IFIP for providing its auspices to the meeting and for its willingness to continue supporting the efforts of its members in establishing closer regional links.

The meeting agreed to establish an IT STANDING Regional (IT STAR) Committee for cooperation of the participating societies. Its function would be to assess the current contacts and to assist and monitor the development of bilateral and regional programs for scientific and technical cooperation. IT STAR membership shall consist of one representative of each participating society and IFIP. It will remain open for other societies from the region.

#### SIGNED:

For OCG-Austria by V. Risak, Past President

For NJSZT-Hungary by B. Domolki, Honorary President

For AICA-Italy by G. Occhini, Board Member

For SSI-Slovenia by N. Schlamberger, President

represented in IT STAR expanded to Central, Eastern and Southern Europe (CESE) with 13 national IT organizations involved in IT STAR by the end of 2003.

A milestone for the future of IT STAR was the meeting on 8 May 2004 in Chioggia, Italy. There, the delegates endorsed the well-functioning regional contacts and cooperation within the IT STAR framework and stressed the need to develop an identity of a regional organization of national member societies with its own specific agenda and activities. A Mission statement and an IT STAR Charter were soon developed and endorsed on 23 October 2004 in Prague, the Czech Republic. IT STAR's mission was defined *"To be the leading regional information and communication technology organization in Central, Eastern and Southern Europe which promotes, assists and increases the activities of its members and encourages and promotes regional and international cooperation for the benefit of its constituency, the region and the international ICT community"*.

The IT STAR series of events and publications was launched with the 1st IT STAR Workshop on R&D in ICT held on 11 November 2006 in Bratislava, Slovakia. Following the

event, Giulio Occhini<sup>2</sup> was chosen as the 3rd IT STAR coordinator, and, in view of the increased level of activity, I was chosen to serve as IT STAR's Chief Executive.

Since then, many other important initiatives were implemented and this has been well documented in the IT STAR newsletter [please check pages 14, 15 and 16].

Going back to the original "2000 impulse" for closer contacts in this region - we had no recipe how this should develop but we were determined that there is an important niche ... and the founding members and the individuals and organizations that soon joined found it!

IT STAR can now justify itself with its experience as a successful organization that delivers to its membership and to the international ICT community. It is unique in the sense that with minimal resources it succeeds in supporting a forum of stakeholders coming from academia, industry, government and civil society, within a regional and an international setting. ■

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<sup>2</sup> Coordinators: P. Nedkov (2001-03), N. Schlamberger (2003-06), G. Occhini (2006-10), I. Privara (2010-12)





# SNAPSHOT

REGIONAL ICT ASSOCIATION IN CENTRAL, EASTERN & SOUTHERN EUROPE



## Type of organization

Regional non-governmental and non-profit professional association in the ICT field.

## Date and place of establishment

18 April 2001, Portoroz, Slovenia

## Membership

Countries represented (*see next page for societies*), year of accession, representatives

- Austria (2001) G. Kotsis, E. Mühlvenzl, R. Bieber
- Bulgaria (2003) K. Boyanov, I. Dimov
- Croatia (2002) M. Frkovic
- Cyprus (2009) P. Masouras
- Czech Republic (2001) O. Stepankova, J. Stuller
- Greece (2003) S. Katsikas
- Hungary (2001) B. Domolki
- Italy (2001) G. Occhini
- Lithuania (2003) E. Telesius
- Macedonia (2003) P. Indovski
- Poland (2007) M. Holynski
- Romania (2003) V. Baltac
- Serbia (2003) G. Dukic
- Slovakia (2001) I. Privara, B. Rován
- Slovenia (2001) N. Schlamberger

## Mission

*“To be the leading regional information and communication technology organization in Central, Eastern and Southern Europe which promotes, assists and increases the activities of its members and encourages and promotes regional and international cooperation for the benefit of its constituency, the region and the international ICT community.”*

## Governance

IT STAR is governed according to the letter of its Charter by the Business Meeting of MS representatives:

