

ACICE Issue 7/22 (Jul)

# ACICE Monthly Digest

A monthly round-up of significant news around the world

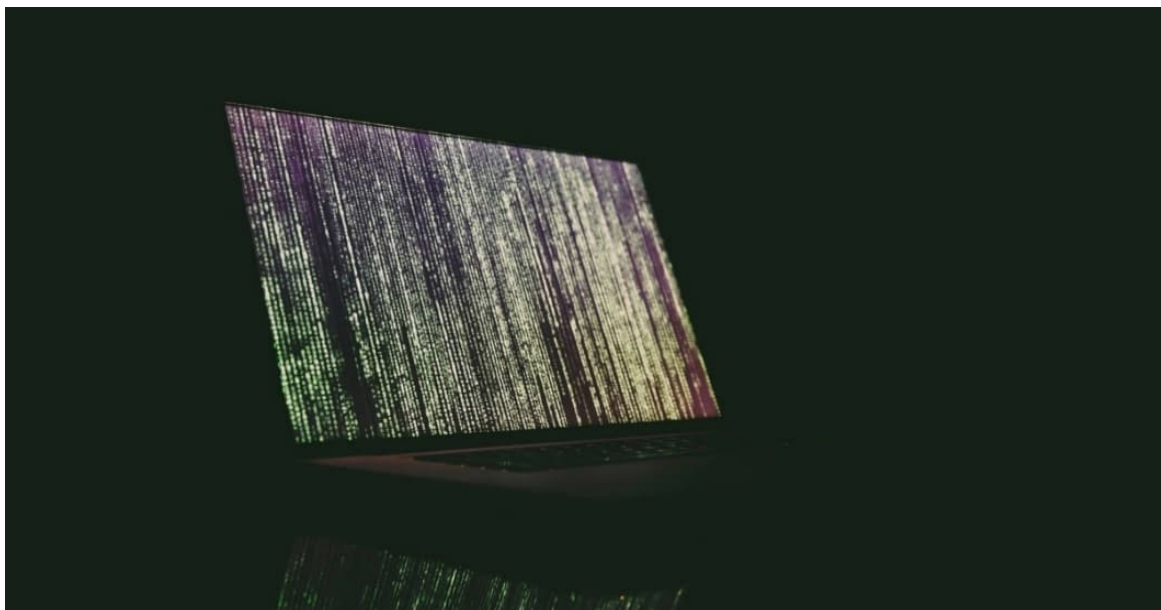


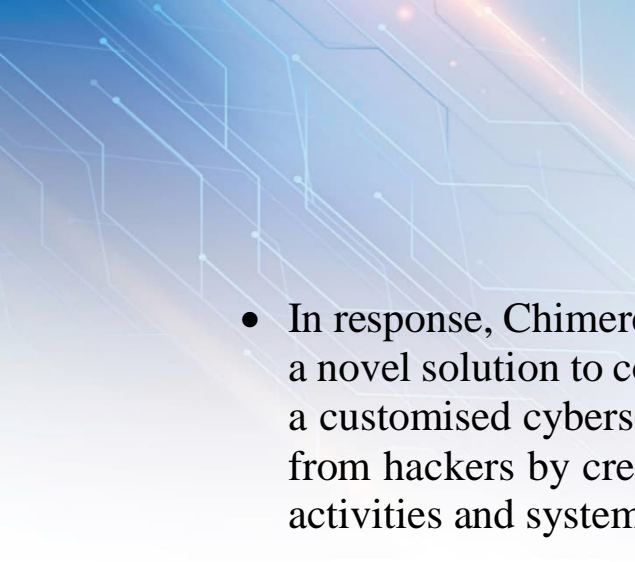
ADMM Cybersecurity and  
Information Centre of Excellence

# Dark Net Technology and Cybersecurity

## Using Dark Net Technology to Hide Online Systems from Hackers

- According to the United States Federal Bureau of Investigation's annual Internet Crime Complaint Center report, cybercrime cost the world USD 6.2 billion in 2021. This value takes into account the amount lost to scams, identity theft, data breaches and ransomware.
- Cyber criminals have grown increasingly sophisticated and are outsmarting companies' cyber defences to gain access to companies' information. These criminals are constantly lurking online, trying to map out a company's internet-facing networks and searching for existing vulnerabilities before conducting a cyberattack.




