

# Designing Technology – Session I Kick-Off

16. October 2023

Joni Riihimäki | joni.riihimaeki@fau.de Julius Kirschbaum | julius.kirschbaum@fau.de

Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) Chair for Information Systems - Innovation & Value Creation Lange Gasse 20 90403 Nuremberg, Germany

## **Teaching and Supervision Team**









Julius Kirschbaum



**Industry Partner** "Roboyo"

## **Agenda**



- **Course Organisation**
- **Working Mode during the Course**
- Q&A



## **Agenda**



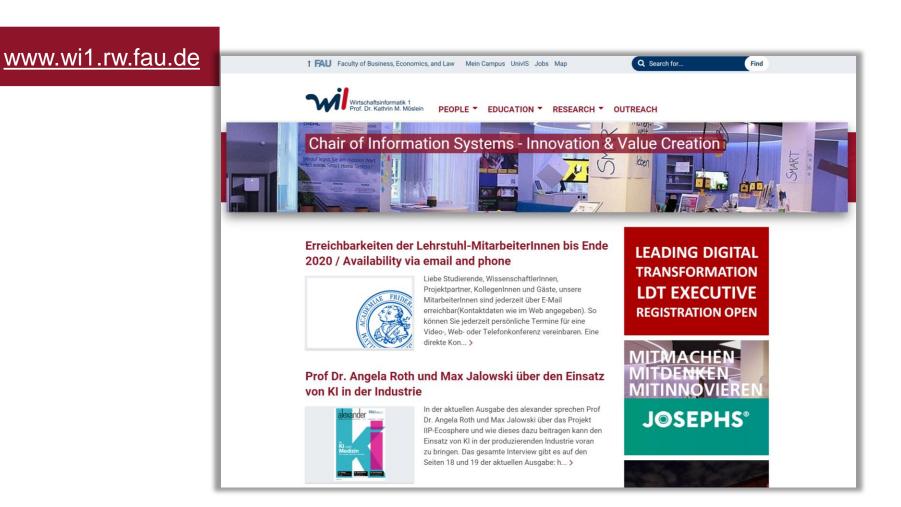
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## **Chair of Information Systems – Innovation & Value Creation**



All info on our website





## Student Papers at Wi1

**Open topics here** 



Theses and more

#### **Thesis**

- [MA/BA/PA] Analysing AI innovation process models
- [MA/PA] Augmenting first-level support service with LLM-based conversational agents
- [MA] Benefits and costs of international university alliances: prototyping a digital evaluation tool
- Concept for an online database and community around artificial intelligence business models
- Möglichkeiten, Hindernisse und Geschäftsmodelle für die ökonomisch erfolgreiche Integration von Künstlicher Intelligenz im produzierenden Mittelstand
- Strategies for the utilization of artificial intelligence to attain competitive advantage
- Factors for the successful integration of artificial intelligence business models
- Concepts for the design or adaption of artificial intelligence business models
- Organizational Challenges from Digitization in the Envelope Industry









#### Studentische Hilfskraft im Innovationsmanagement

Du interessierst Dich für Innovationsmanagement und Forschung? Du möchtest auf dem neuesten Stand der Erkenntnisse aus dem Bereich Innovation und Wertschöpfung sein? Du interessierst Dich vielleicht sogar für eine wissenschaftliche Karriere und würdest gerne einen ersten Einblick gewinnen? Du möchtest sehen wie Lehre an der Universität hinter den Kulissen entwickelt wird?

#### Wenn Du Dich angesprochen fühlst, bist Du genau richtig bei uns!



#### **Dein Profil:**

- Du bist neugierig, interessiert und lernbereit
- Du kannst selbständig arbeiten
- Du hast ausgezeichnete Deutsch und Englischkenntnisse in Wort und Schrift
- Du bringst Kenntnisse in Microsoft Excel, Word und Power Point mit. Idealerweise auch in weiteren Programmen
- Du hast ein grundlegendes technisches Verständnis und kannst Dich schnell in neue Sachverhalte einarbeiten
- Du interessierst Dich für Themenfelder wie I4.0, IoT, KI, New Work, Wotkshops



#### Wir sind

ein engagiertes, junges Team, das sich der Lehre und Forschung der Gestaltung von Innovation und Wertschöpfung widmet. Unsere Kooperationen mit außeruniversitären Forschungseinrichtungen und Praxispartnern ermöglichen spannende Projekte und Forschungsergebnisse mit Praxisbezug. Wir bieten dir eine flexible Arbeitsgestaltung neben deinem Studium und ein lockeres Arbeitsumfeld.



