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## Professional Development

## Membership

# NEWS & UPDATE

## Continued Collaboration

AiSP would like to thank Parasoft, ST Engineering, and Temasek Holdings for their continued support in developing the cybersecurity landscape:



# TEMASEK

# Knowledge Series Events

## Upcoming Knowledge Series

As part of knowledge sharing, AiSP is organising regular knowledge series webinars based on its [Information Security Body of Knowledge 2.0](#) topics. Our scheduled topics for webinars in 2024 are as follows (may be subjected to changes),

1. 14 Mar 2024, Cloud Security
2. 25 Apr 2024, Red Team
3. 9 May 2024, AI

**Please email [secretariat@aisp.sg](mailto:secretariat@aisp.sg) for 2024 webinars if your organisation is keen to provide speakers!**

# Student Volunteer Recognition Programme (SVRP)



Nomination Period:  
1 Aug 2023 to 31 Jul 2024

## CALL FOR NOMINATION! STUDENT VOLUNTEER RECOGNITION PROGRAMME

Tier	Requirements
Bronze	Completion of one of three pillars or complete three of three pillars with minimum 50% attained hrs. + Skills: 30 Hours or more + Events: 60 Hours or more + Leadership: 30 Hours or more
Silver	Completion of two of three pillars + Skills: 30 Hours or more + Events: 60 Hours or more + Leadership: 30 Hours or more
Gold	Completion of all three pillars + Skills: 45 Hours or more + Events: 60 Hours or more + Leadership: 45 Hours or more



Scan the QR Code for the Nomination Form

**The SVRP comprises three broad pillars where IHL students can volunteer:**

- + Skills-based: E.g. Conduct cybersecurity workshops or develop related software
- + Events-based: E.g. Provide support at technology or cyber-related events
- + Leadership: E.g. Mentoring younger students and managing teams or projects

Visit [www.aisp.sg/svvp.html](http://www.aisp.sg/svvp.html) for more details



Nomination Period:  
1 Aug 2023 to 31 Jul 2024

# CALL FOR NOMINATION! STUDENT VOLUNTEER RECOGNITION PROGRAMME

The SVRP for the secondary school and pre-university students is on merit basis and evaluation would be slightly different as cyber security is not offered as a subject nor co-curricular activities (CCA) in most schools in Singapore at the moment. The students would be given Certificate of Merit when they achieved the following (see A, B, C or D):

<p><b>Example A</b></p> <ul style="list-style-type: none"> <li>+ Leadership: 10 Hours</li> <li>+ Skill: 10 Hours</li> <li>+ Outreach: 10 Hours</li> </ul> <p><b>Example B</b></p> <ul style="list-style-type: none"> <li>+ Leadership: 0 Hour</li> <li>+ Skill: 18 Hours</li> <li>+ Outreach: 18 Hours</li> </ul>	<p><b>Example C</b></p> <ul style="list-style-type: none"> <li>+ Leadership: 0 Hour</li> <li>+ Skill: 36 Hours</li> <li>+ Outreach: 0 Hour</li> </ul> <p><b>Example D</b></p> <ul style="list-style-type: none"> <li>+ Leadership: 0 Hour</li> <li>+ Skill: 0 Hour</li> <li>+ Outreach: 42 Hours</li> </ul>
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Scan the QR Code for the Nomination Form

## The track for Secondary School and Pre-University students comprises three broad pillars where they can volunteer:

- + Leadership refers to how the volunteer leads a team to complete the voluntary activity.
- + Skill refers to how the volunteer applies his/her cybersecurity knowledge to others
- + Outreach refers to how the volunteer is involved in outreach efforts (social media, events) to increase cybersecurity awareness for the public.

Visit [www.aisp.sg/svrp.html](http://www.aisp.sg/svrp.html) for more details

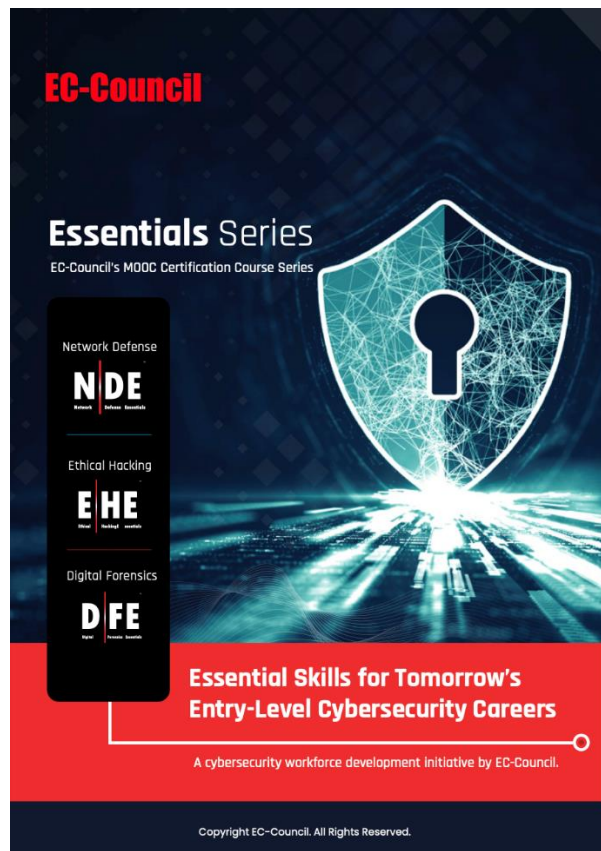
## Elevating Cybersecurity Education Through Unprecedented Collaborations

In a pioneering initiative, EC-Council and Wissen have forged a collaboration with AiSP. This collaboration includes a sponsorship of 500 EC-Council Cyber Essentials certification vouchers. These vouchers aim to empower Polytechnic and Institute of Technical Education (ITE) students pursuing cybersecurity programs, enabling them to attain their inaugural industry certificate and commence their journey with EC-Council Essential certificates (NDE, EHE, DFE), thereby initiating their cybersecurity credentialing process.

Visit (<https://www.wissen-intl.com/Essential500.html>) and register to start your cybersecurity credentialing journey! Terms & Conditions apply.

### About the EC-Council Cyber Essentials Certification

EC-Council's Essentials Series is the first MOOC certification course series covering essential skills in network defense, ethical hacking, and digital forensics. The Network Defense Essentials (N | DE), Ethical Hacking Essentials (E | HE), and Digital Forensics Essentials (D | FE) are foundational programs that help students and early career professionals choose their area of competency or select a specific interest in cybersecurity. The Essentials Series was designed to give students the foundation on which to build and develop the essential skills for tomorrow's careers in cybersecurity. These programs educate learners in a range of techniques across industry verticals, such as securing networks, mitigating cyber risks, conducting forensic investigations, and more.



# AiSP Cyber Wellness Programme

Organised by:



Supported by:



In Support of:



The AiSP Cyber Wellness Programme aims to educate citizens, especially reaching out to the youths and elderly on the importance of Cybersecurity and learn how to stay safe online. There has been an increase in cyber threats, online scams and COVID-19 related phishing activities. With reduced Face-to-Face engagements, the elderly and those with special needs have become more vulnerable to cyber threats. We will reach out to different community groups to raise awareness on the topic of cyber wellness and cybersecurity and participants can pick up cyber knowledge through interactive learning. It is supported by the Digital for Life Fund, an initiative by the Infocomm Media Development Authority (IMDA), that supports digital inclusion projects and activities to help all Singaporeans embrace digital, to enrich lives."



Join us in our monthly knowledge series to learn and pick up tips on Cybersecurity. Visit our website (<https://www.aisp.sg/aispcyberwellness>) to get updates on the latest Cyber tips, Cyber news, activities, quiz and game happenings related to Cyber. Scan the QR Code to find out more.



Scan here for some tips on how to stay safe online and protect yourself from scams



Hear what some of our Professionals have to share. Scan here on Cyber - Use, Identity, Relationship, Citizenship & Ethics.



