

Project course 2023-2024

Introduction and important
information

5.9.2026 / Jerker Björkqvist

8.30 Agora 110A/B

Project Course Day 1

- AGENDA TODAY

Part 1:

- Welcome to project course!
- Introduction to project course
- Team from last years
- Ideas from collaborators

Part 2:

Get to know each other

Course lecturers and TAs

Jerker Björkqvist

Adnan Ashraf

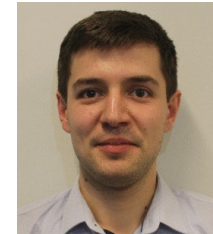
Ville Harkke



Anna Sell (Guest lecturer)

Volunteer helping hand:

Andrei Morariu



ENJOY!

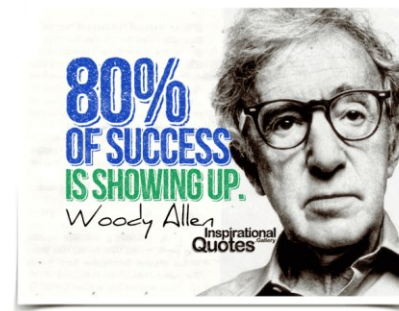
Lecture/meeting hours!



- Reserve **3 hours** for the **scheduled** meetings on Fridays!
 - **8.30-11.30** room Agora 110A&B – if no special program



Attendance



- Attendance at common meetings IS required
 - On-Site ! (with a few agreed exceptions)
 - 2 absences will be accepted for good reasons
 - Any further absence will lower personal grade
 - Further absence will lower the grade by 1 for each 2 NoShows
 - Attendance list circulates at the beginning of each meeting
- Why:
 - We show respect for each other and their work in this course

Audience and requirements

- Advanced level course (15 ECTS) for
 - Computer Engineering
 - Computer Science
 - Information systems
 - Any other student interested in contributing to a ICT solution
- Required background
 - Bachelor level degree or equivalent
 - Software engineering, programming and design skills
 - Systems theory, business models and project management
- General
 - Ability to work in teams



What is the project course?

- The objective is to plan, design, implement and deliver an **ICT solution** in a **TEAM**
- At the **end of** the project the team present
 - A. Demonstrator for the solution → ICT Showroom
 - B. Business / Exploitation plan for the solution → Document
 - C. Project deliverables → Documents
- **During** the project the team produces
 - Status presentations
 - Prototypes
 - Documents



What is the project course?

- The project course is VERY practical
 - Almost no lectures
 - The team (that is YOU) is putting together necessary plans, documentation, SW, HW, integration
 - The team presents the progress and final results i various events
 - Course meetings, SparkUp pitch event, ICT Showroom,...
- You use theoretical skills from previous courses, and implement them in practice



Two major course requirements

Requirement 1:

- There should be an *executable demonstrator* at the end of the project. That is, you need to deliver a running system, not a plan nor a vision of a system:
 - It should be delivered with documentation and access to the source code.
 - The demonstrator should show that the product requirements are fulfilled.



Requirement 2:

- You should have performed teamwork together with fellow students. The teamwork should be documented in form of a project plan, technical documentation, exploitation plan and presentations during the course.



Skills and competences acquired

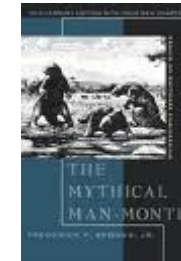
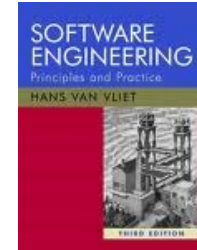
- **Interact with a customer** and learn how to communicate requirements and design decisions.
- **Plan and follow up a software development project.** Review the plan during the execution of the project and reflect over your initial expectations and estimations.
- **Work in a team.** Team coordination, meetings, planning and internal communication. Use basic collaboration tools in software development such as an issue tracking system and a software repository and version control system.
- **Carry out a development project from beginning to end:** Create and document a design. Implement the design. Test the implementation.
- **Presentations and documentation.** Present your project, product, plans and documents to your colleagues, stakeholders and the general public. Produce documentation that is usable and understandable.



- You are logged in as: Jerker Björkqvist (Editor) Readers: [All] [Login](#) | [Logout](#)
Roles: [Studerande], [Personal] Authors: [All]

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- No specific book, but the following can be useful
 - Roger S Pressman, *Software Engineering: A Practitioner's Approach*, 2004.
 - Hans Van Vliet, *Software Engineering: Principles and Practice*, 2008.
 - Frederick P. Brooks, *The Mythical Man-Month: Essays on Software Engineering*, 1995 .
- Material on business plans
 - <http://www.businessmodelgeneration.com/>



Project customer

- Each team has a project customer, from outside the project team
 - **Company**
 - University teacher / researcher
 - Other
- With the external customer, you learn how to
 - Communicate project requirements
 - Report project progress