#### Wir suchen tatkräftige Unterstützung in verschiedenen Themenfeldern, u.a.:

- Arbeit im Kontext der Zukunftsthemen IoT, Digitale Transformation und Future of Work oder Service Systeme
- Unterstützung bei der Datenerhebung im Rahmen von Interviews
- Thematische Recherchen und Arbeit mit wissenschaftlicher Literatur
- Visuelle Gestaltung und Aufbereitung von Informationen und Zusammenhängen
- Besonderer Bedarf besteht aktuell im Bereich I4.0 und Service Systeme



#### Studentische Hilfskraft (w/m/d) Bis ~10 Std./ Woche für mind.6 Monate und mehr

Wir freuen uns auf Deine aussagekräftige Bewerbung und hoffen, Dich schon bald in unserem Team begrüßen zu dürfen!

Bitte sende uns Deine vollständigen Bewerbungsunterlagen an julius.kirschbaum@fau.de

Bei Fragen zu dieser Position melde Dich gerne per Mail oder telefonisch unter 0911 5302 264 Mehr Infos unter wi1.fau.de

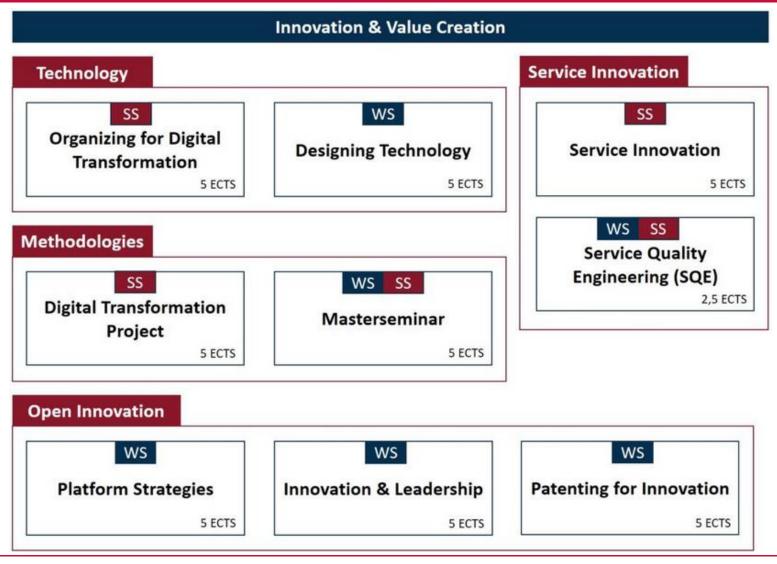
#### Bewerbungsprozess

Wenn du uns deinen Lebenslauf, deinen aktuellen Notenauszug und ein Motivationsschreiben zusendest verteile ich gerne deine Bewerbung bei uns im Team. Bei Interesse meldet sich die jeweilige Betreuende Person bei dir und wir machen ein erstes Kennenlerntreffen aus. Wann daraufhin beide Seiten einverstanden sind könnt ihr zeitnah direkt einsteigen und im Wi1-Team mitspielen. Wir freuen uns!

#### Courses at the Chair



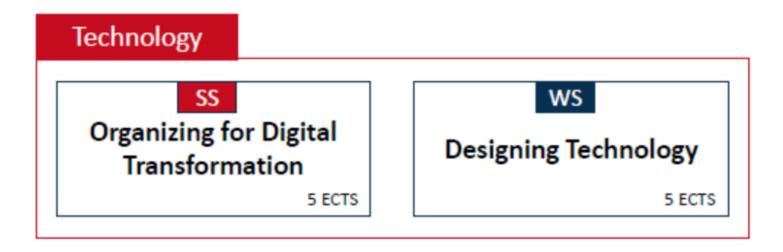




## **Topics of our Lectures**

**Designing Technology** 





- Systems Thinking
- Cybernetics
- Resource Analytics
- **Dynamic Capabilities**

- Design Thinking
- Heuristic Search
- **Evolutionary Models**
- **Project Management**