Have the knowledge and think you are safe? Challenge yourself and participate in our monthly quiz and stand to win attractive prizes. Scan now to take part.



Scan here if you are looking for activities / events to participate in for knowledge exchange / networking / get to know more people / stay protected & helping others.



Want to know more about Information Security? Scan here for more video content.



To find out more about the Digital for Life movement and how you can contribute, scan here.

Contact AiSP Secretariat at [secretariat@aisp.sg](mailto:secretariat@aisp.sg) to find out more on how you can be involved or if you have any queries.

Click [here](#) to find out more!

## Special Interest Groups

AiSP has set up five **Special Interest Groups (SIGs)** for active AiSP members to advance their knowledge and contribute to the ecosystem are:

- Cloud Security
- Data and Privacy
- CISO
- Cyber Threat Intelligence
- IoT

We would like to invite AiSP members to join our **Special Interest Groups** as there are exciting activities and projects where our members can deepen their knowledge together. If you are keen to be part of a SIG, please contact [secretariat@aisp.sg](mailto:secretariat@aisp.sg)



## AiSP CISO SIG Networking & Louhei on 20 February 2024

**AiSP**  
Advance Connect Excel

**AiSP EC-COUNCIL**  
WISSEN

**CISO SIG NETWORKING & LOUHEI**

Event Details:

20 Feb 2024 6pm - 8.30pm

Justco @ Marina Square

**REGISTER NOW!**

AiSP will be launching our new Special Interest Group (SIG) - CISO SIG. Our Key Focus Areas are:

- Network of Trust to enable more effective and responsive cyber defence of our respective organisations
- Thought leadership and open exchange of ideas to help enhance universal cyber maturity
- Support organization for professional challenges and trials faced by senior cybersecurity leaders
- Socialising because not everything has to be a crisis

Our Vision is to enable CISO's to collaborate, network and exchange thought leadership in the pursuit of a mature cyber defence for their respective organizations and the community at large.

AiSP will be having our first SIG Activity focusing on the theme "CISOs of Tomorrow: Forging the Future Cybersecurity Leadership" and we would like to invite you to do join us for the networking and louhei

In the ever-expanding digital landscape, the role of Chief Information Security Officers (CISOs) has become pivotal in safeguarding organizations from cyber threats. As we stand at the intersection of technology and security, it is imperative to focus on nurturing the next generation of CISOs who will shape the future of cybersecurity.

Join us for an immersive journey into the evolving dynamics of the CISO talent pool at our event, "CISOs of Tomorrow: Forging the Future Cybersecurity Leadership." This



gathering serves as a unique platform to explore the latest trends, challenges, and opportunities in the realm of cybersecurity leadership.

Event Date: 20 Feb 2024

Event Time: 6.30pm - 8.30pm (Registration Starts at 6pm)

Event Venue: Justco @ Marina Square

Registration Link: <https://forms.office.com/r/at8xG3igH9>

## The Cybersecurity Awards

### TCA 2023 Judges Appreciation on 1 December

Beautiful closure for The Cybersecurity Awards (TCA) 2023 with our judges appreciation night on 1 December! Thank you judges for dedicating their time, expertise and passion to select the best winners among the nominations! Special thanks to the supporting associations for their contributions to another fruitful year of success for TCA 2023! Thank you AiSP President, Mr Johnny Kho for the welcome address! We look forward to seeing everyone for TCA 2024!



 **THE CYBERSECURITY** Awards 2024

The Cybersecurity Awards 2024 nominations will start in February 2024.

Professionals

- 1. Hall of Fame
- 2. Leader
- 3. Professional

Enterprises

- 5. MNC (Vendor)
- 6. MNC (End User)
- 7. SME (Vendor)
- 8. SME (End User)

Students

- 4. Students

 **THE CYBERSECURITY** Awards 2024

Organised by



Supported by



Supporting Associations



Platinum Sponsors



Gold Sponsors



Please email us ([secretariat@aisp.sg](mailto:secretariat@aisp.sg)) if your organisation would like to be our sponsors for The Cybersecurity Awards 2024! Limited sponsorship packages are available.

# Digital for Life

## Bukit Batok East AAC Wellness Day 2023 on 3 December

As part of Digital for Life Movement, together with our Corporate Partner, Contfinity Pte Ltd, AiSP was at Bukit Batok on 3 December to share cyber hygiene awareness to the residents.



# Regionalisation

## Cybersec Asia on 31 January 2024



Elevate your cybersecurity game with Freddy Tan, AiSP EXCO, AiSP (Association of Information Security Professionals) at the Cybersec Asia Conference!

Join us on January 31, 2024, from 14:00 to 14:25 hrs at the Deep Dive Stage (MR111), QSNCC, Bangkok.

Freddy Tan will shed light on 'Cybersecurity Awareness & Advisory,'.

At this session, AiSP aims to make CyberSecurity Awareness an integral part of business fundamentals. Be part of our mission to establish a Self-Sustainable Support Ecosystem program, fostering active collaboration with Agencies, Business Associations, Security Communities, and Vendors.

Our Cybersecurity Awareness & Advisory Program (CAAP) strives to drive digital security awareness and readiness. Supported by CSA, our CAAP operating committee focuses on three key thrusts:

1. Enhance security awareness and training.
2. Create cohesive security knowledge resources.
3. Offer security solutions and service support.

Join the movement! Let's empower businesses with robust cybersecurity strategies.

Register now and reserve a space in this session:

[https://www.eventpassinsight.co/mobile/registration/create/cybers/?code=2023&ref=cb\\_sA&fbclid=IwAR1go0LPPLcLhHw10KcN3Jjqcrh1QG1Bw50EqUNV0NDwM0pD21-YCjYahN4](https://www.eventpassinsight.co/mobile/registration/create/cybers/?code=2023&ref=cb_sA&fbclid=IwAR1go0LPPLcLhHw10KcN3Jjqcrh1QG1Bw50EqUNV0NDwM0pD21-YCjYahN4)

## XCION 11th Conference 2024

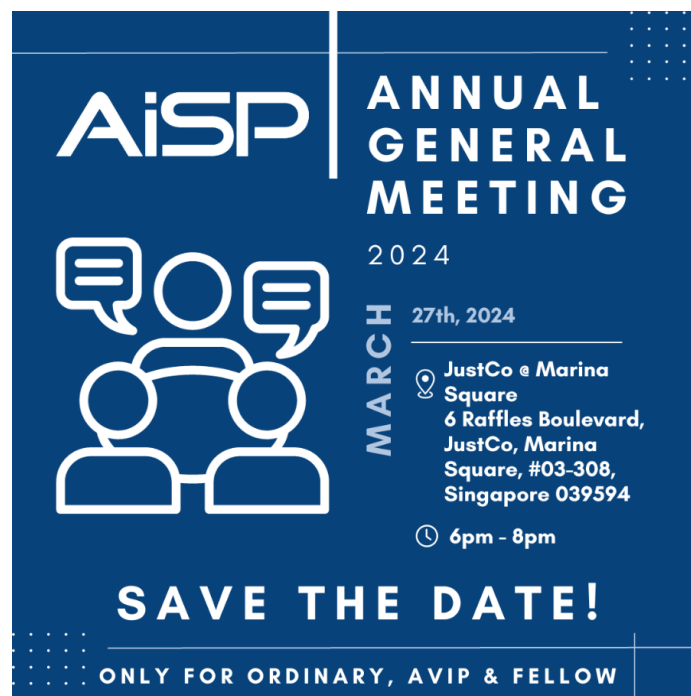
AiSP will be supporting the XCION 11th Conference at Bali happening from 4 March 2024 to 6 March 2024. The Theme for 2024 is Charting the Future with Innovative and Secured Technologies. It will be attended by the Indonesian CIO Network (<https://www.linkedin.com/groups/3942786/>). As our valuable AiSP Corporate Partners, we are pleased to offer you a 20% if you are interested to speak at the event by been a sponsor.

