

# EMCIS

European, Mediterranean & Middle Eastern Conference on  
Information Systems (**EMCIS2016**)  
Krakow, Poland, 23-24 June, 2016



## PROGRAMME GUIDE

13th European, Mediterranean & Middle Eastern Conference on  
Information Systems 2016

June 23-24 2016  
Cracow University of Economics, Krakow, Poland



[www.emcis.eu](http://www.emcis.eu)





# Welcome

Welcome to Krakow – Poland, home of the 13th European, Mediterranean and Middle Eastern Conference on Information Systems (EMCIS). It is with great pleasure that we welcome you to the 13th EMCIS hosted by the Cracow University of Economics.

EMCIS - is an annual research event addressing the Information Systems (IS) discipline with regional as well as global perspective. Entering its 13th year, EMCIS has successfully helped bringing together researchers from around the world in a friendly atmosphere conducted to free exchange of innovative ideas. EMCIS was founded by Brunel University and was initially organized by the Department of Information Systems and Computing and then the Brunel Business School. During these 13 years a number of respected collaborations has been made with different local universities across the destinations chosen each year and EMCIS still proves to attract many further partnerships. This year EMCIS is organized by Cracow University of Economics and University of Piraeus (Greece).

We thank the International and the Organizational committees for their effort and continues support. We also acknowledge the support of our collaborators, Business and Technology Outlook Research Program (BTO) Italy and IFS Poland for their generous support.

We are confident that your participation, presentations and active engagement in scientific debates will make EMCIS 2016 a very special event.





# EMCIS ORGANISATION

## **Conference Foundation Chair:**

Prof. Zahir Irani, Brunel University, UK

## **Conference Co-Chairs:**

Associate Prof. Paweł Lula, Cracow University of Economics, Poland

Associate Prof. Piotr Soja, Cracow University of Economics, Poland

## **Conference Executive Committee:**

Associate Prof. Vincenzo Morabito, Bocconi University, Italy, (Program Chair)

Associate Prof. Marinos Themistocleous, University of Piraeus, Greece (Program Chair)

Dr. Ahmad Ghoneim, Brunel University, UK (Program Chair)

Dr. Paulo Rupino Cunha, University of Coimbra, Portugal (PhD Consortium Chair)

Dr. Gianluigi Viscusi, Ecole Polytechnique Federale de Lausanne, Switzerland (Publications Chair)

Dr. Muhammad Kamal, Brunel University, UK (Public Relations Chair)

Mr. Leonidas Katelaris, University of Piraeus, Greece (Website Coordinator)



# Keynote Speakers



Gurpreet Dhillon (Ph.D.) is a Professor of Information Security at the School of Business, Virginia Commonwealth University, USA. He also holds an affiliate appointment at Instituto Superior de Economia e Gestao at Universidade de Lisboa, Portugal. Over the years he has also held academic positions at University of Nevada Las Vegas (USA), Cranfield University School of Management (UK), City University of Hong Kong (PRC). Professor Dhillon is a graduate of the London School of Economics and Political Science, UK where he studied organizations and information. His research led him to explore aspects of information security, identity and assurance. He has authored over 100 research articles that have been published in various journals. Professor Dhillon is also an author of several books, including *Principles of Information Systems Security: Text and Cases* (Wiley, 2007). He is the Editor-in-Chief of the *Journal of Information System Security*, besides serving on the board of several flagship journals. Professor Dhillon consults regularly with the industry and government and has successfully completed assignments in the US, UK, UAE, Hong Kong, Portugal and India.



Narczyz Roztocki (PhD) is Professor of Management Information Systems at the State University of New York at New Paltz, USA and Professor at the Kozminski University, Warsaw, Poland. His research interests include IS/IT investment evaluation, IS/IT productivity, IS/IT investments in transition/emerging economies, technology project management, and e-commerce. He has been published in numerous journals including the *European Journal of Information Systems*, the *Journal of Strategic Information System*, the *Journal of Computer Information Systems*, the *Electronic Journal of Information Systems in Developing Countries*, the *Electronic Journal of Information Systems Evaluation*, the *International Journal of Service Technology and Management*, the *Journal of Global Information Technology Management*, the *Journal of Information Science & Technology*, and in proceedings of AMCIS, DSI, ECIS, ECITE, and HICSS, among many others. He is an associate editor of the journal *Information Technology for Development (ITD)* and of the journal *Electronic Commerce Research and Applications (ECRA)*.



