Program
of the Workshop of the International Laboratory "Information security of cyber-physical systems" of ITMO University

St. Petersburg, October 22, 2018

SPIIRAS, St. Petersburg, 14-th Liniya V.O. 39, room 401 (October, 22)

(this workshop is for the employees of the International Laboratory "Information security of cyber-physical systems" of ITMO University and invited researchers)

Co-chairs:

Igor Kotenko, Doctor of Technical Sciences, Professor, Head of Laboratory of Computer Security Problems, St. Petersburg Institute for Informatics and Automation of the Russian Academy of Sciences, SPIIRAS, Co-Head of the International Laboratory "Information security of cyberphysical systems", ITMO University, St. Petersburg, Russia

Didier El Baz, PhD, Head of the Distributed Computing and Asynchronism team, The National Center for Scientific Research (CNRS), Toulouse, France, Co-Head of the International Laboratory "Information security of cyber-physical systems", ITMO University, St. Petersburg, Russia

9:00 - Welcome coffee

9:10 - Welcoming Remarks (Igor Kotenko)

9:40 - Organizational issues (Andrey Chechulin)

10:00 - Current results and plans for cooperation (Didier El Baz)

10:30 - Current results and plans for cooperation (Yannick Chevalier)

11:00 - Current results and plans for cooperation (Martin Strecker)

11:30 - Current results and plans for cooperation (Roland Rieke)

12:00 - Lunch

13:00 - Current results and plans for cooperation (Andrey Chechulin)

13:20 - Current results and plans for cooperation (Vasily Desnitsky)

13:40 - Current results and plans for cooperation (Elena Doynikova)

14:00 - Current results and plans for cooperation (Olga Tushkanova)

14:20 - Current results and plans for cooperation (Maxim Kolomeec)

14:40 - Current results and plans for cooperation (Dmitry Levshun)

15:00 - Coffee break

15:20 - Discussion of plans for cooperation

16:00 - Closing (Igor Kotenko)

Program
of the Fourth International Scientific School
"Incident Management and Countering Targeted Cyber-Physical Attacks in Distributed Largescale Critical Systems" (IM&CTCPA 2018)"

St. Petersburg, October 23–25, 2018

ITMO University, St. Petersburg, Lomonosova str. 9, assembly hall

http://www.comsec.spb.ru/imctcpa18

October 23

Timing	Title of presentation	Presenter
9.00-9.30	Registration	
9.30-9.50	Opening the **4th International scientific school IM&CTCPA 2018** Introduction	**Igor Kotenko**, Doctor of Technical Sciences, Professor, Head of Laboratory of Computer Security Problems, St. Petersburg Institute for Informatics and Automation of the Russian Academy of Sciences, SPIIRAS, Co-Head of the International Laboratory "Information security of cyberphysical systems", ITMO University, St. Petersburg, Russia
Session 1.1. Chair - Prof. Dr. Igor Kotenko		
10.00-10.50	High performance computing issues in cyber-physical systems and the fourth industrial revolution	**Didier El Baz**, PhD, Head of the Distributed Computing and Asynchronism team, The National Center for Scientific Research (CNRS), Toulouse, France, Co-Head of the International Laboratory "Information security of cyberphysical systems", ITMO University, St. Petersburg, Russia
11.00-11.50	Machine Learning Methods for In-Vehicle Intrusion Detection	**Roland Rieke**, PhD, Senior researcher of Department Cyber-Physical Systems Security, Fraunhofer-Institute for Secure Information Technology SIT, Darmstadt, Germany
12.00-13.00	Lunch	
Session 1.2. Chair – Dr. Andrey Chechulin		