Do contact AiSP Secretariat at [secretariat@aisp.sg](mailto:secretariat@aisp.sg) for the sponsorship package. Please note that it is based on first come first served basis and the organisers have more than 10 sponsors enquiring on it already. There will be 20% discount for our Corporate partners. No discount if you to go direct to the organisers or sign up at the website.

Please see some of the highlights of the video (<https://www.youtube.com/watch?v=eM-hNtMFZ0>) happening on the 10th XCION 2023 that took place earlier this year March 2023.



## Annual General Meeting



# Corporate Partner Event



## A Proactive Approach to Protecting Public-facing Infrastructure



**opentext™**

### A PROACTIVE APPROACH TO PROTECTING PUBLIC-FACING INFRASTRUCTURE

- 18 January 2024, Thursday
- 3pm - 5pm (Registration start at 2.30pm)
- Marina Square



**REGISTER NOW!**

You would have heard in the news about DDoS attacks, websites being down due to attacks. With advanced adoption of generative AI, it is very challenging to keep up with targeted adversary campaigns.

Securing and managing infrastructure with actionable insights is critical to our enterprise resiliency and spans beyond cyber resilience to include financial and operational resiliency. In addition to resiliency, driving efficiency into our infrastructure management is also a step towards your ESG program – ensuring our digital transformation limits impact to our environment.

#### **Global Adversary Signals Analytics for Advanced Threat Intelligence**

Speaker: Niel Pandya, APAC Business Development Lead, Cybersecurity , OpenText

In this session we will look at the underlying challenge and how modern-day signals intelligence can help close the gap on adversary activity, enabling us to be proactive when it comes to protecting public facing infrastructure. Signals feed into machine models to help us identify patterns in communication without compromising privacy. Observing signals flow helps us determine if the origin of these signals are from risky geographies or devices. It is like monitoring the internet and communications to your infrastructure.

**Tame costs and Secure Cloud Infrastructure**

Speakers:

Niel Pandya, APAC Business Development Lead, Cybersecurity , OpenText  
Jonathan Ho, Technical Director, Southeast Asia , OpenText  
Donald Ong, Senior Consultant, Cloud Cybersecurity Programme Office (CCPO)  
Cyber Security Agency of Singapore

Whether you have a cloud-first , or hybrid infrastructure strategy, this session explores how you can gain better insights to optimise cloud spend with FinOps, and how we can protect both infrastructure and data better, at scale, to overcome cloud management roadblocks.

We will look at the challenges in managing infrastructure efficiently – to help reduce operational cost through AI, machine learning and automation and reducing cost incurred through loss of service availability and quality.

Date: 18 January 2024, Thursday

Time: 3PM – 5PM, Registration starts at 2.30PM

Venue: Marina Square

Registration: <https://events.opentext.com/en-sg-aisp-cybersecurity-workshop/register?ref=aisp>

# Ladies in Cyber

Women in Tech + Skillsfuture Advice on 9 March 2024



**Presented by:**  

**Central Singapore Community Development Council**

## Women In Tech + SkillsFuture Advice

**Join our webinar to learn more about**

-  Latest workforce trends & future skills
-  Useful resources for career & personal development
-  Staying relevant in the tech era

Attendees will be eligible for a course sponsored by Central Singapore CDC. Terms & Conditions apply.

**Participate in dialogue with industry speakers:**



**Ms Joyce Huang**  
Senior Partnerships Manager,  
Lufthansa Innovation Hub



**Ms Sherin Y Lee**  
AISP Vice-President & Founder,  
Ladies In Cyber Charter

**Saturday, 9 Mar 2024**

**10am - 11.30am**

**Webinar**

**SIGN UP NOW!**



Scan QR code or visit [go.gov.sg/cscdcfsfa](https://go.gov.sg/cscdcfsfa) to register.

Supported by:

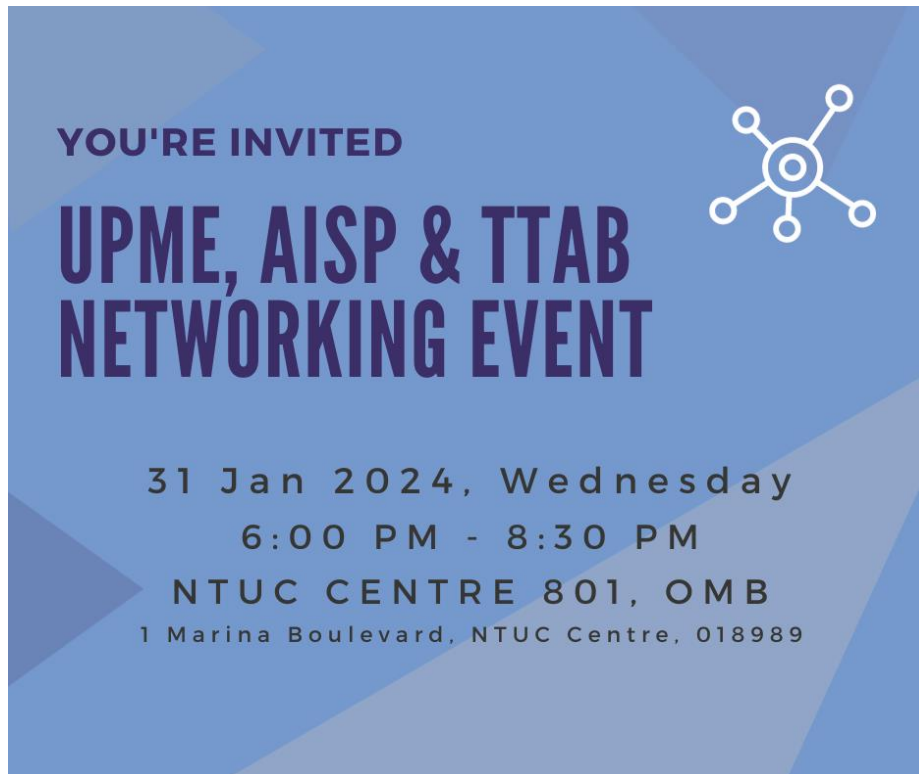


Lifelong Learning Institute





# NTUC UPME x AiSP x TTAB Networking Event



NTUC UPME is organising a networking session with Association of Information and Security Professionals (AiSP) and Tech Talent Assembly (TTAB) for our Information Technology (IT) and Cybersecurity Professionals within the community.

We are excited to invite you to join us in getting to know fellow tech professionals, industry leaders, and like-minded individuals to broaden your professional network. Gain valuable insights into cutting-edge training programs designed to enhance your skills and stay ahead in the dynamic tech landscape. Learn about and contribute to the NTUC mentorship community, fostering growth and development within the tech sector. This will be an excellent opportunity to explore collaborations and gather valuable insights that can benefit your personal and professional development.

**EXCLUSIVE UNION MEMBERSHIP PROMOTION**

By attending this event, you will be entitled to enjoy **6 months complimentary membership waiver** worth \$54 with 2 months upfront payment at \$18.

Sign up

now: <https://www.ntuc.org.sg/uportal/memberships/become-a-member?CampaignCode=UNION-TTABEVENT>

The detail of the event is as followed, and we would be honoured to have you to join us.

**Date: 31 Jan 24, Wednesday**

**Time: 6.00pm – 8.30pm**

**Venue: NTUC Centre, Room 801  
One Marina Boulevard S(018989)**

Please find below for the programme line-up.

