

中国核能行业协会信息化专业委员会

核协信专函〔2019〕7号

关于召开核电厂网络安全技术国际交流与 培训会议的通知

各有关单位：

为加强核电厂网络安全建设，促进核电厂网络安全法规标准和技术国际交流，提升核电行业从业人员对国内外核电厂网络安全法规标准、安全策略、防护技术的理解和认识。中国核能行业协会信息化专业委员会定于2019年3月27日-29日在深圳举办核电厂网络安全技术国际交流与培训会议。

会议由中国核能行业协会信息化专业委员会主办，中广核工程有限公司承办，Framatome GmbH 协办。主办方将邀请德国、韩国、加拿大等国际核电网络安全法规标准方面的专家学者，国际电工委员会、国际原子能机构等单位的专家代表和咨询顾问出席活动，并计划邀请工信部、国防科工局、国家核安全局、国家能源局、国家信息技术安全研究中心、国家核安保技术中心、环保部核与辐射安全中心、国家工业

信息安全发展研究中心等单位领导、专家出席。现将有关事宜通知如下：

一、交流和培训的目标

通过培训，提升从业人员对国内外核电网络安全相关法规标准的理解和认识，学习网络安全策略、防护技术手段，了解前沿学术进展、国内外网络安全的良好实践；通过研讨会，促进国内外核电行业网络安全前沿动态的学术沟通、经验反馈与合作探索。

二、时间和地点

时间：2019年3月27日-29日（培训时间为27-28日，研讨会时间为29日，培训学员需于26日下午报到，参加研讨会专家可于28日下午报到）

地点：深圳市龙岗区天安数码城5号楼 中广核工程有限公司（设计院）

三、邀请人员

核电行业各集团（公司）负责信息安全部门领导，核能行业相关设计、建设、运行、服务单位中从事设计、运行、生产、维修、仪控、信息化建设、信息安全及文档管理等岗位和专业的领导和技术人员、中国核能行业协会核电运行分会成员单位和网络与信息安全工作组成员单位。

四、活动安排

详见《日程安排》（附件1）。

五、报名和费用

1. 会议收取注册费，收费标准为：中国核能行业协会会员单位 4800 元/人，非会员单位 6800 元/人。

2. 注册费可以报到当天缴纳，或者提前汇款至中国核能行业协会。

名称：中国核能行业协会

开户银行：中国银行北京西三环北路支行

账号：338966139210

3. 请各参会单位于 2019 年 3 月 24 日前，将会报名表(附件 2) 发送邮件或传真至中国核能行业协会信息化专业委员会秘书处。

六、其他事宜

1. 参加培训的学员经考核评定合格者，将由中国核能行业协会信息化专业委员会将颁发合格证书。经考核评定优秀者将另外颁发优秀学员证书。

2. 参加培训的学员需要提交一寸免冠证件照(电子版)。

3. 培训和交流语言是英语。

4. 会务组统一安排住宿，费用自理（住宿酒店另行通知）。

七、联系人

郑东，15600680181，hxzg2013@126.com。

胡兵（中广核工程有限公司），18806653007。

特此通知。

- 附件：1. 日程安排
2. 报名表
3. 专家简介

中国核能行业协会信息化专业委员会

2019年3月5日



主送：中国核工业集团有限公司、中国核工业建设股份有限公司、中国广核电力股份有限公司、国家电力投资集团有限公司、中国华能集团有限公司、地方政府核电办、产业协会联盟、核工业计算机应用研究所、中国核能行业协会网络与信息安全工作组成员单位、中国核能行业协会及各会员单位

附件 1

Nuclear Cybersecurity Training & Workshop on Safety I&C, Operational I&C and Electrical Power Systems (EPS)

