

A woman with her hair in a ponytail, wearing a dark blazer over a white shirt, is looking at a smartphone. She is standing in a server room with rows of server racks visible in the background. The lighting is dim, with some blue and green highlights from the server equipment.

Ženske v kibernetiki varnosti - trendi, priložnosti in aktualni izzivi

29. marec 2023 13:00-15:30

GZS, Dvorana A

Agenda



URA	PREDAVATELJICE	NAZIV TEME
12:30-13:00		Prihod in registracija
13:00-13:05	Kristina Batistič, Ženske v kibernetiki varnosti pri SeKV	Uvodni nagovor
13:05-13:15	Aida Kamišalić Latifić, državna sekretarka Ministrstvo za digitalno preobrazbo	Pozdravni nagovor
13:15-13:30	Nina Olesen, European Cyber Security Organisation (ECSO)	Growing the cybersecurity workforce in Europe – predavanje bo v angleškem jeziku Predstavitev Women4Cyber, Youth4Cyber in EHR4CYBER iniciativ
13:30-13:45	Alenka Glas, PRO.astec d.o.o.	Izzivi načrtovanja ukrepov informacijske varnosti
13:45-14:00	Nastja Cepak, CREAplus d.o.o.	Trendi digitalne varnosti po kvantnem računalniku
14:00-14:15	Lili Nemeč Zlatolas, Univerza v Mariboru, Fakulteta za elektrotehniko, računalništvo in informatiko	Priložnosti vključevanja žensk v poklice kibernetike varnosti

Agenda



14:20-14:40		Odmor
14:40-15:30	Okrogla miza Moderatorica: Katja Mohar Bastar, direktorica, DIH Slovenija	Kakšne so ovire, da ni več žensk v poklicih kibernetične varnosti? Kaj storiti in kakšni so predlogi za povečanje? Udeleženske na okrogli mizi so: - Nika Jeršič , Cyber Night, Univerza v Mariboru, Fakulteta za elektrotehniko, računalništvo in informatiko - Gordana Kisilak , Seeds for the Future (Mladi za IT), Huawei Technologies Ljubljana d.o.o. - Katja Kraškovic , direktorica in dekanja, Dodiplomski program Informacijske in kibernetične varnosti, Gea College - Fakulteta za podjetništvo - Nataša Prvinšek Torlak , Girls_Do_Code, Digital School d.o.o. - Ana Robnik , STEM poklici, stanje v Sloveniji, vloga EU politik, S&T Iskratel d.o.o.
15:30		Mreženje s pogostitvijo

Organizatorji dogodka:



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»Naložbo sofinancira Evropska unija iz Evropskega sklada za regionalni razvoj«

Dogodek je del Evropskega leta spretnosti 2023





Združenje za informatiko
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Women in Cyber Security - Trends, Opportunities and Current Challenges

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Wednesday, 29th March 2023
CCIS, Hall A



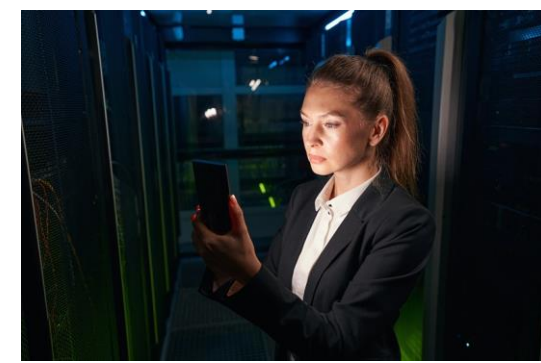
REPUBLIKA SLOVENIJA
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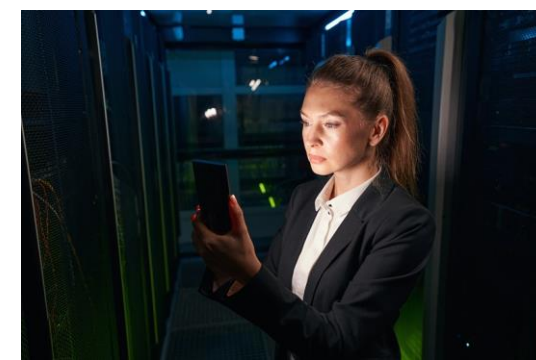
Growing the cybersecurity workforce in Europe



- ECSCO – Empowering European Cybersecurity Communities
- ECSCO WG5 “Skills & Human Factors”
- EHR4CYBER
- Youth4Cyber
- Women4Cyber
- How to attract more women to work in the cyber field?
- Contact info



ECSCO – Empowering European Cybersecurity Communities



ECSCO contributes to the European Digital Sovereignty & Strategic Autonomy and to the strengthening of Europe's cyber resilience:

- By empowering communities and shaping the European cybersecurity ecosystem
- By federating and providing a platform for collaboration for various stakeholders
- By bringing together the private and public sectors, facilitating their dialogue and joint actions



Large companies
(users and
providers)



SMEs &
start-ups



Research
centres,
Universities



European, National
and Regional
clusters &
associations



Local, regional
and national
public
administrations



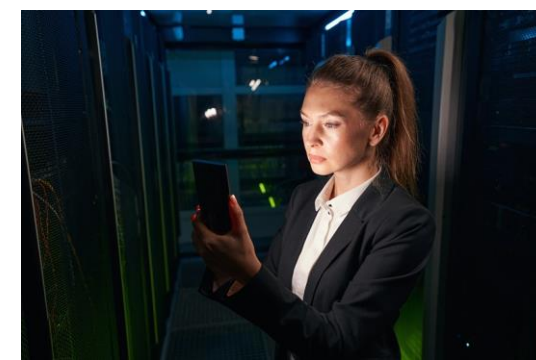
Investors



End-users and
operators
of critical
infrastructures and
essential services



ECSO WG5 “Skills & Human Factors”



ECSO WG5 aims to contribute towards a cybersecurity capability and capacity-building effort for a cyber resilient next generation (NextGen) digital Europe, through increased education, professional training, skills development, as well as actions on awareness-raising, expertise-building and gender inclusiveness.