13.00-13.50	Advanced Security Analytics	**Igor Kotenko**, Doctor of Technical Sciences, Professor, Head of Laboratory of Computer Security Problems, St. Petersburg Institute for Informatics and Automation of the Russian Academy of Sciences, SPIIRAS, Co-Head of the International Laboratory "Information security of cyber-physical systems", ITMO University, St. Petersburg, Russia
14.00-14.50	Securing Insecure Protocols	**Yannick Chevalier**, PhD, Assistant Professor, Paul Sabatier University (Paul Sabatier University, Toulouse III), Toulouse, France
14.50-15.10	Coffee-break	
Session 1.3. Chair – Dr. Vasily Desnitsky		
15.10-16.00	Reasoning about Database Queries and Updates	**Martin Strecker**, PhD, Assistant Professor, Paul Sabatier University (Paul Sabatier University, Toulouse III), Toulouse, France
16.10-17.00	Modelling of the Cyber-Physicals Systems. Design and Validation	**Dmitry Levshun**, Researcher of the laboratory of computer security problems of SPIIRAS, postgraduate student of ITMO University, St. Petersburg, Russia
17.10-18.00	Manual security analysis: visualization means vs automated analysis	**Maxim Kolomeec**, Researcher of the laboratory of computer security problems of SPIIRAS, postgraduate student of ITMO University, St. Petersburg, Russia

October 24

Timing	Title of presentation	Presenter
Session 2.1. Chair – Prof. Dr. Igor Saenko		
10.00-10.50	Semantic computing and big data, aspects of application for cybersecurity	**Vladimir Gorodetsky**, Doctor of Technical Sciences, Professor, TRA Robotics, St. Petersburg, Russia
11.00-11.50	Application of the method of topological transformation of stochastic networks for solving information security problems	**Andrey Privalov**, Professor of the Emperor Alexander I St. Petersburg State Transport University (PGUPS) , St. Petersburg, Russia
12.00-13.00	Lunch	
Session 2.2. Chair – Dr. Elena Doynikova		
13.00-13.50	Digital forensics	**Andrey Chechulin,** PhD, Lead researcher of the laboratory of computer security problems of SPIIRAS, senior researcher of ITMO University, St. Petersburg, Russia
14.00-14.50	Detection of anomalous network connections based on hybridization of computational intelligence methods	**Alexander Branizky**, PhD, researcher of the laboratory of computer security problems of SPIIRAS, engineer of ITMO University, St. Petersburg, Russia
14.50-15.10	Coffee-break	
Session 2.3. Chair – Dr. Andrey Chechulin		
15.10-16.00	Approach to modeling of complex information conflicts in the confrontation of complex multi-level systems	**Sergey Makarenko**, PhD, Intel Group Corporation, St. Petersburg, Russia

Timing	Title of presentation	Presenter
16.10-17.00	Visual analytics	**Evgenia Novikova,** PhD, Senior researcher of the laboratory of computer security problems of SPIIRAS, St. Petersburg, Russia
17.10-18.00	Monitoring of social networks	**Lidia Vitkova,** Researcher of the laboratory of computer security problems of SPIIRAS

October 25

Timing	Title of presentation	Presenter
Session 3.1. Chair – Dr. Olga Tushkanova		
10.00-10.50	Model of information integrity in a long period of time	**Anatoly Minzov,** Doctor of Technical Sciences, Professor of the Department of Information and Economic Security of MPEI, Moscow, Russia
11.00-11.50	Energy resource exhausting attacks on cyber-physical systems	**Vasily Desnitsky**, PhD, Senior researcher of the laboratory of computer security problems of SPIIRAS, senior researcher of ITMO University, St. Petersburg, Russia
12.00-13.00	Lunch	
Session 3.2. Chair – Dr. Vasily Desnitsky		
13.00-13.50	Architecture of Cisco Application Centric Infrastructure and its security	**Igor Ushakov**, Senior Lecturer, Department of Secure Communication Systems, Bonch-Bruevich St. Petersburg State University of Telecommications, St. Petersburg, Russia
14.00-14.50	Information integrity methods based on wavelet transformations to protect information storage means	**Sergey Taranov**, Department of Design and Security of Computer Systems, ITMO University, St. Petersburg, Russia
14.50-15.10	Coffee-break	
15.10-16.00	Models and methods of adaptive monitoring of automated special-purpose systems operating in cyberspace	**Roman Zakharchenko**, PhD, Doctoral student of the Krasnodar Higher Military School named after SM. Shtemenko
16.10-16.20	Concluding remarks	