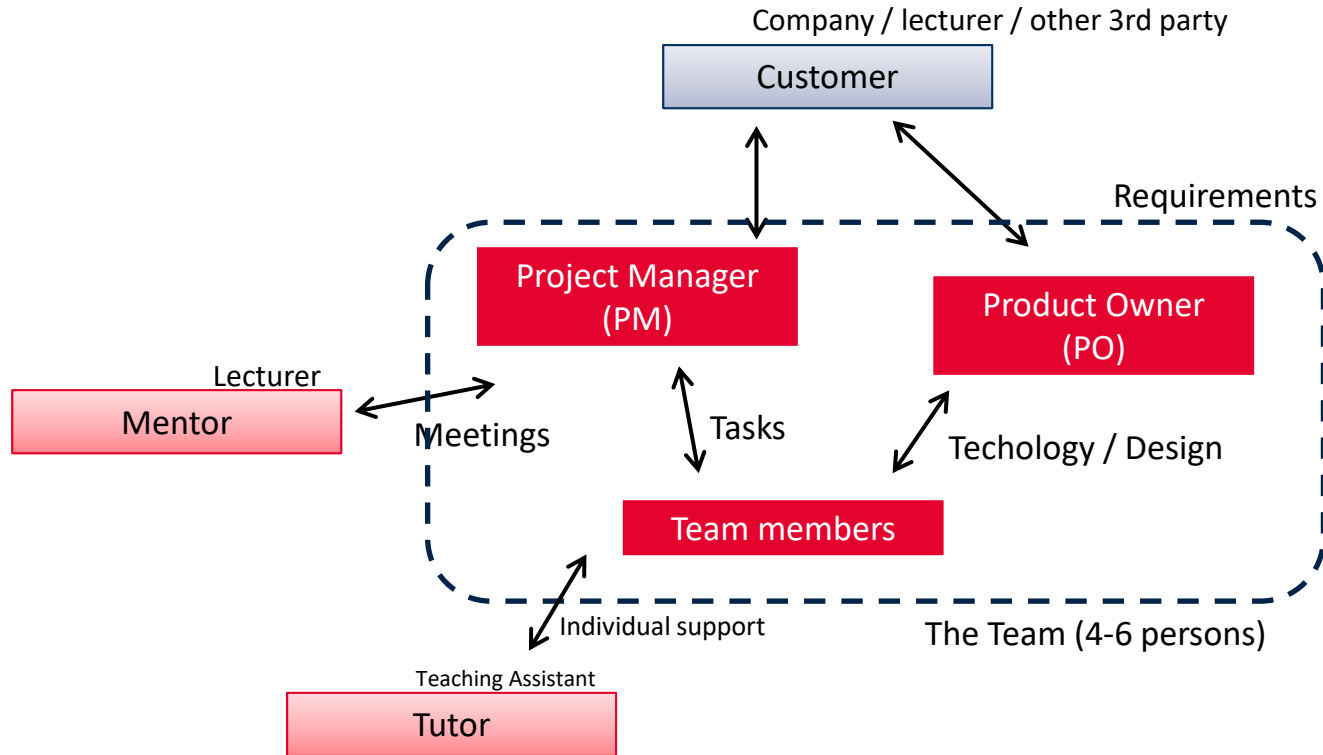


The Team

- **A team of 4-6 persons**
 - You shall form your own teams !
 - Think about the mix of the team
 - Your best friends might not form the best team
 - Skills, personalities, cultures, languages
 - The lecturers have the final word when it comes to team formation
- Each team shall have the best mix of skills possible



Stakeholders overview



Mentors



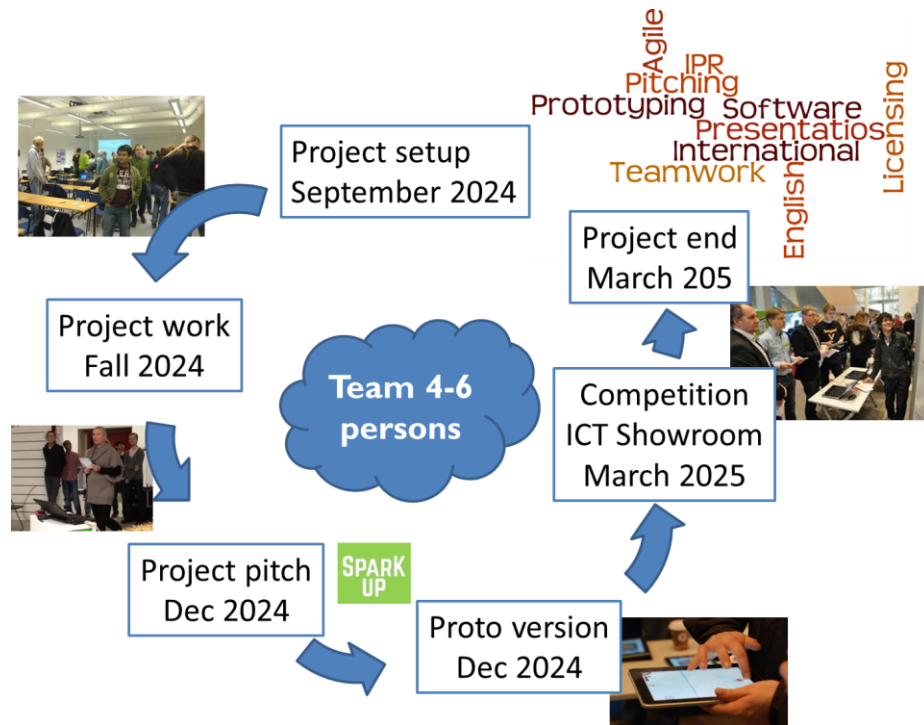
- Each Team will be assigned a Mentor
 - One of the lecturers
 - 2-4 meetings with the Mentor
 - The Mentor deals with management, team issues and motivation – not with technical issues (even if this of course also can be discussed)

Evaluation

- Personal grading from 1-5
- The evaluation is subjective – but based on the opinions from the (n) lecturers and external experts
- The course include 3 evaluations
 - 1st evaluation – Phase 1 - 10%
 - 2nd evaluation – Phase 2 - 30%
 - 3rd evaluation at the end of the course 60%
- In the evaluations, the following will be regarded:
 - Project idea, team setup, actual system, **project plan** (project description, schedule, risk analysis, quality), **technical documentation** (requirements, design structure, clarity), **user guide** (clarity, usefulness), **business/exploitation plan**, and presentations made.
- Note: Common meeting attendance



