TECHNICAL FACULTY OF IT AND DESIGN

AD NYE VEJE · AALBORG UNIVERSITET

WE ADDRESS GLOBAL CHALLENGES
through education, research and knowledge collaboration:

A new method can help companies extract value from big data

Many companies struggle when implementing big data projects. New research focuses on incorporating organ- izational needs from inception to completion, resisting the allure of the technological possibilities alone[1].

Technology and knowledge for sustainble transition

For example when we create the world's first modular laboratory for water infrastructure to help eliminate the annual global water waste of 10,000,000,000,000 liter[2].

A robust digital decision-making tool is crucial in the green transition

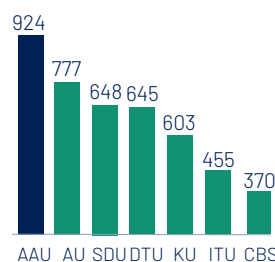Researchers are focusing on open access and utilizing big data to promote sustainability[3].

9TH MOST SUSTAINABLE UNIVERSITY IN THE WORLD

AAU ranks 9th in sustainability among approximately 1,600 universities[13].

DENMARKS LARGEST UNIVERSITY FOR IT

AAU enrolls 21% of all IT students in Denmark[4] – and educates them all according to our renowned PBL-model[5].

AAU	AU	SDU	DTU	KU	ITU	CBS
924	777	648	645	603	455	370

WORLD'S 4TH BEST ENGINEERING EDUCATION

AAU has Europe's best engineering education programs and the 4th best in the world. This is confirmed by MIT and 50 global thought leaders [11].

EUROPE'S TOP ENGINEERING UNIVERSITY

In enginering, AAU ranks 11th among world's universities. This is the best ranking in Europe[12].

Leading the way in sustainability
AAU ranks as the second best university in the world on several Sustainable Development Goals (SDGs): SDG 4: Quality Education, SDG 10: Reduced Inequalities, and SDG 17: Partnerships for goals[6].

Transitition to 100% renewable energy
Researchers are collaborating to develop the necessary solutions to achieve the goal of transitioning to 100% renewable energy. This includes the use of intelligent energy systems, wind power, solar panels, district heating and cooling , as well as Power-to-X technologies[7].

Computer vision is being used to prevent drowning incidents
83% of drowning deaths occur when no one else is present. Researchers at AAU are developing computer vision software that notifies authorities when a drowning incident occurring. This can save lives and save society an estimated 180 million DKK annually[8].

Technological advancements create better lives

800,000 Danes have impaired hearing, and in the future, hearing aids will eliminate the bothersome cocktail party effect when many people are talking simultaneously. AAU's Audio Analysis Lab has developed software using machine learning that removes noise and makes speech approximately 15% clearer[9].

New simulator improves diabetes treatment

A new simulator developed at AAU in collaboration with institutions such as Steno Diabetes Center, DTU, and Novo Nordisk can simulate the effects of various insulin preparations and other medications used in the treatment of diabetes. This provides a better basis for doctors to assess the appropriate treatment for patients[10].

Strong focus on entrepreneurship and commercial agreements

- AAU annually establishes approximately 600 research agreements with companies such as Vestas Wind Systems and Nokia Bell Labs.
- AAU supports around 80 potential IT entrepreneurs each year.
- Notable past successses from AAU include software company Trifork and nanosatellite company GOMSpace, with over 1,000 and 200 employees respectively.
- We have 20% professors who also work at companies like B&O and Grundfos, spending 20% of their working time on research at AAU.
- AAU collaborates closely with SMEs, including through clusters such as DigitalLead and Energy Cluster Denmark.

TRIFORK. ...think software · **+100** · **GOMspace**

SOURCES:

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[5] AAU.dk: Problem Based Learning (PBL) at Aalborg University
[6] AAU.dk: Ranking of Aalborg University
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[8] Nordjyske.dk: Termiske kameraer har reddet to mennesker fra at drukne - her er prisen for at sikre resten af havnefronten
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[11] Massachusetts Institute of Technology – MIT. The Global State of the Art in Engineering (Graham, Ruth 2018)
[12] U.S. News & World Report, 2023
[13] Times Higher Education Impact 'Rankings', 2023