



Funded by the
Erasmus+ Programme
of the European Union

573818-EPP-1-2016-1-UK-EPPKA2-CBHE-JP

Winter School WINT 2019 "Academia and Industry cooperation in Internet of Things"

PROGRAMME

Ukraine 2019
January 31 - February 7



Co-funded by the
Erasmus+ Programme
of the European Union



Erasmus+ ALIOT
Winter School WINT-2019
Academia and Industry cooperation in
Internet of Things

PROGRAMME

Ukraine, 2019
January 31st – February 7th

Co-organized by
Ternopil National Economic University
National Aerospace University n. a. N.E. Zhukovsky “KhAI”

Media Partner
Magazine Carte Blanche

PARTICIPANTS

<p>National Aerospace University n. a. N. E. Zhukovsky “KhAI”</p> <p>Prof. Vyacheslav Kharchenko Senior Lecturer Artem Perepelitsyn Senior Lecturer Oleg Illiashenko Senior Lecturer Michael Tsuranov PhD student Merlak Viktoriia PhD student Pavlo Hodovaniuk Msc student Georgiy Zemlyanko</p>	<p>Yuriy Fedkovych Chernivtsi National University</p> <p>Dr. George Vorobets MSc student Valentyna Horditsa Volodymyr Buchakchyskiy</p>
<p>Volodymyr Dahl East Ukrainian National University</p> <p>Prof. Inna Skarha-Bandurova Assistant lecturer Tetiana Biloborodova Oleksandr Ardel</p>	<p>Newcastle University Prof. Chris Phillips</p>
	<p>Leeds Beckett University</p> <p>Dr. Ah-Lian Kor Prof. Anatolii Gorbenko</p>
<p>Zaporizhzhya National Technical University</p> <p>Dr. Ravil Kudermetov Serhiy Leoshchenko Denis Mazur Ihor Limarev</p>	<p>Odessa National Polytechnic University</p> <p>Prof. Olexandr Drozd Prof. Dmitry Maevsky Dr. Olena Maevska Artem Savieliev Pavel Khvalygin Nik Nagachevskii</p>
<p>Ternopil National Economic University</p> <p>Prof. Anatoliy Sachenko Prof. Volodymyr Kochan Dr. Vasyl Yatskiv Dr. Myroslav Komar Dr. Pavlo Bykovyy Dr. Oleksandr Osolynskiy Dr. Vasyl Koval Dr. Zbyshek Dombrowskyi Dr. Diana Zahorodnia Andriy Kanovskyi Ivan Kit</p>	<p>IT Alliance Olena Golembovska</p>
	<p>Petro Mohyla Black Sea National University</p> <p>Prof. Yurii Kondratenko Dr. Ievgen Sidenko Dr. Yaroslav Krainyk Pavlo Kushneryk</p>

SCHEDULE

Time /date	January 31, Thursday	February 1, Friday	February 2, Saturday	February 3, Sunday	February 4, Monday	February 5, Tuesday	February 6, Wednesday
7:30					Breakfast		
8:00					Transfer from Bukovel to Yaremche		
8:15							
8:30		Breakfast					
8:45							
9:00		Registration (cont.)		Session 9. (Leeds University).			
9:15		WINT 2019 welcome note	Session 5 (Industrial partner + KhAI)	Discussion, remarks, end of part 1			
9:30							
9:45							
10:00		Session 1 (Industrial partner + Newcastle University)		Coffee-break			
10:15							
10:30							
10:50							
11:00			Coffee-break				
11:10							
11:20							
11:30		Coffee-break		Discussion			Team-building
11:40							
11:50			Session 6 (IT Alliance + ONPU)				
12:00		Session 2 (PMBSNU)					
12:15							
12:30							
12:45							
13:00							
13:15							
13:30		Lunch					
13:45				Transfer to Yaremche			
14:00							
14:15		Session 3 (EUNU)	Session 7 (TNEU)				
14:30							
14:45							
15:00							Transfer from Bukovel to Yaremche
15:20		Coffee-break	Coffee-break				
15:30							
15:40							
16:00	Arrival. Registration.	Session 4 (ZNTU)	Session 8 (ChNU)			Free time	
16:15							
16:30							
16:45							
17:00							
17:15						Dinner	
17:30							
17:45							
18:00							
18:15							
18:30					Free time		
18:45	Free time						
19:00		Social event 2. TBA	Social event 3. TBA		ZNTU, PMBSNU, KhAI Team trainings & presentations	ONPU, TNEU, Teams trainings & presentations	Discussion. End of part 2. Wrap up. Departure
19:15	Social event. Theatre. "The night before Christmas" (Nikolay Gogol)						
19:30							
19:45							
20:00							
20:15							
20:30							
20:45							
21:00							

DETAILED SCHEDULE

January 31st, Thursday

- 14:00 – 18:30 Arrival. Registration.
18:30 – 19:00 Free time
19:00 – 21:00 Social event. Theatre

