Grenoble INP ESISAR

CSAW'18

NOVEMBER 8–10, 2018

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

VALENCE

NYU | TANDON SCHOOL
OF ENGINEERING

Welcome

November 8, 2018

CSAW Europe 2018

Welcome to the second edition of CSAW Europe !

The Cybersecurity Awareness Week is the largest student-run cybersecurity event in the world. This 15th contest will be held simultaneously on several continents : New-York City for North America and Canada, Ariana for MiddleEast and North Africa, Kanpur for India, Beer Sheva for Israel Mexico for México, and Valence hosted by Grenoble INP - Esisar for Europe.

CSAW is a three-day competition and conference bringing together students passionate about cybersecurity and industrial experts.

CSAW remains a most creative force to build a community and to offer students the opportunities they need to become leading designers and managers of secure systems.

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

This weekend, the knowledge you gain, the relationship you build and the contributions you make will benefit the cybersecurity community for years to come. Thank you for being a part of this experience.

Sincerely,

Nadine Guillemot
Director
Grenoble INP - Esisar

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Valence Romans Agglo is an administrative region that includes 56 towns and cities and nearly 215,000 inhabitants.

Easily accessible by several major rail, road, and air routes, Valence Romans Agglo enjoys a strategic geographical position that combines a highly developed transportation network with an exceptional quality of life. Nearly 2,000 companies are established here each year, and close to 65% of them are still in operation five years later, higher than the national average.

In 2016, Valence Romans Agglo was named an official green growth zero net energy region by the Ministry of Energy and Sustainable Development.

A territorial project was adopted in June 2015, for which 304 million euros in investments are projected until 2020.

www.valenceromansagglo.fr

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FONDATION
Grenoble INP

Cybersecurity Institute
Univ. Grenoble Alpes

RÉGION ACADÉMIQUE
AUVERGNE-RHÔNE-ALPES

MINISTÈRE
DE L'ÉDUCATION NATIONALE

MINISTÈRE
DE L'ENSEIGNEMENT SUPÉRIEUR,
DE LA RECHERCHE
ET DE L'INNOVATION

FRENCH TECH
IN THE ALPS VALENCE
ROMANS

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MINISTÈRE
RÉPUBLIQUE FRANÇAISE

COMMUNICATION PARTNERS

Smart Insights

RootMe
-Hacking platform-

The generous support of our partners makes CSAW'18 possible.

Master Agenda

THURSDAY, NOVEMBER 8

at Grenoble INP - Esisar

Registration	**16:00**	**Esisar**
Security Keynotes	**17:00 - 19:00**	**Amphitheater**

- Strategic initiatives and investments in Cybersecurity services for the next 5 years, Jean Marie Letort, Vice President Cyberconsulting et Operations at Thales

- Embedded Security: A silicon provider's perspective, Bernard Kasser, Security Road map and R&D lab Director at STMicroelectronics

Thales Welcome Reception	**19:00**	
Capture the Flag start	**21:00**	**B148 - B152**

FRIDAY, NOVEMBER 9

at Grenoble INP - Esisar

Breakfast	08:30	Room A049
WIN Comunity Breakfast	09:00 - 10:30	Room B040
Competition and Exhibition Introduction	09:00	Amphitheater
Red Team Competition Final (8 hour long)	09:00 - 17:00	Room B141
Cybersecurity Exhibitions : Carreer Fair, Cybersecurity Demos	10:00 - 17:00	
Applied Reseach finalists presentations	11:00 - 16:00	Room A048 - B042
Embedded Security Challenge finals (open to visitors)	11:00 - 16:00	Room A046 - B044
Red Team Award Ceremony	17:30	Amphitheater
Open CTF by Krhacken	17:30	Room B141
Finalists social event	19:00	

SATURDAY, NOVEMBER 10

at Valence Town Hall

End of Capture The Flag Competition	09:00	
Closing Ceremony and Awards Ceremony	11:00 - 13:00	Valence Town Hall