Cyber Ranges



Support education/training/HR



Raise awareness



Promote gender inclusion and attract more experts to the field



Educate the youth



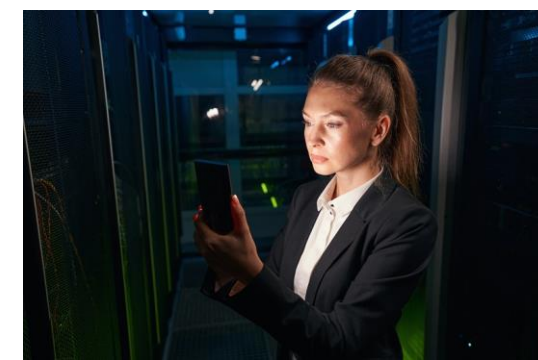
SeKV

*Združenje za informatiko
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EHR4CYBER – Building the European HR Community



Challenges:

- Lack of cybersecurity knowledge among HR professionals
- Lack of information sharing between technical departments (i.e. CISOs) and HR
- Lack of diversity in the cybersecurity workforce
- Difficulties in attracting, recruiting, and retaining experts



Objectives of the HR community:

- Provide input on the practical needs and challenges of the sector
- Provide recommendations for solutions and initiatives on how best to attract, recruit, and retain cybersecurity talent
- Engage with a network of peers at European level

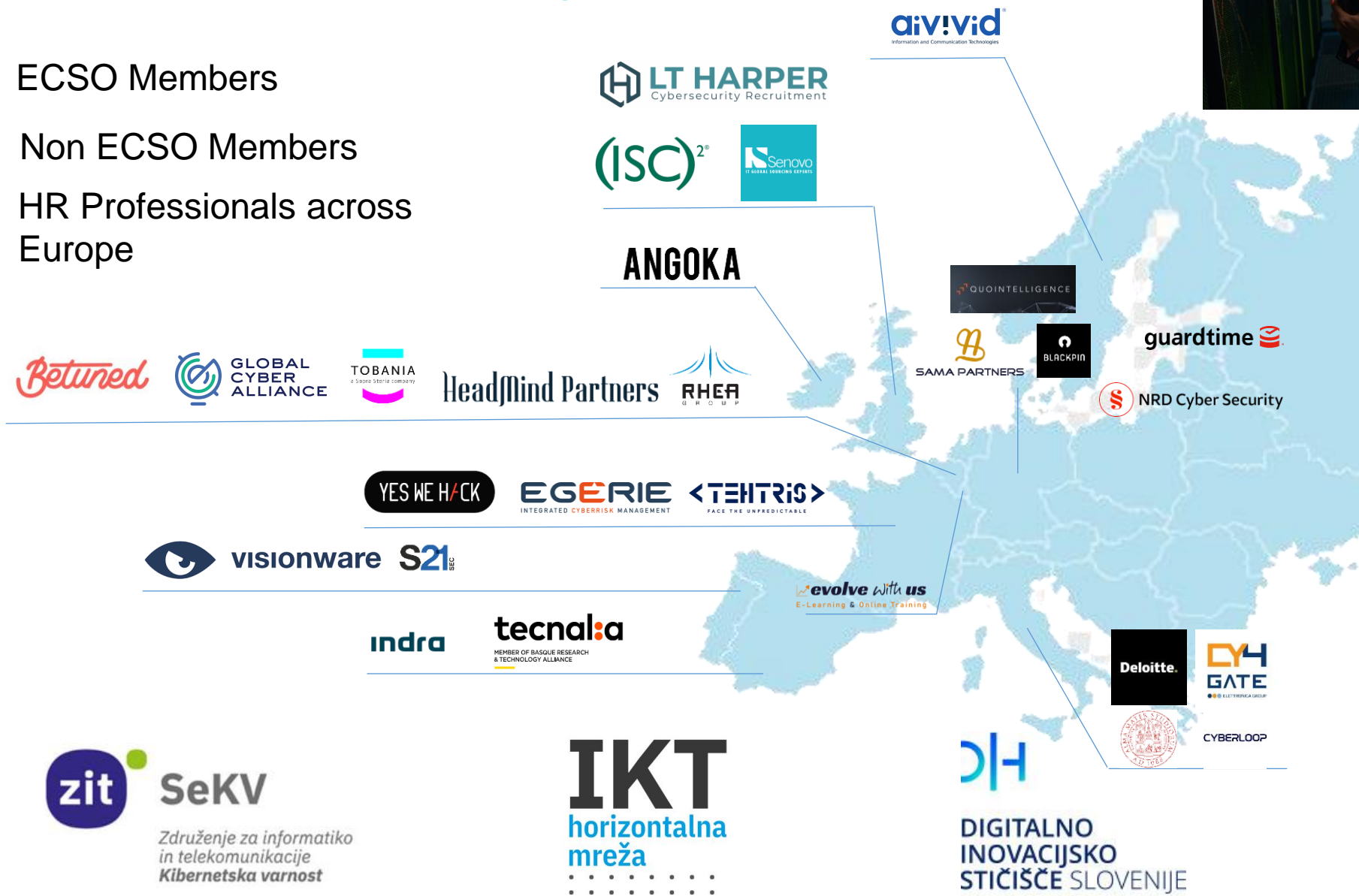
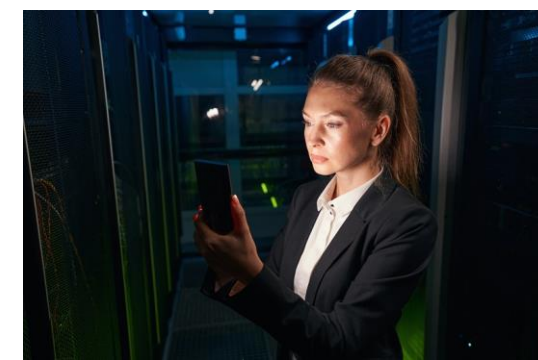
Initial action plan of the HR community:

- Provide cyber training to recruiters
- Translate technical jargon and include non-technical language in job ads
- Improve retention of staff
- Collect cybersecurity workforce data for Europe
- Attract more women to the field