Schedule overview



First meetings



BusinessPitch



Deliverables / schedule fall 2025

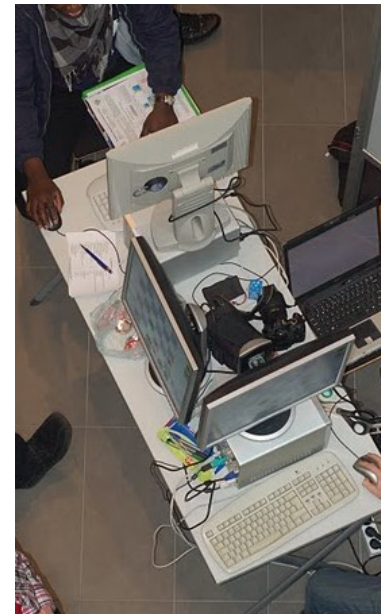
Green="lectures", red= students need to prepare beforehand; blue = ICT Showroom deadline; yellow = holiday

Phase	Week	Date		Agenda	Who talks	Presentation	Deliverables
Phase 1	36	5.09.2025	L1	Introduction Get to know each other	Lecturers		
	37	12.09.2025	L2	Project ideas / How to run projects / Team building /	Lecturers Students		
	38	19.09.2025	L3	NOTE LOCATION: <TBD>  Software process essentials / Requirements engineering Team building	Lecturers		
	39	26.09.2025	L4	How to present / IPR / Team building / White smoke	Lecturers		
	40	03.10.2025	L5	Kick-Off	Teams	• Kick-off-presentation → 10 min/team	• Project plan (see templates)
	46	10.10.2025	L6	System Proposal (final requirements)	Teams	• Project Status report • Design, Requirements → 10 min/team	• Updated proj. plan (if appl.) • Tech Doc v. 1
Phase 2	43	24.10.2025	L7	Feedback session (guidelines)	Teams	• Feedback presentation → 10 min/team	Presentation (pptx/pdf)
	44						
	45	7.11.2025	L8	Business aspects+ Project Status Report	Teams	Project Status report Design, Requirements → 5 min/team	• Tech Doc v. 2
	46	14.11.2025	L9	Pitching School	External speakers		
	47						
	48						
	49	12.12.2025	L10	Business Pitch and Demo @Mercatori Rehtorinpellonkatu 3	Teams	• Exploitation/ Business idea pitch → 4 slides, 4 minutes • Demo	• Pitch • Prototype

Deliverables / schedule spring 2026

Phase 3	2	9.01.2026	L11	After Christmas Wake Up	External speakers		Short status report 5 min: Things achieved, next steps, challenges.
	3						
	4						
	5	31.01.2025		ICT Showroom registration deadline			
	5	31.01.2026	L12	Project Status report	Teams	- Project Status report - Product release plan → 10 min/team	Tech Doc v. 3
	10	<u>5.03.2026</u> <u>THURSDAY!</u>		<u>ICT Showroom</u>	Teams	Showroom booth	Poster Product Demonstration
	11	13.03.2026	L13	Retro meeting	Teams	Final presentation → 10 min/team	- Final product - Final Tech Doc - Business Plan - User guide

- Working facilities: AGORA
 - Room 110A&B reserved EVERY Friday; you can use that for working
 - Rooms for meetings at 3rd floor
 - Virtual meeting tools (Zoom, Teams,)
- IT resources
 - We can provide some, but best to use;
 - Free online tools (google / MS etc.)
 - Cloud resources from vendors
 - GitHub Classroom
- Special equipment??
 - By request (and if possible) via the team's Mentor



ICT Showroom



<https://photos.app.goo.gl/dxM8RUKxkPMbaSMA7>

<https://www.youtube.com/watch?v=EL6K0qApkoM>

[TimeLapse](#)



Evaluation

This rubric will be used for evaluating oral presentations in the course.

Team name:	Student name:
Lecturer/Assessor:	Date:

Grade	5	4	3	2	1
	Exceeds expectations	Meets all expectations	Meets most expectations	Meets some expectations	Does not meet expectations
Organization					
Includes introduction, body, summary, & conclusion.					
Organizes content logically and sequentially.					
Presents ideas and arguments logically and clearly.					
Cites/Acknowledges sources appropriately.					
Delivery					
Speaks clearly, distinctly, and with sufficient volume.					
Speaks to audience (does not just read the material).					
Uses audio-visual materials appropriately.					
Uses techniques that engage the audience.					
Provides sufficient technical detail appropriate for the time constraint and audience.					
Listens carefully and responds effectively to questions and comments.					
Technical Content					
Uses technical vocabulary appropriate for the audience.					
Applies methodologies/techniques appropriate for the presentation requirements.					
Demonstrates a good understanding of the problem area.					

29.8.2014



Project Course Evaluation Form

Team: _____

Overall checks

Attendance Attendance required, checked person by person**

Presentations and deliverables uploaded on time to course web site

Mentorship meetings held, team members present

P1	P2	P3

Grading (scale 1-5)

Phase 1 (10%)

Kick-off presentation

Project plan (inc. project vision)

Technical document v1 (requirements)

Team setup

First evaluation grade

Phase 2 (30 %)

Prototype

Technical document v2 (refined requirements and design)

Project plan (reflecting any changes needed in project work)

Pitch

Team coherence (roles, communication, distribution of work)

Status report presentations

Second evaluation grade

Phase 3 (60 %)

Final product

Technical document and source code (reflecting final product)

