EKC 2017

Inclusive Development Sessions &

Appropriate Technology Science Camp

Dates: 26 – 29 July 2017

Place: Kista (Kistamässan), Stockholm, Sweden

Inclusive Developmentin EKC2017

In the current neo-capitalism era, the gap between the rich region and the poorer ones is getting bigger. Such unbalanced wealth distribution increases the regional tensions, from which several regions become politically and economically unstable and are triggering local conflicts or regional war. The resulting impacts would include (1) increased fears of terrorism, (2) illegal immigrations, and (3) the hike of the security expenses in the rest of the world.

The Inclusive Development aims at reducing the gap between the low and high income communities, e.g. developing vs. developed countries, the rich and the poor within an individual region. It shall provide low-income communities with access to capacity development and sustainable environment as well as health and welfare benefits.

Following from a successful introduction of the Appropriate Technology Camp in EKC2016, this year, the Inclusive Development group organises the EKC2017 Science School and 4 technical sessions together with EKC 2017;

- Session 1 Biogas Technology for Resource Efficient Society
  (Jointly hosted with the European Energy and Environment Experts Group)
- Session 2 Earth Architecture Design Challenge: An affordable housing prototype for Chad
  (Jointly hosted with the European Built Environment Group)
- Session 3 Smart Agriculture and its impact on our society
- Session 4 Appropriate Technology as both scientific training and practical solutions

Programme agenda

I-D Sessions: EKC 2017 Inclusive Development Sessions
Science School – Appropriate Hi-Technology Camp Activities

<table>
<tr><th></th><th>26.07.2017 (Wed.)</th><th>27.07.2017 (Thr.)</th><th>28.07.2017 (Fri.)</th><th>29.07.2017 (Sat.)</th></tr>
<tr><td>0900
-
1040</td><td></td><td rowspan="2">Camp Activities
Group A1, A2, B1, B2, C1, C2</td><td rowspan="2">Camp Presentation
캠프 결과 발표회
Special Talk 초청강연

Closing Ceremony
캠프수료식</td><td>ID4
Appropriate Tech.</td></tr>
<tr><td>1050
-
1230</td><td></td><td>I-DREAM
AGM 2017</td></tr>
<tr><td>1230
-
1330</td><td>Camp Registration
(1300 ~)</td><td>Lunch 점심식사</td><td>Lunch 점심식사</td><td rowspan="4">The ID sessions could be adjusted depending on the overall EKC session organisation.</td></tr>
<tr><td>1330
-
1630</td><td>Camp Team Building
Dome construction</td><td colspan="2">Camp Activities
+ Presentation or Movie preparation</td><td rowspan="2">Camp Visiting Program</td><td>ID2
Earth Arch.

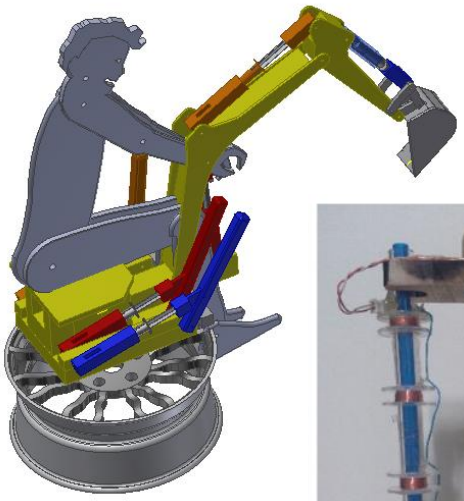
ID3
Smart Agriculture</td></tr>
<tr><td>1630
-
1810</td><td rowspan="2">EKC 2017 Opening Ceremony & Dinner
개회식및저녁만찬
(1700 ~)</td><td>Camp Activities
(cont.)</td><td>ID1
Biogas</td></tr>
<tr><td>1810
-
2100</td><td></td><td colspan="2">EKC 2017 Banquet
저녁만찬
캠프 결과발표</td></tr>
</table>