# EMCIS Conference Programme

Thursday 23rd June, 2016

08:45 - 17:30

Registration

09:15 - 09:30

Welcome by Conference Chairs

09:30 - 10:30

Keynote Speech: Gurpreet Dhillon, Big Data Needs Big Security: How we have learned to be insecure **(Conference Room 8)**

10:30 - 11:00

COFFEE BREAK

11:00 - 13:00

**(Conference Room 8)**  
**TRACK: Healthcare Information Systems**  
**SESSION CHAIR: Marinos Themistocleous**

**(Conference Room 7)**  
**TRACK: Digital Services, Social Media and Digital Collaboration Track**  
**SESSION CHAIR: Gianluigi Viscusi**

USING DESIGN SCIENCE RESEARCH METHODOLOGY TO IMPLEMENT A SURVEILLANCE AND DECISION SUPPORT SYSTEM TO MANAGE HEALTHCARE-ASSOCIATED INFECTIONS AND ANTIBIOTIC USE IN HOSPITALS

Pedro Pinto, Miguel Gil, Alexandra S. Simões, Miguel Mira Da Silva and Luís V. Lapão

I HEART YOU: HOW BUSINESSES ARE USING SOCIAL MEDIA TO INCREASE SOCIAL CAPITAL

Brad McKenna, Shahper Vodanovich and Tania Fan

WORKFLOW ANALYTICS FOR IMPROVING HEALTHCARE LEARNING PROCESS

Vassiliki Karabetsou, Flora Malamateniou and George Vassilacopoulos

ENHANCING SOCIAL MEDIA ANALYSIS WITH SEMANTIC ROLES  
 Diana Trandabat

ONTOLOGY-BASED WEBSITE STRUCTURING AND ONLINE REPRESENTATION OF PREGNANCY KNOWLEDGE

Hao-Yun Kao, Te-Min Chang, Jen-Her Wu, Kai-Wen Hsiao and Li-Min Lin

STRATEGIES OF SOCIAL MEDIA APPLICATION ON THE EXAMPLE OF A MICRO-ORGANIZATION

Edyta Abramek, Mariia Rizun and Paulina Zalas





# EMCIS Conference Programme

Thursday 23rd June, 2016

	<p>A CAPABILITY-BASED, ROLE-CENTRIC ACCESS CONTROL MECHANISM FOR IOMT-ENHANCED, CLOUD-BASED PHRS</p> <p>Flora Malamateniou, Marinos Themistocleous, Andriana Prentza and George Vassilacopoulos</p>		<p>USE OF SOCIAL MEDIA [FACEBOOK], AS A TOOL TO INTRODUCE E-GOVERNMENT SERVICES IN LIBYAN SOCIETY</p> <p>Mohamed Alkilani and Volodymyr Kobziev</p>
<p>13:00 - 14:00</p>	<p>LUNCH BREAK</p>		
<p>14:00 - 15:30</p>	<p><b>(Conference Room 8)</b>  <b>TRACK: Security and Privacy Protection for Information Systems</b>  <b>SESSION CHAIR: Ella Kolkowska</b></p>		<p><b>(Conference Room 7)</b>  <b>TRACK: IT Governance</b>  <b>SESSION CHAIR: Mariusz Grabowski</b></p>
	<p>ANALYZING SECURITY BEHAVIOUR DETERMINANTS FOR ENHANCING ISP COMPLIANCE AND SECURITY MANAGEMENT</p> <p>Ioanna Topa and Maria Karyda</p>		<p>ICT-ENABLED GOVERNANCE INNOVATION IN PUBLIC ORGANIZATIONS</p> <p>Leonidas Katelaris, Marinos Themistocleous</p>
	<p>INCONSISTENCIES IN INFORMATION SECURITY ROLES</p> <p>Tiago Catarino, Bruno Fragoso, André Vasconcelos and Miguel Mira Da Silva</p>		<p>GOVERNING INFORMATION SYSTEMS RESILIENCE: A CASE STUDY</p> <p>Amitrajit Sarkar, Stephen Wingreen and John Ascroft</p>
	<p>UNDERSTANDING PRIVACY IN SMART HOMES SYSTEMS USED IN ELDERLY CARE</p> <p>Ella Kolkowska</p>		<p>INFORMATION RELIABILITY AND PRECISION PARADOX IN DECISION-MAKING: A PHYSICS PERSPECTIVE</p> <p>Pawel Wołoszyn and Mariusz Grabowski</p>
<p>15:30 - 16:00</p>	<p>COFFEE BREAK</p>		