Welcome to the heart of innovation

Auvergne-Rhône-Alpes, the 1st Tech Region in Europe

A unique Ecosysteme

➡ Dedicated to innovation

➡ Vibrant for incubation & acceleration

The Region, partner of the Cybersecurity contest organized by the Graduate School of Engineering in Advanced Systems and Networks

"Welcome to the Esisar - The Cyber Security Awareness Week in Europe ! As the leading French area for digital technology et new technologies, Auvergne-Rhône-Alpes boasts one of the most dynamic ecosystems in Europe. Cyber Security is not an option, it is a necessary priority for universities, businesses, governments and citizens. Building cyber security today means ensuring freedom tomorrow. Increasing this movement is a major priority for me, and we are leading an unprecedented effort to train our young talents, invest massively in high speed networks and 4G wireless networks, and lead our entrepreneurs towards disruptive innovation and success.

In Auvergne-Rhône-Alpes, we welcome all those who are driven by boldness and innovation. Whether you are a student, a startup, a SME or a major company, you are sure to find in our region an energy to match your ambitions: to create the world of tomorrow!"

Laurent Wauquiez, Président Auvergne-Rhône-Alpes

La Région
Auvergne-Rhône-Alpes

JUDGES

CSAW judges hail from across the industry, representing some of the most elite experts and academicians in the cyber security community. We're honored to have them participate in our competitions and we're grateful for their contributions.

APPLIED RESEARCH COMPETITION
FINAL JUDGES

- Jessy Clédière, Security Expert at CEA
- Charles Guillemet, Chief Security Officer at Ledger
- Jean-François Gillot, Platform CyberSecurity Manager at Alstom
- Nabil Hamzi, Cryptographer Expert at Ingenico
- Bernard Kasser, Security R&D Director, Advanced System Technology at STMicroelectronics
- Julien Lancia, Embedded Software Security Expert at NXP
- Michael Marcourt, Cybersecurity Manager at Thales
- Laurent Pion, Head of Chair Trust, Fondation Grenoble INP
- Romain Xu, Research Engineer at Cyber@Alps

EMBEDDED SECURITY CHALLENGE
FINAL JUDGES

- Marouene Boubakri, Software & Systems Security Engineer at NXP Semiconductors
- Olivier Caffin, STM32 Application & support engineer/ Microcontroller division at STMicroelectronics
- Arnaud Deyres, Head of Embedded Software Dpt. at adeunis
- Sophie Laborde, Cybersecurity Manager at Thales
- Florian Pebay Peyroula, Cyber Security Expert at CEA
- Fabrice Rafart, CyberSecurity Domain Leader at Alstom

RED COMPETITION
FINAL JUDGES

- Christophe Deleuze, Grenoble INP
- Thomas Sarrazin, IT and Security Engineer, ipgarde

Organizers & Supporters

COMPETITION ORGANIZERS

CSAW'18 was developed through the hard work and dedication of the following Organizers and Supporters. Our sincere thanks!

David Hely, General chair
Athanasios Papadimitriou, Project Lead
Christine Maître, Logistics coordinator

ESISAR GLOBAL SUPPORT TEAM

LOGISTIC & SUPPORTS

Véronique Jadin, Logistics
Marie Margot, Communication coordinator
Stéphanie Michelon, Logistics support
Zina Njeh, Logistics
Jean Robeil, Logistics support
Philippe Serpollet, Infrastructure
Bruno Teyssier, IT coordinator

STUDENTS LEAD

Ange Andries, RED Lead
Cyril Bresch, Embedded Security Challenge Regional Lead
Loic Brun, Capture the Flag Regional Lead
Richard Jarry, Applied Research
Hugo Picavez Student Global Lead

FACTULTY GUIDES

Axel Abattu
Vincent Beroulle
Gabriel Blanchard
Emmanuel Brun
Stéphanie Chollet
Christophe Deleuze
Quentin Giorgi
Laurent Pion

