

3rd edition

“New Technologies and Enablers for Digitalization”

Application Training for GJU students

11th of March – 15th of March 2018



Edda Pulst, Britta Kähler

Digital Service and Digital Products as a result of Smart Industry and New Technology considerably change the business and jobs in Jordan, the Region and the International Market.

Graduates face a new paradigm of job requirements.

In order to enable students to be adapted professionally and personally to what companies are really looking for, Prof. Dr. Edda Pulst from [Westphalian University of Applied Sciences together with her network of industry experts](#) and Dr. Markus Reifferscheid from [SMS Group](#) conducted for the 3rd time a one-week  - [adapt2Job](#) intense 2win-training at the German Jordanian University (GJU) with selected students from Industrial Engineering, Mechatronics, Mechanical Engineering and Management.



 - [adapt2Job](#) Team: Prof. Dr. Edda Pulst, Westphalian University and Dr. Markus Reifferscheid, Vice President R&D SMS Group

Ideas

Ideas of possible applications were demonstrated by concepts and live-demos on Digital Services, products and the underlying and forthcoming technology.  - [adapt2Job](#) , 3rd edition confronted the students with a huge challenge of techniques, tools and application opportunities.



Digitalization Cases in Practice presented by Dr. Markus Reifferscheid, SMS Group

The idea input started with an introductory panel comprising the perfectly prepared representatives of the Jordanian industry partners IBM, Fine Hygienic Holding and Microsoft. All experts of the panel had prepared presentation and fact sheets related to the 2win-Training-subjects in advance.



Blockchain Technology, presented by Omar Abbas, IBM

The idea horizon was amazing in a range from smart dispensers, Artificial Intelligence and Blockchain in a Jordanian Refugee Camp.

All these new technologies need outstanding graduates who concentrate on business reality rather than on credit points.

In addition, the experts provided the students with information about required job knowledge and current job vacancies.

IBM i.e. is looking for Blockchain-consultants, -architects and –developers. The other companies require competence on the development of new digital services and products their customers are willing to pay.

SMS searches Digital Experts for Blockchain and those graduates who could bring the physical and digital world together.

FINE is in need of IoT-Specialists and IT-Architects.

2win-Training presented by Prof. Pulst and Dr. Reifferscheid showed the clearly defined  - adapt2Job -method structure, concepts and practical examples.

Dr. Reifferscheid constantly emphasized the importance of real practical process know-how, graduates should acquire during their studies. Companies look for graduates who know their context and their business, who are creative and take the risk of developing new ideas until the end.

During the ongoing training, Prof. Pulst presented insights on Digital Products and Digital Services of additional international companies. In total students got a practical overview on:

Smart Sensors

Digital Ecosystems

Artificial Intelligence

Digital Customer Experience

Digital Twin

Digital Life Cycle Partnership

Smart Alarm

Spare Parts Catalogue

Augmented Reality

Additive Manufacturing

3D-Printing

Cloud

Motion Amplifier

3D-Bionic Structures

Blockchain

Big Data

IoT

Cyber-Physical Systems

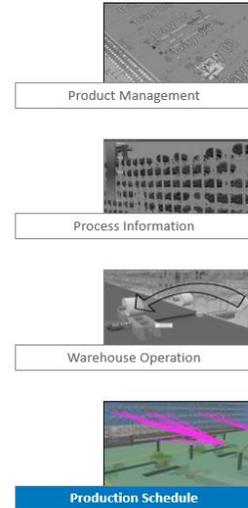
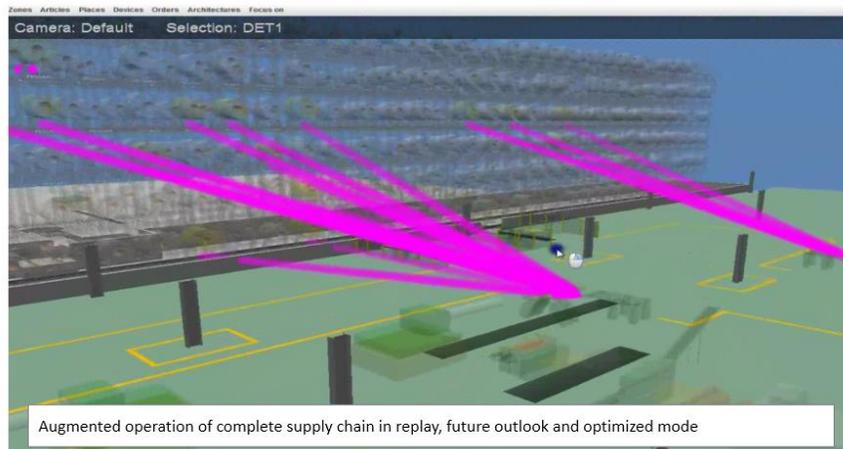
Students who apply for a job should know the company's profile by heart and collect information on its new technologies and main business areas. They should have already ideas in their mind on how they could improve the company's service and products, which are wanted and paid by its customers.

