

Abschlussvortrag Masterarbeit Asal Moezi

„Digitizing Circular Economy“

This thesis aims at exploring the context circular economy in combination with digital technologies through a literature review. The importance of the topic is mainly the negative environmental impacts of the conventional businesses, and the benefits that can be achieved by applying CE principles to the industry. A literature review gave a broad understanding of the Circular Economy principles, the challenges it faces, the ways to confront the challenges, specially by help of the digital technologies, which are studied in detail in this thesis. While circular economy introduces a closed-loop economy to extend materials consumption life and reduce the demand on extraction from the virgin natural resources, innovative digital solutions can help to make it possible in different parts of a product's life. A combination of digital technologies with their new solutions can support a transition to circular economy, which leads to better environmental protection. Most of the literature findings supported the idea of digitisation to enable CE practices, mainly in the industry, but also address the large influence of the society and legislation authorities. As the reviewed papers focused on different areas of circular economy, the research provided results on three main questions regarding circular economy, which could cover a large amount of information provided in the literature to answer those specific questions. The first question sought an understanding of circular economy goal and objectives, while the second main question is with respects to the current state of the circular economy around the world. It also included more details on the barriers and challenges that CE transition must confront, as well as its drivers and suggested solutions by the literature. Digitisation, which is recognized as an enabler of circular economy is the main topic of the final main research question and provided a thorough overview of the studied digital solutions by the literature

Betreuer der Arbeit: Prof. Dr. Andreas Rausch, PD Dr. Christoph Knieke

Datum: Donnerstag, 04. November 2021, 12:00 Uhr

Ort: Online-Meeting über BBB

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