How can connected solutions improve the way in which we manage water, mobility, and the other challenges of growing and densifying cities? Innovations are being developed and implemented in Switzerland and in the UAE, by researchers in universities, private companies, and public actors.

This event proposes to bring together specialists to discuss these solutions and give the opportunity for new international collaborations in this field. It is organised by the Leading House MENA, whose main objective is to support scientific collaboration between universities in Switzerland and in the MENA region.

Two roundtables will focus on **technology for water management** and on **resilience in ICT-supported mobility and logistics**. Researchers from Switzerland and from the UAE will present highly innovative projects in this field. Interested academic and industrial partners are invited to take part in the discussion. It will be followed by an informal networking event on the rooftop of the Swiss Pavilion.

In addition to the presentations and discussions, researchers and companies will exhibit some examples of actual innovations, currently developed and implemented in Switzerland, as concrete examples on how technology can improve the management of cities and the daily life of its inhabitants.

More information is available on the website of Swissnex and of the Leading House MENA. You can register to attend the event on the Swiss Pavilion or you can follow it on live stream at the link below:

https://swisspavilion.org/smart-connected-cities/

https://www.hes-so.ch/agenda-details/swiss-uae-collaborations-smart-connected-cities-live-event

https://www.youtube.com/watch?v=hwUVc2tPqSo

Programme

11:00 Welcome by Swissnex Mobile

11:15 Opening words
HE Massimo Baggi, Ambassador of Switzerland to the United Arab Emirates and Bahrain
Dr. Christine Pirinoli, Vice-Rector for Research and Innovation, HES-SO

11:30 Keynote speech: “Cyber-physical spaces: Vision & opportunities”
Dr.-Ing. habil. Josef Spillner, ZHAW

12:15 Break

12:30 “Supporting cooperation between Switzerland and the MENA region”
Dr. Luna Iacopini, Leading House for the Middle East and North Africa

13:00 Success story: ZHAW-UoS collaboration
Prof. Manar Wasif Abu Talib, University of Sharjah
Prof. Qassim Nasir, University of Sharjah
Dr.-Ing. habil. Josef Spillner, ZHAW

13:30 Break

14:30 **Panel #1: Water Management and Technology**
Moderator tbc

Panellists:
- Prof. Pierre-André Mudry, HEI VS, HES-SO
- Prof. Nabil Abdennadher, HEPIA, HES-SO
- Prof. Marcel Meli, ZHAW
- Jan Strohmeier, Endress+Hauser

16:15 **Panel #2: Resilience in ICT-supported mobility and logistics**
Moderators:

- Prof. Taieb Znati, UAE University
- Dr. Manzoor Khan, UAE University

Panellists:
- Prof. Ruth Schmitt, FHNW
- Prof. Leila Ismail, UAE U
- Prof. Manar Wasif Abu Talib, University of Sharjah
- Prof. Qassim Nasir, University of Sharjah

17:30 Conclusion
Dr.-Ing. habil. Josef Spillner, ZHAW

18:00 Aperitif and Pavilion visit

Participants

Josef Spillner is a senior lecturer / associate professor for computer science at Zurich University of Applied Sciences, Switzerland. With his team, he conducts research on distributed application computing paradigms with emphasis on cloud, serverless and continuum computing, especially in conjunction with IoT and cyber-physical applications. His teaching portfolio encompasses hands-on courses and open educational resources on big data, advanced big data, and serverless & cloud-native application development.

Professor Marcel Meli is lecturer and Head of the Low Power Wireless Embedded Systems research group at the Institute of Embedded Systems, ZHAW, Winterthur, Switzerland. After studies in electrical engineering, he worked for about 10 years in the development of embedded systems and in the semiconductor industry. He has been involved in teaching and research for more than 15 years. His research interests are in low power wireless embedded systems, including IoT, microprocessors, wireless communications, power management, sensors and energy harvesting. He is member of the program committees of several international conferences and a frequent speaker at events related to low power systems and energy harvesting. He is the author or co-author of several papers and patents. He holds a PhD degree from the University of Wales, Great Britain.

