

# CSAW'23

#### NOVEMBER 9-10, 2023

Founded by the Department of Computer Science and Engineering at NYU Tandon School of Engineering











### Welcome

November 10, 2023

CSAW Europe 2023

Welcome to the 7th edition of CSAW Europe!

Cybersecurity Awareness Week is the largest student-run cybersecurity event in the world. This 20th contest takes place simultaneously on several sites worldwide: New York City for US-Canada, Kanpur for India, Abu Dhabi for MENA, Mexico City for Mexico, and Valence for Europe at Grenoble INP - Esisar, UGA.

During two days, CSAW will bring passionate students about cybersecurity and industrial experts together through competitions and conferences.

I would like to express our sincere thanks to our local authorities, and industrial and academic partners, who made this event possible. We hope all you will enjoy meeting our partners, attending the conferences, and taking advantage of CSAW's many networking opportunities during your journey in Valence.

The knowledge you gain, the relationship you build, and the contributions you make will benefit the European cybersecurity community for years to come.

Thank you for being a part of this adventure!



Sincerely,

Eduardo MENDES
Director
Grenoble INP - Esisar, UGA

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www.auvergnerhonealpes.fr

# Welcome to the heart of innovation

Auvergne-Rhône-Alpes, the 1<sup>st</sup> Tech Region in Europe A unique Ecosystem

- → Dedicated to innovation
- Vibrant for incubation & acceleration

### THANK YOU TO OUR PARTNERS



#### **ANGEL**





#### **RED TEAM**







#### WHITE HAT



#### **INSTITUTIONAL PARTNERS**











#### **SUPPORTING INSTITUTIONS**















It's a real pleasure for me to welcome you to Valence: I'm proud that our city hosts the European Edition of Cyber Security Awareness Week 2023.

This edition is organized by Grenoble INP – Esisar, UGA, in partnership with the New York University Tandon School of Engineering.

It's for our school a fantastic challenge and a unique opportunity for high school students to learn the latest trends and developments while testing their knowledge in cybersecurity matters.

Cybersecurity is a subject of growing concern, not only for companies and institutions but for private individuals as well. Cyberattacks are increasingly frequent and have become a top risk in many sectors of the economy worldwide.

We need researchers, engineers, and scientists to seize these questions and prepare for our future safety. This event will contribute greatly to this challenge, and I thank all those who made it possible to organize.

Valence is honored to welcome you: our city demonstrates once again, with this event, our several universities and an engineering school of excellence, Esisar, its ability to innovate at the forefront.

To conclude, let me reiterate that this competition reflects the dynamism and passion of our city and sheds light on the international recognition of Esisar.

I wish you a pleasant stay in Valence and an excellent competition to all!

Nicolas DARAGON President of Valence Romans Agglo Mayor of Valence





# Master Agenda

**NOVEMBER 9** 





#### **NOVEMBER 10**

7:00 PM

at Grenoble INP – Esisar, UGA

				10-nov
COMPETITIONS				
	CTF	Applied Research	ESC / PSC	RED
8:00 AM			WELCO	OME BRE
9:00 AM		ARC Finalists Posters	ESC/PSC: Live demo /	<u> </u>
10:00 AM		/ Judge Q&A	Judge Q&A	Roc
11:00 AM		Posters session open to public	Posters session open to public	RED T
12:00 PM			LUNCH	CON
1:00 PM	CTF			(High
2:00 PM	26 hours	Posters session open to public	Posters session open to public	stud
3:00 PM		Jury deliberation	Jury deliberation	
4:00 PM				Ju
5:00 PM			CSAVA	delibe
6:00 PM			CSAW Z	.023 <sub>0</sub> P

1-23

Team

**FORUM** 

**CYBERDAY** (PME / SMEs) Cycle of conferences

"A united Europe for cybersecurity"

#### AKFAST + PROGRAM PRESENTATION

**TEAM** 

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> **STANDS PARTNERS**

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**STANDS PARTNERS** 

Cyberday Workshops



Keynote SAFRAN - 30'

**Keynote THALES - 30'** 

Keynote CEFCYS - 30'

**NETWORKING** 

Keynote IRT - 30'



Keynote Europe - 30'

European panel discussion: EU academic & industrials experts

(Finalists + judges + guests)

School Visits

School Visits

# **KEYNOTES**

As part of the Applied Research final, the 10 finalists, doctoral candidates from prestigious European universities, will present their articles published during the year in a top-ranking journal or conference to a panel of experts and interested members of the public during an afternoon of lectures, their articles published during the year in a high-ranking journal or

#### THURSDAY 9 NOVEMBER 2023

**CSAW Europe Conference** 

On the occasion of CSAW Europe, the LCIS and Grenoble INP Esisar organise a day of conferences on 9 November at Grenoble INP Esisar in Valence.

The morning session, organised in conjunction with the Hardware Systems Security WG, which is shared by the GDR Securité Informatique and SOC2, are devoted to the use of Non-Clonable Physical Functions for systems security.