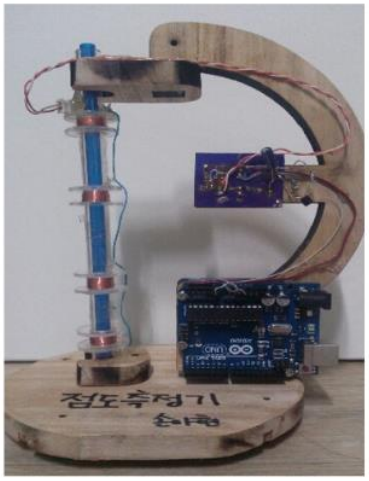
Appropriate Technology Science Camp

After a successful organisation of Appropriate Technology Camp in EKC 2016, EKC and I-DREAM continues to co-organise and host this Science Camp for Young Korean Europeans in view of promoting the Inclusive Development in the world.

This year, a close collaboration with Joy Institute of Technology (JIT) in Korea, The Appropriate Technology Science Camp in EKC 2017 will develop even more interesting camp programme, which comprises;

- Camp Participants Team Building through a Dome Construction
- Mechanical Engineering: Mini Excavator Building and Testing
- Electrical Control and Sensing: Viscometer using Arduino micro-controller
- Bio Engineering: Observation of animal behaviour using Motion Sensors









Apart from the Team Building activity through a Dome construction, each participant of the camp may need to choose one or two fields of interest upon the list of activities, where he/she will learn about the technology and engineering which can be easily adapted to the developing community assistance and therefore contribute to a balanced development.

In total of 6 teams will be formed to carry the above activities during the camp and after their final presentation to the audience including parents and the general public, they will also have a chance to visit Nobel museum in Stockholm.

Session and Camp Planning

Wednesday, 26th July 2017

13:00 ~ 14:00 EKC 2017 Science School Registration

14:00 ~ 17:00 Science School Team Building (Dome construction)
Dr. Muntak SON, Joy Institute of Technology, Korea

17:00 ~ 21:00 EKC2017 Opening Ceremony & Welcome Banquet

Thursday, 27th July 2017

09:00 ~ 12:30 Science School Group Activities (Group A1, A2, B1, B2, C1, C2)

12:30 ~ 13:30 Lunch

13:30 ~ 16:30 Science School Group Activities (Group A1, A2, B1, B2, C1, C2)
Presentation or Movie preparation

16:30 ~ 18:10 Science School Advanced Group Activity

16:30 ~ 18:10 I-D Session 1 – Biogas Technology for Resource Efficient Society
(Jointly hosted with the European Energy and Environment Experts Group)
chaired by Prof. Jin Mi TRIOLO, University of Southern Denmark, Denmark

Friday, 28th July 2017

09:00 ~ 12:00 Science School Activities + Group Presentation

12:00 ~ 12:30 Science School Closing Ceremony

12:30 ~ 13:30 Lunch

13:30 ~ 18:10 Science School Visiting Programme in Stockholm

13:30 ~ 15:10 I-D Session 2 – Earth Architecture Design Challenge - An Affordable Housing Prototype for Chad (Jointly hosted with the European Built Environment Group)
chaired by Mr. Seung-Ho LEE, Groupe ZI:UM, France

16:30 ~ 18:10 I-D Session 3 – Smart Agriculture and its impact on our society
chaired by Dr. Kevin K. CHOI, I-DREAM, France

18:10 ~ 22:00 EKC 2017 Closing Ceremony & Banquet & Science Camp Result Brief

Saturday, 29th July 2017

09:00 ~ 10:30 I-D Session 4 –Appropriate Technology as both Scientific Training and Practical Solutions
chaired by Dr. Eunjung KIM, I-DREAM, France