Zürcher Hochschule
für Angewandte Wissenschaften

Our university is one of the leading universities of applied sciences in Switzerland. In our work in research and development, the ZHAW Zurich University of Applied Sciences concentrates on important societal challenges, with a particular focus on energy and social integration. With locations in Winterthur, Zurich and Wädenswil, the ZHAW is firmly integrated in the local region whilst also collaborating with international partners. There are eight Schools in the University: Applied Linguistics; Applied Psychology; Architecture, Design and Civil Engineering; Engineering; Health Professions; Life Sciences and Facility Management; Management and Law; and Social Work.

As one of the leading engineering faculties in Switzerland, the School of Engineering focuses on topics which will continue to be relevant in future. Our 14 institutes and centres guarantee superior-quality education, continuing professional training, and research and development with an emphasis on the areas of energy, mobility, information and health. The range of study programmes is oriented to the needs of businesses and the economy, and combines scientifically well-founded training as an engineer with a strong practical relevance and an interdisciplinary approach. Founded back in 1874 as the Technikum Winterthur, the School of Engineering is an institute of education with a rich tradition. Today, it forms one of eight departments of the ZHAW Zurich University of Applied Sciences.

Dr **Pierre-André Mudry** is full professor at the School of Engineering from the HES-SO Valais in Sion and leads the DATA group. His interests include reconfigurable processors and embedded systems that communicate and run artificial intelligence algorithms on the edge of the cloud. He lead several projects in the domain of smart water and agriculture, for instance by instrumenting irrigation networks with low-cost communicating probes that provide real-time estimates of water usage and needs for agriculture.

Nabil Abdennadher is full professor at HES-SO. He is currently head of both the inIT research institute and the Large-Scale Distributed Systems research group. He is the representative of the Data Innovation Swiss Alliance in Swiss Romandie. He is author and co-author of several publications and book-chapters.
Nabil Abdennadher worked on methodologies/ tools to develop and deploy e-Science applications on large scale distributed systems. He is currently working on several Swiss and European projects aiming at developing self-adaptive edge-to-cloud digital platforms applied to smart grid and smart city.

HES-SO is the largest university of applied sciences (UAS) in Switzerland and the second largest higher education institution of the country, with more than 21'000 students and 25 schools located in 7 cantons. HES-SO is organised in six faculties: Design & Visual Arts, Business Management & Services, Engineering & Architecture, Music & Performing Arts, Health and Social Work, and education and research are oriented towards practical applications in the same areas. HES-SO offers a large variety of education programmes: 46 Bachelor degrees, 22 Master degrees and 255 continuing education courses. It employs 10'000 collaborators, with approx. 700 FTE dedicated to R&D activities. Strongly anchored in the regional economy, HES-SO collaborates closely with SMEs, and its R&D also extends to certain aspects of industrial-scale production. HES-SO undertakes research projects with a wide range of partners in Switzerland and abroad.

HES-SO is involved in several projects in the domains of Smart City, Smart Grid, Smart Water and Urban Computing at regional, national, and international/European levels. It brings together, around the axes of sustainable development and optimal management of resources, several centres of excellence in engineering and architecture.

Prof. Dr. Ruth Schmitt is the head of Education of the School of Engineering, FHNW. She also works as a researcher, designer and facilitator of multistakeholder processes. Her background is in business administration and corporate responsibility. She has over 20 years of experience in applied research in multistakeholder processes. Her latest research and consultation focused on creating local acceptance for renewable energy infrastructure projects, among them wind, water, district heating networks and a geothermal project.

Fachhochschule Nordwestschweiz

FHNW is one of Switzerland's leading universities of applied sciences and arts, actively involved in teaching, research, continuing education and service provision – both innovative and practice-oriented. Its broad range of degree programmes, hands-on concept, innovative, application-oriented research and global network make FHNW a diversified and appealing educational institution, a sought-after partner to industry and an attractive employer in northwestern Switzerland.