Business plan

User documentation

Overall team work

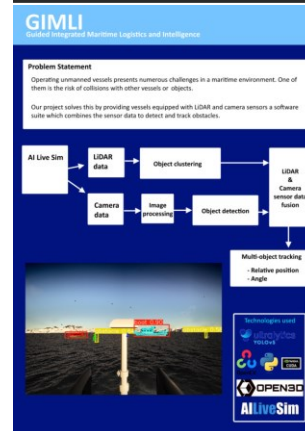
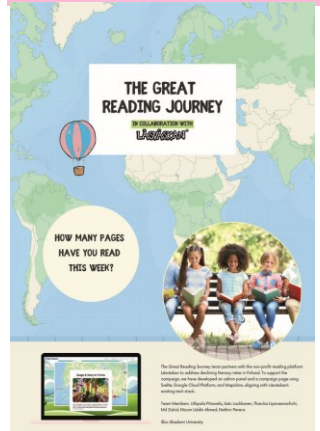
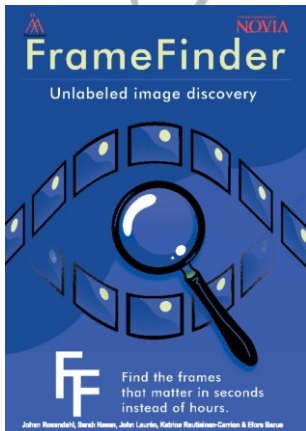
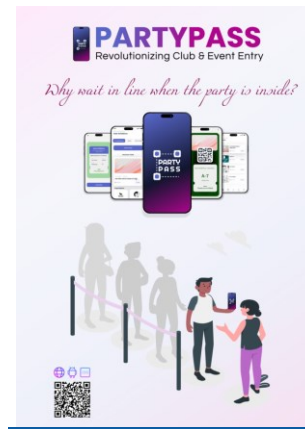
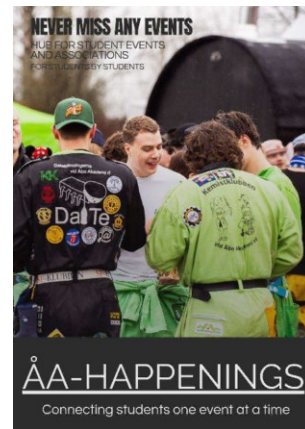
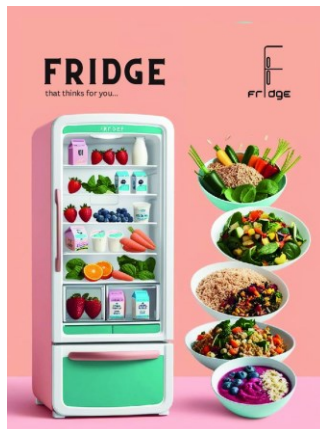
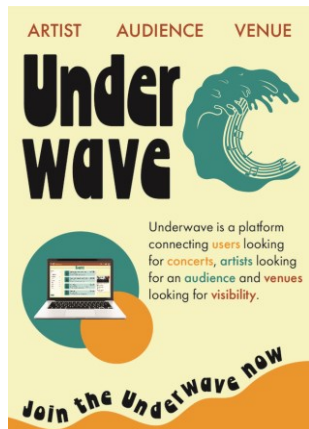
Third evaluation grade

Team's final grade *

* Individual grades depend on contribution to team work, evaluation done in lecturers common evaluation meeting at end of course

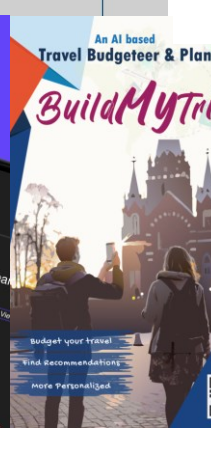
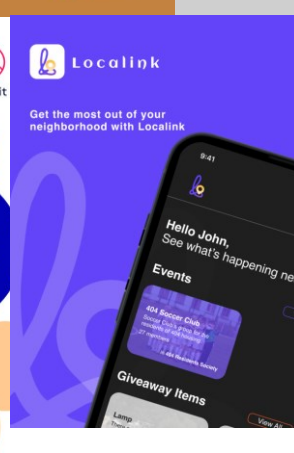
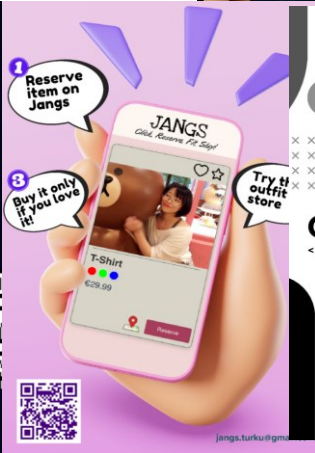
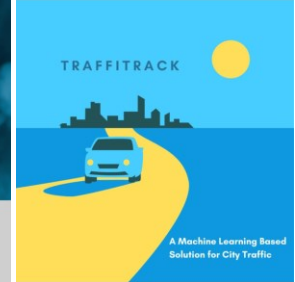
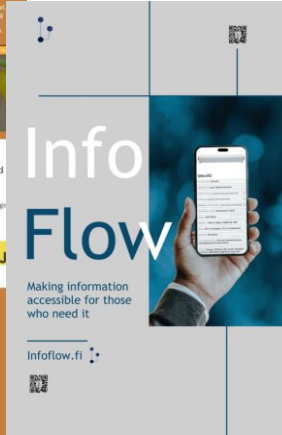
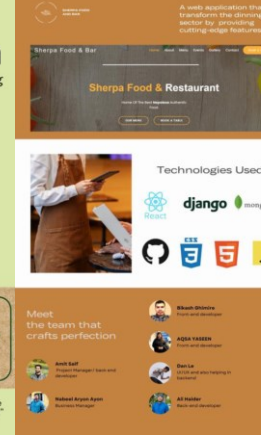
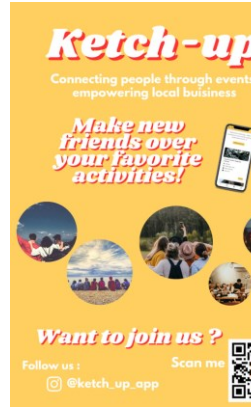
** 2 times absence (for good reason) accepted, further absence will lower grade by 1 for each 2 NoShow