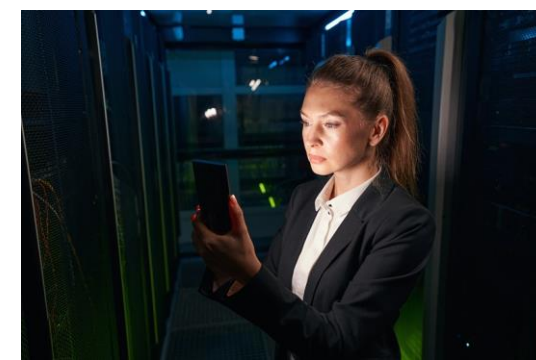


European HR Community

18 ECISO Members
9 Non ECISO Members
40+ HR Professionals across Europe



Youth4Cyber



 An ECSO initiative

Youth4Cyber

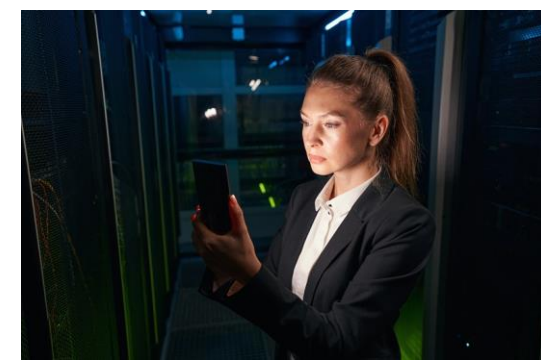
aims at educating and raising the awareness of young people (6 to 26-year olds) on cybersecurity.



CATALOGUE OF
RESOURCES &
INITIATIVES
2023



Women4Cyber



A non-profit private foundation aiming to promote, encourage and support the participation of women in cybersecurity.

Community:

- Online community of over 35000 members
- Registry of experts in collaboration with the EC
- National chapters (19 and growing)

Awareness:

- W4C Book "Hacking Gender Barriers: Europe's Top Cyber Women"
- Events, incl. annual Women4Cyber conference
- W4C STARtup Award

Training and education:

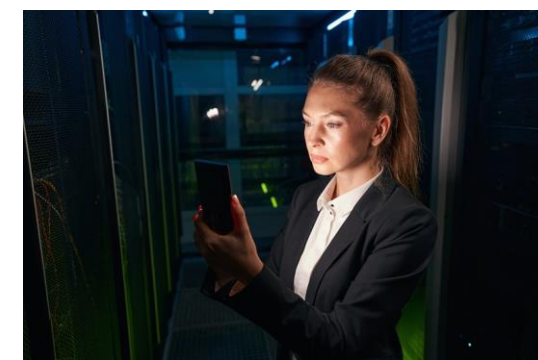
- W4C Mentorship Programmes (4th edition launched Mar 23)
- Scholarships and discounted or free trainings
- Webinars
- W4C Academy (launched Dec 2022)

Employment:

- Job Corner
- Job Platform in collaboration with ECSO (2023)



Women4Cyber



Women4Cyber Mentorship: Helping women advance their cybersecurity careers

- 4th Edition (in Cooperation with Industry Partners) Mar-Sep 2023 (+200 participants)



Women4Cyber Academy: One-stop-shop for cybersecurity trainings in Europe

www.women4cyberacademy.eu



ABOUT US DIRECTORY LEARNERS COURSES PROVIDERS EMPLOYERS INSIGHTS

The European database for cybersecurity education

The Women4Cyber Academy is a one-of-a-kind platform facilitating access to first-rate cybersecurity education and training.

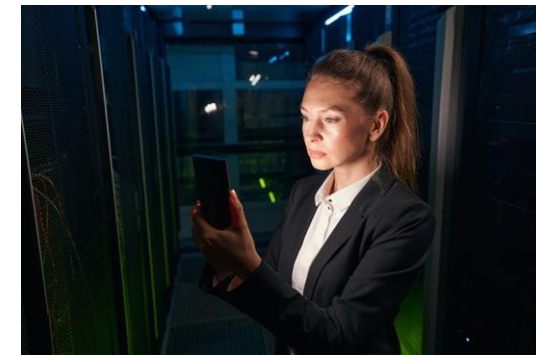
Search...

Ethical hacking Cybersecurity Linux

Coding and devsecops Cloud IT Basics Virtual labs



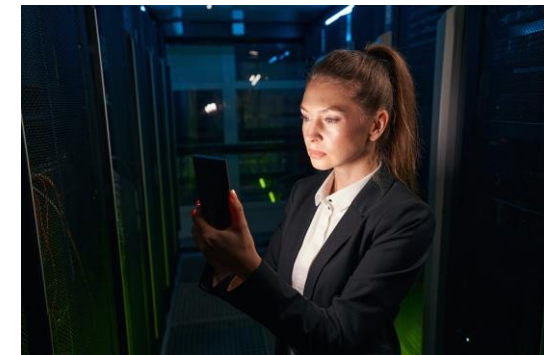
Women4Cyber



- Spain
- North Macedonia
- Albania
- Lithuania
- Luxembourg
- Serbia
- Italy
- France
- Portugal
- Kosovo
- Finland
- Greece
- Austria
- Slovakia
- Belgium
- Bosnia and Herzerogovina
- Denmark
- Latvia
- Poland



Women4Cyber



W4C funding comes from donations

These are the different kinds of donations you can opt to give, check how you can help us raise awareness and funds towards a gender-inclusive cybersecurity community

FINANCIAL

- COMPANY
- INDIVIDUAL

IN KIND

- AD-HOC SERVICES / CONTRIBUTIONS
- SCHOOL ACTIVITIES
- EVENTS
- PROFESSIONAL SERVICES
- DONATIONS DISCOUNTS

COURSES TRAININGS

Donations can be public or anonymous. Benefits include: logo on web, targeted actions, information, promotion and visibility in our community, goodies from W4C and more!

