Do you want to work with global real-life challenges based in Africa, Asia or Latin America?

SGT Studio 2022

WAT-E2070 Sustainable Global Technologies (SGT) Studio

Call for Applications DL 16.12.2021

2nd round of applications

WAT-E2070 Sustainable Global Technologies (SGT) Studio
10 ECTS | periods III-V

SGT Studio is a collaborative studio course for Master's and Doctoral students at the Aalto University. During the course multidisciplinary teams are formed to carry out projects linked to real-life global development challenges. Assignments are implemented with partners from academia, industries, governmental and civil society organizations and communities in Africa, Asia and Latin America. **All students with relevant background are encouraged to apply.** Priority is given to those who have completed the recommended prerequisite courses: WAT-E3020 & WAT-E2060 (not mandatory with similar relevant experience).

LEARNING OUTCOMES
- implementing challenge- / problem-based project (project design, field study, reporting, prototyping, communication)
- understanding the role of sustainability and technology in development
- integrating diverse skills (technology, science, design, architecture & business)

CORE TEACHING / LEARNING APPROACHES
- interdisciplinary and multicultural teamwork
- problem-based learning (PBL), human-centered design and design thinking
- field study if possible, expert meetings, collaborative workshops, project clinics, learning camps & mentoring

FINAL OUTCOME
- aiming to meet the needs of the case partner, outcome and deliverables are decided together by the team and the case partner/client
- short-term outputs can take many forms (e.g. manual, technical report, evaluation, game, mobile app, an idea, scenario…)
- long-term collaborations can lead for instance to project partnerships or product implementation

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What SGT?

APPLY NOW!

Go through the case background materials & look for more!

Prepare your application documents carefully and submit application by **16 December 2021** via this link
https://link.webropol.com/s/sgtapplication

The required application documents are:
1. CV
2. MOTIVATION LETTER
3. STUDY TRANSCRIPT

Note the prerequisite courses or similar relevant background knowledge – ask if unsure!

Application documents

The application documents include 1) CURRICULUM VITAE 2) MOTIVATION LETTER, and 3) STUDY TRANSCRIPT.

(1)

With your CV you can let us know your study and possible work history, and skills that might become relevant when we are forming the teams. Submit as pdf.

(2)

Motivation letter is the most crucial document in the application process.
First tell in which project case(s) you are applying for in priority order. Aim your motivation letter for the highest priority option.
Submit only one application!

With the letter you can show your ways of thinking, describe your skills and explain how you see your role as part of a multidisciplinary team. Why you? Tell us what you can give to the project - and what the project can give to you? How do you manage the multistakeholder communication and how would you imagine the whole learning process? Describe the optimal process how you would do it from the beginning till the end. Where do you start? How do you proceed? Go through the whole process including your vision for teamwork. Also tell how you will include and involve the community and/or partners and/or peer-students in case locations? What are your vision and scenario for the project? Tell also what could be your role(s)? Tell also what do you think you will gain from participating in this project? What is your personal learning expectation?

Write concise, well-structured text. Maximum two pages only. You can also visualize your letter, make sure the story you want to tell is clear enough to be easily understood. Motivation letter should be addressed to Prof. Olli Varis, the academic lead of the SGT Studio course. Submit as pdf.

(3)

Print and submit copy of your study transcript - also from your previous studies. This is to approve that you are currently eligible to apply, and it will also help us understand your background bit better. Submit as pdf.

Selection

FORMING THE TEAMS

Selection is based on the motivation letter, and suitability of the applicant's field of study, experience and viewpoint to the project. Those candidates with prerequisite courses or relevant similar background have priority. Teams of 4-6 students will be formed with various disciplines. All Master's and PhD students from Aalto are eligible to apply. Through JOO-agreement also students from other Finnish universities can apply.

Any questions, contact Matleena Muhonen - matleena.muhonen@aalto.fi

Photo: Stephanie Kluz, SGT20, Clay workshop in Katanga, Uganda

STUDENT CASES for SGT 2022

#1 PBL South Asia | BHUTAN
SUSTAINABLE ENVIRONMENT

The unknown - remote and so fascinating Bhutan! Join to find out more about the enchanting culture! You must come with an open mind!

This project is part of the PBL South Asia project co-funded by the Erasmus+ Programme of the European Union. PBL South Asia develops best practices in problem-based education as a joint initiative between ten universities that are located in Finland, India, Nepal, Bhutan, the Netherlands and Lithuania.

Aalto SGT team will work remotely with the Bhutanese student team. Focus of the case will be developed together with the Bhutanese partner university in the areas of environmental, social and cultural sustainability, sustainable campus development, participation and collaborative methods. The tentative topics could include for instance following thematic areas: water distribution network, rain water harvesting system for urban flooding mitigation, remote sensing (GIS), solar-wind farm, artificial intelligence based design, developing campus mobile apps, commercial farming, waste management & recycling among others. The SGT student team can choose the most desired topic!

The ideal team would include students from design, environmental and construction engineering, software engineering and spatial planning.