- 2015 Warsaw, **Poland** (October)
- 2014 Szeged, **Hungary** (September)
- 2013 Bari, **Italy** (May)
- 2012 Bratislava, **Slovakia** (April)
- 2011 Portoroz, **Slovenia** (April)
- 2010 Zagreb, **Croatia** (November)
- 2009 Rome, **Italy** (November)
- 2008 Godollo, **Hungary** (November)

- 2007 Genzano di Roma, **Italy** (May)  
Timisoara, **Romania** (October)
- 2006 Ljubljana, **Slovenia** (May)  
Bratislava, **Slovakia** (November)
- 2005 Herceg Novi, **Serbia & Montenegro** (June)  
Vienna, **Austria** (November)
- 2004 Chioggia, **Italy** (May)  
Prague, **the Czech Republic** (October)
- 2003 Opatija, **Croatia** (June)  
Budapest, **Hungary** (October)
- 2002 Portoroz, **Slovenia** (April)  
Bratislava, **Slovakia** (November)
- 2001 Portoroz, **Slovenia** (April)  
Como, **Italy** (September)

## Coordinators

- 2015 – Marek Holynski
- 2010 – 2015 Igor Privara
- 2006 – 2010 Giulio Occhini
- 2003 – 2006 Niko Schlamberger
- 2001 – 2003 Plamen Nedkov (cur. Chief Executive)

## Major Activities















- 9<sup>th</sup> IT STAR WS on ICT Strategies and Applications  
<http://www.starbus.org/ws9>
- 8<sup>th</sup> IT STAR WS on History of Computing  
<http://www.starbus.org/ws8>
- 7<sup>th</sup> IT STAR WS on eBusiness -  
<http://www.starbus.org/ws7>
- 6<sup>th</sup> IT STAR WS on Digital Security -  
<http://www.starbus.org/ws6>
- IPTS - IT STAR Conference on R&D in EEMS -  
<http://eems.starbus.org>
- 5<sup>th</sup> IT STAR WS and publication on Electronic Business - <http://starbus.org/ws5/ws5.htm>
- 4<sup>th</sup> IT STAR WS and publication on Skills Education and Certification - <http://starbus.org/ws4/ws4.htm>
- 3<sup>rd</sup> IT STAR WS and publication on National Information Society Experiences – NISE 08  
<http://www.starbus.org/ws3/ws3.htm>
- 2<sup>nd</sup> IT STAR WS and publication on Universities and the ICT Industry  
<http://www.starbus.org/ws2/ws2.htm>
- 1<sup>st</sup> IT STAR WS and publication on R&D in ICT  
<http://www.starbus.org/ws1/ws1.htm>

## Periodicals & Web-site

The IT STAR Newsletter ([nl.starbus.org](http://nl.starbus.org)) published quarterly.  
[www.itstar.eu](http://www.itstar.eu) ■