# EMCIS Conference Programme

**Thursday 23rd June, 2016**

16:00 - 17:30	<p><b>(Conference Room 8)</b>  <b>TRACK: Security and Privacy Protection for Information Systems</b>  <b>SESSION CHAIR: Ella Kolkowska</b></p>	<p><b>(Conference Room 7)</b>  <b>TRACK: Enterprise Systems</b>  <b>SESSION CHAIR: Przemysław Lech</b></p>
	<p>SECURING FINGERPRINT FUZZY VAULT AGAINST CROSS MATCHING</p> <p>Jaweher Zouari, Mohamed Hamdi and Tai-Hoon Kim</p>	<p>CHALLENGES OF ERP IMPLEMENTATION IN SMES: EMPIRICAL STUDY IN DEVELOPING COUNTRIES</p> <p>Victoria Hasheela and Kari Smolander</p>
	<p>LOW USER AWARENESS AGAINST SOCIAL MALWARE: AN EMPIRICAL STUDY AND DESIGN OF A SECURITY AWARENESS APPLICATION</p> <p>Eleftherios Karavaras, Emmanouil Magkos and Aggeliki Tsohou</p>	<p>TOWARDS UNDERSTANDING THE ROLE OF EMPLOYEE AGE IN ICT ADOPTION: LEARNING FROM BARRIER PERCEPTIONS OF ENTERPRISE SYSTEM PRACTITIONERS</p> <p>Ewa Soja and Piotr Soja</p>
		<p>TAILORING THE ENTERPRISE SYSTEM TO THE ORGANISATIONAL NEEDS - THE CASE OF SAP IMPLEMENTATION</p> <p>Przemysław Lech</p>
18:00 - 20:00	<b>GUIDED TOUR</b>	
20:00 - 24:00	<b>GALA DINNER</b>	





# EMCIS Conference Programme

Friday 24th June, 2016

08:30 - 15:00	<b>Registration</b>	
08:30 - 10:00	<p style="text-align: center;"><b>(Conference Room 8)</b>  <b>TRACK: Big Data and Semantic Web</b>  <b>SESSION CHAIR: Lasse Berntzen</b></p> <p style="text-align: center;">BIG DATA: HOW TO GAIN VALUE FOR ORGANIZATIONS            Celina Olszak and Maria Mach-Król</p> <p style="text-align: center;">NOVELTY DETECTION IN DATA STREAM CLUSTERING USING THE            ARTIFICIAL IMMUNE SYSTEM</p> <p style="text-align: center;">Amal Abid and Salma Jamoussi</p> <p style="text-align: center;">THE IMPACT OF BIG DATA AND ANALYTICS ON CIO ROLE</p> <p style="text-align: center;">Marinos Themstocleous, Vincenzo Morabito and Gianluigi Viscusi</p>	<p style="text-align: center;"><b>(Conference Room 7)</b></p> <p style="text-align: center;"><b>PhD Consortium</b></p>
10:00 - 10:45	<p><b>Keynote Speech - HOW TO SUCCEED IN GETTING PUBLISHED IN HIGH QUALITY ACADEMIC JOURNALS (Conference Room 8)</b>  <b>Narczyz Roztocky</b></p>	
10:45 - 11:00	<b>COFFEE BREAK</b>	
11:00 - 13:00	<p style="text-align: center;"><b>(Conference Room 8)</b>  <b>TRACK: Management and Organisational Issues in Information Systems</b>  <b>SESSION CHAIR: Miguel Mira Da Silva</b></p> <p style="text-align: center;">UNDERSTANDING TECHNORRUPTIONS: A SECOND HAND            USERS' PERSPECTIVE</p> <p style="text-align: center;">Sonia Camacho, Khaled Hassanein and Milena Head</p>	<p style="text-align: center;"><b>(Conference Room 7)</b>  <b>TRACK: IT Governance</b>  <b>SESSION CHAIR: Mariusz Grabowski</b></p> <p style="text-align: center;">RESEARCH-IN-PROGRESS: FUNCTIONAL AND STRUCTURAL            DIMENSIONS OF VIRTUALITY IN GLOBAL SOFTWARE            DEVELOPMENT TEAMS</p> <p style="text-align: center;">Sumit Bakshi and Ananya Upadhyaya</p>