Companies look for untouchables rather than for Credit Point Collectors.



Students exploring SMS Digital Twin, Digital workshop for their Jordanian Scenario

Augmented Operation – High-bay Warehouse for Coils
Production Schedule – Transparency

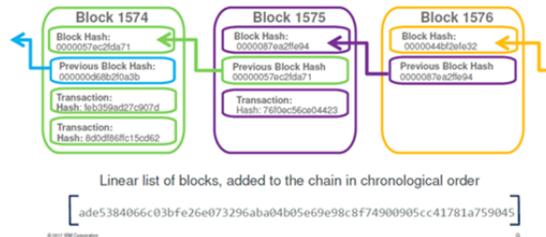


Insight Augmented Operation in SMS group, by Dr. M. Reifferscheid



Business Model Blockchain

Why do we call it "Blockchain" ?



Example: Refugee Camp Saadri, Jordan.
Refugee pays by looking into a lense at the ceiling,
initiating a transaction with 10,64 JOD more for the Supermarket
Owner and 10,64 JOD less for the Refugee.

Refugee transactions are documented and can be more easily
coordinated

18.03.2018

a2J Pulst_New Technologies_Business Models

Blockchain already realized in Saadri, presented by Prof. Dr. Edda Pulst

Thousand ideas may result in one solution. Therefore, the students were confronted with all the different ideas for digitalization, which exist in the

market or in the research labs of the companies in order to develop their own solution.

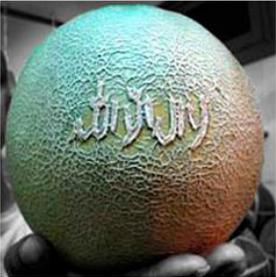
Finally, Prof. Pulst presented them the latest trends and forecasts of Gartner for digital products and services.

Imagine

Put yourself in a role. Be empathic. Be inside. Feel what your customer feels. Challenge Orthodoxies. Leverage Resources. Harness. Trends. Understand Customer Needs. Change the Business Models.

Widen your MIND! **SMS**  **group**

Innovation on melon?



Ideation requires an open mind

Identify yourself with the one for whom you create the solution.

The Tablewise Idea Workshop of one hour (Dr. Reifferscheid) was followed by Scenario Building (Prof. Pulst) in order to initiate new digital products and services based on the input of the days before.



Committed students in a challenging  - adapt2Job – Scenario Building

Morphological Box for: **Desertification and Desert Utilization in Jordan.**
 START: 6-2018
 Finish: 12-2018

3 Influencers	Attributes	Characteristics		
① Digital twin for training	a) Special Tech.	Virtual twins	Digital Workshop	Plug & work
	b) Interactive Learning	VR	Hologram	Smart Lab
	c) Cultural Aspect	Awareness	Communication Skills	Technical Skills
② IoT	a) Special Tech.	Embeded sys.	Interactive App.	Quality systems (SMS)
	b) Predictive Main.	Sensors/PLC	Spare Parts Catalogue & 3D Printing	Life-Cycle state
	c) Infrastructure	IP Address Panel	On-Premise	Off-Premise
③ Artificial Intelligence	a) Data	1 yr	2 yrs	3 yrs
	b) Adaptive ness	Low	Neutral	High
	c) Special Tech.	Robot	analyzing data (converter)	Soil optimization analysis with Sensor

NAME of S
Green CHANGE
BENE

Changes:
 1. Spare Parts company
 2. Touristic (green jo)

Benefits:
 1) for SMS: Save the the region.
 2) IBM: apply Bio in the future

Be concrete: Develop a practical use case for the Jordanian market

Initiate

Convince others who have also good ideas and concentrate on one, which is relevant for the Jordanian market.

Before you start with artificial intelligence start with natural intelligence.