27-29 March 2019, 深圳/Shenzhen

第一天/1 st Day - 2019-03-27 [Technical]		
时间	内容/Topic	演讲者/Presenter
开场白/Introduction		
09:00 – 09:20	Welcome by CNEA, Shenzhen host and invited speakers	CNEA, CGN, Framatome
09:20 – 09:30	Introduction of participants and trainers	all
09:30 – 09:40	Overview and scope of Training & Workshop	Dr. Karl Waedt (KW)
开场白/Cybersecurity Challenges		
09:40 – 10:10	Cybersecurity – New Challenges for Industry and Worldwide Technical Trends	Venesa Watson (VE)
10:10 – 10:30	Gradual Progress of Cybersecurity in the Nuclear Domain	KA
10:30 – 11:00	会间茶歇/Coffee Break	
11:00 – 11:20	Cybersecurity Incidents in Nuclear and Critical Infrastructure	VE, XI, IN
信息安全设计/Security by Design		
11:20 – 11:40	Safety DiD and Security DiD (IAEA NP-T-2.11, IAEA NSS)	KA
11:40 – 12:00	Security Grading in China (IT, Industry, Nuclear)	XX – in Chinese from CN
12:00 – 12:30	Asset Management of Security Artefacts (ISO/IEC 19770)	KA, AS, IN
12:30 – 13:30	午餐/Lunch Break	
13:30 – 14:00	Cybersecurity in Industry 4.0, RAMI	KA, XI
14:00 – 14:30	Domain Based Security (DBSy, HMG IA) and Security Architecture and Design / Modeling (IEC 62714)	KA XI
信息安全控制/Security Controls for IT and OT		
14:30 – 15:00	Security Requirements, Objectives and Controls - JTC1/SC27	KA, AS
15:00 – 15:30	会间茶歇/Coffee Break	
15:30 – 16:10	Security Controls Overview (IAEA, IEC, US NRC, NEI)	KA – 40 min
	Generic Structuring by ISO/IEC 27002 and ISO/IEC 27009	VN
	Controls for non-nuclear Energy Utilities (ISO/IEC 27019)	XI
16:10 – 16:30	Safety & Security Grading, Security Maturity Level (IEC 62443) Controls for process industry (IEC 62443)	VE KA → 20 min
16:30 – 16:45	Security Controls Guidance in China (IT, Industry, Nuclear)	XX – in Chinese from CN
16:45 – 17:00	Example Security Control: Whitelisting & Blacklisting for OT	VE
17:00 – 17:30	End of 1 st Day Question Round	all
18:30	欢迎晚餐/Welcome Dinner	

第二天/2 st Day - 2019-03-28 [Technical]		
时间	内容/Topic	演讲者/Presenter
开场白/Introduction		
09:00 – 09:10	Summary of previous day	Venesa Watson (VE)
09:10 – 09:20	Overview and scope for 2 nd day of Training & Workshop	Dr. Karl Waedt (KA)
电气系统信息安全/Security for Electrical Power Systems (EPS)		
09:20 – 09:35	EPS Architectures and Equipment (SIPROTEC)	VE, DE, DA
09:35 – 10:05	Security Controls for Electrical Power Systems (EPS) EPS in the Asherah NPP Model (AEA CRP)	KA, DE, DA – 30 min
功能安全与接口/Functional Safety & Security Interface		
10:05 – 10:30	Considering Nuclear Safety & Security (IEC 62589) Considering Functional Safety & Security (IEC TR 63069) Safety & Security Interface Guide/DKE TBINK AK IT-Security	IN VE, IN, XI – 25 min IN
10:30 – 11:00	会间茶歇/Coffee Break	
11:00 – 11:25	Attribute Based Access Control for Plants and Station Control	VE, JO
安全测试/Security Testing		
11:25 – 11:45	Security Testing in Main Lifecycle Phases	KA, IN
11:45 – 12:00	Security Testing during Development (ISO/IEC/IEEE 29119)	KA, XI, IN
12:00 – 12:15	Security Testing Guidance in China (IT, Industry, Nuclear)	XX – in Chinese from CN
12:15 – 12:30	Pen Testing and Smart Fuzz Testing (DEFENSICS/synopsis)	VE, RA
12:30 – 13:30	午餐/Lunch Break	
安全治理与应用安全/Security Governance and Application Security		
13:30 – 13:50	Application Security Controls (ASCs)	KW, AS, XI
13:50 – 14:10	Security Along the Supply Chain	VE, IN
14:10 – 15:00	Secure Configuration (BIOS, SCALANCE, Firewall) and Security Hardening (OS Level, SLES, RHEL, Windows)	VE, DE AS, IN
15:00 – 15:30	会间茶歇/Coffee Break	
15:30 – 15:50	Developments in Crypto Standardization for Real-time	VE
安全开发/Secure Development		
15:50 – 16:30	Secure Software Development Guidance (ISO/IEC TR 24772) & Secure FPGA/HDL Development Environment (IEC 62566)	KA, IN, XI AS, SA
16:30 – 16:45	Secure Development Guidance in China (IT, Industry, Nuclear)	XX – in Chinese from CN
16:45 – 17:00	Independent Security V&V, Certification for Industry & Nuclear	KA, IN
17:00 – 17:30	End of 2 nd Day Question Round	all
18:30	晚餐/Dinner	