Projects 2024-2025

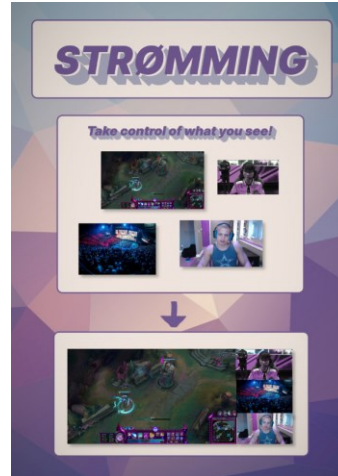
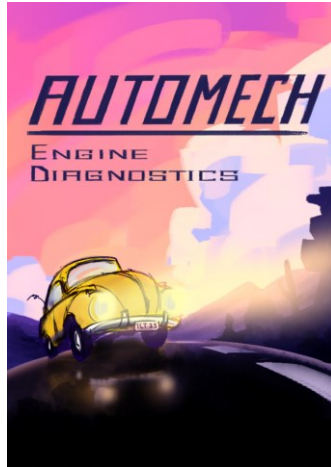
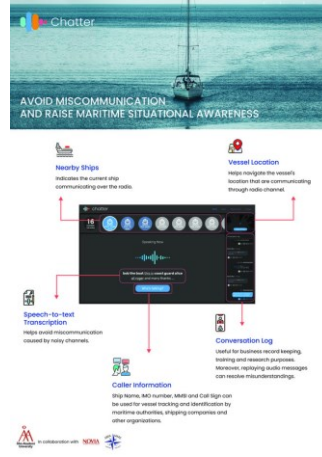
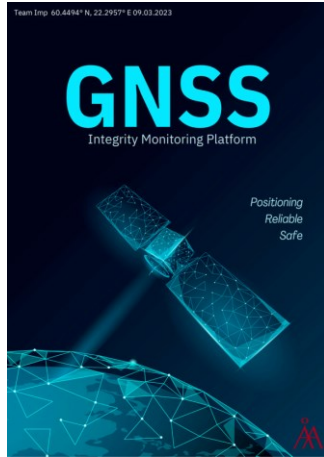


Projects 2023-2024

<https://abacus.abo.fi/register.nsf/publicview>



Projects last 2023-2024



Projects 2021-2022

Easier thesis process:

- ✓ Central hub for the thesis process
- ✓ Follow along all stages of the process
- ✓ Finding information easily
- ✓ Minimizing unnecessary emailing



egradu.testiosuite.com

Making the thesis process smoother!

ICT Showroom 2022

We want connect with you. boundary

Sorry. we not get support

Here we are. We make the impossible possible

Boundary

TEAM FINFREE

Storedash



TAKE YOUR CUSTOMERS TO THE FUTURE OF SHOPPING

Our vision is to modernize the way people shop for groceries.

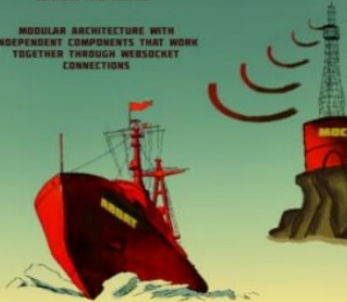
We want to save time for both store employees and customers.

For more information visit: <https://storeda.sh>

VRGP IMPLEMENTATION

THE IMPLEMENTATION OF A COMMUNICATION PROTOCOL BETWEEN MARITIME OPERATION CENTERS AND VESSELS

MODULAR ARCHITECTURE WITH INDEPENDENT COMPONENTS THAT WORK TOGETHER THROUGH WEBSOCKET CONNECTIONS



HRIBOY NISIDA - GABRIELA CORRALAN GONZALEZ - DANIEL GONZALEZ ALFARO - ALEXANDRE CHERCHETCO - JEAN ROUS NISIDA - YANNICK ZOPPE - ELIAN NISIDA

15 **KeyPoint Detection Group**

Improving fall detection

Pose detection for improving elderly care.



Working with everon

19 **Velofore**

The driving force of your progression



Track your golf swing speed with an easy to use mobile application and start your progress journey today

Thomas Möhlberg | Robert Kattens | Edward Scherback | Hector Gutierrez | Henrik Marica | William Nyström



27 **PIDRO FRONTIER**



A game by the Pidro Frontier Team

30 **The Scheduler**

"The smoothest way to schedule your employees schedules"




26

Sens-In
EAT, DRINK & BEW

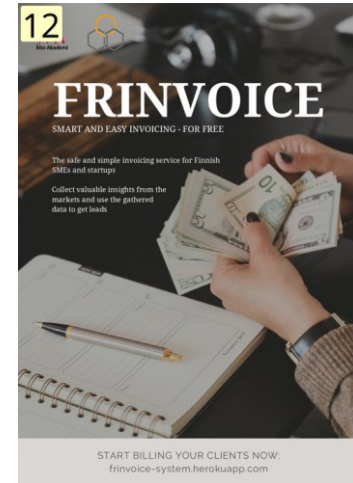
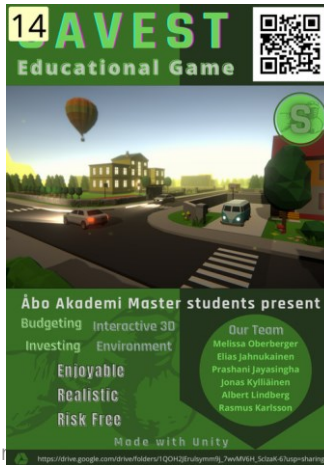
Web app for sensors' installation and its management.