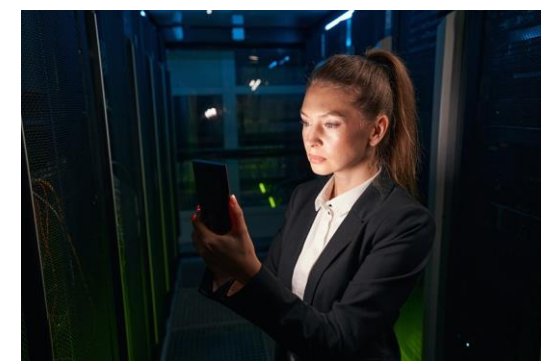
VIP ACCESS, TRAVEL/ ACCOMODATION COVERAGE

SCHOOL TRIP
FIELD TRIP
...

For more info, contact us at hello@women4cyber.eu



How to attract more women to work in the cyber field?



Highlight the variety of career paths in cybersecurity to show clearly how and where women can bring value

Remove the misconception that cybersecurity is just a technical issue when it is as much about people and processes. The field requires not only technical experts but individuals with a high emotional intelligence and strong managerial and soft skills, and here women can play a big part. At the same time, women in technical roles should be brought forward to make the traditionally male dominated technical segment of the field more gender diverse.

Facilitate access to education & training

There are numerous education programmes, online courses, as well as trainings & certifications that can bring in more women to the field, but many remain relatively unknown to those unfamiliar with the field and they also tend to be very costly.

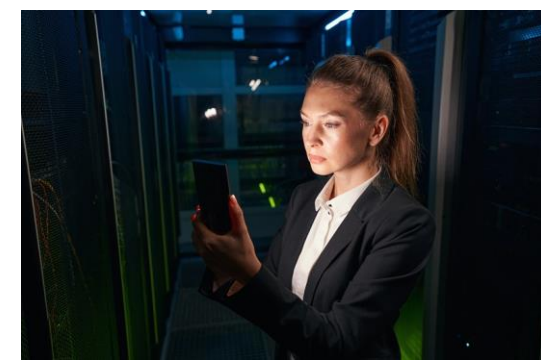
Promote the flexibility and versatility that the cybersecurity field offers

Cybersecurity revolves around the digital and online world and does not necessarily require a full-time presence in a traditional office setting. It offers more dynamic working habits and is adaptable to different kinds of employment which can be particularly attractive to parents, and in particular women, with young children who may be in search of flexible employment for a better work-life balance.

Raise awareness

Showcase role models, bring visibility to success stories and spread the word at all levels on the opportunities for a career in cybersecurity - at school, at university, and during professional life.

Contact info



Nina Olesen

Head of Sector @ ECSSO and Board Member
and Supervisor @ Women4Cyber





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Ženske v kibernetiki varnosti - trendi, priložnosti in aktualni izzivi

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sreda, 29. marec 2023

GZS, Dvorana A



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Izzivi načrtovanja ukrepov informacijske varnosti

Alenka Glas, PRO.astec d.o.o.

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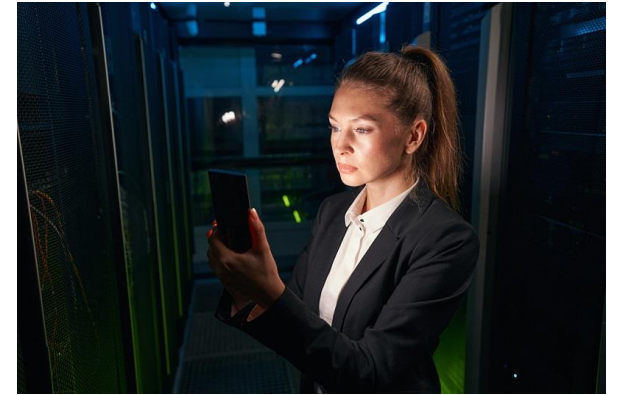
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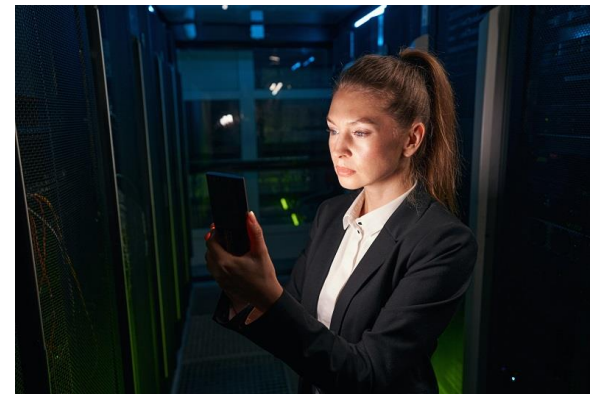
Informacijska varnost



Zagotavljanje informacijske varnosti pomeni zagotavljanje:

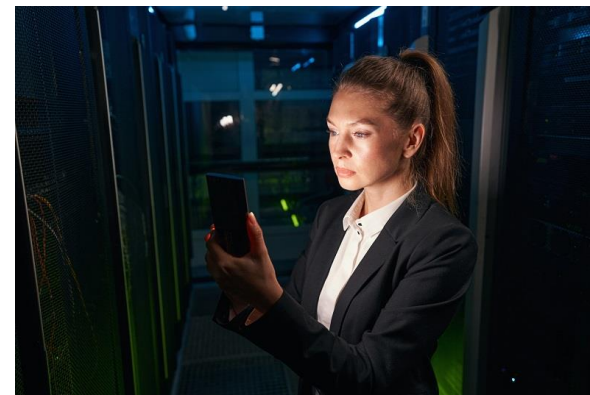
- zaupnosti
- celovitosti
- razpoložljivosti

Informacijska varnost



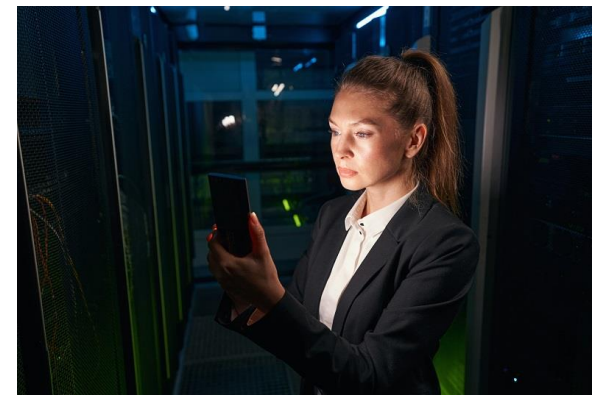
Informacijska varnost temelji na upravljanju informacijskih varnostnih tveganj.

