1 PERSONAL DETAILS

- Karhinen Aku Tapani
- 18.6.1999, Helsinki, Finland
- Finnish
- Email: aku.karhinen@gmail.com
- Tel: +358 451301667

2 EDUCATION AND DEGREES AWARDED

- M.Sc. (Tech.), Aalto University, School of Engineering, Finland (29.12.2023), with honors
  - Master's degree in mechanical engineering

4 LANGUAGES

- Finnish: native
- English: C2 (self-assessment according to Europass instructions)

5 CURRENT POSITION

- Research Assistant at Aalto University, School of Engineering, Dept. Mechanical Eng. (1.1.2022 –)

6 PREVIOUS WORK EXPERIENCE

2023	**Master's thesis researcher** Aalto University, School of Engineering, Mechatronics Research Group
2019-2022	**Course Assistant (Teaching)** Thermodynamics and heat transfer (ENY-C2001) Basic course in programming Y1 (CS-A1111) Basic course in programming Y2 (CS-A1121)
Summer 2021	**Course Assistant (Development)** Basic course in programming Y2 (CS-A1121)

9 LIST OF PUBLICATIONS

Journal publications

- Karhinen, A., Hämäläinen, A., Manngård, M., Miettinen, J., & Viitala, R. (2023). Data-driven virtual sensor for powertrains based on transfer learning. Bulletin of the Polish Academy of Sciences: Technical Sciences, 71(6), e147061. Upgraded from *

Conference proceedings

- * Karhinen, A., Hämäläinen, A., Manngård, M., Miettinen, J., and Viitala, R. (2023). "Data-Driven Virtual Sensor for Powertrains Based on Transfer Learning", in 15th SIRM –European Conference on Rotordynamics.
- Karhinen, A., Pippuri, A., Lindberg, M., Lappi, N., Habibiroudkenar, P., Kiviluoma, P., & Kuosmanen, P. (2023). Machine-to-Machine Communication of Automated Guided Vehicle with Industrial Equipment. In Baltic Mechatronics Symposium. Aalto-yliopisto.
- Hämäläinen, A., Karhinen, A., Miettinen, J., and Viitala, R. (2023) " Generalised Few-shot Learning for Rotor System Diagnosis," in 15th SIRM -European Conference on Rotordynamics
- Turunen, T., Miettinen, J., Hämäläinen, A., Karhinen, A., & Viitala, R. (2023, November). Deep Learning for Centrifugal Pump Condition Monitoring Using Data from Variable Frequency Drive. In IFToMM World Congress on Mechanism and Machine Science (pp. 905-914). Cham: Springer Nature Switzerland.

Theses

- Synthesising Rotating Machine Faults into Vibration Data with Generative Adversarial Networks (2023), Master's thesis
- Hartiatason passiiviset eksoskeletonit (2021), Bachelor's thesis

12 AWARDS AND HONOURS

- Accepted into the Dean's list for academic success, School of Engineering (2023)
- Grant for promising M.Sc. students, Yrjö ja Senja Koivusen säätiö (2023)