App Interface:

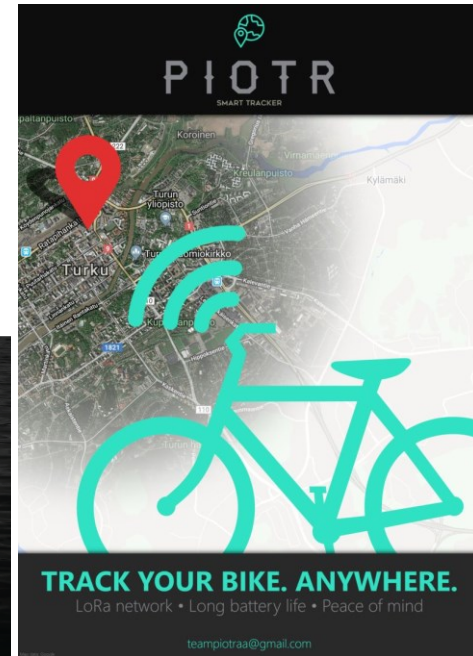
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Sens-In
EAT, DRINK & BEW

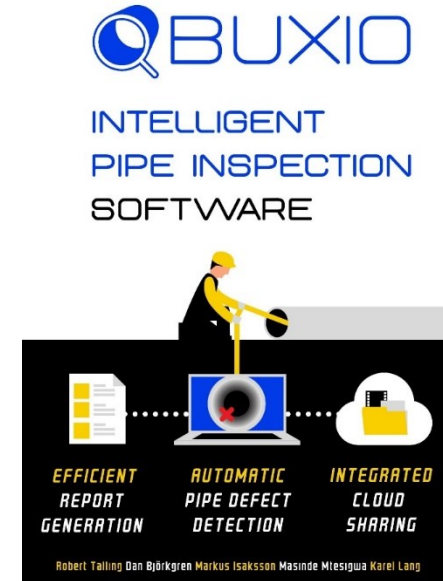
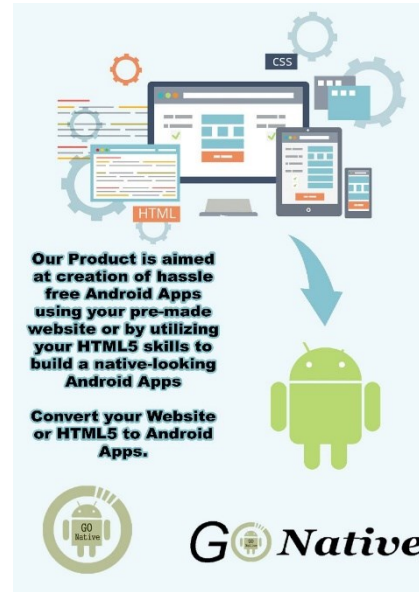
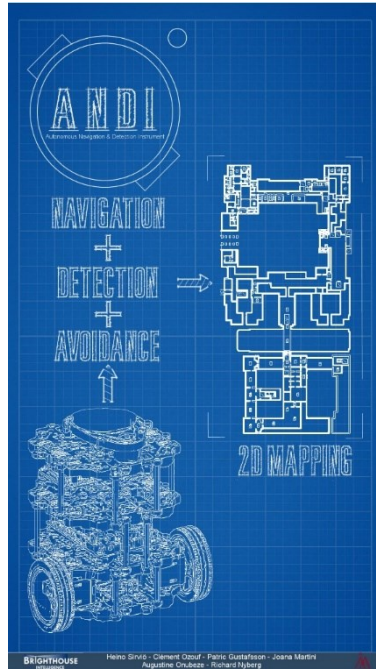
- Helps you to install sensors that tracks the moment and activities of people in their residences
- Scan the QR code from various types of sensors or register with unique ID manually
- Save the location of the sensors
- Connecting you and our client company Benete Oy



Previous years...



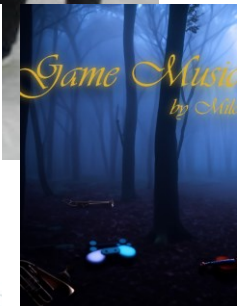
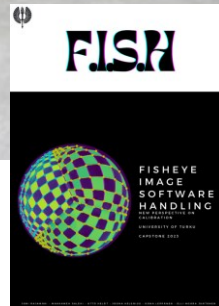
Previous years...



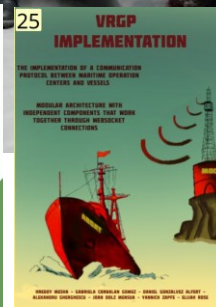
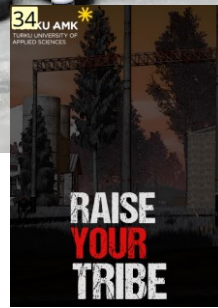
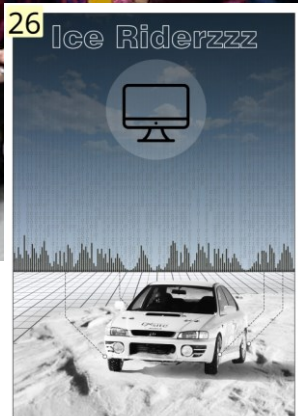
All ICT Showroom winners 2024