NYU GLOBAL SUPPORT TEAM

LOGISTIC & SUPPORTS

Stef Daley, Logistics Coordinator
Nick Gregory, Infrastructure & Networking
Emerald Knox, Project Manager
Amanda Morante, Graphic Designer

GLOBAL CHALLENGE LEADS

Momo Amin, Red Team Competition
Marcus Barbu, Red Team Competition
Leon Chou, Capture the Flag
John Cunniff, Red Team Competition
Emre Durmus, Applied Research Competition
Nick Gregory, Technical Infrastructure Lead
Tasos Keliris, Embedded Security Challenge
Kent Ma, Capture the Flag
Mohammed Shayan, Applied Research Competition

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

I'm very happy and honored to welcome you to Valence.

Valence is a medium-sized town with several universities and an engineering school of excellence, ESISAR. Our city demonstrates once again its ability to innovate in the forefront by organizing this event.

Cybersecurity is one of the challenges of our century. We need researchers, engineers, scientists, to seize these questions and prepare our future in safety. We also need Valence to develop its economic exchanges and especially internationally. We already do this by hosting 7 twinning with cities in Europe or the Middle East.

This event will contribute greatly and I thank all those who allowed it to be organized.

Our institutions of higher education, like the economic actors of our territory, must engage more and more internationally, because it is a guarantee of competitiveness and success in many sectors.

I wish you a pleasant stay in Valence during the next week-end.

Good competition to all and good work !

Nicolas DARAGON
Mayor of Valence
Valence Romans Agglo President
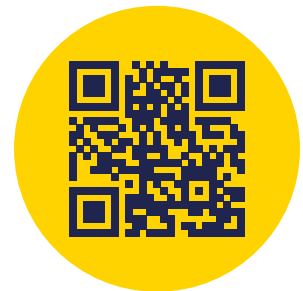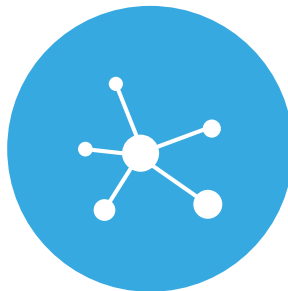
VALENCE ROMANS AGGLO

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Microelectronics enable your creativity
to enhance everyday life

life.augmented is an inspiration for the ST community

4500
persons connect
daily to the
ST Community

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, 2017 and August 31, 2018, on any topic related to the application of security technology, or the implementation of security systems.

FINALISTS

Chan Nam Ngo, University of Trento, Italy
FuturesMEX: Secure, Distributed Futures Market Exchange
Fabio Massacci, Chan Nam Ngo, Jing Nie, Daniele Venturi and Julian Williams

Vasilios Mavroudis, University College London, United Kingdom
A Touch of Evil: High-Assurance Cryptographic Hardware from Untrusted Components
Vasilios Mavroudis, Andrea Cerulli, Petr Svenda, Dan Cvrcek, Dusan Klinec and George Danezis

Pietro Frigo, Vrije Universiteit Amsterdam, Netherland
Grand Pwning Unit: Accelerating Microarchitectural Attacks with the GPU
Pietro Frigo, Cristiano Giuffrida, Herbert Bos and Kaveh Razavi

Matus Nemec, Masaryk University, Czech Republic
The Return of Coppersmith's Attack: Practical Factorization of Widely Used RSA Moduli
Matus Nemec, Marek Sys, Petr Svenda, Dusan Klinec and Vashek Matyas

Andrea Possemato, EURECOM, France
ClickShield: Are You Hiding Something? Towards Eradicating Clickjacking on Android
Andrea Possemato, Andrea Lanzi, Simon Pak Ho Chung, Wenke Lee and Yanick Fratantonio

Sebastian Poeplau, EURECOM, France
Screaming Channels: When Electromagnetic Side Channels Meet Radio Transceivers
Sebastian Poeplau, Giovanni Camurati, Marius Muench, Tom Hayes and Aurélien Francillon