Informacijska varnost



Informacijska varnost niso samo tehnične in tehnološke kontrole, pač pa predvsem ustrezni procesi in ljudje, ki jih izvajajo.

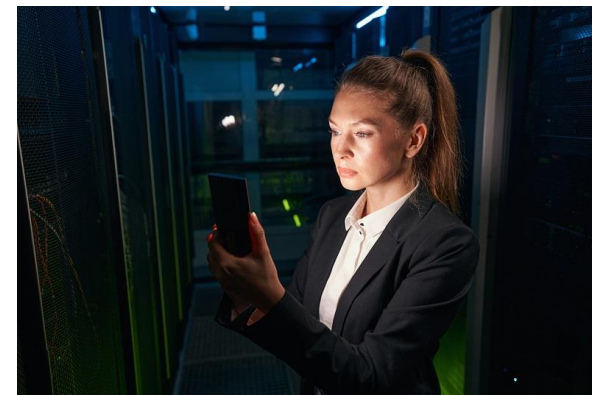
Načrtovanje ukrepov informacijske varnosti



Načrtovanje ukrepov informacijske varnosti mora temeljiti na:

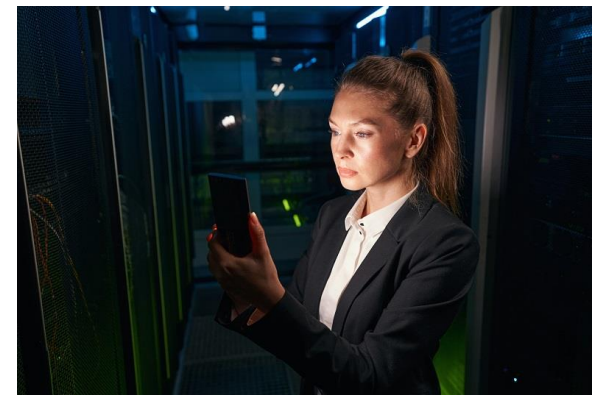
- poznavanju procesov,
- delovanju in ustroju organizacije
- običajnem človeškem obnašanju
-
- in še množici drugih vplivov na informacijsko varnost.

Načrtovanje ukrepov informacijske varnosti



Pomembna lastnost izvajalcev informacijske varnosti je razumevanje specifičnosti posameznega okolja in predvsem ljudi, ki so tam zaposleni.

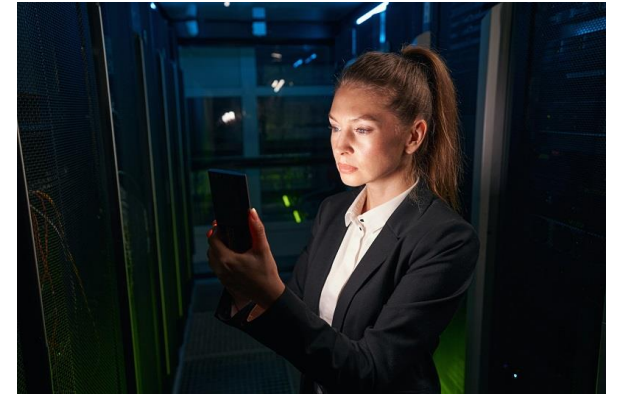
Načrtovanje ukrepov informacijske varnosti



Prav na področju načrtovanja ukrepov informacijske varnosti se kažejo velike priložnosti, ker:

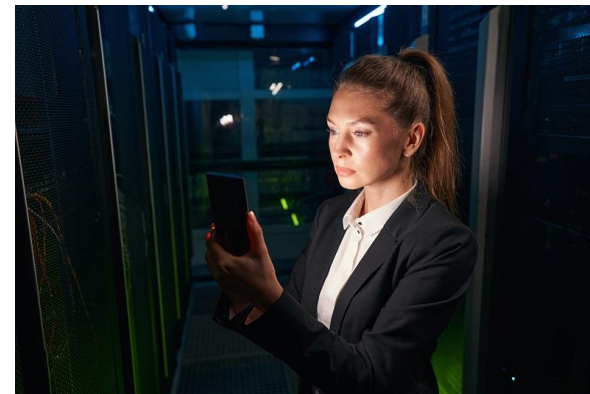
- preveliko zaupanje v tehnološke rešitve ne daje pričakovanih rezultatov
- so tako imenovane „mehke kontrole“ pomembnejše, kot smo pričakovali pred leti

Prihodnost poklica



- Veliko povpraševanje v vseh branžah
- Malo primerne znanja na trgu
- Premalo primernih programov v formalnem izobraževanju
- Verjetnost velike rasti ponudbe delovnih mest

Prihodnost poklica



RES ZANIMIVO DELO, VERJEMITE 😊

Za ženske?

Vsekakor!