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Friday 24th June, 2016

	<p>MANAGEMENT, ORGANIZATIONAL AND SOCIOMATERIALITY ISSUES IN THE SOCIAL INTRANET ADOPTION AT PIRELLI</p> <p>Adriano Solidoro and Gianluigi Viscusi</p>		<p>CONCEPTUAL MODEL OF INFORMATION TECHNOLOGY GOVERNANCE ADOPTION IN THE PUBLIC SECTOR</p> <p>Khalifa Al-Farsi and Bidit Dey</p>
	<p>SOCIO-DEMOGRAPHIC FACTORS OF INNOVATIVE CAPACITY OF IT PROFESSIONALS IN SMALL REGIONAL ENTERPRISES IN TRANSITION ECONOMIES</p> <p>Jolanta Kowal and Anna Jasińska-Biliczak</p>		<p>MANAGING IT OFFSHORING PROJECTS: AN IT GOVERNANCE APPROACH</p> <p>Mumin Abubakre</p>
	<p>CAN AGILE PROCESSES PREVENT SPECTACULAR INFORMATION SYSTEMS DEVELOPMENT FAILURES</p> <p>Prabu Ramachandran and Heinz Roland Weistroffer</p>		<p>A MODEL FOR ANALYSING INFORMATION SYSTEM INCIDENTS: PROACTIVE APPROACH</p> <p>Kari Saarlainen, Marko Jantti and Mika Hujo</p>
<b>13:00 - 14:00</b>	<b>LUNCH BREAK</b>		
<b>14:00 - 15:30</b>	<p style="text-align: center;"><b>(Conference Room 8)</b></p> <p style="text-align: center;"><b>TRACK: Management and Organisational Issues in Information Systems</b></p> <p style="text-align: center;"><b>SESSION CHAIR: Heinz Roland Weistroffer</b></p>		<p style="text-align: center;"><b>(Conference Room 7)</b></p> <p style="text-align: center;"><b>TRACK: Digital Services, Social Media and Digital Collaboration Track</b></p> <p style="text-align: center;"><b>SESSION CHAIR: Gianluigi Viscusi</b></p>
	<p>USING ARCHIMATE TO INTEGRATE COBIT 5 AND COSO METAMODELS</p> <p>Rafael Almeida, Pedro Linares Pinto and Miguel Mira Da Silva</p>		<p>EXPLORATION AND IMPLEMENTATION OF E-LEARNING EFFECTIVENESS</p> <p>Shafqat Hameed, Hira Zamir, Mujtaba Hassan Agha and Atta Badii</p>



