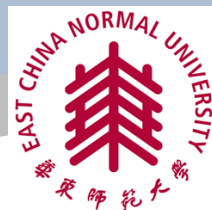


教育部可信软件国际合作联合实验室
国家可信软件国际联合研究中心
国家软件人才国际培训基地

Security Technology of Industrial Control Software”
SCSSE Summer School 2017
“工控软件安全技术” 暑期学校 2017



工控软件安全技术暑期学校开幕式
Open Ceremony of “Security Technology of Industrial Control Software”
SCSSE-Summer School 2017

地址： 理科大楼 B222-224 室（华东师范大学中山北路校区）（华东师范大学中山北路校区）

Location: Room 222-224, Science Building B (In the North Zhongshan campus of East China Normal University)

时间： 2017 年 7 月 17 日 8:00-9:00

Date: 8:00-9:00 July 17, 2017

注册时间： 8:00-8:25

Registration Time: 8:00-8:25

注册地点： 理科大楼 B222 室（华东师范大学中山北路校区）

Registration Location: Room 222, Science Building B (In the North Zhongshan campus of East China Normal University)

Open Ceremony

- 8:30–8:35 张敏副教授主持（华东师范大学计算机科学与软件工程学院院长助理）
Assoc. Prof. Min Zhang (Assistant to Dean of School of Computer Science and Software Engineering, ECNU)
- 8:35–8:40 蒲戈光教授 致辞（华东师范大学计算机科学与软件工程学院副院长）
Prof. Geguang Pu (Vice–Dean of School of Computer Science and Software Engineering, ECNU)
- 8:40–8:45 Patirce Quinton 教授 致辞（雷恩高师）
Prof. Patrice Quinton (ENS Renne, France)
- 8:45–8:50 陈灵犀 培养办公室主任（华东师范大学研究生院）
Ms Lingxi Chen (Dean of Training Office, Graduate School of ECNU)
- 8:50–9:00 集体合影（Group Photo）

“ Security Technology of Industrial Control Software ”
@SCSSE Summer School 2017 Program

		Monday 17, July	Tuesday 18, July	Wednesday 19, July	Thursday 20, July	Friday 21, July
Morning	8:30-9:00	Welcome Ceremony Lecture Room				
	9:00-10:20	David Pichardie Lecture Room	Patrice Quinton Lecture Room	David Pichardie Lecture Room	Patrice Quinton Lecture Room	Open day Of International Joint Lab of Trustworthy Software (IJLTS) Room 504, Science Building A
	10:20-10:40	Break	Break	Break	Break	
	10:40-12:00	David Pichardie Lecture Room	Patrice Quinton	David Pichardie Lecture Room	Patrice Quinton Lecture Room	
Noon	12:00-14:00	Lunch	Lunch	Lunch	Lunch	
Afternoon	14:00-16:00	Jean-Francois Monin (University Grenoble Alpes)	鲍旭华 (Xuhua Bao) 博士、高级工程师，奇虎 360 科技有限公司，战略研究中心主任	孟雅辉: (Yahui Meng) 技术总监，启明星辰信息技术有限公司；	毕马宁: (Maning Bi) 公安部信息安全等级保护评估中心副主任；	
	16:00-16:30					Closing Ceremony

Lecture Room: Room B222-B224, Science Building B

Monday, July 17th, Morning (Course: David Pichardie)

A course on static analysis by abstract interpretation for C program. Only cover a simplified version of C, but this well in scope for embedded systems.

Monday, July 17th Afternoon (Talk: Jean-Francois Monin)

-Applications of Coq, a Proof Assistant based on Type Theory.

Coq is a very successful French proof assistant which won several international awards and is routinely taught in prestigious universities such as MIT, UPenn, Yale or Princeton. It is used both for computer science purposes (e.g., formally certified OS kernels or compilers) and purely mathematical applications (e.g., homology theory, classification of finite groups). This talk will introduce the most salient features of Coq and explain why they make Coq so powerful and popular, in particular in areas related to programming languages. Depending on time, the talk will then present an application performed in the framework of a Sino-French cooperation : the formal verification of an Instruction Set Simulator for the ARM processor. We formalized in Coq the behavior of the processor; next, we got the formal behavior of (a C version of) the ISS simulator from the operational semantics of C, formalized in Coq in the Compcert Inria project, and were able to prove that the simulator behaved accordingly to the Coq formal model.

Tuesday, July 18th, Morning (Course: Patrice Quinton)

- Modeling Loops for Parallelism Exploration

The implementation of complex embedded systems often requires some parts to be executed on parallel platforms, including hardware accelerators, especially if intensive computation loops are involved. We present formal techniques to model loops and to help generate implementations on parallel architectures. We consider the representation of loops using the polyhedral model, and we explain how this model helps exploring the potential parallelism of loops and generate efficient implementations.

Tuesday, July 18th, Afternoon (Talk: 鲍旭华)

- 工业控制和大数据安全

威胁和安全，长期以来一直处于矛盾的关系，彼此对立而各自发展。当前威胁最主要的发展是从消费互联网向产业互联网和工控系统的发展，而安全最主要的发展则是大数据技术的引入。

Wednesday, July 19th, Morning (Course: David Pichardie)

A course on static analysis by abstract interpretation for C program. Only cover a simplified version of C, but this well in scope for embedded systems.