Time	Activity
6.00pm – 6.30pm	Registration and Viewing of Booths
6.30pm – 6.45pm	All guests to be seated
6.45pm – 6.55pm	Welcome Address by Ms Theodora Lai, TTAB Advisor & Grassroot Advisor to Sengkang GRC
6.55pm – 7.05pm	Sharing about Mentorship Community by Bernard Menon, UPME Director
7.05pm – 7.15pm	Sharing about relevant Training Programmes by Wissen International
7.15pm onwards	Networking over Food and Drinks
8.30pm	End of Event

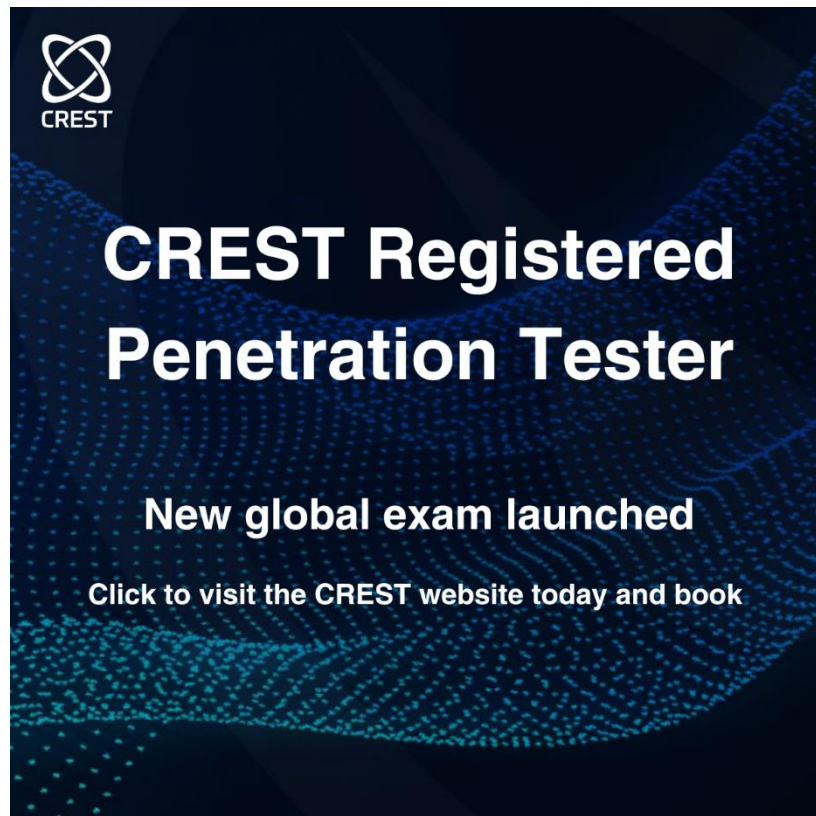
Kindly RSVP on this [form](#) by 19<sup>th</sup> Jan 2024.

We look forward to seeing you in person! If you have any queries, please feel free to contact AiSP Secretariat at [secretariat@aisp.sg](mailto:secretariat@aisp.sg)

# CREST

## **New CREST Registered Penetration Tester (CRT) exam offered globally for the first time with up to 75% off until 31 January 2024**

New CRT exam now available for the first time in over 70 countries at over 1,000 Pearson VUE test centres, including Singapore and across Asia.



- To celebrate the launch of the new exam, CREST is offering 75% discount for anyone who works at a member company and 40% off for everyone else until 31 January 2024.
- Exams must be booked by 31 January 2024 in order to take advantage of the promotional period and taken by 30 April 2024.
- For more information and/or to book a CRT exam, please visit our dedicated webpage: <https://www.crest-approved.org/skills-certifications-careers/crest-registered-penetration-tester/>

CREST, an international not-for-profit, membership body representing the global cyber security industry, has launched its new Registered Penetration Tester (CRT) certification globally. It is now available in over 70 countries and in over 1,000 Pearson VUE test centres, offering greater availability to anyone looking to enhance and develop their cyber security skills to industry standards.

Reflecting the ever-changing needs of the cyber security sector, CREST has also updated the CRT exam. CRT is an intermediate level exam that tests a candidate's ability to carry out penetration testing tasks. It offers a greater depth of knowledge testing and introduces new content and sections that were not previously covered. Content now includes a wider range of topics – including Windows and Linux file permissions, processes and exploitations, mail and OS command injection and Web Application logic flaws, to name a few. CREST's expert assessors updated and added the new content to the exam, and it has all been rigorously tested by them.

Nick Benson, CREST CEO, said: "CREST's goal has always been to raise the quality and professionalism of cybersecurity practices, leading the way in penetration testing and vulnerability assessment as well as red teaming, incident response and threat intelligence. Our commitment to ensuring cybersecurity professionals adhere to rigorous ethical and technical standards is exemplified by the growing popularity and recognition of our CRT qualification internationally."

CRT is one of CREST's most popular exams, recognised by employers, buyers of cyber services and regulators alike across the world. It is mandated in many regions globally as the standard required and remains the technical exam aligned to NCSC's CHECK Team Member in the UK. The new CRT retains the high standards and security expected of CREST exams to ensure it will continue to be a badge of honour for the individual and a demonstration of competence for employers and regulators.

CREST is offering the new CRT exam with a 75% discount for anyone who works at a member company and 40% off for everyone else. The launch promotional period runs from now until 31 January 2024. Candidates who wish to take advantage of this promotional period must book their new CRT exam by 31 January 2024 and have taken their exam by 30 April 2024.

Candidates still need to hold a valid CREST Practitioner Security Analyst (CPSA) certification before sitting the CRT exam. CREST's CPSA exam is also available widely at Pearson VUE centres and is also discounted during the launch promotional period.

Andy Woolhead, CREST Head of Cyber Skills and Certifications, said: "We have fully refreshed the exam, retaining the high calibre that our member companies and exam candidates expect. We have gone to great lengths to ensure the quality of the new exam, with the support of our expert assessors and the broader CREST Community. The new CRT test is more evenly balanced across infrastructure and web and a larger skillset is tested. This is all part of our remit to fully support cyber security professionals everywhere in their ongoing professional development.

"CREST research has shown us that the quality of Pen Tests varies enormously and that the lack of defined standards complicates the landscape. The CRT exam has been designed to reflect current Pen Test practice and to accurately assess an individual's knowledge, skills and experience. Available to take in over 70 countries, we are seeing more of a

logical progression to standardisation across the sector – which can only be a good thing.”

CREST certifications ensure cyber professionals are qualified, ethical and capable. Offering CREST's updated globally recognised CRT qualification more widely is an important step towards creating greater standardisation in the largely unregulated cyber security industry.

Pearson VUE is a well-known global computer-based testing (CBT) and assessment services provider which importantly provides physical proctoring to ensure the integrity of the exam. The new exam now features a virtual machine (VM) of tools accessible during the exam that candidates can familiarise themselves with as part of their preparation, rather than candidates bringing their own laptop.

CREST provides a recognised career path from entry into the industry through to experienced senior tester level. CREST works with a large number of technical information security providers who support and guide the development of its examination and career paths.

For more information and/or to book a CRT exam, please visit our dedicated webpage: <https://www.crest-approved.org/skills-certifications-careers/crest-registered-penetration-tester/>

# Upcoming Activities/Events

## Ongoing Activities

Date	Event	Organiser
Jan – Dec	Call for Female Mentors (Ladies in Cyber)	AiSP
Jan – Dec	Call for Volunteers (AiSP Members, Student Volunteers)	AiSP

## Upcoming Events

Date	Event	Organiser
2 Jan	<a href="#">School Talk at St Margaret Secondary School</a>	AiSP & Partner
15 Jan	<a href="#">School talk at Bukit Panjang Government High School</a>	AiSP & Partner
16 Jan	<a href="#">Learning Journey to RSM for Bukit Panjang Government High School</a>	AiSP & Partner
18 Jan	<a href="#">Learning Journey to RSM for Bukit Panjang Government High School</a>	AiSP & Partner
18 Jan	<a href="#">Event with Opentext</a>	AiSP & Partner
18 Jan	Cisco Security Summit 2024	Partner
19 Jan	MFA-FOSS for Good (FFG) "Smart Nations: Strategies, Opportunities and Cybersecurity Management"	Partner
31 Jan	<a href="#">AiSP x NTUC x TTAB Networking event</a>	AiSP & Partner
31 Jan – 1 Feb	Cybersec Asia	Partner
20-21 Feb	Seamless Asia 2024	Partner
20 Feb	<a href="#">CISO SIG Activity</a>	AiSP
22 Feb	<a href="#">ASEAN Bug Bounty</a>	AiSP

*\*\*Please note events may be postponed or cancelled due to unforeseen circumstances*

# CONTRIBUTED CONTENTS

## Article from Internet of Things SIG



### IoT for Healthcare

The Internet of Things (IoT) has some of the most significant impact in the healthcare industry today. In fact, the [Internet of Things \(IoT\) in the healthcare market is expected to be worth USD446.52 Billion by 2028](#), owing to the presence of a large population in Asia-Pacific (APAC).