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- In response, Chimere, a French start-up by Thales, has developed a novel solution to combat information exfiltration. It has created a customised cybersecurity product that conceals online systems from hackers by creating a private network to obscure its users' activities and systems.
  - Chimere's product is a modified version of the Tor browser, commonly used to access the Dark Web – a hidden group of websites on the internet that can only be accessed via a specialised web browser. Chimere's product allows client information to be anonymised and passed through Chimere's encrypted nodes managed by Chimere itself. Chimere's technology also allows users to configure the systems and information that they want to be hidden and to grant selected parties access to those systems.
  - That said, there are some drawbacks in Chimere's technology. A key limitation is that the product has a high latency between the transmission and receipt of data. As a result, users may experience delays in the transmission of data. Chimere has not yet revealed how it intends to overcome this limitation.



# Humanitarian Assistance and Disaster Relief

## AI, Satellites, and Unmanned Vehicles in Humanitarian Action

- Projekt AHEAD (Autonomous Humanitarian Emergency Aid Devices), a humanitarian project by the German Aerospace Center, utilises technology such as satellites, unmanned aerial vehicles (UAVs), and remotely controlled vehicles to coordinate the delivery of aid in dangerous places.
- This project allows relief operators to continuously monitor developments on the ground with satellite data. Users could also tap on imagery information from UAV that could be operated by individual aid workers close to the ground or controlled from an operations centre. These various types of ground data are processed by a local mission operation centre, which could then deploy a remotely controlled vehicle to deliver aid where it is exactly needed.
- In addition, the satellite data can be analysed using artificial intelligence (AI) systems to help save time and lower operational costs in the field. AI was successfully used to identify damaged buildings from images captured by satellites and UAVs after Cyclone Idai hit Mozambique in 2019. This allowed damage assessments to be completed with relatively high accuracy within a short amount of time.

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- In leveraging advanced technology like satellites and AI to collect and manage real-time field data, many relief organisations have access to data that may be sensitive. For instance, the World Food Programme (WFP) collects information about food supply daily, and utilises predictive models to forecast its humanitarian responses as part of its global hunger monitoring system. Such data could be stolen or misused. Proper safeguards and protocols need to be put in place to mitigate potential risks.
  - Humanitarian organisations should establish guidelines and standards for workers to know how to handle sensitive data in their possession.



# Terrorism

## Updates on Terrorism in Southeast Asia

### *Reduction in Regional Attacks and Foiled Plots in 1H 2022*

- The number of terrorist attacks – successful or foiled – in Indonesia and the Philippines has reduced in the first half of 2022, compared to the same period in 2021. This reduction could be attributed to sustained counter-terrorism actions undertaken by security forces against terror suspects.
- Since the start of 2022, the Philippine security forces have continued to conduct at least 17 operations against militant groups in the Southern Philippines, while Indonesian authorities have arrested over 100 terrorist suspects, including those from Al-Qaeda-linked group Jemaah Islamiyah.

