EVOLVING SECURITY THREATS AND ADVANCED SECURITY TECHNOLOGIES
19TH – 21ST MARCH 2018
AGENDA

DAY 1 – MONDAY - 19TH MARCH 2018

12:00 – 13:00   Registration and Welcome Snacks

INTRODUCTION SESSION

13:00 – 13:30   **Welcoming Remarks, Scope and Objectives of the Workshop**
Presentation by Dr Roger Howsley, Executive Director, WINS

13:30 – 14:00   **Participant Introductions and Expectations**
Julian Powe, WINS Facilitator

14:00 – 14:45   **Scanning the Nuclear Security Horizon: Threats and Opportunities**
Presentation by James Halverson, National Consortium for the Study of Terrorism and Responses to Terrorism (START), University of Maryland, United States

SESSION 1:   **EVOLVING THREATS**
Key issues:
- What is the process for assessing the threat?
- How efficient is this process for anticipating changes in the threat landscape and supporting the design of flexible security programmes?
- What impact will the miniaturisation of technology have on security matters?

14:45 – 15:15   **Evolving and Emerging Cyber Threats**
Presentation by Guido Gluschke, Viccon GmbH, Germany

15:15 – 15:45   **Discussion** to review the process for anticipating scenarios and situations of concern

15:45 – 16:00   Coffee Break

SESSION 2:   **ADDRESSING FUTURE THREATS – AN INDUSTRY PERSPECTIVE**
Key issues:
- What are the nuclear security needs of 2025 and beyond? What role do advanced security technologies play in addressing these needs?
- When should new security technologies be implemented? How do we assess their return on investment?
- How do we develop a balanced security programme which integrates human resources and evolving security technologies?

16:00 – 16:30	**Securing Small Modular Reactor – Case Study** *Presentation by Eddie Marrett, Rolls-Royce, United Kingdom*
16:30 – 17:00	**Proactive Attitude Towards New Technologies and The Future** *Presentation by Kevin Louth, Horizon Nuclear Power, United Kingdom*
17:00 – 17:45	**Breakout Discussion** on managing long-term risks and increasing the resilience of security arrangements
17:45	**Summary of Day 1** (Facilitator)
18:00	**Workshop Cocktail**

DAY 2 – TUESDAY- 20<u>TH</u> MARCH 2018

09:00 – 09:15	**Review of Day 1 and Introduction of Day 2** (Facilitator)
SESSION 3:	**ADVANCED TECHNOLOGIES AND THEIR IMPACT ON NUCLEAR SECURITY** Key issues: - What are the upcoming technologies and what can we expect from them? - Are advanced technologies a risk or an opportunity? - Where can we find reliable information on these technologies?
09:15 – 09:45	**Security Challenges: Unmanned Aerial Vehicles** *Presentation by Chad Monthan, Sandia National Laboratories, United States*
09:45 – 10:30	**Discussion** on security benefits and drawbacks of advanced technologies (Part 1)
10:30 – 10:45	Coffee Break
10:45 – 11:15	**Responding to Dangerous Situations** *Presentation by Matthias Biegl, Taurob GmbH, Austria*
11:15 – 12:00	**How Augmented and Virtual Reality Can Help Enhance Nuclear Security** *Presentation by Morten Wenstad, EON Reality, Norway*
12:00 – 12:30	**Discussion** on security benefits and drawbacks of advanced technologies (Part 2)
12:30 – 13:30	Lunch
SESSION 4:	**EXPLORING THE ROLE OF ARTIFICIAL INTELLIGENCE IN NUCLEAR SECURITY** Key issues: - What does Artificial Intelligence mean for Nuclear Security? - What are the benefits of Data Analytics for Nuclear Security? - Are there any associated risks?
13:30 – 14:00	**Artificial Intelligence** *Presentation by Dr Martin Svik, IBM iLab, Czech Republic*

14:00 – 15:00	**Data Analytics from a Security Perspective**
	Presentation by David Dixon, IBM, UK and Presentation by Christopher Hawkes, Point Duty Pty Ltd, UK.
15:00 – 15:15	Coffee Break
15:15 – 15:45	**Discussion** on sharing experiences and lessons learned

| **SESSION 5:** | **THE USE OF REMOTELY OPERATED WEAPON SYSTEMS – A CASE STUDY** |
| | Key issues: |

- What is the rational for deploying ROWs?
- What prerequisites are necessary for their deployment?
- What can we learn from past experiences?

15:45 – 16:30	**The Use of Remotely Operated Weapons**
	Presentation by Anthony Qualantone, Precision Remotes LLC, United States
16:30 – 17:15	**Breakout Discussion** on sharing experiences and lessons learned
17:15	**End of Day 2**

| 17:30 | **Vendor Presentations** |

DAY 3 – WEDNESDAY – 21ST MARCH 2018

| 09:00 – 09:15 | **Review of Day 2 and Introduction of Day 3** (Facilitator) |

| **SESSION 6:** | **MODELLING AND SIMULATION TOOLS IN SUPPORT OF RISK MANAGEMENT** |
| | Key issues: |

- What role do modelling and simulation tools have in nuclear security?
- What are their current capabilities and what significant evolution can we expect? What do we need M&S tools to do?
- How can we integrate simulation outputs into day-to-day security operations?

| 09:15 – 10:30 | **Emerging Tools for Modelling and Simulation** |

- *Presentation by Robert Scott, ARES Security Corporation, United States*
- *Presentation by Matthew Talbot, RhinoCorps, United States*

| 10:30 – 10:45 | Coffee Break |
| 10:45 – 11:15 | **Plenary and Table Discussion** on sharing experiences from using modelling and simulation tools and assessing their contribution in the future |

SESSION 7:	**REGULATION AND OTHER CONSIDERATIONS**

Key issues:

- With the wider use of advanced technology, who has the controlling mind?
- How can regulators have confidence that advanced technology will behave as designed?
- What impact will advanced technology have on employees and their privacy if they are under constant surveillance?
- What impact will even more social media and instant communications contribute to more effective security or increase the threat?

11:15 – 12:00	**Challenges in the Regulation of New Security Technologies.** *Presentation by Tom Parkhouse and Gareth Allsopp, Office for Nuclear Regulation, United Kingdom*
12:00 – 12:45	**Discussion** on the challenges for regulation, ethical and legal considerations, and the social impact on staff of new security technologies
12:45 – 13:45	Lunch

CONCLUSION SESSION

13:45 – 14:45	**Key findings of the workshop**

- What attitude should nuclear corporations adopt? What mind-set and organisational changes might be required?
- What is the role of the other stakeholders in facilitating the adoption of new technologies?
- What are the usual barriers to adopting new technologies and how can we overcome them?
- What have we learnt?
- What are the opportunities for improvement and remaining challenges?

14:45 – 15:30	**Wrap Up and Conclusions**

- Evaluation of the workshop
- Closing remarks

15:30	**END OF WORKSHOP**