Hvala za pozornost!

alenska.glas@astec.si





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Trendi digitalne varnosti po kvantnem računalniku

dr. Nastja Cepak, CREApus d.o.o.
nastja.cepak@creaplus.com

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sreda, 29. marec 2023
GZS, Dvorana A



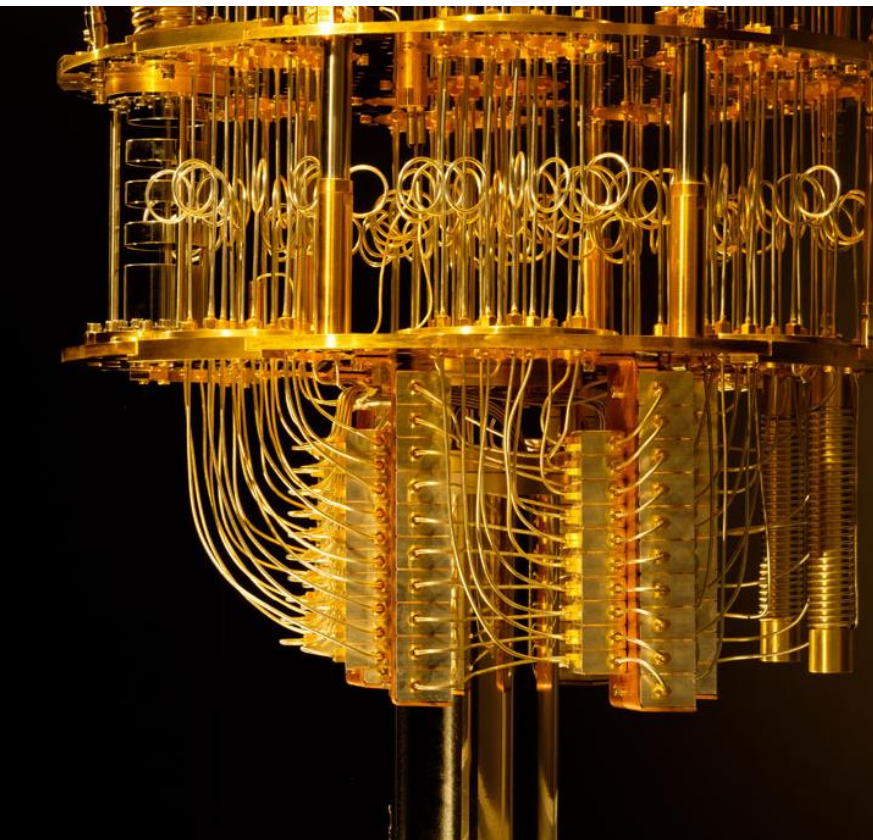
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Trend: Quantum computers



Quantum computers take advantage of quantum physics for solving **selected** problems that even the **fastest supercomputers** couldn't solve in a reasonable amount of time today.

This will have an impact on complex **search algorithms** & **data analysis** simulations.

D:wave
The Quantum Computing Company™

Google **Honeywell** **IBM**

intel

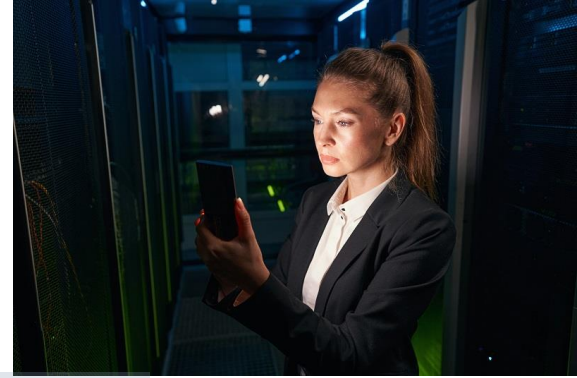
Microsoft **rigetti**

zit **SeKV**
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What is the difference?

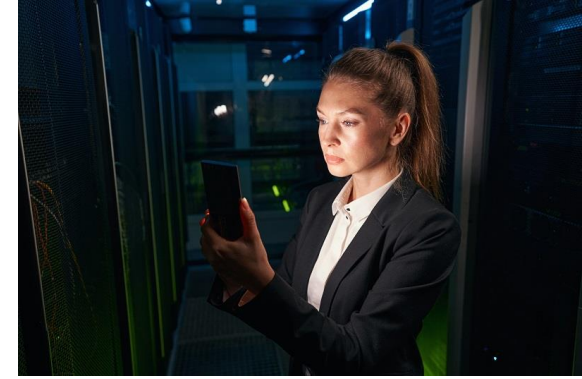


Classical computer

Quantum computer

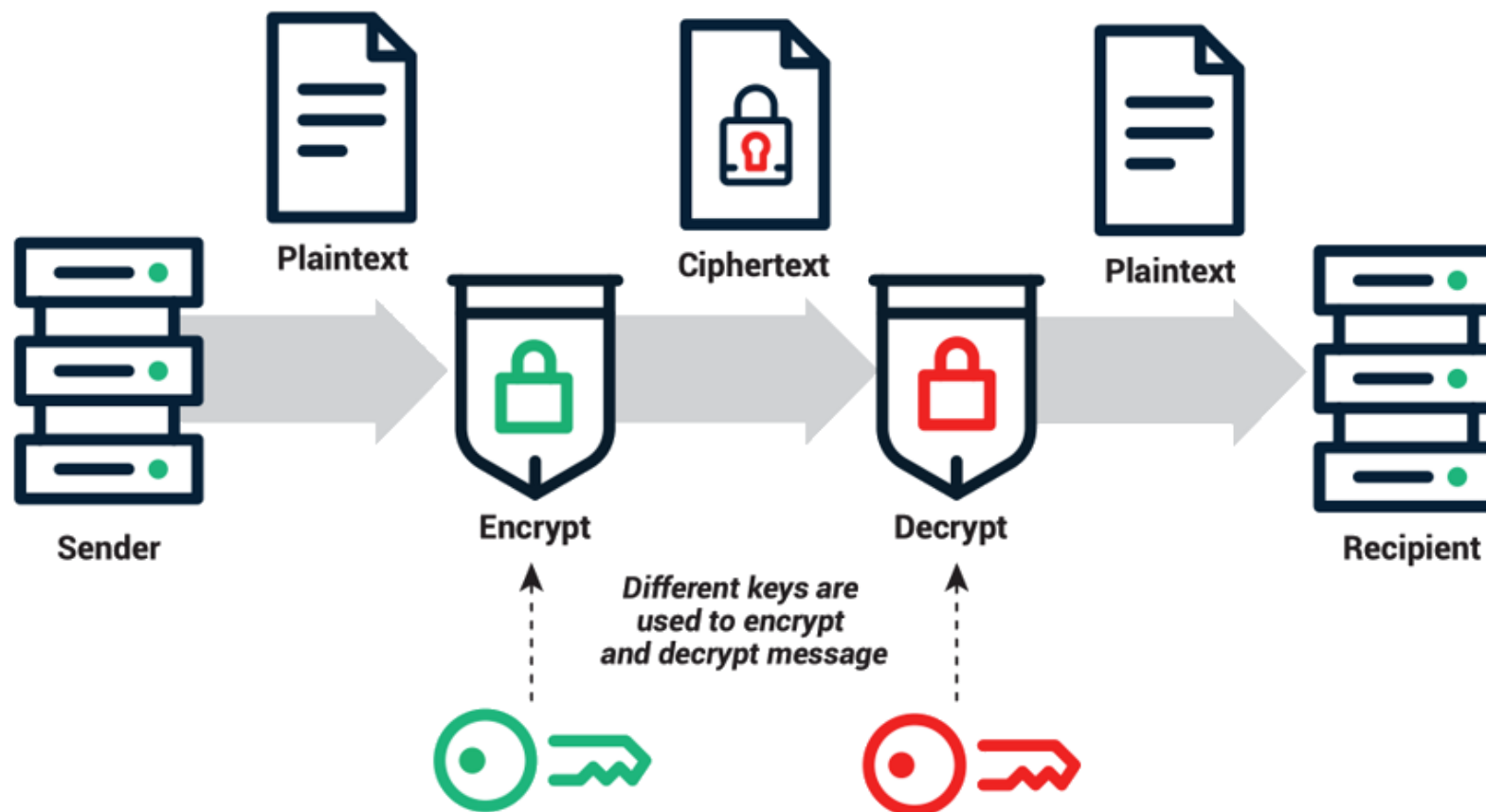
	Uses classical bits		Uses qubits
	Possible values are just 2: 0 in 1 Example: 2 bits can encode 4 values (00, 01, 10, 11)		Can take values 0, 1, or infinitely many superpositions in-between (Bloch sphere) 2 qubits can encode any superposition of the 4 states
	Computation ends with a single bit state		Computation end when we measure the result and the superpositions collapse
	Result is deterministic		Result is probabilistic