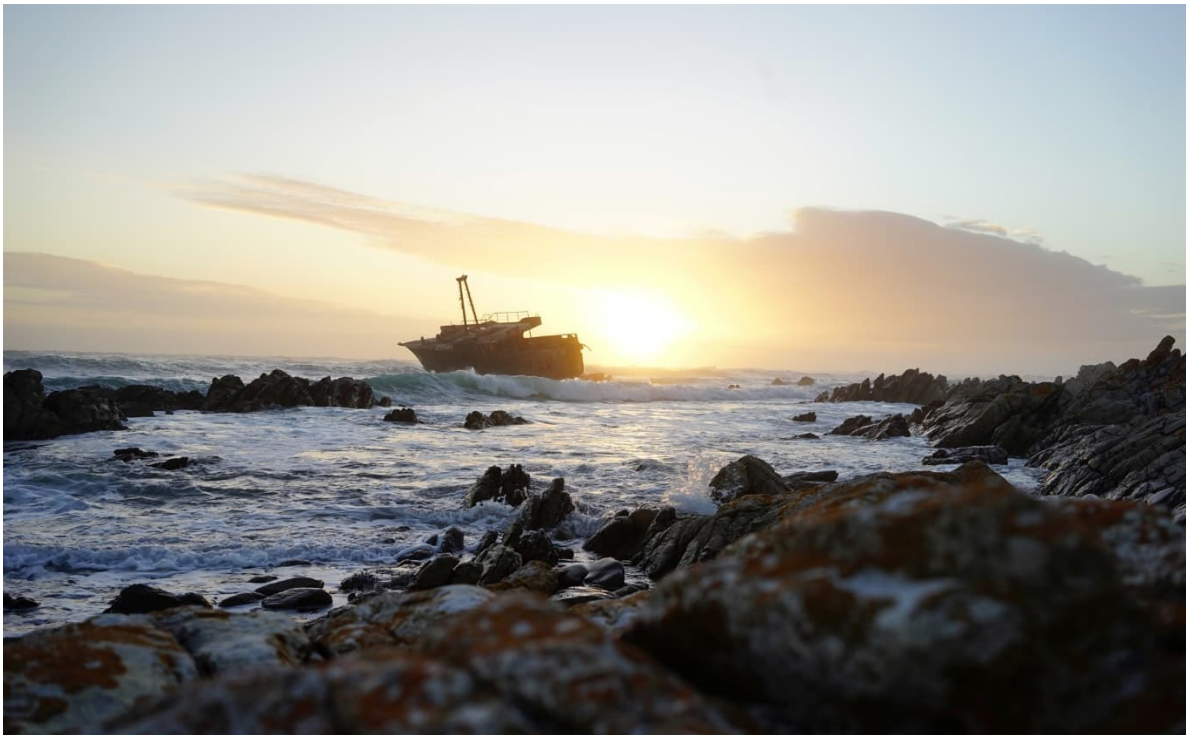
### *Regional Pro-ISIS Elements Celebrate Fatal Shooting of Former Japanese Prime Minister Shinzo Abe*

- Following the fatal shooting of former Japanese Prime Minister Shinzo Abe on 8 Jul 2022, regional pro-ISIS supporters celebrated the attack, highlighting Japan’s role in the “Crusader coalition” and the coalition’s “assault” on ISIS-held territories in Iraq and Syria. These regional supporters even propagated images and videos of the attack in pro-ISIS Telegram groups.
- A user of pro-ISIS Telegram groups posted a photo of Abe among other world leaders at the G20 Summit in Osaka in 2019 and said that “one disbeliever in the photo died”. Others expressed hope that the attack was conducted by a fellow “soldier of the caliphate”.