Link to the whole program of conferences: https://lcis.fr/event/csaw-europe-seminaire-de-recherche-le-9-novembre-202

FRIDAY 10 NOVEMBER 2023

#### CYBERDAY en partenariat avec Auvergne Rhône Alpes entreprises

9:00 am - Welcome

9:30 am - 11:30 am Cyberday Workshops

Cybersecurity & connected objects

by Mickaël SEIGNOBOS, Cybersecurity Engineer Esynov (Grenoble INP - Esisar, UGA)

What do you really risk when you hack into a light bulb or a connected thermometer? It's probably a lot more than you think. This workshop will learn about the challenges of IoT-related attacks

#### - Cybersecurity & OSINT

by Axel ABATTU, Esynov Cybersecurity Manager (Grenoble INP - Esisar, UGA)

Do you know what a hacker can find out about you in just a few clicks? The use of social engineering by hackers is becoming a major part of modern cyber attacks. Come and discover the tools used by hackers.

#### - Cybersecurity & Passwords

by Hervé MIALON, Cybersecurity Expert, Auvergne-Rhône-Alpes Entreprises

Should you use a password manager? Is a long or complex password secure? This workshop will enable you to update your knowledge of the best practices to adopt to really protect your access.





#### Développement économique

Des solutions pour renforcer votre activité, sourcer de nouveaux fournisseurs, relocaliser votre production et financer votre développement



#### Innovation

De l'idée au produit, accélérer votre parcours dans votre projet d'innovation



#### Europe / International

Favoriser l'ensemble de vos démarches : export, financement, implantation



#### Emploi / Formation

Vous connecter à tous les services et outils pour optimiser la valeur de vos ressources humaines



#### Intelligence Économique et Territoriale

Des études et panoramas pour décrypter les tendances économiques et sectorielles de la région



Des services facilitateurs pour vous **implanter** en Auvergne-Rhône-Alpes





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CONTACT







#### 9:30 am - 10:00 am Keynote Safran Electronics & Defense - D030

Joseph Adelaide : Ingénieur Cybersécurité / Principal Embedded Systems Cyber-Security Architect

Topic: « OpenHW-RISC-V: New Perspectives ». OpenHW and RISC-V, the dynamics in Europe and the skills required to deal with them.



#### 10:30 am - 11:00 am Keynote Thalès - D030

Nathalie Feyt: Directrice Cybersécurité / Cybersecurity Director

Vincent Thouvenot : Ingénieur de recherche en sciences des données / Data Science Research

Engineer

Topic: « A journey of a Privacy attacks challenge »



#### 11:30 am - 12:00 pm Keynote CEFCYS - D030

Steph Draperi : Soc Analyst & Co-responsable Gt sensibilisation du Cefcys Odile Huchet : Manager Cybersécurité – GRC auprès de Sopra Steria

Topic: Digital hygiene: The state of play at the end of 2023, the attack vectors used by «net malware», the protection of your personal data, a small demonstration of potential risks that are not always visible.



#### 2:00 pm Keynote IRT Nanoelec - D030

French Institute of Research and Technology on nanoelectronics that also develops a training program focusing on human capital (CHIF)

Maria CHRISTOU: Learning developer Topic: «IRT Nanoelec & CHIF Program»

Estelle BELIN-DI STEPHANO : Learning developer Topic: CHIF projects on microelectronics' sustainability and field's attractiveness

3:00 Polin

3:00 pm Keynote Europe - D030

Polina KHOMENKO - Political reporter at European Commission Representation in France Topic: The current challenges on cybersecurity skills in Europe



#### 3:30 pm European panel: Cybersecurity in EU, What skills to tackle upcoming challenges? - D030

Moderator: Bruno CHARRAT, Head of cybersecurity coordination - CEA

Panel 1 : Cybersecurity skills : the needs and actual observations

Marianne DELARUE — Regional delegate of Auvergne-Rhône-Alpes for the National

Cyber security Agency of France (ANSSI)

Chloé BLONDEAU - Seconded National Expert at ENISA – European Agency for Cybersecurity

Joseph Adelaïde – Cybersecurity engineer for Safran Electronics & Defense.

Nathalie Feyt - Director, Chief Information and Product Security for Thales AVS

#### Panel 2 : Examples of initiatives to tackle these issues collectively and train young European talent

The ERASMUS+ project EMNESS - Vincent Beroulle, Director of the LCIS Laboratory, Grenoble INP Esisar, UGA and Salvador Manich, Universitat Politècnica de Catalunya | UPC

The project CyberSkills@UGA - Laure Gonnord, University Professor, Grenoble INP Esisar, LCIS Laboratory Grenoble INP, UGA

The European Digital Innovative Hub (EDIH) Minasmart - Antoine CAMUS, Director for cybersecurity for Minalogic competitiveness cluster



We empower the entire IoT ecosystem to design, build and manage secure products throughout their entire lifecycle.