#### IoT impact on healthcare

Thanks to IoT-enabled devices, healthcare professionals can monitor patients remotely and can deliver exceptional care. With the increasing number of patients being admitted, healthcare sectors are looking for various ways to adopt IoT-based systems such as AI-synced smart medical devices. These modern technologies reduce downtime for screening and testing patients.

IoT-based healthcare systems gather data and information for doctors and medical professionals. After collecting the data, the device sends the information to the cloud which can help doctors analyze and take the necessary actions. The potential

application of IoT in healthcare has shown huge improvements on patients' health and the overall productivity of medical professionals and hospital workflows.

Moreover, the interconnectedness and communication between IoT sensors and devices can save a lot of lives. For example, fitness bands can keep track of the patients' blood pressure, sleep patterns, and heart rates which makes it easier for patients to access medical care when needed. Because of these IoT devices, patient monitoring has become simpler and more reliable.

## Importance of IoT in Healthcare

IoT devices help clinicians and healthcare providers assess and determine the appropriate treatment methods for patients.

## IoT Healthcare Benefits

The use of IoT technologies in healthcare offers great opportunities and benefits. Here are some of them:

- **Accessibility** – IoT offers more effective and accessible telemedicine. Wearable products used by patients can have their data shared with physicians that can allow doctors to diagnose real-time vital signs.
- **Remote conditioning and patient monitoring** – IoT devices can remotely monitor and collect real-time patient data. Healthcare professionals can analyze these data so that patients can be given medical advice without having to visit the clinic daily.
- **End-to-end connectivity** – Healthcare service delivery can be made effective through AI machine-to-machine communication, information exchange, and data movement.
- **Affordability** – Since IoT reduces the need for face-to-face visits, there is better allocation, and healthcare costs are cut down since IoT is being utilized for better resources and overall improves the allocation and planning.
- **Accelerated processing of patient data** – IoT devices can collect multiple data in real-time, making it easier for physicians to access information. IoT can automatically analyze these data for the diagnosis and give quick access to final reports. This will help speed up the decision-making and be given the proper course of action much faster than with raw data.
- **Reduced risk of error and miscalculation** – Due to the human factor, some results may be subject to error. On the other hand, IoT devices are a reliable method of evaluating data.
- **On-time alert and tracking** – On-time treatment is important in the healthcare sector, especially for treating patients with critical conditions. Thankfully, medical IoT devices can gather data that require a quick alert response. The ability of IoT devices to provide real-time alerting, tracking, and monitoring promotes improved treatment in the healthcare industry.



- **Facilitates medical research** – The data collected in IoT devices can be used for research purposes that would otherwise take years to be collected. Data can be used for statistical study for medical research for bigger and better medical treatments.

## IoT Healthcare Applications and Solutions

IoT in healthcare is a connected foundation of medical device and software applications that will communicate with different healthcare systems.

### IoT Healthcare Devices

While the most popular example of IoT in healthcare is remote patient monitoring—meaning IoT devices that collect patient data such as heart rate and body temperature—[there are many other examples of IoT in the healthcare industry](#), such as:

- Remote patient monitoring
- Glucose monitoring
- Heart-rate monitoring
- Hand hygiene monitoring
- Mood monitoring
- Parkinson's disease monitoring
- Robotic surgery
- Healthcare mobility solution
- Other wearables and devices:
  - Hearables
  - Ingestible sensors
  - Moodables
  - Computer vision technology
  - Healthcare charting
  - Smart pills

### IoT Security in Healthcare

One of the most significant challenges in healthcare that IoT poses is data security and privacy. This is especially alarming in IoT devices that lack data protocols and security requirements.

## What are the biggest IoT security risks and challenges?

IoT devices can be highly susceptible to cybercriminals who can hack into the system and compromise the Personal Health Information (PHI) of both patients as well as doctors. Here are some of the biggest IoT security risks and challenges:

- **Data breach** – Hackers can gain access to patients' data and records.
- **Identity Theft** – Hackers can use patient's electronic records to pose as the patient and use their IDs to buy drugs and medical equipment.
- **Fraudulent Insurance Claim** – Cybercriminals may file fraudulent insurance claims under the patient's name.
- **Unauthorized Access** – Hackers can gain access to systems when a breach happens.
- **Device Hijack** – Hackers can take control of a medical device.

## Secure IoT Solutions

Since the security aspect of IoT is central to the development of these devices, especially in the healthcare sector, there are several solutions that address the key issues with IoT security:

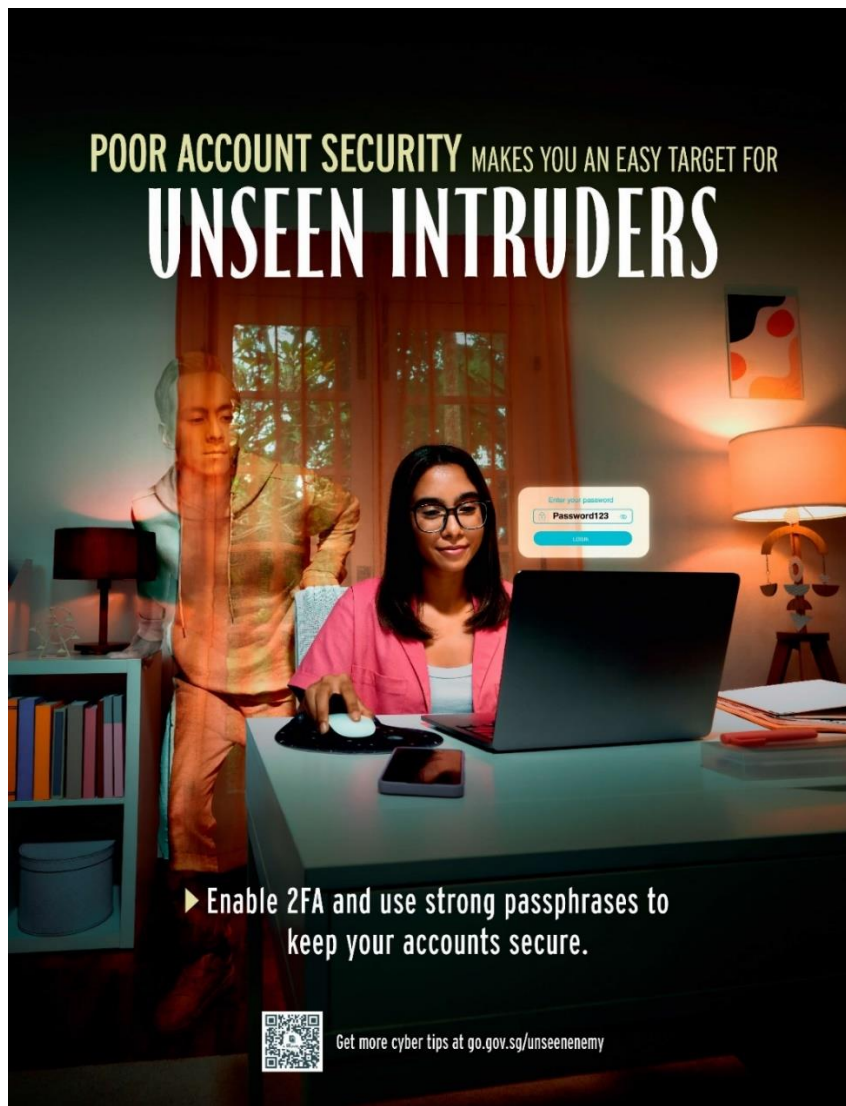
- **IoT Device Security** – Cloud-based service which can be integrated into your ecosystem and end devices. IoT Device Security is a PKI-based platform to secure device identities.
- **IoT Identity Platform** – A tool for managing IoT device identity.
  - **IoT CA Direct** – Secures device identities with trusted IoT digital certificates from GlobalSign.
  - **IoT Edge Enroll** – A complete registration authority service for safe and optimal device enrollment without the hassle.
- **IoT Device Identity Lifecycle Management** – Handles certificate issuance, renewals, cancellations, and revocations.
- **IoT Custom Trust Models** – Helps the healthcare industry to build trust models based on their specific needs through customizable hierarchy configurations and PKI expertise.
- **IoT Device Certificates** – Helps healthcare IoT devices have a unique and strong device identity through PKI-based IoT security.
- **IoT Certificate Revocation** – When needed, GlobalSign's IoT Validation Authority revokes the certificate's good standing using either a certificate revocation list (CRL) or the Online Certificate Status Protocol (OCSP).
- **IoT Developer Program** – IoT developers and organizations building smart connected products for the healthcare sector can create top-level technology decisions by prioritizing IoT security into their IoT tech stack. GlobalSign's IoT Developer Program and Portal can help streamline your IoT security solutions through a centralized locale where developers can access all the tools needed to successfully integrate device identity provisioning.