The School of Engineering offers degree programmes in Engineering, Computer Science, Leadership and Optometry. In research, we generate knowledge and solutions for industry and business. We educate bachelor's and master's students at the Brugg-Windisch, Muttenz and Olten campuses, and offer a wide range of continuing education services. Our institutes are important partners in applied research and development for industry, business, and public institutions.

Dr. Manar Abu Talib is Chair of Research Outreach Department, Office of Vice Chancellor Office for Research & Graduate Studies at University of Sharjah, UAE. She is also a faculty member at College of Computing & Informatics. Dr. Abu Talib's research interest includes software engineering with substantial experience and knowledge in conducting research in software measurement, software quality, software testing, ISO 27001 for Information Security and Open Source Software. Manar is also working on ISO standards for measuring the functional size of software, and has been involved in developing the Arabic version of ISO 19761 (COSMIC-FFP measurement method). She published more than 70 refereed conferences, journals, manuals and technical reports, involved in more than 500 professional activities and sponsored research activities and supervised 7 Master thesis, 3 PhD thesis and 35 capstone projects.

She received the Best Teacher Award two times, the Exemplary Faculty Award in 2008 and 2010, Google CS4HS Award in 2014, QCRI ArabWIC and Anita Borg Institute Faculty scholarships in 2015, outstanding University & Community Service Award in 2016, Exemplary Leader Award in WiSTEM 2016 and Exemplary Leader Award in ArabWIC 2019. She was the Counselor of IEEE Student Branch at Zayed University, 2012-2013 and founder and former CEO of Emirates Digital Association for Women (EDAW111). She is the ArabWIC VP of Chapters in Arab Women in Computing Association (ArabWIC), Google Women Tech Maker Lead, an executive member in UAE IEEE Section & Women in Engineering (WIE), the Sharjah Google Developer Group Advisor, the UAE representative for the COSMIC-FPP Education Committee, Co-coordinator of OpenUAE Research & Development Group and the International Collaborator to Software Engineering Research Laboratory in Montreal, Canada.

Prof. Abbes Amira is currently the Dean of the College of Computing and Informatics at the University of Sharjah, UAE. During his career to date, Prof. Amira has been successful in securing substantial funding from government agencies and industry; he has supervised more than 25 PhD students and has over 350 publications in top journals and conferences in the area of embedded systems, artificial intelligence, IoT, image and signal processing. He obtained many international awards, including the 2008 VARIAN prize offered by the Swiss Society of Radiobiology and Medical Physics, CAST award, DELL-EM Envision the future (2018), IET premium award (2017) and many best paper and recognition awards in IEEE international conferences and events. He has been invited to give keynote talks, short courses and tutorials at many universities and international conferences and has been chair and program committee for several IEEE conferences including tutorial and invited talks at the prestigious ICIP 2009, ICECS 2018, ICCV 2009, ISSPA 2012, ISSPIT 2015. He was the General Co-Chair of ECVW 2011, Program Chair of ECVW2010, Program Co-Chair of ICM12, DELTA 2008, IMVIP 2005 and General Co-Chair of ICM 2014. He is also a member of the IEEE Technical Committee for Biomedical Circuits and systems.

Prof. Amira has been a PhD external examiner and member of advisory boards for many Universities worldwide and has participated as guest editor and member of the editorial board in many international journals including special issues in IEEE IoT Journal and Elsevier Pattern Recognition. He has also been a regular referee for many national and international funding bodies, including (EPSRC-UK and QNRF-Qatar). He has taken visiting professor positions at the University of Tun Hussein Onn, Malaysia and the University of Nancy, Henri Poincare, France. He is a Fellow of IET, Fellow of the Higher Education Academy, Senior member of the IEEE, and Senior member of ACM. His research interests include artificial intelligence, embedded systems, high-performance computing, IoT, connected health, image and vision systems.

