Summary of Theme #1applications
Kristian Sandahl et al.

# Project #6 No application sprint #29

But we want to keep it alive for future applications.

# Project #18 Visualization of Continuous Integration

- A last workshop is planned for August 2025

# Project #60 Towards a sustainable future

Activity in CoDig

- Driving the CoDig competence center on reporting sustainability
- Sustainability workshop
- Avoiding mental harm of users and co-workers of IT
- Benchmarking Software Engineering sustainability frameworks

# Project #60 Towards a sustainable future

Resources:

- Birgit Penzenstadler, Chalmers, Associate Professor, 10%

- Barbara Gallina, MdU, Associate Professor, 10%

- Kristian Sandahl, LiU, part of his role as theme leader for Software Center and CoDig

- Travel costs 40 000 SEK

# Project #61 Continuous quality assurance of AI/ML Software 1(2)

A cooperation with WASP and Linköping University

- P1-1 Continuous static quality assurance for ML programs. Yiran Wang

- P1-2 Continuous testing of ML components. Xin Sun

- P1-3 Quality assurance of generative ML techniques for multi-disciplinary simulations. Masoud Sadrnezhaad.

# Project #61 Continuous quality assurance of AI/ML Software 2(2)

Associated projects:

- Continuous quality assurance methods for engineering ML software Willem Meijer. (WASP)

# Project #61 Continuous quality assurance

ML Software

**Resources:**

From Software Center (checked with the Chalmers accountant)

- Kristian Sandahl, professor LiU (15%)
- Daniel Varro, professor LiU (20%)
- Xin Sun, PhD student LiU (60%)

From CoDig:

- Xin Sun, PhD student LiU (20%)
- Masoud Sadrnezhaad PhD student LiU (80%)

Travel costs: SEK 60 000

**Co-financing by WASP**

- Kristian Sandahl, professor LiU (5 %)
- Daniel Varro, professor LiU (10%)
- Yiran Wang, PhD student LiU (80%)

**No-funding needed**

- Willem Meijer, PhD student LiU 80%) (associated)

# New project AI-Enabled Test Automation, Generation, and Optimization

- LLM-enabled fault localization.

- Generation of human-like test cases using AI/ML techniques.

- Exploration of synergies between human and automated test creation.

- Investigation of cognitive and human factors to improve test automation.

- Integration of automated testing tools into the developer workflow. Investigation of trust challenges in test automation.

- Integration of visualization and data analysis techniques to support testing.

# Project #62 AI-Enabled Test Automation, Generation, and Optimization

Resources:

Eduard Paul Enoiu (MDU, associate prof), 30%

Gregory Gay (GU, associate prof), 10%

Jean Malm (MDU, adjunkt4), 30%

Estimated travel costs: 75,000 SEK

Have a wonderful summer!