As if - scenarios are relevant to bring ideas to minimal viable products. In an interactive exchange, students learned everything about scenario

technique and developed their own scenarios for digital products and services in Jordan.

Students experienced in three hard workshop days that they have to make the IT in order to avoid being victims of IT.

It was constantly emphasized by Prof. Pulst that every solution should encompass what the customer really needs. Digitalization is always an Add-On!

Results had to be put into an infotainment presentation in order to convince the panel experts in the final assessment.

The students digital service/product scenarios and business models focused on:

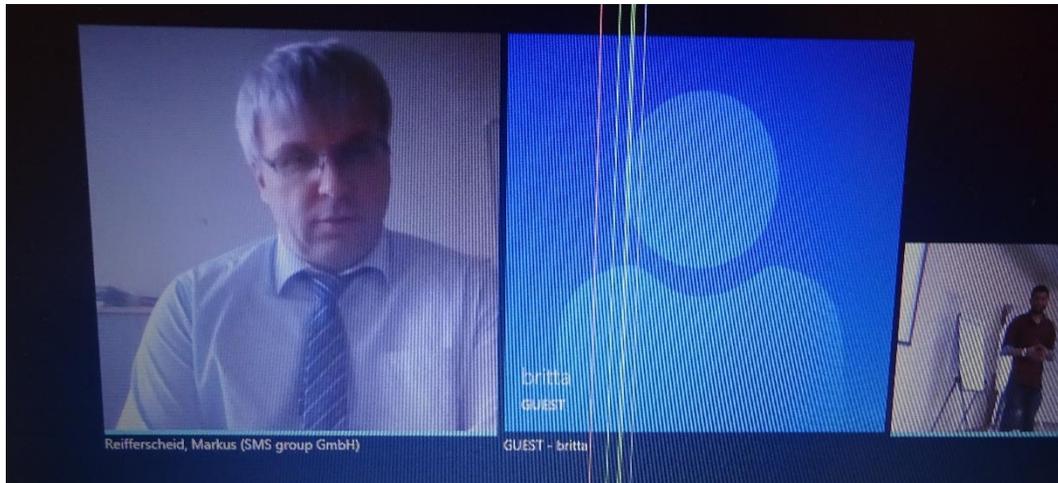
1. Green Desert: Internet of Things combined with 3D-Printing.
2. Transjordan: Digital Services for a reliable public transport.
3. Digital Water in Amman: Sensors and Blockchain administration.



Go and sell your project!

The Teams presented each their idea to the assessing industry partners.

Dr. Reifferscheid joined the hard selection process via skype.



What

Final Presentation to the Employability experts of the Industry

The industry experts assessed the employability and presentation skills of the students and the market relevance of their scenario.



Be Concrete! The expert jury joined by GJU president



Take your professor as a 2win Partner!

The serious and hard feedback gave valuable recommendations to the students on their product, the realization of their service and the Cost-/Benefit analysis.

Highly appreciated were the professional presentation skills.



Find out your customer's pain point!

The employability experts provided the students with useful and practical advices on business context and content as well as how to improve their performances to better convince potential employers about their ideas.

Together with the President of GJU, Prof. Manar Fayyad, and Mrs. Britta Kähler, Director of the Office for Industrial Links, they handed over the

 - **adapt2Job** –certificates which are highly appreciated on the job market.



Highly appreciated on the Job Market: The  - **adapt2Job** – Certificate

The 3rd successful intense 2win-Training again showed the importance of

 - **adapt2Job** for the German Jordanian University.



Concrete! The  - adapt2Job – Certificate



Successful students ready for the Jordanian Job Market

The President of GJU Prof. Manar Fayyad, Industry Partners, GJU professor Dr. Safwan Altarazi together with Britta Kähler and Prof. Dr. Edda Pulst

Job Reality,  - adapt2Job -2win-Training is meanwhile a successful integral part of GJU studies.



 - **adapt2Job** Core Team at GJU: Britta Kähler, Prof. Dr. Edda Pulst, Dr. Markus Reifferscheid

It enhances GJU's applied and industrial dimension by using the established TWIN-Training  - **adapt2Job** method and its industry network which confronts the students with job reality, case studies, expert panels, field trials and scenarios accompanied by an intense involvement of business professionals.

The 3rd  - **adapt2Job** Twin training took place in the frame of GJU's Flying Faculty program and was organized by the Office for Industrial Links (OIL) in cooperation with the School of Applied Technical Sciences.