## IT STAR Member Societies

<p><b>Austrian Computer Society – OCG</b>  Wollzeile 1,  A-1010 VIENNA, Austria  Tel. +43 1 512 0235 Fax +43 1 512 02359  e-mail: <a href="mailto:ocg@ocg.at">ocg@ocg.at</a>  <a href="http://www.ocg.at">www.ocg.at</a></p> 	<p><b>Bulgarian Academy of Sciences – BAS</b>  Institute for Information and Communication Technology  Acad.G.Bonchev str.B1.25A  SOFIA 1113, Bulgaria  Tel +359 2 8708494 Fax +359 2 8707273  e-mail: <a href="mailto:vomidiv@gmail.com">vomidiv@gmail.com</a>  <a href="http://www.bas.bg">www.bas.bg</a></p> 
<p><b>Croatian IT Association– CITA</b>  Ilica 191 E/II,  10000 ZAGREB, Croatia  Tel. +385 1 2222 722 Fax +385 1 2222 723  e-mail: <a href="mailto:hiz@hiz.hr">hiz@hiz.hr</a>  <a href="http://www.hiz.hr">www.hiz.hr</a></p> 	<p><b>The Cyprus Computer Society – CCS</b>  P.O.Box 27038  1641 NICOSIA, Cyprus  Tel. +357 22460680 Fax +357 22767349  e-mail: <a href="mailto:info@ccs.org.cy">info@ccs.org.cy</a>  <a href="http://www.ccs.org.cy">www.ccs.org.cy</a></p> 
<p><b>Czech Society for Cybernetics and Informatics – CSKI</b>  Pod vodarenskou vezi 2,  CZ-182 07 PRAGUE 8 – Liben  Czech Republic  Tel. +420 266 053 901 Fax +420 286 585 789  e-mail: <a href="mailto:cski@utia.cas.cz">cski@utia.cas.cz</a>  <a href="http://www.cski.cz">www.cski.cz</a></p> 	<p><b>Greek Computer Society – GCS</b>  Thessaloniki &amp; Chandri 1, Moshato  GR-18346 ATHENS, Greece  Tel. +30 210 480 2886 Fax +30 210 480 2889  e-mail: <a href="mailto:epy@epy.gr">epy@epy.gr</a>  <a href="http://www.epy.gr">www.epy.gr</a></p> 
<p><b>John v. Neumann Computer Society – NJSZT</b>  P.O. Box 210,  Bathori u. 16  H-1364 BUDAPEST, Hungary  Tel.+36 1 472 2730 Fax +36 1 472 2739  e-mail: <a href="mailto:titkarsag@njszt.hu">titkarsag@njszt.hu</a>  <a href="http://www.njszt.hu">www.njszt.hu</a></p> 	<p><b>Associazione Italiana per l' Informatica ed il Calcolo Automatico – AICA</b>  Piazzale R. Morandi, 2  I-20121 MILAN, Italy  Tel. +39 02 760 14082 Fax +39 02 760 15717  e-mail: <a href="mailto:g.occhini@aicanet.it">g.occhini@aicanet.it</a>  <a href="http://www.aicanet.it">www.aicanet.it</a></p> 
<p><b>Lithuanian Computer Society – LIKS</b>  Geležinio Vilko g. 12-113  LT-01112 VILNIUS, Lithuania  Tel. +370 2 62 05 36  e-mail: <a href="mailto:liks@liks.lt">liks@liks.lt</a>  <a href="http://www.liks.lt">www.liks.lt</a></p> 	<p><b>Macedonian Association for Information Technology – MASIT</b>  Dimitrie Cupovski 13  1000 SKOPJE, Macedonia  e-mail: <a href="mailto:indovski.p@gord.com.mk">indovski.p@gord.com.mk</a>  <a href="http://www.masit.org.mk">www.masit.org.mk</a></p> 
<p><b>Polish Information Processing Society</b>  Zarząd Główny  ul. Solec 38 lok. 103  00-394 Warszawa  Tel./Fax +48 22 838 47 05  e-mail: <a href="mailto:marek.holynski@gmail.com">marek.holynski@gmail.com</a>  <a href="http://www.pti.org.pl">www.pti.org.pl</a></p> 	<p><b>Asociatia pentru Tehnologia Informatiei si Comunicatii – ATIC</b>  Calea Floreasca Nr. 167, Sectorul 1  014459 BUCAREST, Romania  Tel +402 1 233 1846 Fax +402 1 233 1877  e-mail: <a href="mailto:info@atic.org.ro">info@atic.org.ro</a>  <a href="http://www.atic.org.ro">www.atic.org.ro</a></p> 
<p><b>JISA Union of ICT Societies</b>  Zmaj Jovina 4  11000 BELGRADE, Serbia  Tel.+ 381 11 2620374, 2632996 Fax + 381 11 2626576  e- mail: <a href="mailto:dukic@jisa.rs">dukic@jisa.rs</a>  <a href="http://www.jisa.rs">www.jisa.rs</a></p> 	<p><b>Slovak Society for Computer Science – SSCS</b>  KI FMFI UK, Mlynská dolina  SK-842 48 BRATISLAVA, Slovak Rep.  Tel. +421 2 6542 6635 Fax +421 2 6542 7041  e-mail: <a href="mailto:SSCS@dcs.fmph.uniba.sk">SSCS@dcs.fmph.uniba.sk</a>  <a href="http://www.informatika.sk">www.informatika.sk</a></p> 
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