Jonas Krautter, Karlsruhe Institute of Technology, Germany
FPGAhammer: Remote Voltage Fault Attacks on Shared FPGAs,
suitable for DFA on AES
Jonas Krautter, Dennis R. E. Gnad and Mehdi B. Tahoori

Enrico Mariconti, University College London, United Kingdom
Tiresias: Predicting Security Events Through Deep Learning
Yun Shen, Enrico Mariconti, Pierre-Antoine Vervier and Gianluca Stringhini

Andrea Biondo, University of Padua, Italy
The Guard's Dilemma: Efficient Code-Reuse Attacks Against Intel
SGX
Andrea Biondo, Mauro Conti, Lucas Davi, Tommaso Frassetto and Ahmad-
Reza Sadeghi

Moritz Lipp, Graz University of Technology, Austria
Meltdown: Reading Kernel Memory from User Space
Moritz Lipp, Michael Schwarz, Daniel Gruss, Thomas Prescher, Werner Haas,
Anders Fogh, Jann Horn, Stefan Mangard, Paul Kocher, Daniel Genkin, Yuval
Yarom and Mike Hamburg

Tom Van Goethem, Katholieke Universiteit Leuven, Belgium
Herding Vulnerable Cats: A Statistical Approach to Disentangle
Joint Responsibility for Web Security in Shared Hosting
Samaneh Tajalizadehkhoob, Tom Van Goethem, Maciej Korczyński, Arman
Noroozian, Rainer Böhme, Tyler Moore, Wouter Joosen and Michel van Eeten

Katharina Kohls, Ruhr-University Bochum, Germany
DigesTor: Comparing Passive Traffic Analysis Attacks on Tor
Katharina Kohls and Christina Pöpper

LET'S GO
FOR DIGITAL INDUSTRY !

PONANT Technologies is a reputed expertise center in Information Technology (IT) and embedded systems for the industry.

Focused in test automation, software design and third party software maintenance, the French company unveils today its brand new solution for automated robotic tests.

eTASQ Motion solution, that meets all your business demands, performs functional, non-invasive tests on consumer electronics or industrial devices.

In association with eTASQ software, the eTASQ Motion robotic bench challenges the reliability of each Man-Machine Interface (MMI) fitted with displays, keys and buttons.

TEST AUTOMATION & SIMULATION **SOFTWARE DESIGN** **THIRD PARTY SOFTWARE MAINTENANCE**

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contact@ponant-technologies.com I 04 75 80 39 10 I www.ponant-technologies.com

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

ALLES!, Saarland University, Germany

Simon Schwarz
Nico Gründel
Florian Bauckholt
Marian Dietz

EMPIRECTF, Imperial College, London UK

Aurel Bily
Rodrigo Vieira Steiner
Pranav Kalidindi
Huanyao Rong

FLUXFINGERS, Ruhr-University Bochum, Germany

Lukas Knittel
Tobias Scharnowski
Benjamin Walny
Simon Wörner

GREUNION, Greece

Efstratios Kaplanellis - University of Piraeus
Pavlos Kolios - Athens University of Economics and Business
Dimos Poupos - Aristotle University of Thessaloniki
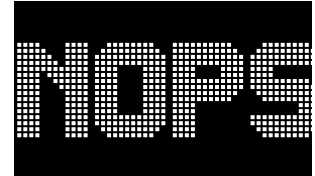Thomas Toumpoulis - University of Western Macedonia

LOSFUZZYS, Graz University of Technology, Austria

Fabian Rauscher
Johannes Haring
Ferdinand Bachmann
Vedad Hadzic

NOPS, EURECOM, France

Emanuele Cozzi
Marius Munch
Fabio Pagani
Paolo Monti

SPRITZERS, Italy

Andrea Biondo, University of Padova, Italy
Riccardo Bonafede, University of Padova, Italy
Daniele Lain, ETH Zurich, Switzerland
Leonardo Nodari, University of Padova, Italy