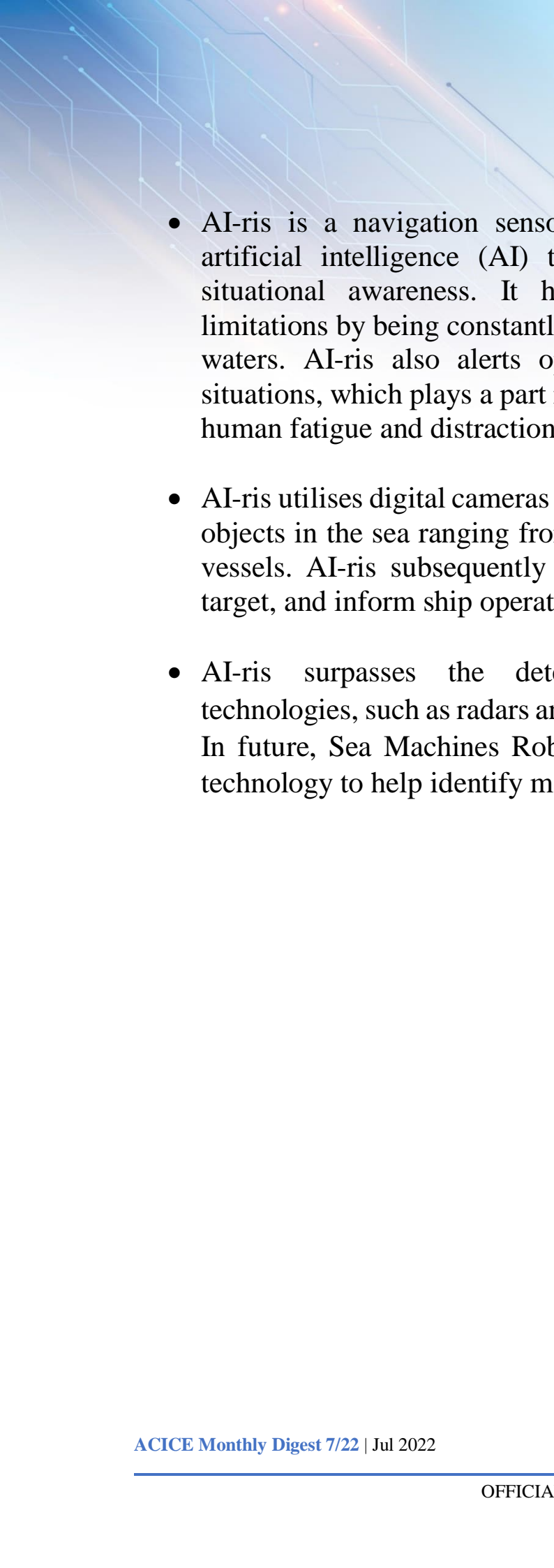
# Maritime Security

## Using Computer Vision for Sea Navigation

- Conventional navigation equipment on vessels require decisions that rely heavily on human discretion. While experienced and trained personnel can make quick and timely decisions, they are prone to lapses and mistakes when tired or distracted. In the event of any misjudgement, the consequences could be catastrophic for seamen and passengers in open waters.



- To improve the safety and performance of vessels in open waters, Sea Machines Robotics, a Boston-based company specialising in autonomous command and control, has unveiled Artificial Intelligence Recognition and Identification System (AI-ris).

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- AI-ris is a navigation sensor that uses computer vision and artificial intelligence (AI) to help ship crew increase their situational awareness. It helps to compensate for human limitations by being constantly on the lookout for threats in open waters. AI-ris also alerts operators to potentially dangerous situations, which plays a part in helping to avoid accidents due to human fatigue and distraction.
  - AI-ris utilises digital cameras to continuously scan for people and objects in the sea ranging from swimmers and kayakers to large vessels. AI-ris subsequently uses AI to classify and track the target, and inform ship operators of its location.
  - AI-ris surpasses the detection capabilities of existing technologies, such as radars and automatic identification systems. In future, Sea Machines Robotics hopes to further develop its technology to help identify marine oil spills.



# Annex

## Sources

### Dark Net Technology and Cybersecurity

- Using Dark Net Technology to Hide Online Systems from Hackers
  - <https://www.straitstimes.com/tech/new-product-uses-darknet-tech-to-hide-online-systems-from-hackers>
  - <https://www.thehindubusinessline.com/info-tech/thales-showcases-unique-cybersecurity-offerings/article65513943.ece>
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### Humanitarian Assistance and Disaster Relief

- AI, Satellites, and Unmanned Vehicles in Humanitarian Action
  - <https://www.itu.int/hub/2022/04/mars-rover-to-aid-ai-satellites-uavs-humanitarian-action/>
  - <https://projekt-ahead.de/en/project-a-h-e-a-d/>

### Terrorism

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  - <https://newlinesinstitute.org/isis/reassessing-the-extremist-threat-in-southeast-asia/>

## Maritime Security

- Using Computer Vision for Sea Navigation
  - <https://www.marinelink.com/news/sea-machines-debuts-airis-computer-vision-497493>
  - <https://sea-machines.com/sea-machines-unveils-ai-ris-computer-vision-the-biggest-advancement-in-vessel-navigation-instrumentation-since-gps/>

## Contact Details

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