Cryptographic algorithms




Without **cryptography** almost no form of digital communication as we know it today would exist.

Asymmetric Encryption





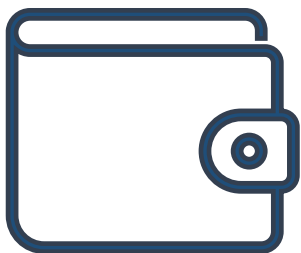
 **The site's security certificate is not trusted!**

You attempted to reach vpn.petenetlive.co.uk, but the server presented a certificate issued by an entity that is not trusted by your computer's operating system. This may mean that the server has generated its own security credentials, which Chrome cannot rely on for identity information, or an attacker may be trying to intercept your communications.

You should not proceed, **especially** if you have never seen this warning before for this site.

[▶ Help me understand](#)

**SSH, TLS,
IPsec**



DIGITAL COVID CERTIFICATE
EU DIGITALNO COVID POTRDILO

VACCINATION CERTIFICATE
POTRDILO O CEPLJENJU





zit **SeKV**
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RSA

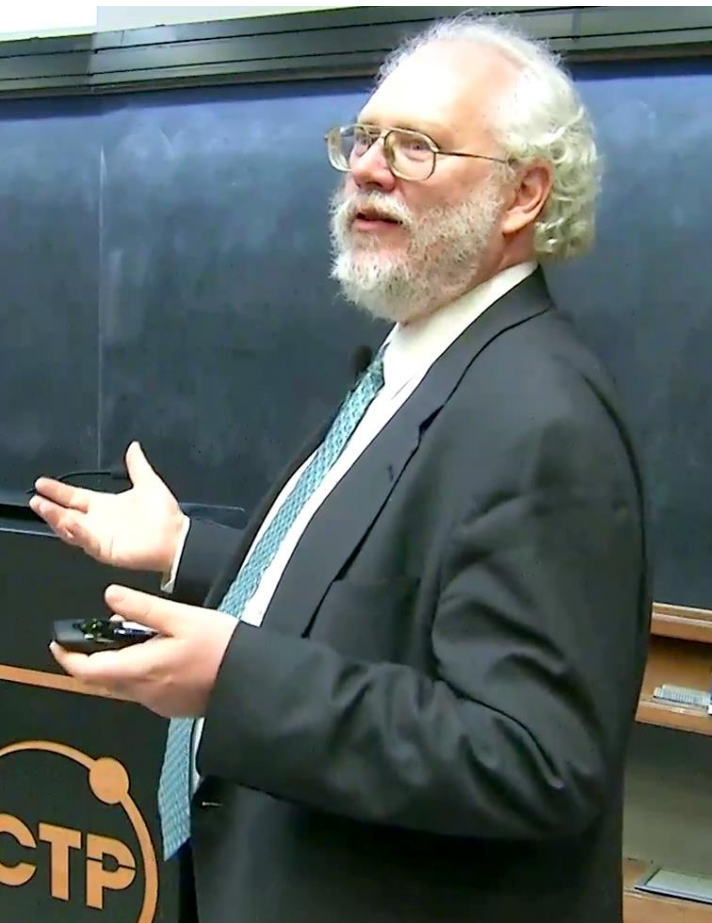


- Rivest–Shamir–Adleman, 1977
- Based on prime numbers
- **Multiplying** 2 primes is **easy**.
Factoring a number back into its prime components is **difficult**

