

Materials Science workshop 21-23 May 2019, Linköping, Sweden

Workshop aims and goals

Funding agencies and Ministries from both Sweden and Japan have several times stressed the importance of bilateral collaboration to achieve important goals. Both countries are also strongly committed to the United Nations Sustainable Development goals.

Japanese and Swedish universities, institutes, research infrastructures and scientists have had very good and fruitful collaborations for a long time and during recent times many new initiatives have started, whereof MIRAI is one. At the MIRAI Seminar 2018 in Tokyo, several national agencies and foundations again expressed their commitment to strengthen the Japanese – Swedish collaboration. It is therefore most likely that within the near future a new call for collaborative projects between Sweden and Japan will come from the funding agencies.

This workshop will therefore be an inventory and training to prepare an application for such a call.

We start with a seminar by Professor Aleksandar Matic on UN Goal 6, “*Ensure availability and sustainable management of water and sanitation for all*”, and UN Goal 7”, “*Ensure access to affordable, reliable, sustainable and modern energy for all*”. Two SDGs, which are highly relevant for advanced Material Science/Technology and highly conform with our sub topics “*Materials for energy devices*” and “*Bio- and Bioinspired materials*”. To achieve state-of-the-art results, it might also be needed to have some knowledge about our other sub topics “*Low dimensional materials and surfaces*” and “*Advanced characterization*” of materials.

We then proceed with all participants pitching their research focusing on how they can contribute to solving the UN Goals outlined above. Examples of relevant research include, but are not limited to, material for solar cells, batteries, fuel cells, smart windows, hydrogen storage, energy saving electronics, water filters, water contamination sensors and heat isolation materials. One example of an innovative way to use advanced characterization to obtain better filters is [this \(click on link\)](#). Please note, this is only one example, many others can be found.

After these introductory sessions, the participants will be asked to form Swedish-Japanese teams to prepare an outline of a collaboration application. To write a joint application requires special training and is different from regular applications, since the boundary conditions are different. It is particularly important to stress the additive values of an international collaboration in the projects. Some examples of these values are scientific uniqueness, technical expertise, unique instrumentation but many others exist. The workshop organizers have many years of experience of international collaborations and applications, and will focus on assisting you in developing your ideas.

Finally, the teams will be asked to shortly present an outline of their proposed project.

Programme

Day 1 Campus Valla, Linköping			Location
09.00 – 09-10	Welcome	Vice president Linköping University Prof Peter Värbrand	ACAS
9.10 – 9.20	Opening remarks	Prof Ulf Karlsson	ACAS
9.20 – 10.00	Keynote speech - SDG	Prof Aleksandar Matic	ACAS
10.00-10-30	Fika & Group photo		Outside ACAS
10.30 - 11.45	Pitch presentations – Focus: “How, and in what way, does your research contribute to solving SDG goal #6 or #7?”	Everyone in one group Pitch time: 5min/person Ca 9 persons/session Ca 25 min discussion Moderator: SSC member	ACAS
11.50 -12.50	Lunch		UK
13.00-14.15	Pitch presentations – Focus: “How, and in what way, does your research contribute to solving SDG goal #6 or #7?”	Everyone in one group 5min/person Ca 9 persons/session Ca 25 min discussion Moderator: SSC member	ACAS
14.15 – 14.45	Fika		Outside ACAS
14.45 -16.15	Pitch presentations – Focus: “How, and in what way, does your research contribute to solving SDG goal #6 or #7?”	Everyone in one group 5min/person Ca 9 persons/session Ca 25 min discussion Moderator: SSC member	ACAS
16.15-17.15	Campus tour Study visit Ångström building and Arwen microscope	Campus tour: Ca 30 min Guided tour in Arwen (30min) Guide: Prof Jens Birch	Campus Ångström building
17.30 - 20	Poster session & mingle with buffet food	Upon arrival to the premises, everyone puts up their own poster. Pins provided.	Zenit
18.30-19.30	SSC meeting		Zenit
	Transfer to city	Drop off at hotels	

Day 2 Campus Valla, Linköping & Excursion			Location
08.30 – 09.10	Keynote speech – Japan (35min)	tbd	ACAS
09.10 -09.50	Keynote speech Sweden (35min)	Prof Olle Inganäs	
09.50 – 10.20	Fika		Outside ACAS
10.20 – 11.50	SDG-focused session	Work in Swedish-Japanese teams to prepare an outline of a collaboration application	ACAS/Group rooms
12.00 – 12.35	Lab tours	Guided tours according to sub topic	Physics Building
12.45-13.30	Lunch		UK
13.30 - 17.00	Excursion		tbd
18.00-20.00	Dinner		Kloster Hotel, Vadstena
Ca 20.00-21.00	Transfer to Linköping	Drop off at hotels	

Day 3 Campus Norrköping, Norrköping			Location
08.30	Pick up at hotels in Linköping	Transfer to Norrköping, campus Norrköping	
9.15-12.15	SDG-focused session (Fika during the session)	Work in Swedish-Japanese teams to prepare an outline of a collaboration application	Tbd
12.30-13.30	Lunch		Work museum
13.45-14.45	SDG-focused session	Each team presents an outline of their collaboration project	Tbd
15.00-15.25	Fika		Visualisation center
15.30-17.00	Visualisation Center	15.30 film i the 360-dome "All we are"	Visualisation center
	Printed Electronics lab	Guided tour (2 groups) in Printed Electronics lab	Printed Electronics
17.10	Transfer to Linköping	Arrival Linköping ca 18.00	
Ca 18.30 (18.45) -	Farewell dinner		Tbd