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Friday 24th June, 2016

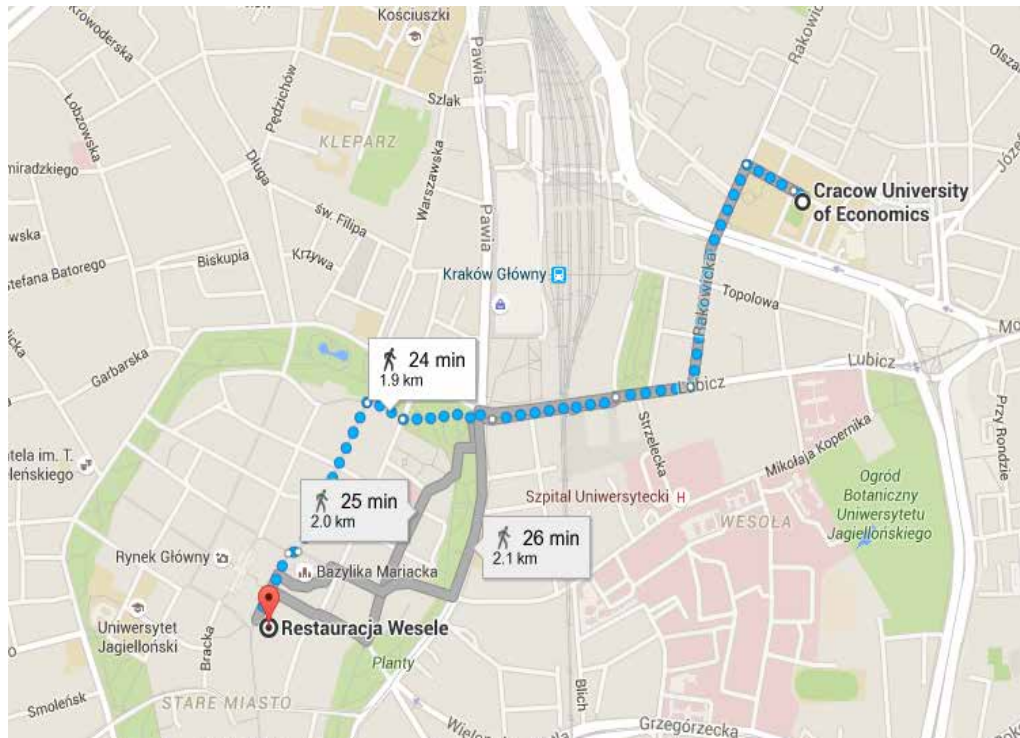
	<p>USING ARCHIMATE TO INTEGRATE COBIT 5 AND COSO METAMODELS</p> <p>Rafael Almeida, Pedro Linares Pinto and Miguel Mira Da Silva</p>		<p>WHY M-LEARNING MIGHT APPEAL TO ORGANISATIONS?</p> <p>Janusz Stal and Grażyna Paliwoda-Pękosz</p>
	<p>SERVICE BASED COSTING FOR BETTER DECISION MAKING</p> <p>Paweł Lustofin</p>		<p>MOBILE SUPPLY CHAIN MANAGEMENT: MOVING WHERE?</p> <p>João Barata and Paulo Rupino Da Cunha</p>
<b>15:30 - 16:00</b>	<b>COFFEE BREAK</b>		
<b>16:00 - 17:30</b>	<p><b>(Conference Room 8)</b>  <b>TRACK: e-Government</b>  <b>SESSION CHAIR: Hans Scholl</b></p>		<p><b>(Conference Room 7)</b>  <b>TRACK: Cloud Computing</b>  <b>SESSION CHAIR: Piotr Soja</b></p>
	<p>EGOV Scholarship and EGOV Forums: An Update</p> <p>Hans Scholl</p>		<p>SMEs AND CLOUD COMPUTING: THE BENEFITS TO THE NATIONAL ECONOMY AND GLOBAL COMPETITIVENESS</p> <p>Bahjat Fakieh, Yvette Blount and Peter Busch</p>
	<p>DESIGN AND IMPLEMENTATION OF MOBILE APP AND WEB-BASED SOFTWARE FOR MANAGEMENT AND MONITORING OF BICYCLE ROUTES</p> <p>Soudabeh Khodambashi, Richard Liodden Sanders, Jon Atle Gulla and Pekka Kalevi Abrahamsson</p>		<p>WHAT DO WE KNOW ABOUT CLOUD ERP IN SMES? A SYSTEMATIC MAPPING STUDY</p> <p>Victoria Hasheela-Mufeti and Kari Smolander</p>
	<p>DEVELOPING PUBLIC SECTOR CITIZEN-SOURCING METHODS</p> <p>Evripidis Loukis</p>		<p>USE OF REAL-TIME DATA TRANSMISSION METHOD FOR POLIO VACCINATION CAMPAIGN MONITORING IN IRAQ</p> <p>Jawameer Kakakhan, Wassan Al-Tamimi, Dr. Muhammad Obaid Ul Islam Butt and Altaf Musani</p>