Private key: p, q

Public key: $n=pq$

Shor's algorithm

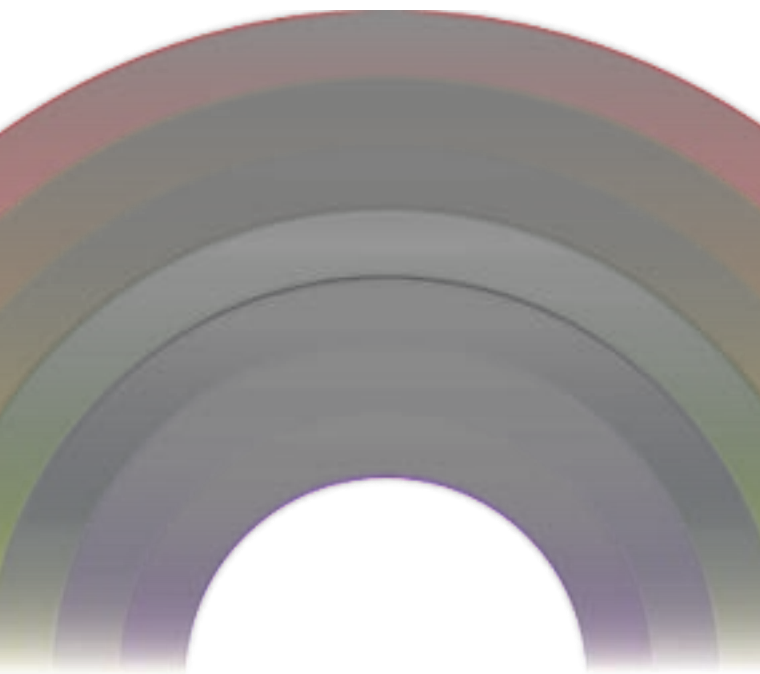


- Peter Shor, 1994
- **Integer Factorisation Problem**

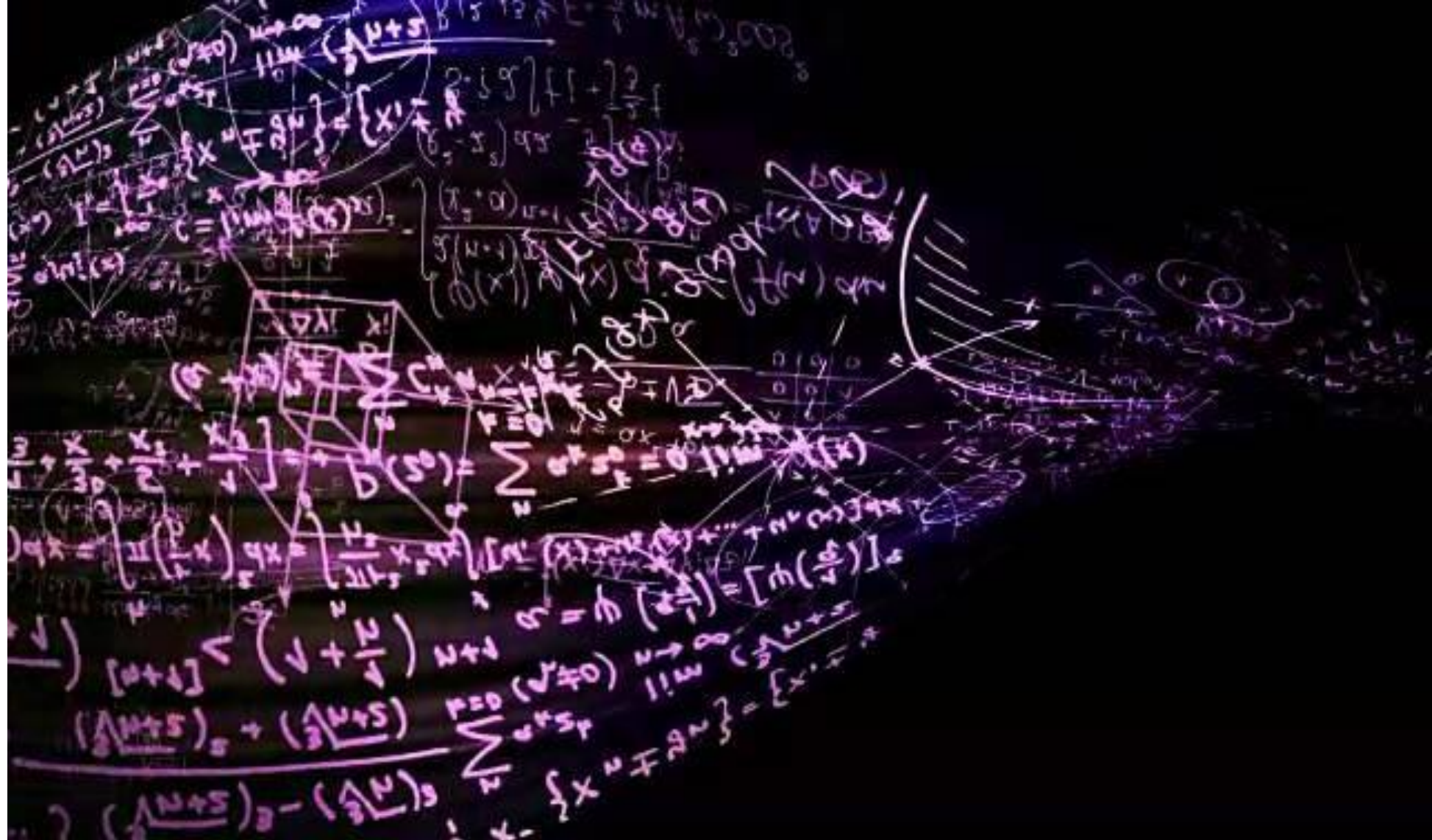
Private key: p, q

Public key: $n=pq$

- Given n , Shor's algorithm is able to compute p and q



?



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Girls_Do_Code

Cilj projekta: **Povečati zanimanje deklet za tehnologijo in druge STEM poklice.**

Dekletom starim **10 do 14 let** nudimo **možnost brezplačnega strukturiranega učenja osnov programiranja in logičnega razmišljanja.**

Dekleta na tečaju **Girls_Do_Code** spoznavajo:

- **splošno računalniško pismenost,**
- **osnovne koncepte programiranja,**
- **metode reševanja problemov,**
- **sprogramirajo vsaj 20 lastnih projektov,**
- **varno rabo interneta**

Ob uspešno končani stopnji dobijo certifikat o opravljenem tečaju & zaključni končni dogodek – Hackathon.

Nataša Prvinšek Torlak, soustanoviteljica Digital School
natasa@digitalschool.si

SIMBIOZA
MED GENERACIJAMI

Digital
School