Qassim Nasir is currently a professor in University of Sharjah since 2021, and chairman of scientific publishing unit and was a director for IT for one year and chairman for electrical and computer engineering department for two years. In his current position, He is co-coordinator in OpenUAE research group which focuses on open-source applications such AI in Robotics Process Automation (RPA), Cyber Security (Advanced Persistent Threat (APT) intelligence), object classification, faked news/videos detection, modulation classification, blockchain performance, radar (RF) applications in classification, and other related subjects. Prior to joining the University of Sharjah in 2001 and for six years, Prof. Nasir was working with Nortel Networks/Canada, as a senior system. then later moved to work with the ADSL modems group, at the same company, as a senior firmware system designer. He was adjunct part time assistant professor at Ottawa University, for the period 1999 to 2001, teaching telecommunication software engineering. Prof. Nasir was visiting professor at Helsinki University of Technology, Finland, during the summers of 2002 to 2009, and GIPSA lab, Grenoble France to work on a Joint research project on “Sensor Networks”. Prof. Nasir has published over 100 refereed conferences, journals, book chapters, and technical reports. He holds professional certificate such as CISSP (security), Juniper, and Cisco (for computer networks).

For short, one can say:

1. Professor in digital communications and certified professional in security and computer networks.
2. Chairman for Scientific Publishing department.
3. His core current research is to use open source in:
    a. Telecom and Networks Security / Security Operational Center
    b. AI applications in
        i. Robotics Process Automation (RPA),
        ii. Cyber Security (Advanced Persistent Threat (APT) intelligence),
        iii. Object Classification with Radar technology
        iv. Faked news/videos detection,
        v. Modulation Classification,
    c. Blockchain Performance, and their applications in secure data storage
    d. Radar applications for object detection using AI.

The University of Sharjah (UoS) is a comprehensive academic institution with a distinctive learning style and a global vision. It is a pioneer in academia, scientific research and the arts in the UAE and the GCC region. All programs are accredited by the UAE Ministry of Higher Education and Scientific Research. Some programs such as Engineering, Computing & Informatics, Communication, Science and Business have attained international accreditation.

The University of Sharjah continues to advance in the latest International University Rankings Affirming its position among the top three universities in the UAE. 44 UOS scholars are the world's top 2% of scientists on the Stanford University list. UoS is ranked the third best university in UAE. In THE Subjects rankings, UoS has achieved the best ranking in Clinical and Health to be among the top 10 Arab universities, second in UAE, and 251-300 globally. UoS has achieved the first place in the country in Computer Sciences, and 401-500 globally. In Engineering and Technology as well as Business and Economics, UoS was ranked 401-500 globally and the second and the third, respectively in the country. In Physical Sciences, UoS was ranked 501-600 globally and the second in the country. The university has 3 research institutes, 8 research centers and 66 research groups.

Jan Strohmeier is the Digitalization Manager at Endress+Hauser with responsibility to increase the digital footprint of Endress+Hauser in the Middle East region, promote digitalization in all areas where Endress+Hauser can support their customers to integrate the new digital possibility.

Prior to become Digitalization Manager in 2020, Jan Strohmeier worked as Regional Service Manager and Project Manager in the Middle East for 10 years in Endress+Hauser. Notable is his 29 years with Endress+Hauser in different location and positions.

Jan Strohmeier received a Bachelor in International Service Management from ISS International Business School of Service Management in Germany from 2014-2015.

Endress+Hauser

Endress+Hauser Middle East drives the development, growth and productivity of sales organizations and our representatives in the Middle East region. Ensuring that customers' needs are met effectively in areas of sales, service, training, solutions and project handling across different industries holds priority.

Our offerings include:

- Driving process excellence through digital transformation
- Trainings offered on varied product and industry topics. Online and hands on trainings offered.
- A robust service portfolio to support and optimize your processes
- Coordination and project management of international projects in the region
- Complete field instrumentation package for process industries for Flow, Level, Pressure, Temperature, Liquid Analysis, Tank Farm Terminal management, Asset management, Inventory control and solutions to improve productivity while lowering your costs

Keep in touch

Swissnex

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