10:50 ~ 12:30 I-DREAM Annual General Assembly 2017

EKC 2017

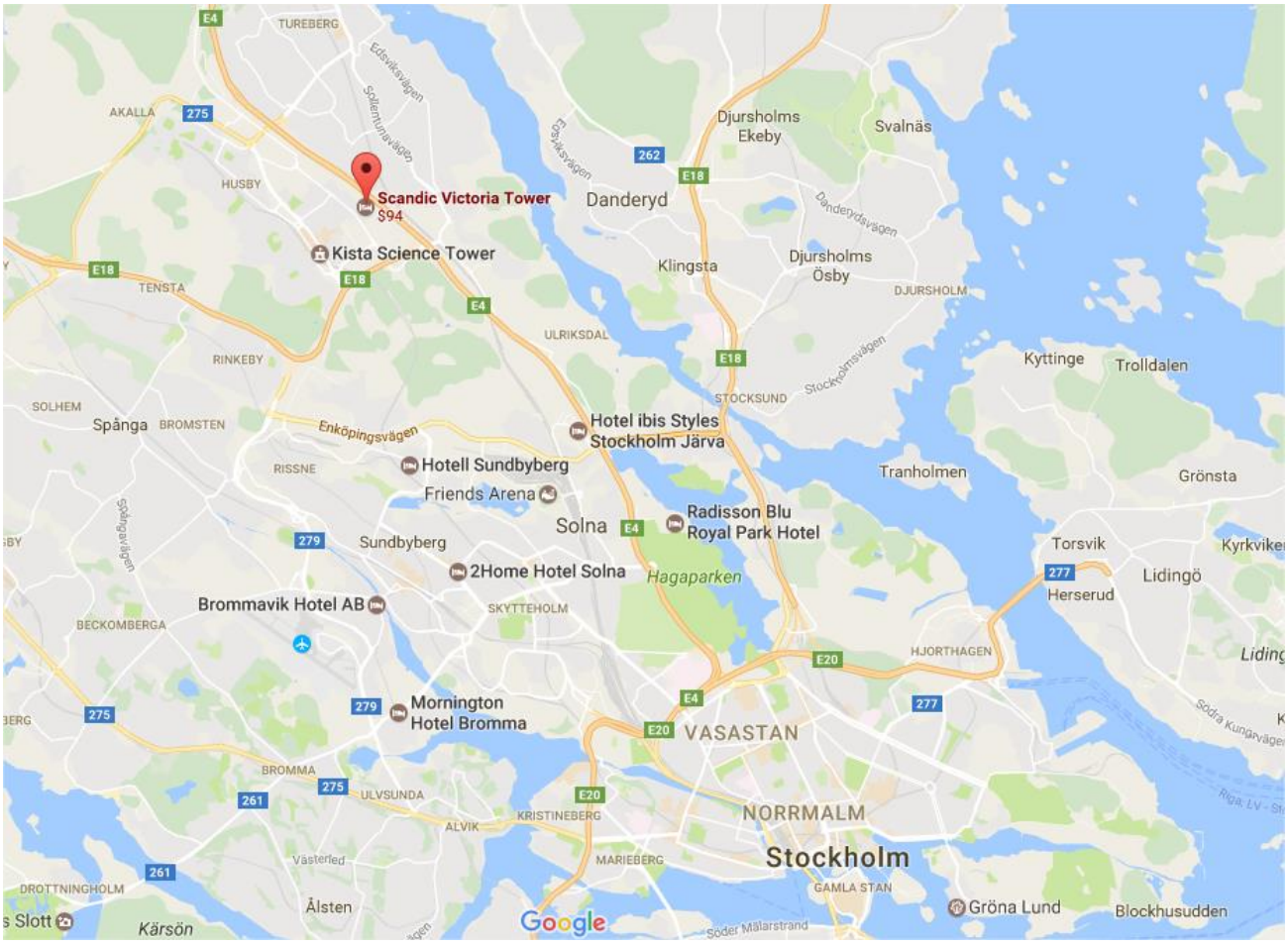
Creating New Possibilities for better life through Science, Technology and Humanity.

Europe-Korea Conference on Science and Technology (EKC) is to bring together Korean scientists and engineers working in Europe and in Korea and European scientists and engineers interested in collaborating with Korean nationals. Particular emphasis is given to develop friendship and to exchange useful knowledge and bright ideas for the promotion of science and technology in service of the human being and the society.