STT, Technico Lisboa, Portugal

Alfonso Santos
João Franco
Manuel Goulão
Nuno Sabino

THEROMANEXPLOIT, Sapienza University of Rome, Italy

Andrea Fioraldi
Qian Matteo Chen
Pietro Borrello
Luigi Paolo Pileggi

TOWEROFHANOI, Polytechnic University of Milan, Italy

Niccolò Picca
Marco Bonelli
Luca Massaron
Lorenzo Binosi

THALES

The world leader in cybersecurity

Patrice CAINE, Chairman & CEO, Thales

Our clients have big ambitions and operate mission critical systems, where safety and security have to be assured at the highest levels, in real time, be it in air traffic management, train signaling, satellite communications or air defence systems, where human life is often at stake. That's why cybersecurity is the sine qua non condition of our digital technologies. As the world becomes more connected, it also becomes more vulnerable.

With an investment of over a billion euros over the last three years in the four key digital technologies (Connectivity, Big Data, Artificial Intelligence and Cybersecurity), Thales also now confirms its role as a digital innovation lab and the world leader in cybersecurity.

A team of **10,000** Software Developers and **5,000** critical IT and Cybersecurity Engineers

Cybersecurity solutions for **9** of the top **10** internet giants

5 cybersecurity operation centres across the world (France, United Kingdom, The Netherlands, Canada, Hong Kong)

1 national cyberattack alert and response team (CERT-IST)

More than **50 countries**, including NATO nations, use our products and solutions

1 Cyberlab in Belgium to train cybersecurity specialists and test the resistance of networks

Critical information system operations and cybersecurity for more than **130 customers**

Thales helps to **protect the banking transactions** and information systems of the world's largest banks

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Laurent PORTRAIT
VP Navigation Center of Competence Thales, Avionics Activities & Manager of Thales Valence site

IETA graduate engineer Laurent Portrait began his career at Thales (Thomson-CSF at the time) in 1989, contributing to the development of military radars in the Paris region.

In the early 2000s, he moved to south-western France to oversee the reorganization of production facilities in Pessac and took on responsibility for the production of equipment for the Rafale fighter.

He relocated to Valence in 2008 where he held various responsibilities before becoming manager of the Navigation Competence Center Navigation of Thales's Avionics Activities, as well as being appointed Thales Valence site director on January 1st 2017.

His teams lead the development of Inertial, GNSS (Global Navigation Satellites Systems) and air data product lines.

Laurent is a leader with strong technical and industrial experience, and extensive organization and transformation know-how acquired during his career spent creating a working environment aligned to the evolution of products, markets and customer requirements.

When not at work, his passions are sport and reading.

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thalesgroup.com

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RED P[ ]LL CTF

All CSAW guests, beginners in hacking or experienced ones, are invited to compete in the Red Pill CTF, run by the kr[HACK]en cybersecurity club. Gain a maximum of points by completing challenges, the best ones will be rewarded! Topics include network and web security, scripting, forensic, crypto, reverse engineering and more.

Kr[hack]en is the Grenoble INP - Esisar cyber security and ethical hacking student club. The club aims to increase computer security awareness within the Esisar community. Members interests span a broad range of cyber security topics from hardware to IT security.

Regularly scheduled weekly meetings aim to teach members the theoretical concepts of computer security and their practical applications through dedicated workshop sessions.

The members participate to national and international cyber security oriented events and competitions such as Capture the Flag, ethical hacking conventions...

Grenoble INP
ESISAR

IRT NANOELEC
DEVELOPING THE TECHNOLOGIES OF TOMORROW

7 programs   **7** platforms   **27** partners

Co-funded by **Grenoble INP** and **Grenoble École de Management**, the IRT Nanoelec leads a program of development and technological diffusion to the direct benefit of companies, in particular SMEs / ETIs, from the **nanoelectronics sector and its applications** : health, energy, mobility, housing environment.

Through its **Training** program, the IRT anticipates the skill needs of its partners. It also ensures the support and development of the human resources, essential element for the **innovation success** at the base of technologies and applications for nanoelectronics.