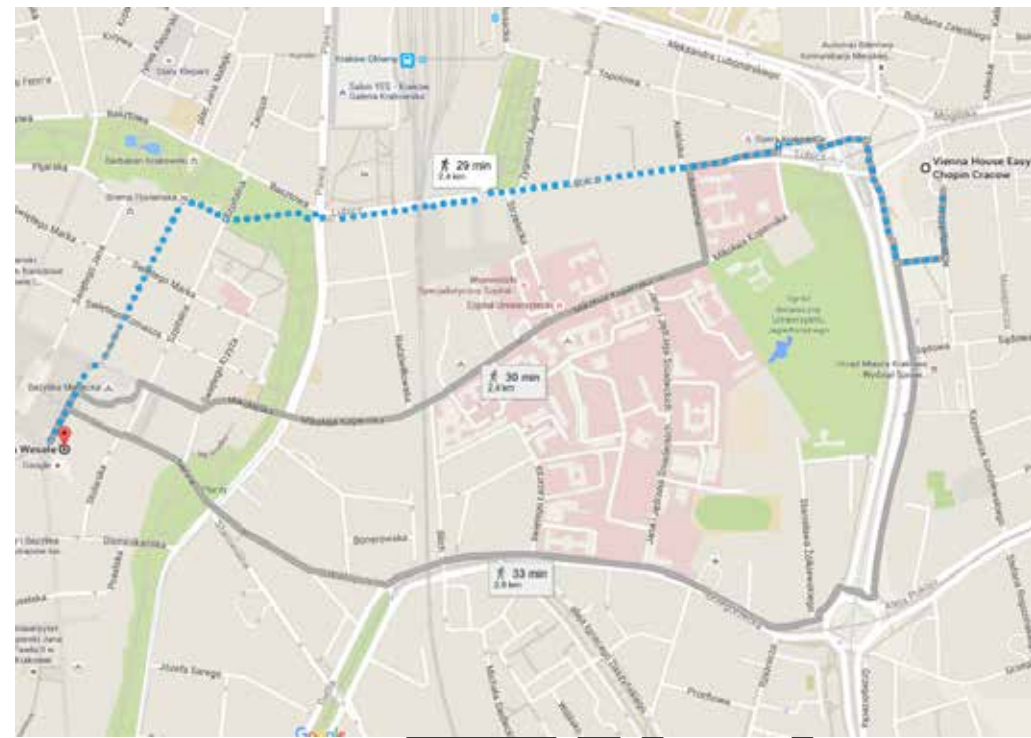


# Directions to the Gala Venue

From CUE campus to Gala Night (around 2km)



From Hotel Chopin to Gala Night (around 2km)



**Restaurant Wesele**  
<http://weselerestauracja.pl/en/>





## Conference place - Cracow University of Economics campus

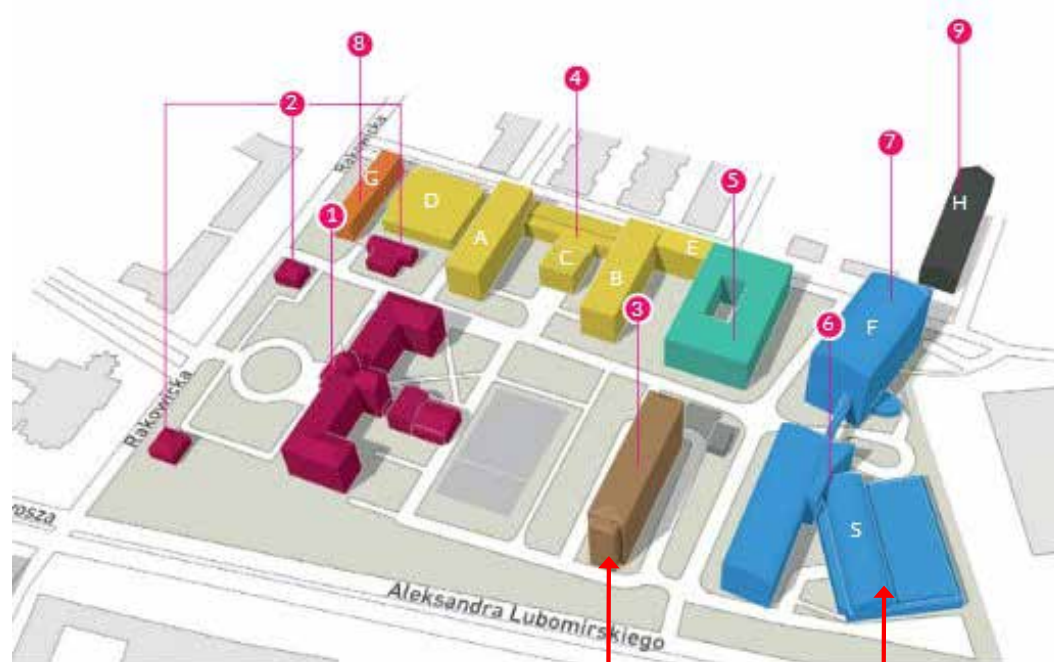
Conference will take place in the pavilion S (No. 6 at the plan) - blue lower building, in rooms 7 and 8. Conference reception will be in the hall at ground floor. In Google maps pavilion S is marked as swimming pool (Basen Uniwersytetu Ekonomicznego).



**Wi-Fi Access**

**SSID:** emcis2016

**Password:** @emcis2016



Lunch

Conference

### Legend

- 1. Main Building (Palace)
- 2. Main Gate
- 3. Ustronie - **Lunch place**
- 5. Library Building
- 6. Pavilion S - **Conference place**