Semiconductor manufacturers Device manufacturers End-user companies



Security Standards & Compliance Services



Device Threat Assessment



Device Security Analysis



Secure IP: 3rd Party Root of Trust



PKI-as-a-Service (e.g. Matter)



Secure Key & Certificate Provisioning



Signing Service & Firmware Update



Security Lifecycle Monitoring & Management



#### Le Cercle des Femmes de la CYberSécurité

Association dont le principal objectif est de promouvoir et faire progresser la présence et le leadership des femmes dans les métiers relatifs à la cybersécurité.

# MISSIONS

#### **SENSIBILISER**

les partenaires éducatifs et les jeunes enfants de 5 à 15 ans aux usages du numérique, tout en leur présentant l'étendue des métiers de la cybersécurité.

#### **FORMER**

les femmes dans leur projet de formation cyber au travers d'un programme de mentorat. Et les accompagner dans leur recherche d'emploi.

#### ÉCLAIRER

le grand public à la cybersécurité, en particulier les jeunes, pour la protection et l'éducation à l'usage sécurisé du numérique.

#### **PROMOUVOIR**

le potentiel féminin en valorisant les compétences des femmes via des groupes de travail, des publications de newsletters et de rapports...



Le CEFCYS rejoint Le Campus Cyber, afin de rester en proximité de l'écosystème cyber en France. Au sein de ce campus le CEFCYS poursuivra toujours et encore plus, ses engagements et actions auprès des femmes et des jeunes dans la filière cyber.

Nacira Salvan, Fondatrice & Présidente du CEFCYS











# **JUDGES**

CSAW judges hail from across the industry, representing some of the most elite experts and academicians in the cybersecurity community. We are grateful for their contributions.

#### APPLIED RESEARCH COMPETITION

#### **FINAL JUDGES**

- Guillaume BOUFFARD | Embedded System Security Expert | ANSSI
- Stephan COURCAMBECK | STMicroelectronics
- Frédéric HEITZMANN | Director of Engineering | Tiempo-Secure
- Yann LOISEL | Principal security architech | SiFive
- Valentin MARTINOLI | Cybersecurity Engineer | Thales
- Doriane PERARD | Security evaluator | CEA
- Marcel PRISI | Senior security expert | Kudelski loT

#### EMBEDDED SECURITY CHALLENGE

#### **FINAL JUDGES**

- Serge AVRILLON | Cybersecurity Expert | Safran
- Raphaël BLAIZE | Product security officer | Thales
- Marie-Angella CORNELLIE | Hardware security evaluator | CEA
- François DORANDEU | Product Cybersecurity Expert | Jtekt
- Julien MONTMASSON | STMicrolectronics
- Hervé PELLETIER | Kudelski

#### PUF-ENABLED SECURITY CHALLENGE (PSC) FINAL JUDGES

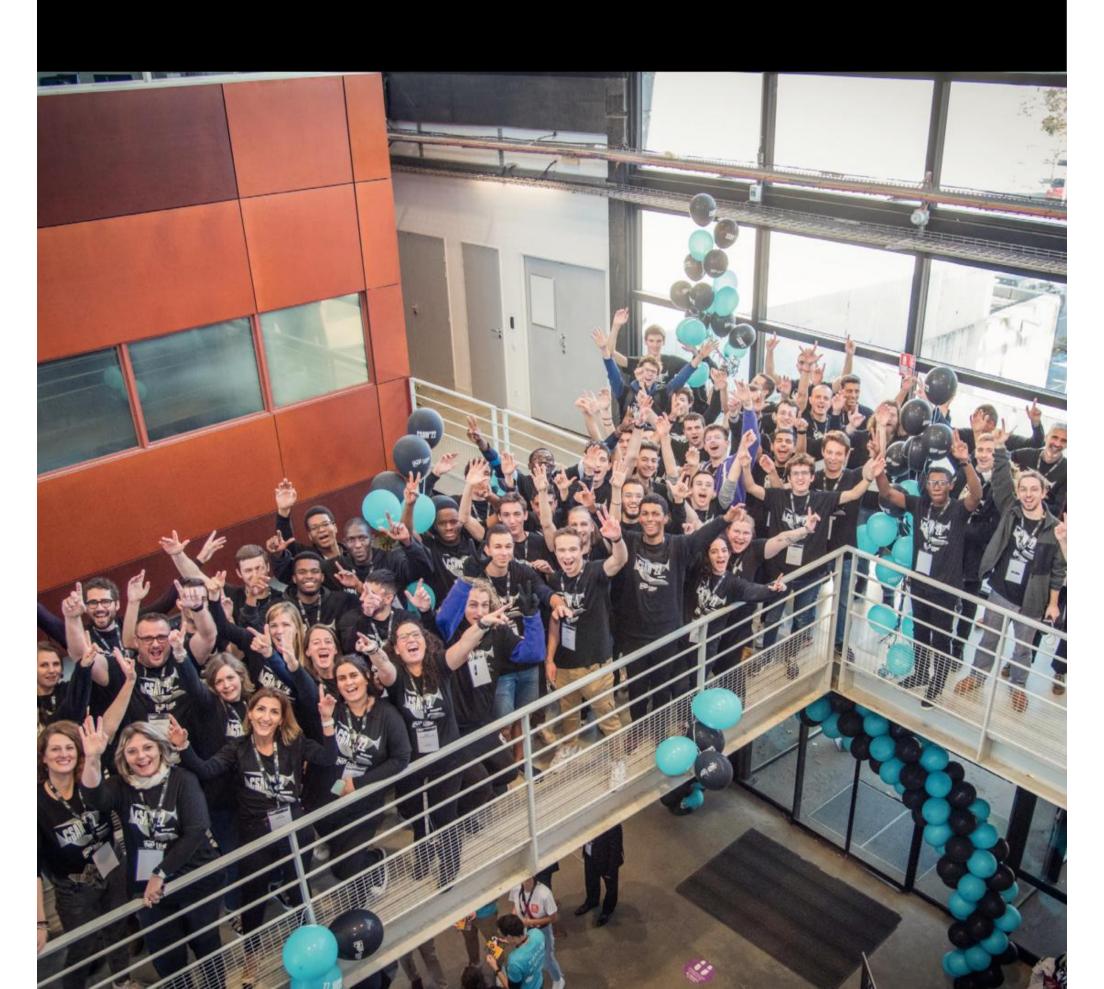
- Christopher DE JESUS | Ingenico security expert
- Julien FRANQ | Responsable recherche & innovation en cybersécurité
- Arthur MILLE | Kudelski IoT
- Sébastien RIOU | Application manager | CEA
- Mouad ZEROUAL | Digital risk leader & Secops manager | Schneider Electric