## **Chair of Information Systems – Innovation & Value Creation**



**Designing Technology** 



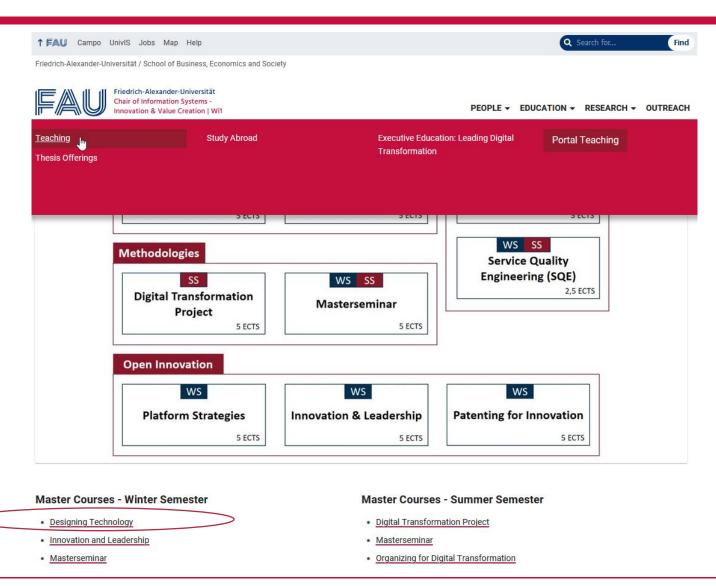
#### What we just covered

#### **Chair itself:**

- ✓ Chair website
- ✓ Open positions

#### **Designing Technology:**

- ✓ Landing page
- ✓ Syllabus
- ✓ StudOn Course
- ✓ Zoom-Link







## Expectations



## slido



What do you expect from your studies? Which statement appeals the most to you?

i) Start presenting to display the poll results on this slide.



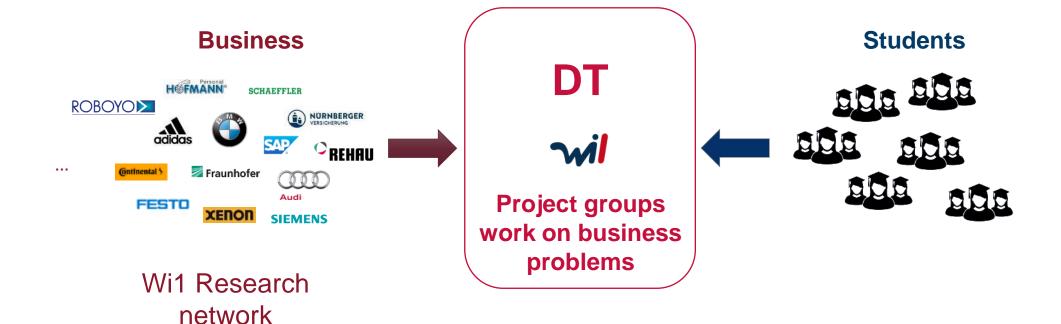
## Course Outline



## **Course Format**

#### **Designing Technology**





## **Course Schedule**

#### Sessions and exam deadlines



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Session	Date	Time
Session I Course Kick-Off & Case Introduction	16.10.23	13:15 – 15:00
Session II  Case Presentation by Project Partner &  Designing Technology Part A	30.10.23	13:15 – 14:45 15:00 – 16:30
Session III  Designing Technology Part B & PM and SCRUM	06.11.23	13:15 – 14:45 15:00 – 16:30
Session IV Design & Innovation	13.11.23	13:15 – 14:45 15:00 – 16:30
Session V DSR	20.11.23	13:15 – 14:45 15:00 – 16:30
Session VI Writing & Presenting	27.11.23	13:15 – 14:45 15:00 – 16:30
Session VII Mid-Term-Presentation	11.12.23	13:15 – 14:45 15:00 – 16:30
Session VIII Final Presentation of Research Project	26.02.24	13:15 – 16:30
Hand-In for Written Assignment	11.03.24	23:55



16.10. | Session I – Kick-Off

Choose to take the course or unregister



23.10. 18:00 | Final registration

Team formation & case selection via StudOn (first come, first served)



30.10. | Session II – ROBOYO & Lecture

Reach out to your supervisors at ROBOYO



06.11. | Session III – Lecture

Continuous feedback on your initiative



#### **Detailed Course Schedule**

Registration to the course





- Register for course until October 23<sup>rd</sup> 18:00
- Once registered, you will receive a grade!