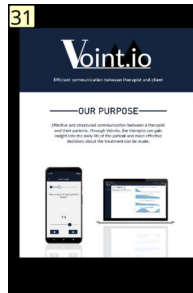
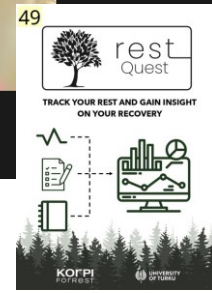
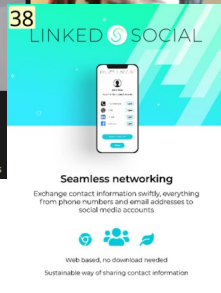
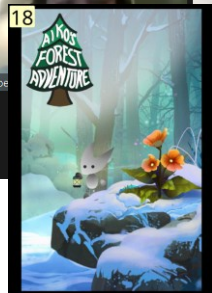
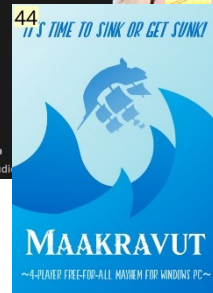
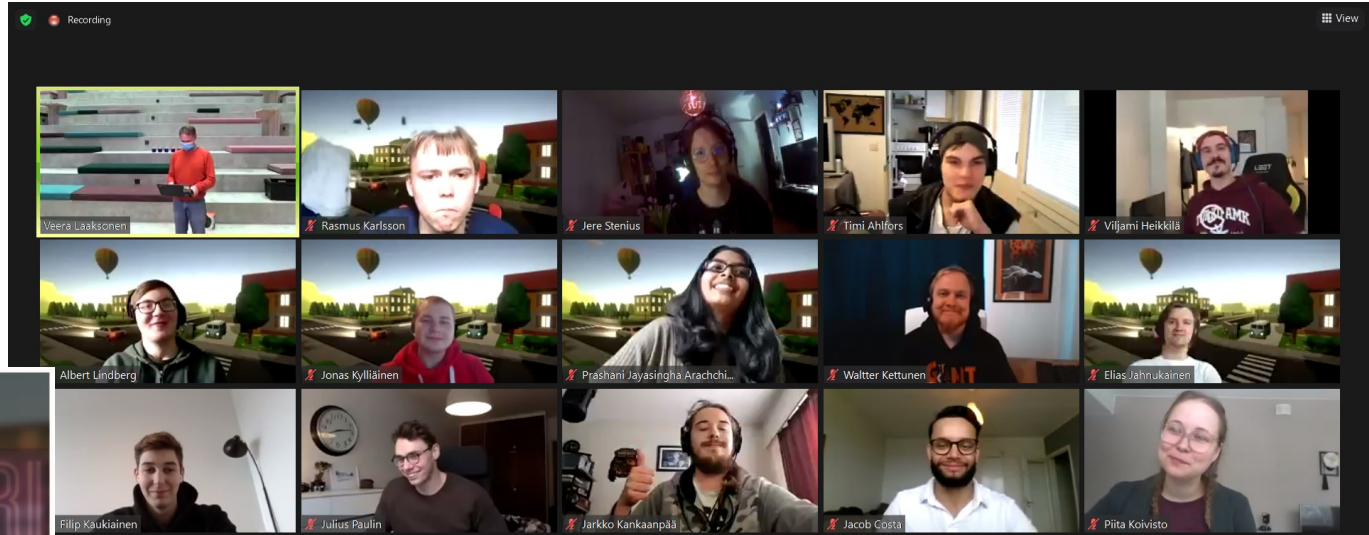
4.9.2025



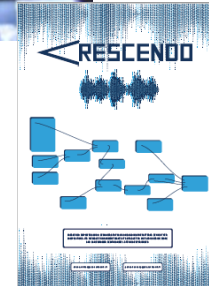
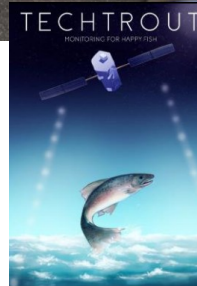
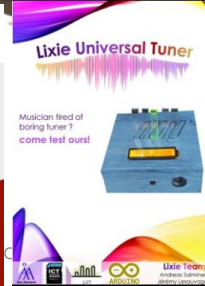
All ICT Showroom winners 2022



All ICT Showroom winners 2021



All ICT Showroom winners 2020

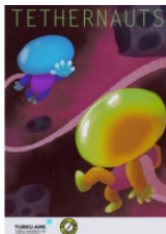


All winners 2019



Project from earlier years

2019



**Tethernauts - a 2-
player co-op space
game**

Aissa Nylund, Joonas Muukkonen, Jaani Nordberg and
Marko Pakanen (TUAS)

2018



**KeySound - Audio-only
3D mobile game**

Joel Hoisko, Dang Trinh Ha, Teemu, Heinämäki, Joni Keto-
Tokoi, Ville Vahtera (UTU)

2017



Kill the DJ

Nathan Brachotte, Ishan Regmi, Gabriel Specq och Fredrik
Fagerholm (ÅAU)

Projects from earlier years

2016



Escflow - Food waste monitoring system

Tommi Aho, Joosu Hertsi, Juha Virta, Jukka Vuoti, Nianzu Yang, Mari Laine, Linda Puskala, Fanny Korpela, Jenni Kujala.

The members of the winning team were awarded Parrot AR.Drone 2.0.

2015



Celia Dyslexia - An application that helps you identify dyslexia

Sami Suo-Heikki, Joonas Korgan, Maija Paloposki, Jenna Nikander, Stella Riikonen, Aku Sidorow, Joni Kaarttinen.

The members of the winning team were awarded Bowers&Wilkins T7 Bluetooth speakers.

2014



WHISPR

Larisa Deac (TUAS), Binay Devkota (TUAS), Aleksi Immonen (UTU), Timo Jääskeläinen (TUAS) and Niklas Vainio (UTU).

The members of the winning team were awarded Bose QuietComfort headphones.

Projects from earlier years

2013



Remote Alert Project

Minna Simola, Tanwir Ahmad, Ileana Montoya, Ekaterina Kondareva, Sudeep K Chandrashekar (Åbo Akademi).

The members of the winning team were awarded Nexus 7 Tablets.

Pictures from the event: [Picasaweb](#)

2012



Chilly Framework

Jari Pirinen, Taj Pelc, Andres Ledesma, Frenk T. Sedmak Nahtigal, Bidhya Sagar Ghimire (Åbo Akademi).

The members of the winning team were awarded a Nokia Lumia 820 phone.