Wednesday, July 19th, Afternoon (Talk: 孟雅辉)

- 主流工控行业信息安全实践

主要分享启明星辰集团在轨道交通，石油石化，电力，先进制造，烟草等领域的工控安全实践

Thursday, July 20th, Morning (Course: Patrice Quinton)

- Modeling Loops for Parallelism Exploration

The implementation of complex embedded systems often requires some parts to be executed on parallel platforms, including hardware accelerators, especially if intensive computation loops are involved. We present formal techniques to model loops and to help generate implementations on parallel architectures. We consider the representation of loops using the polyhedral model, and we explain how this model helps exploring the potential parallelism of loops and generate efficient implementations.

Thursday, July 20th , Afternoon(Talk: 毕马宁)

- 关注形势变化 注重动态安全

通过国际国内信息安全典型事件介绍，揭示网络空间威胁和信息安全风险，阐明信息网络安全的重要性及与我们生产、生活的相关性，重点宣讲习总书记 4.19 讲话精神及我国信息网络安全相关政策法规、管理要求和技术对策，旨在提升信息化参与人的安全保护意识和能力。

Friday, July 21st ,(Open Day of International Joint Lab)

Lecturers Biography:

Prof. Patrice Quinton (ENS Rennes, France)



Patrice Quinton is Professor Emeritus in Computer Science at Ecole normale supérieure de Rennes, France. Formerly President of ENS Rennes, he graduated in 1972 from ENSIMAG in Grenoble, and obtained a PhD degree in Computer Science from the University of Rennes 1 in 1980. His scientific interests are parallel computing and parallel architectures, in particular, the synthesis of parallel program using the polyhedral model of loops.

Prof. David Pichardie (ENS Rennes, France)



David Pichardie is Professor of Computer Science and head of the Department of Computer Science at ENS Rennes. He received a Ph.D. in Computer Science from the University of Rennes, France, in 2005. He joined ENS in September 2013 as full professor. Between 2007 and 2013, he was a full research at INRIA Rennes research center. In the 2011-13 academic years, he took a sabbatical and visited Jan Vitek's group at Purdue University, Indiana, USA, during the first year, and then Greg Morrisett's group at Harvard University, Cambridge, USA, during the second year.

His research interests include formal methods, programming languages, program verification, software, and system security. He is a long time happy user of the Coq proof assistant and the theory of Abstract interpretation. More recently he has been conducting several researches about the verified C compiler CompCert.

Jean-Francois Monin (Polytech Grenoble, University, France)



Jean-Francois Monin has been a Professor of Computer Science at Polytech Grenoble, University Joseph Fourier since 2003, where he is currently the head of the Informatics Department. He is also the European Director of the LIAMA Sino-French laboratory. From 2009 to 2013 he has been awarded a CNRS research grant in LIAMA and Tsinghua University. Before 2003 he was at France Telecom R&D, where he led a research group devoted to formal methods and applied them successfully to prove the correctness properties of software devices in an industrial framework.

His research work is devoted to the Coq type-theoretic proof assistant with applications on distributed algorithms, security issues and embedded software.

Beyond research papers at IEEE TSE, SCP, FMSD, ICLP, FM, MPC, TYPES, ITP, FORTE, CPP, he published a book entitled "Understanding Formal Methods" covering the various state-of-the-art approaches in this hot area. He taught Coq, Functional Programming and Formal Methods in several places, including the 5 editions of Asian-Pacific Summer School on Formal Methods (APSSFM).

鲍旭华 (Xuhua Bao 博士、高级工程师，奇虎 360 科技有限公司，战略研究中心主任)



鲍旭华，就职于 360 企业安全集团，任安全战略研究主任。高工，博士，毕业于中科院信息安全国家重点实验室。信息安全领域从业十余年，主要研究方向为安全态势感知和 DDoS 防范，曾在中国信息安全测评中心、信息安全共性技术国家工程研究中心、绿盟科技、华为等单位就任管理和研究职务。申请发明专利五项，发表学术论文十余篇，出版专著《破坏之王： DDoS 攻击与防范深度剖析》（机械工业出版社）。

孟雅辉：(Yahui Meng 技术总监，启明星辰信息技术有限公司)



孟雅辉，启明星辰集团工控安全部技术总监，11年信息安全从业经验，4年专注工控安全，获得 PMP,CISP,ISO27001LA 等认证。《信息系统安全等级保护基本要求 第5部分 工业控制安全扩展要求》、《信息系统等级保护安全设计技术要求 第5部分：对工业控制系统的扩展设计要求》、工业控制系统信息安全 PLC/DCS 系列等多项国家标准和行业标准的编写组成员、承担过多项大型信息安全和工控信息安全咨询、产品研发、产品实施的项目，国家工控安全实验室技术专家委员，工控系统信息安全产业联盟特约演讲嘉宾。

毕马宁（公安部信息安全等级保护评估中心副主任）

毕马宁，公安部信息安全等级保护评估中心副主任，研究员，三级警监。长期从事信息安全体系规划和信息安全标准研究开发；参与组织不同行业信息化建设和信息安全体系建设，有丰富的实践经验。是《信息安全等级保护实施指南》和《信息安全等级保护基本要求》等国家标准的主要编制人之一。曾任国家电子政务信息安全等级保护专家组成员、第 29 届奥运会信息网络安全保障技术专家和上海世博会信息安全保障专家。现任国家信息安全等级保护专家委委员、北京市信息化专家咨询委委员和中央单位政府采购评审专家。

===== THE END =====