- **IoT Partner Program** – Make healthcare devices stronger and more secure by collaborating and partnering with GlobalSign IoT Solutions Group—a trusted device identity partner.


GlobalSign uses Public Key Infrastructure-based device identity to secure online identities and systems. To date, GlobalSign is the only Certificate Authority (CA) that can issue certificates to devices at the IoT scale.

Ready to jumpstart your IoT security? [Speak with us today.](#)

## Article from Cyber Security Agency of Singapore



# A WRONG CLICK EXPOSES YOU TO UNSEEN ATTACKS

 Here's a gift for you: Get 50% off all electronics!  
Click now: <http://cheapgadgets.sg>

► Beware of phishing scams.  
Only download apps from official app stores.



Get more cyber tips at [go.gov.sg/unseenenemy](http://go.gov.sg/unseenenemy)



# OUTDATED SOFTWARE OPENS YOU UP TO UNSEEN THREATS

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Install now    Remind me later

► Update software promptly to protect your devices from bugs and security flaws.



Get more cyber tips at [go.gov.sg/unseenenemy](https://go.gov.sg/unseenenemy)



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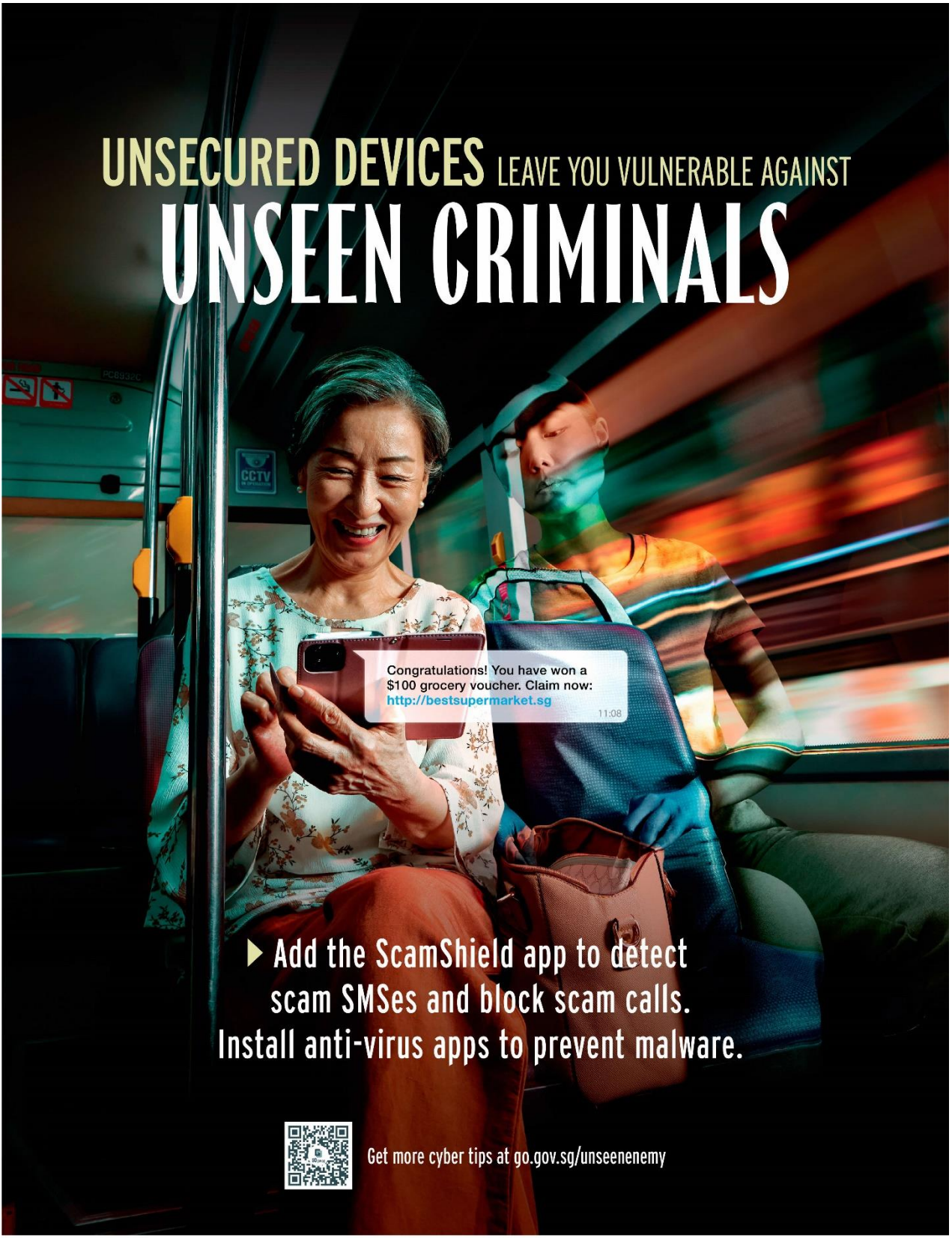
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# UNSECURED DEVICES LEAVE YOU VULNERABLE AGAINST UNSEEN CRIMINALS



► Add the ScamShield app to detect scam SMSes and block scam calls. Install anti-virus apps to prevent malware.



Get more cyber tips at [go.gov.sg/unseenenemy](http://go.gov.sg/unseenenemy)



**CYBER TIP:**  
**ENABLE 2FA**  
**AND USE STRONG**  
**PASSPHRASES**



How you can strengthen your account security:

- **Enable 2FA for your online accounts.**  
2FA can be a One-Time Password (OTP) from a digital token or SMS that is sent to your mobile devices.



- **Create a strong passphrase. Here's how:**
  - 1: String together five different words that relate to a memory unique to you.
  - 2: Use a mix of upper- and lower-case letters, numbers or symbols to make at least 12 characters.



- **Use a reputable password manager.**  
Store and manage your multiple passphrases for different accounts.



Get more cyber tips at  
[go.gov.sg/unseenenemy](https://go.gov.sg/unseenenemy)



# CYBER TIP: BEWARE OF PHISHING SCAMS



## How you can protect yourself:

- **Think** before you click on unknown links in messages and emails.



- **Only download** apps from official app stores such as Google Play Store (Android) or Apple App Store (iOS).