EKC 2017, the 10th EKC, will be held in Kista Stockholm in Sweden from 26th to 29th July 2017. It will be hosted by the Korean-Scandinavian Scientists and Engineers Association (KSSEA) together with the Korean Federation of Science and Technology Societies (KOFST) and the other eight Korean Scientists and Engineers Associations in Europe which are in the UK (KOSEAUK), France (ASCoF), Austria (KOSEAA), Finland (KOSES), Scandinavia (KSSEA), the Netherland (KOSEANL), Switzerland (KSEAS), Belgium (KOSEAbe) and Germany (VeKNI). Since its first successful start in 2008 in Heidelberg, Germany, EKC has been held annually in different European countries and has become the most important scientific and social event, bringing scientists and engineers from Europe and Korea together.

Directions to the Conference venue : Kista (Kistamässan), Stockholm, Sweden

Website: http://www.ekc2017.org/page/venue/accomodation



Appropriate Technologies for Inclusive Development Programme Details

Session 1 – Biogas Technology for Resource Efficient Society (Jointly hosted with E&E Group)

	27 July 2017 Thursday
16:30	ID Session 1 Opening & Welcome Speech – *Dr. TRIOLO, Jin Mi (Univ. of Southern Denmark)*
16:35	**Biogas production in Scandinavia,** *Prof. EJLERTSSONE, Jörgen (Linköping University, Sweden)*
17:00	**Strategy for Biogas upgrade using carbon capture and utilization process** *Dr. SHIN, Hyun Yong (University of Groningen, Netherland)*
17:20	**Renewable energy in Brazil: Potential for biogas production** *Prof. EDWIGES Thiago (Federal University of Technology – Parana, Brazil)*
17:40	**Process optimisation for simple and unheated biogas digesters** *Dr. TRIOLO, Jin Mi (Univ. of Southern Denmark)*
17:55	Open discussion
18:10	Session 1 closing

Session 2 – Improvement of the habitation environment using in-situ earth brick technology (jointly hosted with the Architects Group)

	28 July 2017 Friday
13:30	ID Session 2 Opening – *Mr. LEE, Seung-ho (Groupe ZI:UM, France)*
13:35	**Chad earth construction status**, *Mr. PARK, Geunsun (I-DREAM Chad)*
13:50	**Earth construction project for Sahel region #1**, *Mr. JEONG, Hyun Seung (Nottingham, UK)*
14:05	**Earth construction project for Sahel region #2**, *Ms. JUNG, Misoo (Ecole d'architecte, France)*
14:20	**Earth construction project for Sahel region #3**, *Mr/Ms. XXX* 구조설계
14:35	Panel Discussion
15:10	Session 2 Closing followed by Poster Presentation

Session 3 – Smart Agriculture and its impact on our society

	28 July 2017 Friday
16:30	ID Session 3 Opening – *Dr. CHOI, Kevin Kyeong-il (I-DREAM, France)*
16:35	**RegenVillages – Integrated village designs for thriving regenerative communities**, *Mr. EHRLICH, James (Regen Villages, USA)*
17:15	**An open-source smart farm training kit for developing** countries, *Dr. SON, Muntak (JIT, Korea)*
17:40	**Community Farming for a sustainable society**, *Dr. SHIM, Chang Hyun (Alpha MOS, France)*
18:10	Session 3 Closing

Session 4 – Appropriate Technology as both scientific training and practical solutions

	28 July 2017 Friday
09:00	ID Session 4 Opening – *Dr. KIM, Eunjung (CNRS, France)*
09:05	**Smart Agriculture for Chad**, *Mr. JEON, Jaesu (I-DREAM Chad)*
09:35	**Development of Rainwater Appropriate Technology of Version 2016 in Vietnam and a Strategic Model for Stable Expansion**, *Mr. KWAK, Donggeun (SNU, Korea)*
10:00	**A simple biotoxicity analyser using an USB microscope and image processing software for quantifying water pollution**, *Ms. SON, Ahyun (Wanbang high school, China)*
10:30	Poster presentations
10:45	Session 4 Closing