https://terminplaner6.dfn.de/de/b/e69a123fed08b6ea90fcc6a09503d5b8-370022

- Students organise themselves in teams by registering to the groups on StudOn (3-6 students per group)
- We have 2 teams for each of the 3 Use-Cases. Choice is up to you and follows a first-come, first-serve manner.
- Please ensure that each team has a diverse background.
   E.g. focus on business, IT, informatics, PM



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## **Designing Technology**



The course grade will be determined based on the following mode of evaluation:

**Examination:** 

- Research Project (50%) (partly team work) (70742)
- Written Assignment (50%) (partly team work) (70741)



## Scope

#### **Designing Technology**



These measures are independent of the group size.

## Scope of the paper

- The length of the paper should be between <u>20-30 pages</u>, which is measured by word count. This corresponds to 6,500-10,000 words.
- Templates are on the website
- In addition, we have a whole "how to write seminar papers" session

## Scope of the presentation

- The duration of the presentation should be within 30 min +/- 3 min. We suggest around 15 min presentation of the business case and 15 min demonstration (Mock-Up)
- The presenters should have more or less equal length of speaking time
- In the last session we focus on presentation skills and "how to present in business"



## Plagiarism is a serious offence!

#### **Designing Technology**



#### What is plagiarism?

Plagiarism is the unauthorized use or close imitation of the language and thoughts of another author and the representation thereof as one's own original work

#### There is a zero tolerance policy for plagiarism!

- Each assignment will be checked for plagiarism using a variety of methods
- Any case of plagiarism will be reported to the board of examiners

#### Consequences of plagiarism

- The final grade will be a 5.0
- The paper containing suspected plagiarism will be forwarded to the board of examiners, who will decide about further consequences. Plagiarism is a serious offence that can lead to severe consequences like a removal from the register of students



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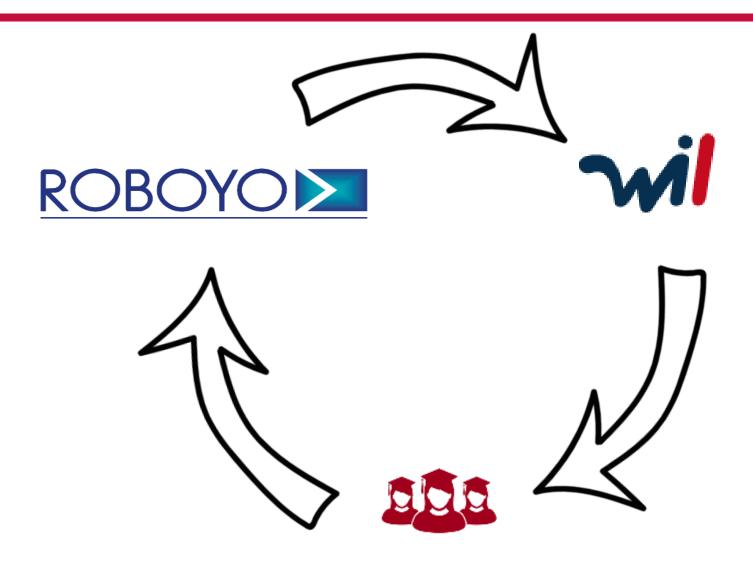
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## How we work in DT

The working mode









#### Cases to work on



What are the topics for this term?

- Use-Case 1: Robotic Process Automation (RPA)
- Use-Case 2: Intelligent Document Processing (IDP)
- Use-Case 3: Process Mining

## Exploring Appian as a Game-Changer in Robotic Process Automation

#### Introduction

RPA is the cornerstone of the automation era. Its manifold benefits encompass efficiency, cost savings, data-driven decision-making, enhanced customer experiences, scalability, compliance, security, innovation, and employee satisfaction

As organizations strive to thrive in an environment defined by automation, RPA is no longer a luxury but a necessity

It is the key to not only surviving but thriving in a landscape where automation is synonymous with competitiveness and efficiency