#### RED TEAM COMPETITION

#### **FINAL JUDGES**

- Estelle BELIN DI STEPHANO |Ingénieure Pédagogique | Learning developer, Programme Formation CHIF | IRT Nanoelec
- Maria CHRISTOU | Ingénieure Pédagogique | Learning developer, Programme Formation CHIF | IRT Nanoelec
- **Odile HUCHET** | Manager cybersecurity | CEFCYS
- Pascal LAFOURCADE | Professeur des université Université Clermont Auvergne
- **Hervé MIALON** | Chef de projets | Auvergne Rhône Alpes Entreprises

# Organizers & Supporters



# COMPETITION ORGANIZERS

CSAW'23 was developed through the hard work and dedication of the following Organizers and Supporters.

Our sincere thanks!

David Hély, General Chair Eduardo Mendes, Director of Grenoble INP - Esisar, UGA Anne-Laure Duée, Project Lead & Logistic coordinator Gabriel Blanchard, Project Lead & Partnerships

#### **ESISAR GLOBAL SUPPORT TEAM**

#### LOGISTIC & SUPPORTS

Axel Abattu, Cyberday workshop
Murielle Brachotte, Fondation Grenoble INP
Léa Cézard, Communication
Karim Chibane, Cyberday Conferences
Véronique Jadin, Finances manager
Marie Margot, Communication manager
Zina Njeh, Finances
Charles Reboul, Partnerships
Chantal Robeil, Communication & logistics
Stéphanie Ruard, Cyberday Communication
Mickaël Seignobos, Cyberday workshop
Virginie Soubeyrand, School visits coordinator
Vincent Terme, Logistics support
Bruno Teyssier, IT coordinator

#### STUDENTS LEAD

Jayson Verin, Student coordinator
Thomas Littolff, Esisar School visits Student lead
Elie Wilhelm, Logistics Student lead
Timothée Fink, Welcome Student lead
Rémi Lieutaud & Club Musisar, Social Event animation
Club Kr[Hack]en, RED Team Competition Student lead

#### **FACTULTY GUIDES**

Ihab Alshaer, Embedded Security Challenge co-lead Christophe Deleuze, Applied Research Competition Faculty lead Valentin Egloff, PUF-Enabled Security Challenge Faculty co-lead Quentin Giorgi, Red Team Competition Faculty lead David Hély, PUF-Enabled Security Challenge Faculty co-lead Yann Kieffer, Applied Research Competition Faculty co-lead Amir-Pasha Mirbaha, Embedded Security Challenge Faculty lead

