

Green architecture (1 day)



6 h / pv



5-15 henkilöä



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- This six-hour onsite workshop integrates core green software theory with structured practical exercises in small groups. Participants assess their own systems, apply energy estimation methods, and evaluate the environmental and financial implications of architectural or code-level changes.
- The workshop consists of four interactive lectures and two practical assignments that deepen the understanding of green coding by applying the methodologies in practice
- Target group: Developers, software architects, technical project managers, technical product owners, software development managers, and CTOs.
- Suitable for experts, team leads, and those responsible for development.
- Software knowledge is beneficial but not required.
- No prior expertise in sustainability or responsibility is needed, as these topics are covered during the course.

Agenda:

- Theory – Green Code fundamentals (Green Code 101)
 - Why is this important?
 - How IT generates emissions?
 - Energy consumption in modern software
- Theory – AI impact and energy measurement principles
 - What do we know about AI energy consumption?
 - Practical recommendations for using AI
 - How to measure IT energy consumption and avoid pitfalls
 - Black and white box measurements
- Practice – Energy measurement exercises
 - Two ways of measuring energy
 - Comparing the results
 - Discussion about findings
- Theory – Strategies for reducing energy consumption
 - Reducing waste
 - Using green software patterns
 - Minimisation
 - Carbon Aware SDK
- Practical Solutions
 - Theory – Drivers behind software growth
 - Demand-capacity-services loop and cornucopian paradigm
 - Hardware obsolescence through software
 - Operational and embodied emissions
- Practice – Estimating green impact, costs, and benefits
 - Impact assessment of your own software
 - Estimating costs and benefits
 - Making decisions
 - Discussion about findings
- Summary, feedback, and closing discussion