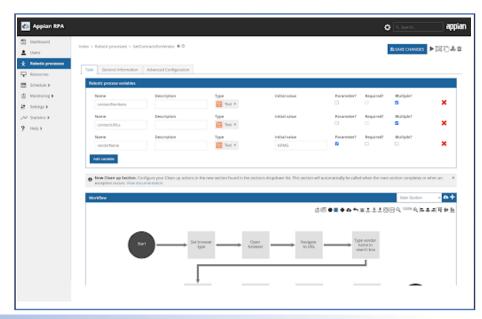
RPA is the catalyst propelling organizations toward a future where automation, in all its forms, is at the heart of success

#### Tasks

As an Automation Service Provider, we're always on the lookout for innovative tools that can revolutionize the way we automate processes for our clients

Appian has emerged as a promising RPA (Robotic Process Automation) alternative, but we lack comprehensive knowledge about its capabilities and limitations

This task is an exciting opportunity for a student team to embark on a journey of discovery, assess Appian's potential, and present a well-informed analysis.



#### Mission

- Your mission is to thoroughly explore and evaluate Appian as a new RPA alternative
- Providing an in-depth understanding of its capabilities and limitations
- This is not only an academic exercise but a real-world scenario that could have a significant impact on our service offerings



Unraveling the Power of Appian IN Intelligent Document Processing

R

#### Introduction

Intelligent Document Processing is a cornerstone of the automation era. Its multifaceted benefits encompass efficiency, cost savings, data-driven decision-making, improved customer experiences, compliance, and scalability

As organizations seek to thrive in a fast-paced, automated world, IDP is an indispensable tool that empowers them to streamline operations, enhance productivity, and stay ahead of the competition

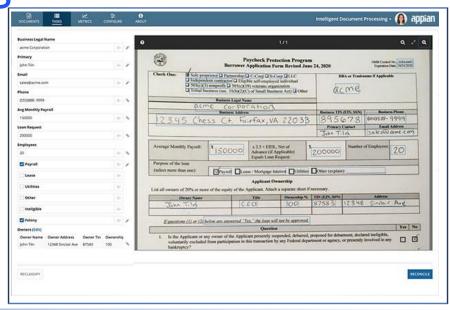
It is an essential investment for businesses looking to secure their place in the automation-driven future

#### Tasks

As a leading Automation Service Provider, we are constantly seeking innovative solutions to elevate our document processing services. Appian has emerged as a potential disruptor in the world of Intelligent Document Processing (IDP)

However, we are currently in the dark about its capabilities and limitations

This task offers an exciting opportunity for a motivated working student to lead the way in exploring Appian's potential as an IDP alternative



#### Missior

- Your mission is to undertake an extensive investigation into Appian's capabilities as an Intelligent Document Processing solution
- We seek a deep understanding of what it can achieve and any constraints it may present
- Your findings will play a crucial role in shaping our document processing service offerings



# Uncovering Appian's PROCESS EXCELLENCE Potential IN Process Mining

#### Introduction

Process Mining is a linchpin in the automation era. Its benefits encompass transparency, data-driven decision-making, continuous improvement, efficiency, compliance, and customer-centricity

As organizations strive to thrive in a world characterized by automation, Process Mining is indispensable

It is the key to not only surviving but excelling in a landscape where process optimization is paramount

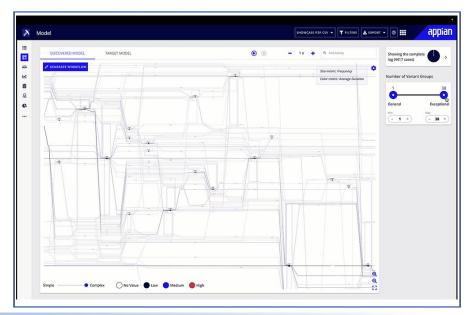
It is the compass guiding organizations toward an automated future that is both efficient and customer-focused

#### Tasks

As a leading Automation Service Provider, we're committed to staying at the forefront of technological advancements

The world of process mining offers tremendous potential for optimizing business processes, and we believe Appian could be a game-changer in this field. However, to effectively introduce Appian as a new Process Mining alternative, we need a comprehensive understanding of its capabilities and limitations

This task presents a thrilling opportunity for a working student to lead the way in exploring Appian's potential



#### Mission

- Your mission is to conduct an in-depth investigation into Appian as a Process Mining alternative
- Providing us with valuable insights into its capabilities and limitations
- Your findings will play a pivotal role in shaping our service offerings and ensuring that we provide cutting-edge solutions to our clients



## **Agenda**



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