#### **NYU GLOBAL SUPPORT TEAM**

#### **LOGISTIC & SUPPORTS**

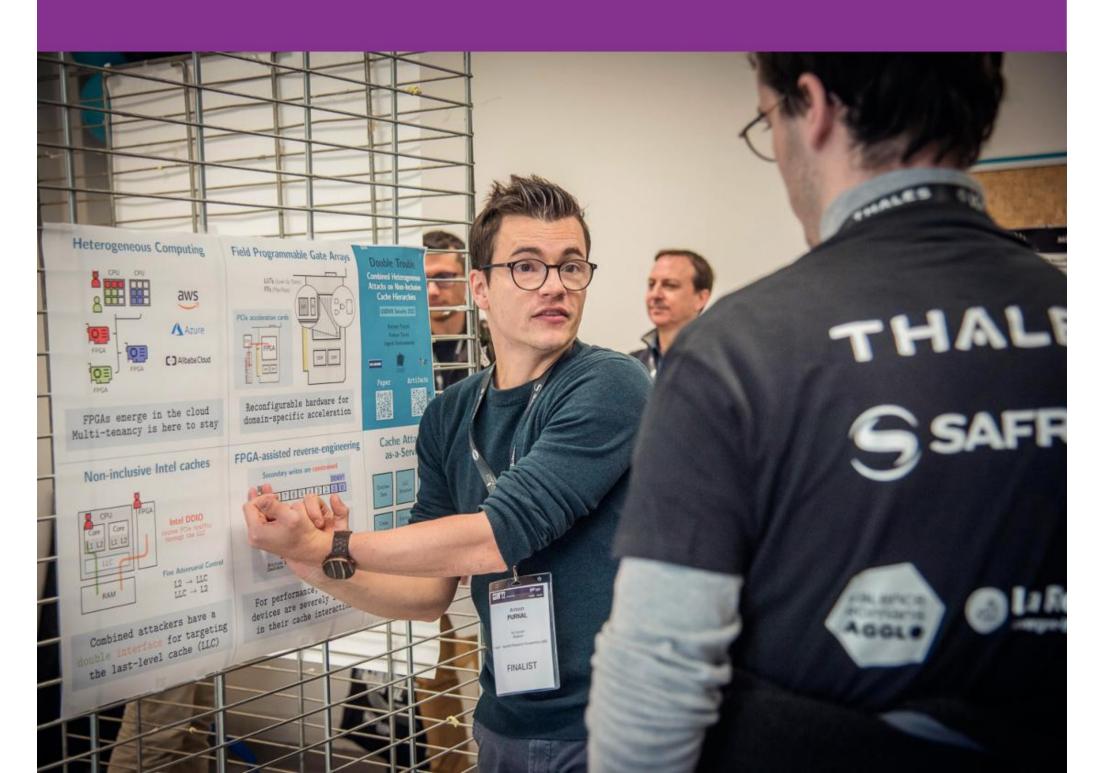
Ramesh Karri, CSAW Global Conference Director NYU CCS Stef Daley, Project Manager NYU CCS Nasir Menon, CSAW founder & advisor NYU CCS

#### **GLOBAL CHALLENGE LEADS**

Brendan Dolan-Gavitt, OSIRIS Faculty advisor, CTF Lead Dhyey Shah, CTF Co-lead, NYU Osiris lab Nektarios Tsoutos, ESC Global Faculty lead – University of Delaware Lars Folkerts, ESC Global Co-lead – University of Delaware Chaz Gouert, ESC Global Co-lead – University of Delaware Dimitris Mouris, ESC Global Co-lead – University of Delaware

With the kind and enthusiastic support of all Grenoble INP - Esisar, UGA employees and students.

# Competitions



#### APPLIED RESEARCH

In the Applied Research Competition, student researchers are invited to enter the running for the CSAW Best Paper Award.

Eligible submissions include papers published between September 1, 2022, and August 31, 2023, on any topic related to the application of security technology or the implementation of security systems.

#### **FINALISTS**



Matthew Rossi, Università degli studi di Bergamo, Italy NatiSand: Native Code Sandboxing for JavaScript Runtimes



Piergiorgio Ladisa, SAP Security Research & Université de Rennes 1, Inria, IRISA, France SoK: Taxonomy of Attacks on Open-Source Software Supply

Chains » Retbleed: Arbitrary Speculative Code Execution with Return



Niesler Christian, University of Duisburg-Essen Jan Thomas, Ruhr University Bochum - Germany ClepsydraCache -- Preventing Cache Attacks with Time-Based Evictions »





Andrea Fioraldi, Eurecom, France LibAFL: A Framework to Build Modular and Reusable Fuzzers



Soheil Khodayari, CISPA Helmholtz Center for Information Security, Germany It's (DOM) Clobbering Time: Attack Techniques, Prevalence, and Defenses



Gerlach Lukas, Helmholtz Center for Information Security, Germany A Security RISC: Microarchitectural Attacks on Hardware RISC-V CPUs



Cloosters Tobias, University of Duisburg-Essen, Germany RiscyROP: Automated Return-Oriented Programming Attacks on RISC-V and ARM64



Mikhail Shcherbakov, KTH Royal Institute of Technology, Sweden Silent Spring: Prototype Pollution Leads to Remote Code Execution in Node.js



Bognar Marton, KU Leuven, Belgium ShowTime: Amplifying Arbitrary CPU Timing Side Channels



Wai Man Si, CISPA Helmholtz Center for Information Security, Germany Why So Toxic? Measuring and Triggering Toxic Behavior in Open-Domain Chatbots





# **Cybersecurity Institute**

#### Université Grenoble ∧lpes

ADDRESSING CYBERSECURITY CHALLENGES
BY BRIDGING TECHNOLOGY AND SOCIAL SCIENCE

#### **OBJECTIVES**

#### CYBERALPS c'est :

- 1 Hardware Security
- Plus de 100 chercheurs répartis sur 14 laboratoires
- 2 Data Sovereignty
- 15 thèses financées, co-financées ou environnées
- Plus de 150 publications
- 3 Cryptanalysis tools
- CESICE