第三天/3 rd Day - 2019-03-29 [Technical & Management]		
时间	内容/Topic	演讲者/Presenter
安全法规与控制/ Cybersecurity Regulation		
09:00 – 09:10	Summary of previous days	Dr. Karl Waedt (KA)
09:10 – 09:40	E.g. National Cybersecurity Regulation	Mr. Kim, Korea
09:40 – 9:55	Sino-German Cooperation in Industry 4.0/IM: Safety & Security	KA, XI
09:55 – 10:30	Major Cybersecurity IAEA topic	Mr. Michael Rowland
10:30 – 11:00	会间茶歇/Coffee Break	
11:00 – 11:25	CN Presentation – e.g. HTR Cybersecurity	XX – in Chinese from CN
11:25 – 11:45	Application and Organization Normative Framework for Security	KA, AS
11:45 – 12:15	Nuclear IEC Cybersecurity Controls – IEC 63096 Concepts	VE, XI
12:15 – 12:30	Cybersecurity training concepts for nuclear and Industry 4.0/IM	KA
12:30 – 13:30	午餐/Lunch Break	
13:30 – 14:00	Safe Engineering in the Digital Age	Mr. Peter Sieber
14:00 – 14:15	CN Presentation – e.g. security for one Chinese I&C platform	XX – in Chinese from CN
14:15 – 14:30	CN Presentation – e.g. by SNERDI/SNPAS	XX – in Chinese from CN
总结与展望/Conclusion and Outlook		
14:30 – 14:50	Questions & feedback	all
14:50 – 15:00	Final discussion and outlook to further events	all
15:00	End of 3 rd day Training & Workshop	

附件 2

核电厂网络安全技术国际交流与培训报名表

姓名	性别	工作单位、职务	联系电话	电子邮件	住宿要求 (单间、合住)

请将此表于 2019 年 3 月 24 日前发邮件或传真至中国核能行业协会信息化专业委员会秘书处。

联系人：郑东 15600680181 邮箱：hxzg2013@126.com 传真：010-88510021

专家简介

Dr. Karl Waedt

Concepts & Architecture / Cybersecurity in Framatome GmbH ICPGDA

He is deputy chair of DKE UK 967.1 (German Mirror Committee of TC45/SC45A), German delegate in TC45/SC45A WG3(I&C) and WG9(Cybersecurity), Chairperson to CEN/CENELEC CLC/TC 45AX (I&C and EPS) and Deputy in KTA UK EL (I&C and ES Board), IAEA TMs pm Cybersecurity, on behalf on German Ministry BMWi, Member of DKE/TBINK Safety & Security by Design, German Delegate in ISO/IEC JTC1/SC27 WG4 Security Controls and Services, Technical R&D Coordinator, together with 6 German University Partners and Member of GI (German Informatics Society) and IEEE.

Venesa Watson

Ph.D. Candidate (Cybersecurity) in Framatome GmbH

She works with a team of eight (8) PhD students as a part of the SMARTEST R&D project, which was formulated to combine the competences of universities/colleges with industry to develop test procedures for the systematic security analysis of the IT security of computerized nuclear process control systems. The project seeks to identify as many weak points as possible in these control systems, with the overall aim to lower the risk of critical incidents. They employ various security testing methods such as fuzzing, remote code execution, packet injection and forensics examination to achieve the goals of the project. Her focus is on fuzzing of the systems and other message manipulation attacks, where both public and proprietary protocols are analysed and used.

Peter Sieber

Vice President Norms and Standards, Vice President Region China in HIMA Paul Hildebrandt GmbH

He is Responsible for HIMA business in China, Coordination of Norms & Standard activities and Review and Expansion of HIMA Portfolio. He has participated at development of IEC 61508/61511, EN 50156, IEC 62443, IEC TR 63069, IEC 62337, IEC 62382 AND IEC 62881.

Michael Rowland

Consultant in RACG, Nuclear Security Information Officer at the International Atomic Energy Agency (IAEA)

Michael Rowland was a Nuclear Security Information Officer at the International Atomic Energy Agency (IAEA) and communicated with and trained nuclear industry professionals at all levels, including both executive and technical experts from around the globe. Additional duties included leading and coordinating meetings to develop international consensus publications on computer security such as Nuclear Security Series Publication NSS 33-T, Computer Security of Instrumentation and Control (I&C) Systems at Nuclear Facilities published in May 2018 and draft publication NST 047, Computer Security Techniques at Nuclear Facilities approved for publication in June 2018.

Mr. Rowland received a Bachelor of Engineering - Electrical Engineering from Ryerson University in 2001 and obtained his professional engineering (P. Eng) license in 2006. He is currently enrolled with Royal Holloway, University of London to obtain a Masters in Information Security.