Student's Challenge #1: AI for Karate

Pose estimation is a computer vision technique that involves using algorithms to analyze images or videos and determine the positions of various points on a person's body.
In the context of karate, pose estimation can be used to track the movements of the practitioner and determine the correctness of their technique.

- Using AI for karate judging has several potential benefits.
- First, it could provide more objective and consistent scoring than traditional human judges, who may have different interpretations of what constitutes good technique.
- Second, it could allow for more detailed feedback for practitioners, helping them improve their form and technique.
- However, there are also some challenges to using AI for karate judging. One is the need for high-quality data to train the AI algorithms. This would require collecting large amounts of video footage of karate practitioners performing various techniques. Additionally, there is always the risk that the AI algorithms may not be able to accurately capture all of the nuances of karate technique, which could lead to incorrect scores or feedback.

- A team of SGU Master IT Student, Researchers from SGU, Atmajaya, University of Indonesia and Unhas had team up in 2022 with Kedaireka Initiative. Kedaireka is a Govermnent Funding for Matching Fund with University and Company Collaboration.

Student's Challenge #2: Metaverse for IKM Craft

A pilot prototype for showing 3D Catalogue of Crafts has been developed. This was used the latest algorithm to do AI Deep Learning 3D Reconstruction from series of photos of the associated craft.

- INVERSE
- https://inverse.id/homepage/index.php
- A pilot prototype for showing 3D Catalogue of Crafts. This effort was based on NVIDIA NeRF Algorithm trial, the latest algorithm of 3D Reconstruction from Photos, with the help of Deep Learning that has beed developed by NVIDIA.

- A team of SGU Master IT Student, Researchers from SGUin 2022 with Kedaireka Initiative. Kedaireka is a Govermnent Funding for Matching Fund with University and Company Collaboration.

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Those are samples of Digital Innovation at SGU Master IT

The process of using technology to create tailored solutions that meet the specific needs of an organization is referred to as digital innovation. This approach to innovation differs from more generic solutions in that it considers the organization's specifc challenges, goals, and capabilities.

WHY IS IT IMPORTANT?

- The advantages of digital innovation include increased efficiency, increased competitiveness, and better alignment with the organization's goals. Organizations can ensure that their technology investments are aligned with their specific needs by developing tailored solutions, which can help to improve efficiency and reduce waste. This can also assist organizations in remaining competitive and meeting the changing needs of their customers and stakeholders.
- Digital innovation is a valuable tool for organizations looking to stay ahead in a rapidly changing business environment. By leveraging technology and business alignment to create tailored solutions that meet their specifc needs, organizations can improve efficiency, competitiveness, and alignment with their goals, and stay ahead of the curve in the long run.

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