- 4 New Risks for cybersecurity
- C LCIS





5 Cyersecurity regulation









www.cybersecurity.univ-grenoble-alpes.fr

in



@CyberAlps

# **ESUNO**by Grenoble INP - Esisar, UGA

Technological innovation platform

# Our Missions EXPERTISE & TRAINING





Cybersecurity for information system

Cybersecurity for embedded system





Electromagnetic compatibility

Radiofrequency

#### Esynov supports you to deal with cyberthreats:

- Integrate and manage cybersecurity issues
- Develop a cybersecurity culture and expertise
- Perform an inventory
- Implement cybersecurity in a practical and operational way within the company
- Evaluate the security of a product or a connected system



#### CAPTURE THE FLAG

Students tackle problems in a series of real-world scenarios modeling various computer security problems. To succeed, teams must demonstrate a profound understanding of the roles and ramifications of cyber security in these situations. Because the challenges are designed to teach, CTF requires contestants to integrate concepts, develop skills, and learn to hack as they go.

#### **FINALISTS**

/mnt/ain. EPFL, ETH Zurich, HSLU, Switzerland Philippe Dourassov, Aaron Hodel, Yoric Züger, Luc Fisch



**BelRedDaemons**, Howest, Ecole 2600, KU Leven, Belgium / France

Arsen Chilingaryan, Brahim El Fikhi, Thomas Vandeputte



CheriPI, University of Cambridge, United Kingdom Zhongqi Zhao, Yi Chen Chai, Harry Chen, Zeyu Zhang



**CyberHero**, University of Nis, Faculty of Computing, University of Belgrade, University of Novi Sad, Serbia Lazar Mancic, Mihajlo Krsmanovic, Aleksa Vuckovic, Marko Gordi



**DragonSec SI**, University of Ljubljana, Slovenia Aljaž Medi, Jure Mihelcic Žnidaršic, Miha Frangež, Jure Pustoslemšek



LosFuzzys, Graz University of Technology,

**Austria** 

Yuma Buchrieser, Hannes Weissteiner, Sebastian Daniel Felix, Marcell Matthias Haritopoulos



#### Phreaks 2600, Ecole 2600, France

Mohammed Benhelli, Dimitri Carlier, Esteban Tonglet, Lucas Valentin



#### polyflag, Karlsruhe Institute of Technology, ETH Zurich, EPFL,

Switzerland

Liam Wachter, Joshua Bernimoulin, Léo Larigauderie, Adam Amanbaev



#### R0073R5, Coventry University, UK

Alexander Smith, Hedvig Mareng, Agnes Suszter, Haydon Smith



#### Radboud Institute of Pwning, Radboud

University, The Netherlands

Ward Theunisse, Baris Atik, Harm Roukema, Rick de Jager



#### Rubi di Cubrik, ECE National Technical University

of Athens, Greece

Thanasis Konstantopoulos, Apostolos Chatzianagnostou, Spyridon Michail Evangelou



#### Scooby-NTUA, University of Piraeus, Greece

Nikolaos Mourousias, Nils Langius, Panagiotis Lappas, Michail Tsapralis, Chronis Sapountzakis



#### srdnlen, VU Amsterdam, Netherlands

Riccardo Sulis, Simone Sulis, Lorenzo Siriu, Massimo Sanna



#### STT, Instituto Superior Tecnico Lisboa, Portugal

Nuno Sabino, Afonso Santos, Bruno Mendes, André Mendes



#### TRX, Sapienza Università di Roma, Italy

Dario Petrillo, Christian Cotignola, Tommaso de Nicola, Leandro Antonio Pagano



#### PUF-ENABLED SECURITY CHALLENGE

PSC is a new CSAW Europe challenge organized by the LCIS laboratory. PSC gives students the opportunity to present innovative PUF-based security solutions to a panel of security experts.

The PUF-based security feature to be presented can address any threats of a modern IoT system from Iow level hardware attacks to system level attacks (hardware attacks detection, key distribution, support to secure computing ....)

The Agents of P.U.F. University of Sheffield, UK Realising Symbiotic Security through Software/Firmware/PUF Co-Design



Owen Millwood, Witali Bartsch

IMSE-CNM, University of Seville, Spain
The use of Physical Unclonable Functions (PUFs) for the purpose of linking physical assets with Non-Fungible

Tokens (NFTs)

Roberto Román Hajderek, Paula López González



Arcades Lab, Università degli Studi di Napoli Federico II, Italy

A group-key management protocol based on PUF Daniele Lombardi, Antonio Emmanuele, Jorge Fernandez-Aragon, Abel Naya-Forcano



GDE, University of Zaragoza, Spain

A new PUF based on sensors for the identification of IoT smart mobile devices

Jorge Fernandez-Aragon, Abel Naya-Forcano



**Comelec,** Institut Mines Télécom - Telecom Paris, France Security Of Physically Unclonable Functions Against Modeling Attacks

Neelam Nasir



ByteDefenders, Grenoble INP - Esisar, UGA, France PUF-TLS

Arthur Desuert, Qasim Naeem, Ibtitel Ben Ammar, Imen Abidi





#### SAFRAN ELECTRONICS & DEFENSE, INTELLIGENCE ONBOARD

Day after day, you face critical challenges. The products and services developed by Safran Electronics & Defense, whether civil or military, deliver the technological superiority, effectiveness, reliability and competitiveness you expect. We're with you every step of the way, building in the intelligence that gives you a critical advantage in observation, decision-making and guidance. You can count on Safran Electronics & Defense, your strategic partner on land, at sea, in the air and in space.

