

The 3rd International Workshop on UI Greenmetric (IWGM)

on

Setting and Infrastructure



SUT as a Green and Clean University



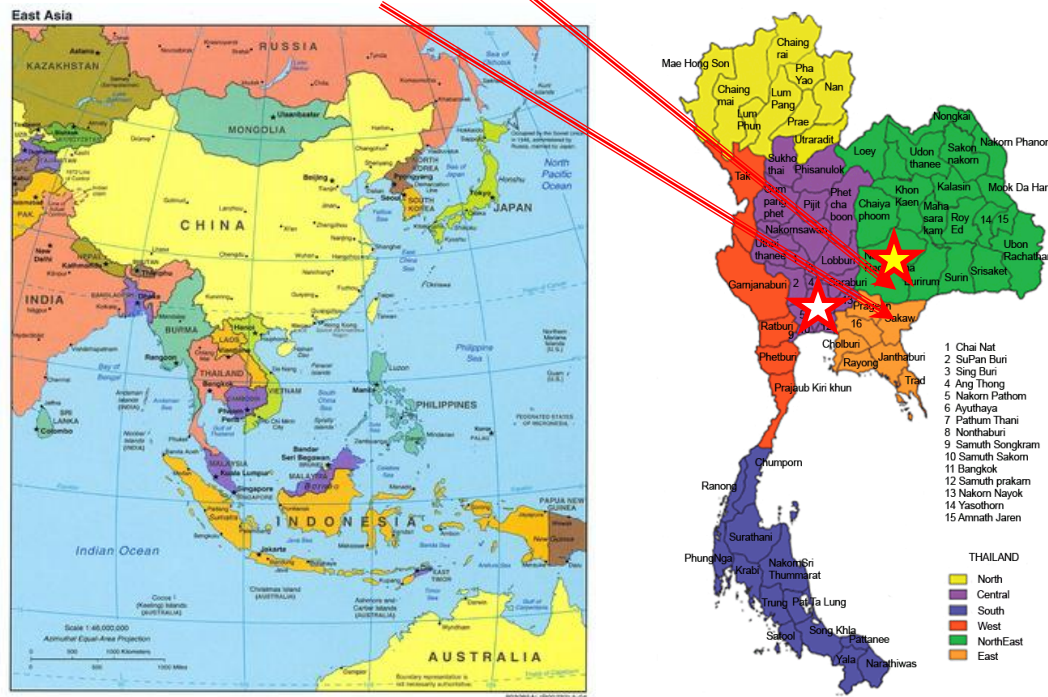
Professor Dr. Prasart Suebka, SUT's Rector

OVERVIEW

1. About SUT
2. Green and Clean University Policy
3. Implementation
4. Conclusion Remarks

1. About SUT

SUT is located in Nakhonratchasima, 150 miles NE of Bangkok, having 2 prominent natural resources including Sakaerat Conservation (UNESCO MAB Biosphere Reserve) and Khao Yai National Park (Thai Yellow Stone Park).



**ONE OF THE BEST SCIENCE AND TECHNOLOGY
HIGER EDUCATION INSTITUTES IN THAILAND.**



Established in 1990.

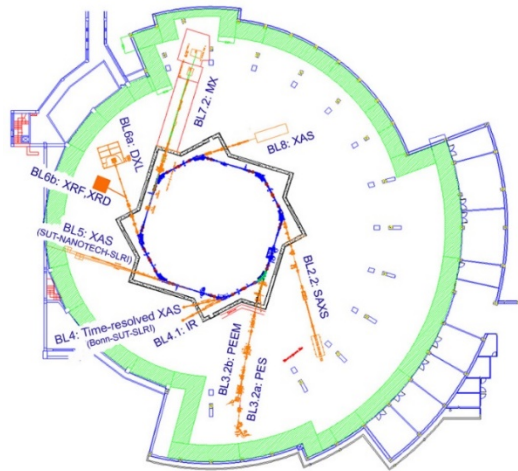


Facts & Figures.

- The first Public Autonomous University in Thailand.
- The 2nd Largest campus area in Thailand with 2,800 acres = 1,100 hectares.
- 400 academic staffs/ 800 supporting staffs.
- 15,000 students: 13,000 undergraduate and 2,000 graduate students.
- 7 Institutes : Science/ Engineering/ Agricultural Technology/ Social Technology/ Medicine/ Nursing/ Dentistry.
- One of 9 National Research Universities (NRU) in Thailand.
- Pioneer university in cooperative education.

Affiliating Facilities

Synchrotron Light Research
Institute (SLRI)



Nakhon Ratchasima Regional
Observatory for the Public,
National Astronomical Research
Institute of Thailand