Pictures from the event: [Picasaweb](#)

2011



Green FUS

Sören Andersson, Kenneth Eklund, Jessica Laukkanen, Hans Lindén, Anne Valo (Åbo Akademi).

The members of the winning team were awarded Samsung Galaxy S smart phones (sponsored by DNA).

Projects that went a little bit further

Pidro online (www.pidro.net)



Developed in 2005 - Sold in 2016 → OneApps Ab

Åbo Akademi University - Domkyrkotorget 3 - 20500
Åbo

Mannerheim – aka eduskuntavahti



INTELLIGENT
PIPE INSPECTION
SOFTWARE



**EFFICIENT
REPORT
GENERATION**

**AUTOMATIC
PIPE DEFECT
DETECTION**

**INTEGRATED
CLOUD
SHARING**

Robert Talling Dan Björkgren Markus Isaksson Masinde Mtesigwa Karel Lang

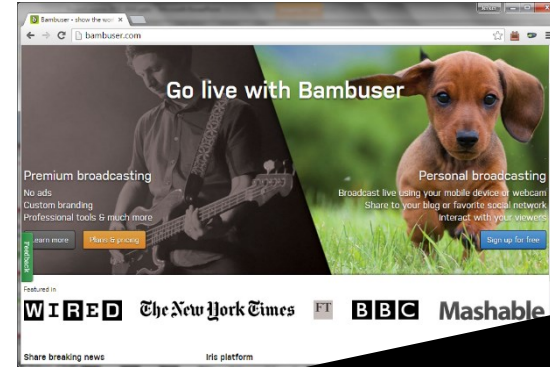


Easy politics for everyone

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Movino → Bambuser



September 2013:
bambuser partners with Sony to bring live
video broadcasting to Xperia™ Z1
May 2017:
bambuser listed on First North / Nasdaq
Stockholm

<http://www.youtube.com/watch?v=1K4lpB>



LIVE BEIRUT **BAMBUSER**

ANNAN CONCERNED ABOUT REPORTS OF USE OF MORTAR, HELICOPTERS & TANKS IN AL HAFFA
ALJAZEERA PEOPLE BOMB EXPLOSION NEAR A PASSENGER BUS CLOSE TO TH



sky NEWS **PICTURES BAMBUSER/HOMSLIVE**

SYRIA VIOLENCE
SPEAKING FROM SYRIA
FOREIGN AFFAIRS EDITOR, TIM MARSHALL
16:33 RAVELY CONCERNED AT LATEST REPORTS OF VIOLENCE IN SYRIA



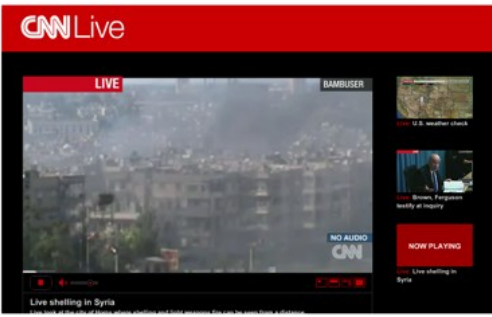
House of Commons

BREAKING NEWS **SYRIA CONFLICT**
Hague welcomed Russia plan for conference on peace
BBC NEWS 16:20 3F OPERATION WEETING • MARTIN MCGUINNESS



PICTURES FROM BAMBUSER/HOMS LIVE

BREAKING NEWS **SYRIA VIOLENCE**
Reports of fresh violence in Homs province
BBC NEWS 15:24 ENTLY GIVING EVIDENCE AT THE LEV



CNN Live

LIVE **BAMBUSER**

NO AUDIO **CNN**

NOW PLAYING

Live shelling in Syria



Broadcast by homslive

- ONE LIVE FEED
- 80+ NETWORKS
- 600+ TIMES AIRED
- 100,000,000+ VIEWERS

JUNE 11TH 2012
BAMBUSER USER HOMSLIVE ON
CNN, BBC, SKY, ALJAZEERA & MORE

Bambuser on First North Sweden



Wip → Mobio → Walkbase

Wireless Information Point

Revolutionizing the way we look for information inside buildings.



Wireless Information Point

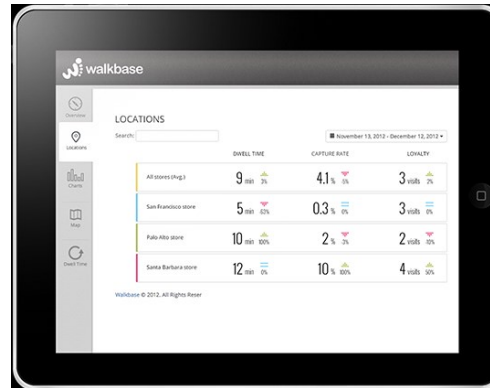
Five smartphones displaying various app interfaces: Floor plan navigation, Customizable content, User specific information, Custom features, and Real-time information.

Logos for Android, iPhone, and Maemo.

PHP JAVA Objective-C SQL QT AJAX

www.wirelessinformationpoint.com

Petra Hjortman Björn Sjölund Niclas Jern Gabriel Nyman Andreas Johansson



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HOME SOLUTIONS MARKETS SERVICES RESOURCES

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LATAM

SCALA

P

X20 media

real digital media

carmanah
signs

SUP

OPTIKA
DISPLAY

walkbase

QDIVISION

iD

Sys-Teams Limited

Break

- Part 2: Get to know each other

Word clouds

- Easy
- Intermediate
- Difficult

Next meeting → Friday 12.9.2025

- Previous projects and teams
- Guest presentations
 - Stories
 - Ideas
- Starting forming of Teams
- **Homework:** Preparations
 - Do I have an idea for a project/product?
 - Prepare to shortly present it (oral presentation, 3 min)
 - Do I have a customer ?
- Add yourself to the Miro-board