- **Always verify** the authenticity of emails, calls or requests through official sources and check with family and friends.



- **Do not disclose** your confidential information and banking details.



! For more information, visit [www.scamalert.sg](http://www.scamalert.sg) or call the Anti-Scam Helpline at 1800-722-6688.



Get more cyber tips at  
[go.gov.sg/unseenenemy](http://go.gov.sg/unseenenemy)





**CYBER TIP:**  
**UPDATE SOFTWARE PROMPTLY**



**How to protect your devices from bugs and security flaws:**

- **Enable** automatic updates on all your devices, devices' operating systems, web browsers and plug-ins, anti-virus software, and other types of apps.



updating...

- **Regularly review** your apps and remove those that are not needed.



- **To learn** how to enable automatic updates, visit official websites belonging to your software publisher and/or app developer.



Get more cyber tips at  
[go.gov.sg/unseenenemy](https://go.gov.sg/unseenenemy)



# CYBER TIP: ADD SCAMSHIELD AND ANTI-VIRUS APPS

Congratulations! You have won a \$100 grocery voucher. Claim now: <http://bestsupermarket.sg>

11:08

## How you can secure your devices:

- Add the ScamShield app to detect scam messages and block scam calls.



- Install anti-virus apps which can detect malware and malicious phishing links.



- Only use app stores such as Google Play Store (Android) or Apple App Store (iOS), as these platforms have measures in place to detect and remove malicious apps.



- Stick to well-known app developers, check the number of downloads and user reviews.



 For a list of recommended anti-virus apps, visit [www.csa.gov.sg](http://www.csa.gov.sg).



Get more cyber tips at  
[go.gov.sg/unseenenemy](http://go.gov.sg/unseenenemy)



# Article from SVRP 2023 Gold Winner and Honorary Ambassador, Chua Zheng Da, Edwin

**SVRP 2023 Gold Winner & Honorary Ambassador – Chua Zheng Da, Edwin [NYP]**



**How do you think SVRP has directly impacted your cybersecurity journey?**

SVRP has given me the internship opportunities as a gold award recipient.

**How has SVRP inspired you to contribute to the cybersecurity field?**

SVRP encourages me to volunteer and developed my interests, as well as giving recognition for doing so.

**What motivates you to be a student volunteer?**

My motivation to volunteer was sparked when I first engaged in a student-led cybersecurity competition. Since then, it ignited my passion for the field. Volunteering also allows me to gain valuable hands-on experience and skills.

**How would you want to encourage your peers to be interested in cybersecurity?**

I will share with them my passion for cybersecurity and also explain to them the importance of cybersecurity in today's age of rapid IT development. I will also encourage them to participate in CTFs competition since it is educational and exciting.

# Article from SVRP 2023 Gold Winner, Tan Yee Ming

**SVRP 2023 Gold Winner – Tan Yee Ming [NP]**



## **How do you think SVRP has directly impacted your cybersecurity journey?**

SVRP has impacted my cybersecurity journey by providing a platform for me to network with other individuals with similar interests in cybersecurity, and forge deeper bonds with my networks. At last year's SVRP award ceremony, I met Wei Xin and Gerald, who I wasn't very well acquainted with then. However, after that event, we collaborated frequently over a project (LnC), which helped to further grow our friendship. Now, when we see opportunities that may benefit each other, we actively share them with each other. I recently also had the opportunity to talk to Wei Xin about a cryptography, which helped me to gain fresh ideas for my final year project.

## **How has SVRP inspired you to contribute to the cybersecurity field?**

SVRP has given several beneficiaries I have met a goal to work towards. While organising CTFs (Lag n Crash, YCEP), I introduced and encouraged many participants to join in on SVRP, and from there, they could give back to the cybersecurity community, just as how the community have helped them when they started out.

## **What motivates you to be a student volunteer?**

I wish to inspire others by sharing the fun of cybersecurity, just as how I find joy in delving into cryptography, one of the aspects of cybersecurity. I also hope to give back to the community and empower those who are interested in cybersecurity to start, just as how others in the community helped me to learn more about the cybersecurity field.

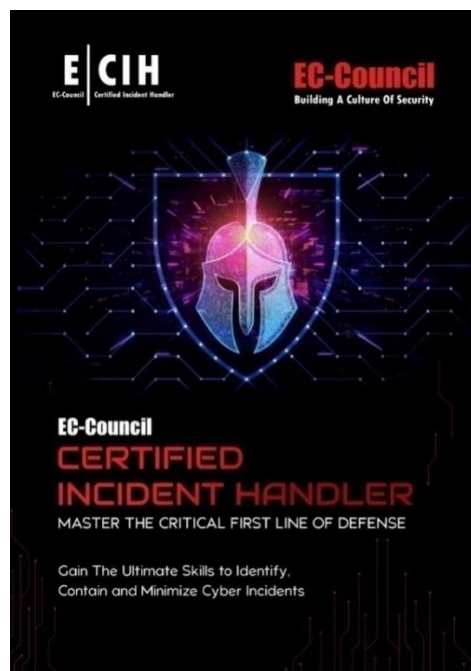
[back to top](#)

**How would you want to encourage your peers to be interested in cybersecurity?**

I would encourage them to play Thales's tabletop card game which places the users in the position of a company's CISO, that shows the importance of cybersecurity in a fun and introductory way. I would also encourage my peers to try out and interact with the cybersecurity community online (eg. tryhackme, hack the box, over the wire) or in person at cybersecurity events (OTCEP, World Skills ASEAN, Div0 Monthly Meetups, SIG Workshops, Local Cybersecurity Group Workshops from Evenbrite). This way, they can experience different aspects of cybersecurity, to find out which aspect of cyber security they are more interested in finding out more.

# PROFESSIONAL DEVELOPMENT

## Listing of Courses by Wissen International



The question is not if, but when a cyber incident will occur?

EC-Council's Certified Incident Handler (ECIH) program equips students with the knowledge, skills, and abilities to effectively prepare for, deal with, and eradicate threats and threat actors in an incident.

The newly launched Version 3 of this program provides the entire **process of Incident Handling and Response** and hands-on labs that teach the **tactical procedures and techniques** required to effectively **Plan, Record, Triage, Notify** and **Contain**.

ECIH also covers **post incident activities** such as **Containment, Eradication, Evidence Gathering** and **Forensic Analysis**, leading to prosecution or countermeasures to ensure the incident is not repeated.

With over **95 labs, 800 tools** covered, and exposure to Incident Handling activities on four different operating systems, ECIH provides a well-rounded, but tactical approach to planning for and dealing with cyber incidents.

**Special discount available for AiSP members, email [aisp@wissen-intl.com](mailto:aisp@wissen-intl.com) for details!**

# Qualified Information Security Professional (QISP®)

## Body of Knowledge Book Promotion!

For a limited time, get our newly launched Information Security Body of Knowledge (BOK) Physical Book (U.P \$80 before GST) at the limited promotional price of **\$54.50 (inclusive of GST)**. While stocks last!