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\*\*g\*: @SafranElecDef



#### EMBEDDED SECURITY CHALLENGE

ESC is an educational, research-oriented tournament aimed at hacking into the hardware of embedded systems. First run in 2008, it is the oldest hardware security competition in the world. 2023 represents ESC's 16 year anniversary.

This year's ESC focuses on side channel attacks (SCA) on cyber-physical systems (CPS).

Cyber-physical systems are used by hundreds of industries and in many critical infrastructure systems. If these CPSs are not properly setup they can leak information even if they are using cryptographically secure software. This year, teams will investigate a range of SCAs on an Arduino Uno based CPS running several firmware that expose various side channels.

#### **FINALISTS**



#### **Hackcess**

Boye Mouhamed (IUT Roanne) France Aymeric Foulie (IUT Roanne) France Tom Malosse (IUT Roanne) France Theo Dufour (IUT Roanne) France



#### **BitsFromBZH**

Adam Henault (Université Bretagne Sud) France Florian Lecocq (Université Bretagne Sud) France Axel Gouriou (Université Bretagne Sud) France Philippe Tanguy (Université Bretagne Sud) France



#### **Towpath Inspectors UNLTD**

Matthew Bowden (University of Birmingham) UK Martin Thompson (University of Birmingham) UK Jacqueline Henes (University of Birmingham) UK Jesse Spielman (University of Birmingham) UK

#### Cyber Solutions by Thales

# REJOIGNEZ notre équipe de

# PENTESTERS

Vous souhaitez faire des tests d'intrusion sur des environnements de haute criticité dans des secteurs à fort niveau d'engagement & innovants ?

#### **Thales** vous propose



Des compétences de pointe reconnues notamment au travers de nos activités d'évaluation de solutions Cyber (CESTI) et de sécurité offensive à des fins d'entraînement (Thalium)



**Des équipes qualifiées** en Forensics, Reverse & Pentests homologuées PASSI-LPM et PRIS pour intervenir sur des environnements sensibles et en gestion de crise



Un écosystème dynamique avec des retours d'expériences réguliers, un management expérimenté et une répartition dans toute la France



Pour nous rejoindre

THALES

Building a future we can all trust

cyberthreat.thalesgroup.com



#### Breiz'Hell

Théo Rivière (ENSIBS) France Léo Chaigneau (ENSIBS) France Okan Keten (ENSIBS) France Rémi Bouillet (ENSIBS) France



#### **BLoCAJ**

Amine Alia (IUT GEII Saint-Etienne) France Charlie Durand(IUT GEII Saint-Etienne) France Jules Fellouse (IUT GEII Saint-Etienne) France Jean-Loup Jouve (IUT GEII Saint-Etienne) France



#### Th3Os - University of Piraeus

Konstantinos Spyridon (University of Piraeus) Greece Ilias Fiotakis (University of Piraeus) Greece Georgios Mamidakis (University of Piraeus) Greece Meletios Michail (University of Piraeus) Greece



#### TheRomanXpl0it

Leonardo Danella (Sapienza Università di Roma) Italy Tiziano Caruana (Sapienza Università di Roma) Italy Kristjan Tarantelli (Sapienza Università di Roma) Italy Francesco Bianchi (Sapienza Università di Roma) Italy







#### International Master in Embedded Systems Security

International Master 2, taught in English



IMESS Valence focuses on the design of safe and secure embedded systems and offers both design and embedded programming skills to the students: design, verification, test, dependability, and system-on-Chip (SoC) and computing systems security.

#### HARDWARE/SOFTWARE DEVELOPMENT - SECURITY & SAFETY

#### **SEMESTER 1: CLASSES**

Design of safe & secure Hardware and Software Systems (200 hours)

- + Optional course: Cryptography or RFID or Control (45 hours)
- + Team Innovation Project (60 hours)

#### SEMESTER 2: INTERNSHIP

Many opportunities thanks to the strong links between ESISAR and industry and labs

#### Admission from December 1st to April 28th

ADMISSION LEVEL: •

- Master 2 (after one year of a Master or equivalent including courses in Computer Engineering or Electrical Engineering)
- English language B2 level

#### **MANY JOBS & PhD OPPORTUNITIES**

- 30% students pursue a PhD
- 1 month in average to find a first job
- School in strong connection with industry and labs



#### RED TEAM COMPETITION

The Red Team Competition is developed for high school students, with the aim of encouraging young people to choose cybersecurity careers. This competition is open to all high school students in metropolitan France, whether they are beginners or have some experience with cybersecurity issues.