NANOELEC.   irtnanoelec.fr | nanoelec-formations.fr

EMBEDDED SECURITY CHALLENGE

In the Embedded Security Challenge (ESC), a Blue Team designs a target system.

A Red Teams try to hack it. ESC is an educational, research-oriented tournament aimed at hacking into the hardware of embedded systems. In fact, it's the oldest hardware security competition in the world. Finalists compete at CSAW on-site at our four international location.

Contestants must exploit the weaknesses of a target system, assess the effectiveness of their hardware security techniques, identify vulnerabilities and implement effective defense mechanisms.

This year's ESC focuses on the security implications of the wide deployment of Internet-of-Things (IoT) devices, and how IoT devices can expand the threat landscape enabling covert data exfiltration attacks.

FINALISTS

ANSSI, France
Thomas Trouchkine,	A.N.S.S.I.
Timothy Claeys,	Laboratoire d'informatique de Grenoble
Boris Simunovic,	Grenoble INP - Esisar and A.N.S.S.I

Team mentor: David Elbaze

BLINKINGOCTOPUS, France
Paul Noalhyt,	Grenoble INP - Esisar
Rémi Poletti,	Grenoble INP - Esisar
Prisca Abizeyimana,	Grenoble INP - Esisar
Gaël Rotan	Grenoble INP - Esisar

Team mentor: Nicolas BARBOT

EMPIRECTF, UK
Aurel Bily	Imperial College London,
Rodrigo Vieira Steiner	Imperial College London,
Pranav Kalidindi	Imperial College London,
Huanyao Rong	Imperial College London,
Represented by:	
Mark El-Lamaa	Imperial College London,
Qianyi Shu	Imperial College London,

Team mentor: Emil Lupu

IUT VALENCE, France

Fabien Saillet	Université Grenoble Alpes
Maxime Rossetti	Université Grenoble Alpes
Romain Penet	Université Grenoble Alpes
Loris Berthelin	Université Grenoble Alpes

Team mentor: Romain LIEVIN

G-SCOP, France

Franck Sicard	Grenoble INP - G-SCOP
Cédric Escudero	Grenoble INP - G-SCOP

Team mentor: Eric ZAMAÏ
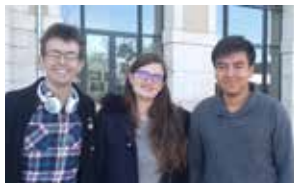
LES 4AM POULES, France

Adele Journee	INSA CVL
Rodrigo Espinel-Villalobos	INSA CVL
Joseph Kawalec	INSA CVL

Team mentor: Jeremy Briffaut

SSL, Greece

Aristeidis Farao	University of Piraeus
Vaios Bolgouras	University of Piraeus
Panagiotis Bountakas	University of Piraeus
Nikolaos Koutroumpouchos	University of Piraeus

Team mentor: Christos Xenakis

THEMAPLECOOKIEARMY, France

Eléonore Carpentier	INSA CVL
Corentin Thomasset	Grenoble INP - Esisar, Polytechnique Montréal

Team mentor: Jeremy Briffaut

THEWHITEVAN, Greece

Angelos Zografos,	National Technical University of Athens
Michail Vakis	National Technical University of Athens
Alexandros Stoubis	University of Piraeus