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## QUALIFIED INFORMATION SECURITY PROFESSIONAL (QISP) COURSE

Online

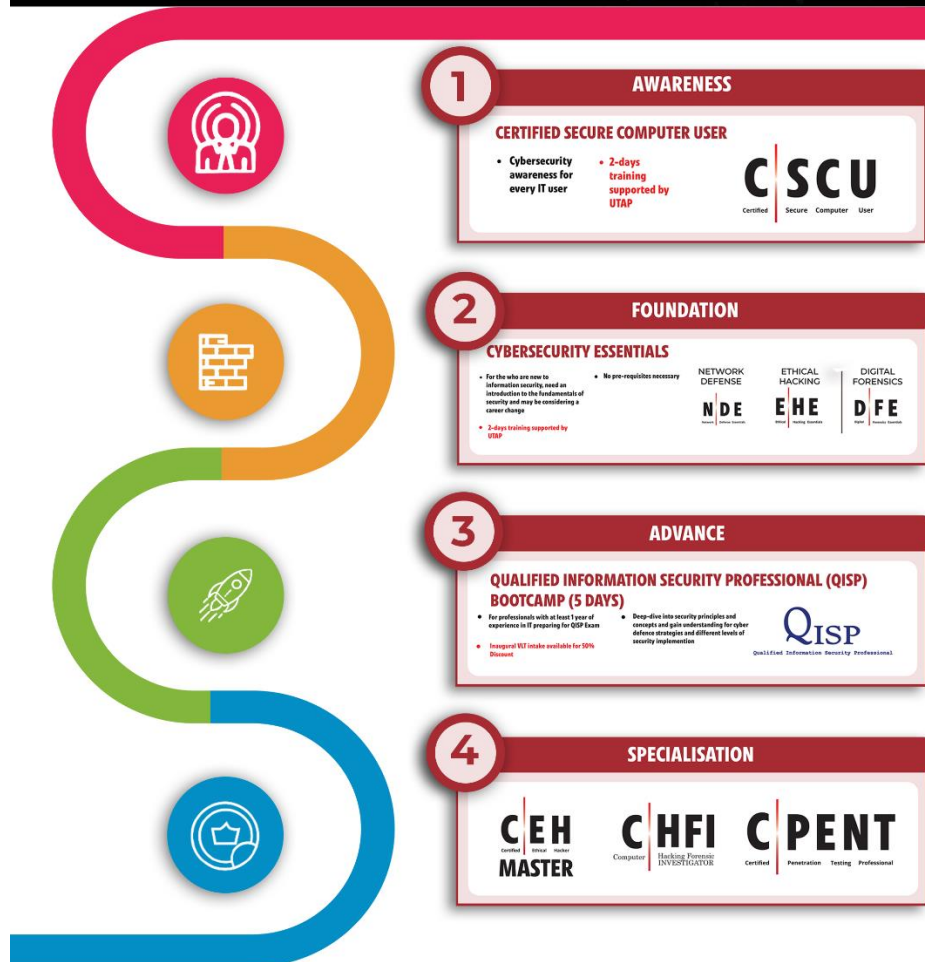


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Qualified Information Security Professional

**READY TO TAKE YOUR CYBERSECURITY SKILLS TO THE NEXT LEVEL?**

**JOIN OUR VLT CLASS**  
Enroll for QISP inaugural VLT batch to enjoy a 50% discount from the course fees.  
Based on the latest version of BOK, this course will prepare you for QISP exam.  
Scan the QR code to find out more.

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## CERTIFICATION ROAD MAP

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# MEMBERSHIP

## AiSP Membership

### Complimentary Affiliate Membership for Full-time Students in APP Organisations

If you are currently a full-time student in the IHLs that are onboard of our [Academic Partnership Programme \(APP\)](#), AiSP is giving you complimentary Affiliate Membership during your course of study. Please click [here](#) for the application form and indicate your student email address, expected graduation date and name of your institution in the form.

### Complimentary Affiliate Membership for NTUC Members

AiSP offers one-time one-year complimentary Affiliate Membership to all active NTUC members (membership validity: 2023) from 1 Jan 2024 to 31 Dec 2024. The aim is for NTUC members to understand and know more about information security and Singapore's cybersecurity ecosystem. [This does not include Plus! card holder \(black-coloured card\), please clarify with NTUC on your eligibility.](#)

On [membership application](#), please do not email your personal data to us via email if your information or attachment is not password-protected. Please send us your password via [Telegram](#) (@AiSP\_SG).

Once we receive confirmation from NTUC on the validity of your NTUC membership, AiSP would activate your one-year complimentary AiSP Affiliate membership.

### CPP Membership



Join our Corporate Partner Programme  
for exclusive benefits and partnership with AiSP!

Contact AiSP Secretariat for the benefits and corporate  
pricing at [secretariat@aisp.sg](mailto:secretariat@aisp.sg)

For any enquiries, please contact [secretariat@aisp.sg](mailto:secretariat@aisp.sg)

## AVIP Membership

AiSP Validated Information Security Professionals (**AVIP**) membership helps to validate credentials and experience for IS-related work including cybersecurity, professional development, and career progression for our professionals.

## Membership Renewal

**Individual membership expires on 31 December each year.** Members can renew and pay directly with one of the options listed [here](#). We have GIRO (auto - deduction) option for annual auto-renewal. Please email [secretariat@aisp.sg](mailto:secretariat@aisp.sg) if you would like to enrol for GIRO payment.

**Be Plugged into Cybersecurity Sector – Join us as a Member of AiSP!**

## NTUC U Associate Membership



**WORK, LIVE, PLAY**  
LIKE NEVER BEFORE  
WITH THE NTUC-U ASSOCIATE  
MEMBERSHIP COLLABORATION!

**READY TO ADD SPARK TO YOUR MEMBERS' LIVES AND LIVELIHOODS?**  
The NTUC-U Associate Membership Collaboration is an exclusive add-on membership for professional associations in the U Associate network. It will give your members access to exciting career, lifestyle and leisure benefits!

**What are the benefits for your association?**

- ▶ Additional privileges for your association members.
- ▶ Opportunities to engage your members at NTUC Club venues or participate in interest-based activities.
- ▶ Leverage U Associate's resources to reach out to a database of close to **300,000** professionals.

**What are the benefits for your members?**

- ▶ Career advancement and professional development through U PME Centre's suite of career advisory services.
- ▶ Enhanced lifestyle through interest-based leisure activities.
- ▶ Savings on lifestyle products and services through the Link Rewards Programme.

Some benefits include

Career Advisory services - <https://upme.ntuc.org.sg/upme/Pages/CareerCoaching.aspx>

Benefits and privileges from RX Community

Member Programme

<https://www.readyforexperience.sg/>

Please fill in the form below and make payment if you would like to sign up for the membership.

<https://forms.office.com/r/qtjMCK376N>

**Please check out our website on [Job Advertisements](#) by our partners.** For more updates or details about the memberships, please visit [www.aisp.sg/membership.html](http://www.aisp.sg/membership.html)

## AiSP Corporate Partners



Acronis







Visit [https://www.aisp.sg/corporate\\_members.html](https://www.aisp.sg/corporate_members.html) to know more about what our Corporate Partners (CPP) can offer for the Cybersecurity Ecosystem.

## AiSP Academic Partners



## Our Story...

We are an independent cybersecurity association that believes in developing, supporting as well as enhancing industry technical competence and management expertise to promote the integrity, status and interests of Information Security Professionals in Singapore.

We believe that through promoting the development, increase and spread of cybersecurity knowledge, and any related subject, we help shape more resilient economies.

### **Our Vision**

A safe cyberspace supported by a strong and vibrant cybersecurity ecosystem.

### **Our Mission**

AiSP aims to be the pillar for Information Security Professionals and the overall Information Security Profession through:

- promoting the integrity, status and interests of Information Security Professionals in Singapore.
- enhancing technical competency and management expertise in cybersecurity.
- bolstering the development, increase and spread of information security knowledge and its related subjects.

## AiSP Secretariat Team

On 4-5 December, AiSP Secretariat went on a staff retreat to Johor Bahru for 2D1N! The team had an eventful time playing escape game, watching the Marvels movie and also sang KTV at KSL mall!

We are hiring! If you are looking to thrive in a collaborative environment, have a passion for events, and are eager to learn and be exposed to the industry in Singapore and even beyond. Send in your interest to [secretariat@aisp.sg](mailto:secretariat@aisp.sg) to find out more!



Vincent Toh  
Associate Director



Elle Ng  
Senior Executive



Karen Ong  
Executive



[www.AiSP.sg](http://www.AiSP.sg)



[secretariat@aisp.sg](mailto:secretariat@aisp.sg)



+65 8878 5686 (Office Hours from 9am to 5pm)



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Please [email](mailto:secretariat@aisp.sg) us for any enquiries.