February 1st, Friday

- 8:15 – 9:00 Breakfast
9:00 – 9:30 Registration
9:30 – 10:00 A. Krysovatty, C. Phillips, A. Sachenko,
V. Kharchenko, O. Golembovska.
Introduction. Welcome. WINT 2019 school opening
10:00 – 11:20 **Session 1.** Industrial partner V. Galushka (CEO
API2Cart, MagneticOne). *IoT and Human Resources
with a followed discussion*
11:20 – 11:40 Coffee-break
11:40 – 13:00 **Session 2.** PMBSNU team presentations.
Moderator Y. Kondratenko.
Y. Kondratenko. *Results of the Erasmus+ ALIOT
project: PMBSNU's team*
I. Sidenko. *R&D in IoT: best practices in PMBSNU*
Y. Krainyk. *Universal sensor integration network node
for local SEG based on ESP8266 and MQTT-protocol*
P. Kushneryk. *Deep Learning in IoT: Intelligent
Dialogue System*
13:00 – 14:00 Lunch
14:00 – 15:20 **Session 3.** EUNU team presentations.
Moderator I. Skarga-Bandurova.
I. Skarga-Bandurova *Methods and models for data
acquisition and processing in water monitoring systems
based on IoT*
T. Biloborodova. *EEG data fusion for real-time data
classification*
O. Ardel *Wearable system for vital sign monitoring*

- 15:20 – 15:40 Coffee-break
- 15:40 – 17:00 **Session 4.** ZNTU team presentations.
Moderator R. Kudermetov.
R. Kudermetov. *Model-based systems engineering for the cyber-physical systems*
D. Mazur. *State-of-art on R&D “SDN and IoT”*
S. Leoshchenko. *Application of IOT technologies in mechanical engineering on the example of cooperation with Motor Sich*
I. Limarev. *Prediction of non-stationary signals of large dimension for problems of technical diagnosis*
- 17:00 – 21:00 Social event

February 2nd, Saturday

- 8:00 – 9:00 Breakfast
- 9:00 – 10:50 **Session 5.** Industrial partner.
KhAI team presentations.
Moderator V. Kharchenko.
V. Sklyar. *Industrial IoT safety: ALIOT project context*
A. Perepelitsyn. *Tools for rapid prototyping of FPGA-based Cloud Computing*
G. Zemlyanko. *Indoor location-based services for smart Infrastructure*
V. Merlak. *The concept of hierarchical widgets*
P. Hodovaniuk. *Analysis the possibilities of using SDN's technology in the infrastructure of department*
M. Tsuranov. *Review of cybersecurity threats of the Internet of Things*
- 10:50 – 11:10 Coffee-break
- 11:10 – 13:00 **Session 6.**
IT-Alliance. O. Golembovska. *IoT and the Art.*
ONPU Team presentations.
Moderator D. Maevsky.
D. Maevsky. *Development and simulation of smart IoT systems*

- O. Drozd. *Three-level simulation of IoT/IoE based systems*
- A. Saveliev. *Laboratory Workshop on Proteus smart systems simulation*
- P. Khvalygin. *IoT and wind power supply in context of the new ONPU specializations*
- 13:00 – 14:00 Lunch
- 14:00 – 15:10 **Session 7.** TNEU Team presentation
Moderator A. Sachenko.
A. Sachenko. *Results of the Erasmus+ALIoT project TNEU team*
V. Koval. *Deep Neural Network: Learning and Applications*
V. Yatskiv. *Blockchain and IoT Integration*
- 15:10 – 16:20 **Session 8.** ChNU Team presentations
Moderator G. Vorobets.
G. Vorobets. *Implementation & dissemination results of curriculums development of ALIoT project in the educational process of IT specialties at the Chernivtsi National University*
V. Horditsa. *Influence of data structuring on their resilience to noise in communication channels for Internet of Things Services*
V. Buchakchyiskyi. *Application of client-server technology IoT for data processing and control in cyber-physical systems*
- 16:20 – 16:40 Coffee-break
- 17:20 – 18:50 Social event. City tour
- 19:00 – 21:00 Friendly dinner

February 3rd, Sunday

- 8:15 – 09:00 Breakfast
09:00 – 10:30 **Session 9.**
Moderator V. Kharchenko.
Leeds Beckett University presentations.
Ah-Lian Kor, A. Gorbenko.
Conclusions.
10:30 – 10:50 Coffee-break
11:30 – 17:15 Transfer to Yaremche
17:15 – 21:00 Free time

February 4th, Monday

- 7:20 – 7:45 Breakfast
7:45 – 8:30 Transfer
8:30 – 14:30 Team building
14:30 – 15:45 Transfer
15:45 – 17:00 Free time
17:00 – 18:30 Dinner
18:30 – 21:00 Continued trainings, working in teams, discussions
(PMBSNU, ZNTU, KhAI)

February 5th, Tuesday

- 7:20 – 7:45 Breakfast
7:45 – 8:30 Transfer
8:30 – 14:30 Team building
14:30 – 15:45 Transfer
15:45 – 17:00 Free time
17:00 – 18:30 Dinner
18:30 – 21:00 Continued trainings, working in teams, discussions
(ONPU, TNEU)

February 6th, Wednesday

- 7:20 – 7:45 Breakfast
7:45 – 8:30 Transfer
8:30 – 14:30 Team building

14:30 – 15:45 Transfer
15:45 – 17:00 Free time
17:00 – 18:30 Dinner
18:30 – 21:00 Continued trainings, working in teams, discussions
(Discussions)

February 7th , Thursday

7:00 – 7:45 Breakfast
7:45 – 12:45 Free time
12:45 – 21:00 Departure