Team mentor: Christos Dimas

RED COMPETITION

Brifforce, Lycée Algoud Laffemas, France

Jean ZABLOCKI
Yanis JULIEN
Medhy FOURNIER-DOHOU

Team mentor: Franck HERGNIOT

VOXel, Vaucanson, France

Thomas JHISTARRY
Théo LAFOND
Ali LAOUT

Team mentor: Patrick GUERANGÉ

404thCompany, Lycée Algoud Laffemas, France

Nathan BERNARD
Quentin BADOT
Paul CARTON

Team mentor: Eva SEIGNOVERT

H-1, Institution Notre Dame, France

Justine RAUX
Nils PERRIOLAT
Tieu Ly HOANG

Team mentor: Gérald PERMINJAT

Espiria, Paul Héroult, France

Marc LLOP
Pierre Loup COSTES-PINGET
Théo LOPES

Team mentor: Bernard LEVY

MAMAGA, Lycée Algoud Laffemas, France

Mathis SIGEL
Gautier PERSENDA
Matteo BESSE

Team mentor: Eva SEIGNOVERT

Ctrl+Alt+Sup, Lycée La Pleiade, France

Elian LORAUX
Arthur MARTINET
Quentin PERSEGOL

Team mentor: Guillaume THIBAULT

q+w_ggwp, St Dominique, France

Thomas BUSSON

Team mentor: Evelyne BUSSON

DLCLRAUWDOEUD, LPO Boissy d'Anglas, France

Gaël COMBETTE
Lycia HONORE MARTIN
Alexandre MASSEIX

Team mentor: Marlène ARDOIN-QUETE

DIGITAL LEAGUE
les entreprises du numérique
en Auvergne-Rhône-Alpes

LCIS
Laboratoire de Conception
et d'Intégration des Systèmes

NXP

FONDATION Grenoble INP

FRENCH TECH
IN THE ALPS VALENCE ROMANS

chaire trust
LA CONFIANCE AU CŒUR DE VOTRE SYSTÈME

ipgarde

« Today, cyber security is a major issue regarding system information management. Companies must have those fondamental stakes in mind, because regardess of its size, line of business or the level of its data criticality, an attack could not only compromise its safety but also his continuity : permanent lost of datas, production process breaking, lack of monitoring and so on. So much risks that can be contain, with both preventive and technical care. But in order to face those current and futur threats, Europe needs much more cyber security experts... That's why we are so happy that Grenoble INP - Esisar welcomes the European finals of this great international competition which is CSAW, testing the best young hackers and European defenders in this line of study !

Expert in the particulary crucial systems and networks security domain, ipgarde is very pleased today to be associated with this beautifull event... May this three days be rich of learning and

exchanges for all the young participants of this highly anticipated contest ! »

Sylvain LOMBARD, CTO (Chief Technology Officer)

Stéphane DUCLAUX, General Manager of ipgarde

Philippe CONTAL, Chief Digital Officer

ipgarde

Digital solutions specialist for hosting, clouding and outsourcing information systems since 2004, ipgarde provides to companies and his integrators partners secured IT ressources, allowing them to **benefit from all the digital revolution through a high quality infrastructure**. Based in Valence TGV, Lyon and Paris, ipgarde makes **expertise, proximity service, as well as quality service it's key values** and suggest innovatives solutions that integrate the **best existing technologies** through it's R&D effort which is at the heart of its strategy.

It accompanies closely companies in **bulding IT systems to their size**, and has all the necessary ressources in order to put quickly together **safe and efficient solutions within centralized or distributed infrastructure**, with the guarantee for each client that its bay and servers avec 100% located in France. ipgarde implements custom-made projects to **help transform every IT system into a real strategic tool and growth engine** all that safely. And because a mastered IT is the condition to complete peace of mind, ipgarde team of experts and it's "support" service are available 7 days a week, 24 hours a day and 365 days a year.

Web site: www.ipgarde.com
01 77 49 24 50 contact@ipgarde.com

csaw.io

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@Esisar

www.facebook.com/CSAWEsisar
www.facebook.com/nyutandon

communication@esisar.grenoble-inp.fr

Questions about our CSAW t-shirt colors?

ORANGE SHIRTS

Student competitors and other CSAW guests.

DARK GREY SHIRTS

Support staff and volunteers.
They're here to help you if you have questions.

Do you have questions or need assistance ?

csaw-europe@esisar.grenoble-inp.fr

Notes & New Contacts

Grenoble **INP**
ESISAR

PUBLIC ENGINEERING SCHOOL

ELECTRONICS,

INFORMATION TECHNOLOGY

& CYBERSECURITY

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