Main partner:
JNEC - Jigme Namgyel Engineering College, Royal University of Bhutan
https://www.jnec.edu.bt/en/

SGT 2020: https://www.instagram.com/studiosajo/ [link to final **deliverables**]
SGT 2021: https://blogs.aalto.fi/sgtbhutan2021/ [links to **final report** and **handbook]**

PBL Project website:
http://pblsouthasia.com

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Co-funded by the Erasmus+ Programme of the European Union

PBL South Asia

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#2 ACTION LAB MEXICO

10 years of collaboration, 96 participants - will you be the 100th labber?

Action LAB Mexico (ALM) is an interdisciplinary and intercultural project with a Mayan community turning 50 years old called "Ejido 20 de Noviembre" (El 20) in Calakmul, Campeche state of Mexico, at its core. Each year, students from Finnish and Mexican universities form a team to collaborate in developing initiatives aiming at improving the quality of life in El 20 without endangering the subsistence of their living environment and culture.

Since 2012, ALM has developed a project ecosystem that includes the preservation of the Mayan **architectural heritage**, access to an **adequate healthcare** system, access to sufficient **clean water**, and strengthening of the current **touristic activities** and **infrastructure**.

In 2022, these initiatives will continue with a focus on:
*   Designing a strategy for the use and administration of a local community fund that addresses challenges in jungle protection and access to healthcare. The fund is currently being collected through a crowdfunding campaign developed by ALM alumni: https://hipgive.org/es/campaign/TierrasMayas21/guardinaes_sanos_selva_viva
*   Determining locally appropriate water sampling and analysis practices for El 20 residents and local students from Universidad Tecnologíca de Calakmul to lead water testing activities in the future
*   Exploring the viability of mist water as alternative water collection method that increases water availability and reduces the burden of buying bottled water

The ALM project invites student from all fields of study to join!

Collaborators:
Ejido 20 de Noviembre
Aalto University / Sustainable Global Technologies Programme
Universidad Nacional Autónoma de México / Postgraduate in Industrial Design
Universidad Modelo, Campus Mérida
Universidad Tecnológica de Calakmul
DYA Design Your Action

Project mentors: Claudia Garduño, Julia Renko, Silvia Barrera, and ALM alumni
Blog: https://aaltolabmexico.wordpress.com/
SGT21: Co-creating strategies to sustainable livelihoods and strengthening autonomy

#3 UNHCR BRAZIL

Passionate about global humanitarian challenges and how the living conditions of the worlds displaced people could be improved?

Join the SGT BRAZIL team and work with UNHCR in the reference site in a refugee camp in the State of Roraima in Brazil.

Latin America has fast become the scene for one of the largest displacement crises in the world. Venezuelans are leaving their homes to escape violence and insecurity, lack of food and essential services.

UNHCR is currently undertaking a strategic exercise for the restructuring of the sheltering sites in the city of Boa Vista. This entails expanding, closing or merging some of the camps into a bigger space that would change the configuration of public spaces, facilities and services. UNHCR initial plan is to carry this out through a community participatory workshops using the Block By Block Minecraft process, a new participatory design tool in urban design, developed by The United Nations Human Settlements Programme (UN-Habitat).

The objective for the SGT22-team is to look at the current structure, processes and tools utilized in refugee camp planning, and develop improved concepts, consisting of new ways to enhance participatory approaches and design thinking, in collaboration with the refugee community, as well as monitoring the process.

We are looking for a multidisciplinary team consisting of bold architects, urban planners, engineers, and design thinkers, that are ready to act for a change.

Are you up for the challenge?

Main partner: UNHCR Brazil // Advisor: Anne Hyvärinen, UNHCR Geneva
Project mentors: Kristjana Adalgeirsdottir and Niina Rinne, Aalto WiTLAB

Previous case:
SGT21 Final Report: UNHCR Tanzania Project Zani
Webpage: https://tomoki83.wixsite.com/projectzani | Instagram: missionzani

#4 AgriSCALE (Kenya)

How about learning together with Zambian and Kenyan peers? AgriScale project promotes problem-based learning in the field of agro-entrepreneurship.

AgriSCALE (2020–2023) is a university partnership of eight universities from Kenya, Uganda, Zambia, Finland and Italy aiming to:
- reform agro-entrepreneurship curricula to meet the requirements of the working life and to enable self-employment
- create an agro-entrepreneurship learning ecosystem based on Problem-Based Learning (PBL) principles of student-centered and competency-based education
- develop teachers' and staff's pedagogical competencies through student cases

In AgriSCALE, **students work in multicultural teams to solve the practical challenges of companies or other partners.** Learning through real-life challenges equips the students with skills including innovation, teamwork and leadership.

SGT student team will participate in one of the student challenges offered by the partner universities in the **focus area of agri-business management and agricultural engineering** in Kenya. The SGT team can decide their focus to the student challenge in the beginning of the course. It can include for instance methodological, management level or practical level approaches to the challenge. The SGT challenge will be partnering with Egerton University in Kenya. Peer student teams may join from all AgriSCALE partner universities.

The ideal team would consist of business, design and engineering students.

More about the overall Project:
https://www.agriscale.net/

SGT

Sustainable Global Technologies Programme

Matleena Muhonen
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Academic Coordinator, Aalto EDUCase Network
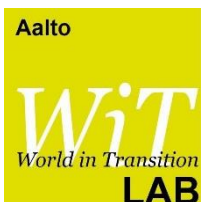
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Aalto University

Aalto **WiT** *World in Transition* **LAB**

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