This year, the Red Team competition is co-created by Grenoble INP - Esisar, UGA, in partnership with Root-Me, a platform for learning computer security and hacking.

Teams of 1 to 3 students from the same school are invited to participate in online qualification challenges.





S3cur3d, Lycée Notre Dame "Les oiseaux", Verneuil-sur-Seine Alexandre GUETTE

Red C2lhu, Lycée Jean Macé, Rennes Simon Fievez, Timothée Gouin

**Neptune.sh**, Lycée sud Médoc, Saint Ménard-en-Jalles Florian Coquet

**St-Barth's back'2 Valence**, Lycée Saint-Barthélémy, Nice Baptiste Deville

Libc<2.27 for the win, Lycée Charlemagne, Paris Côme Erner

#### **frobnitz**, Lycée Louis Pergaud, Besançon Seiji Durand, Colin Lussagnet

### **Joshua et Ethan**, Lycée Gustave Eiffel, Bordeaux Ethan Voizard

**Hardware**, Lycée Gustave Eiffel, Bordeaux Romain Caillier, Dimitri Casula, Antoine Chabenat

#### Hunter: The Matrix REBOOT, Lycée les Trois Sources,

Bourg-Lès-Valence Lenny Vincent, Louis Foulquier, Yohann Robin

#bin/bash, Lycée Saint Denis, Annonay David Cozarius



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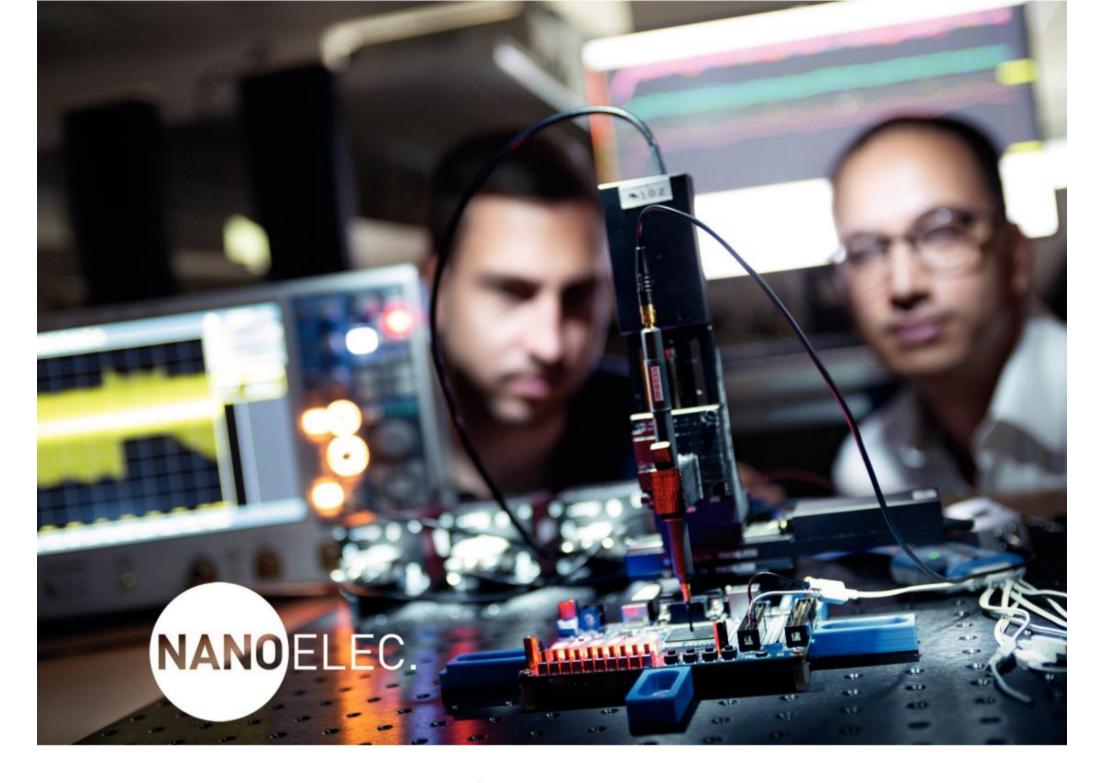
Support staff and volunteers.

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Do you have questions or need assistance?

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Notes	& new	cont	acts
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#### **EXPLORING THE FUTURE OF ELECTRONICS**

IRT Nanoelec runs multi-partner programs to make the electronics sector more competitive, and greener to contribute to the sustainable development of society.

The Nanoelec technological research institute is a consortium of private and public sector players, held by CEA. Our R&D programs are built jointly by representatives from the academic and industrial worlds. Our mission is to help companies create value and enable their products to stand out in the digital transition stage. Due to the rise in cybercrime, cybersecurity of the Internet of things (IoT) is a major challenge for digital trust. Strengthening and hardening critical embedded, increasingly interconnected, and smarter systems is now vital. Facing these challenges, Nanoelec teams develop and test new security features for components and systems in three fields of application: Industry 4.0, Homecare and Robotics.

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