ALICE: A Large International Collaboration



ALICE

~ 1300 Members

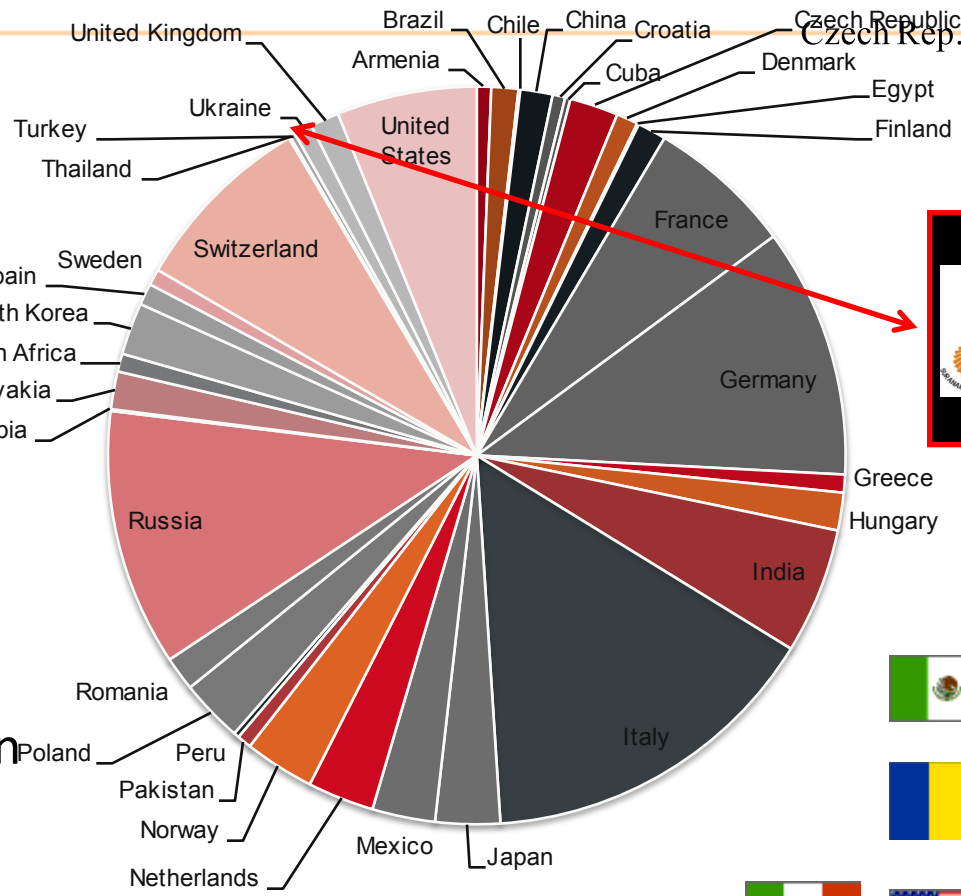
from both

NP and HEP communities

36 Countries

13 Institutes

~ 160 MCHF capital cost (+ 'free' magnet)



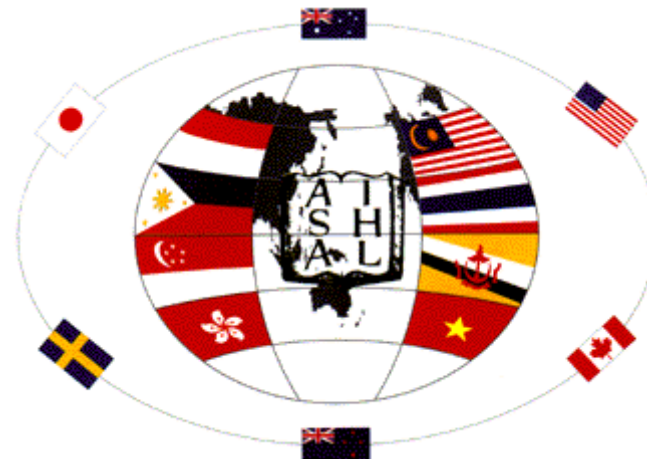
International Recognition



Among 601-800 in the world & 161-170 in Asia
@ 192 in BRIC.



Among 251-300 in Asia



"We are special and unique."

SUT has been developed from a deforested area by continuously increased green space and landscape and ranked No. 2 Green University in Thailand and 102 of the World.



An aerial photograph showing a long, straight road that stretches into the distance, flanked by dense green trees. The road has a yellow center line and white side lines. In the far distance, some buildings are visible on a hillside under a clear sky.

SURANAREE UNIVERSITY OF TECHNOLOGY



SUT Fact File on UI Greenmetric 2016

Category	Point	Maximum Point	Percentage
Setting and Infrastructure (SI)	1,301	1500	86.73 %
Energy and Climate Change (EC)	961	2100	45.79 %
Waste (WS)	798	1800	44.33 %
Water (WR)	320	1000	32.00 %
Transportation (TR)	731	1800	40.61 %
Education (ED)	1,567	1800	87.06 %
Total Score	5,678	10000	56.78 %

World Ranking	102
World SI Ranking	7
World EC Ranking	131
World WS Ranking	355
World WR Ranking	307
World TR Ranking	318
World ED Ranking	8

UI Greenmetric Ranking, University of Indonesia, December 9th 2016
greenmetric@ui.ac.id
<http://greenmetric.ui.ac.id>

2. Green and Clean University Policy.

First announced since 1994 and, later, revised by adapting the Policy Guidelines for Sustainable Practices from University of California in 2011.

1. Green Education and Research – Offering more academic courses and more student activities on sustainability; Increasing research budget on sustainability.
2. Clean Energy – Saving more energy; Energy conservation; Using more alternative energy and renewable energy in order to reduce the GHG.

3. Sustainable Transportation – Improving transportation system; Free public transportation; Walking more and Bicycling more; New parking policy.
4. Green Building – Repaired, renovated and rehabilitated buildings with energy saving and environmental conservation; New building complying with Thailand Green Building Standard.
5. Waste Management – More reduce, reuse and recycle policy; Waste to fertilizer and energy; Toxic waste management.

6. Water Management – New reservoir and using more ground water; Reducing the loss of piped water; Reusing treated waste water; Improving SUT waste water treatment system.
7. Area Conservation and Ground Management – Green reservation area; Year-round tree planting activities.
8. Environmentally Preferable Purchasing Practices – Green procurement; Green ICT.

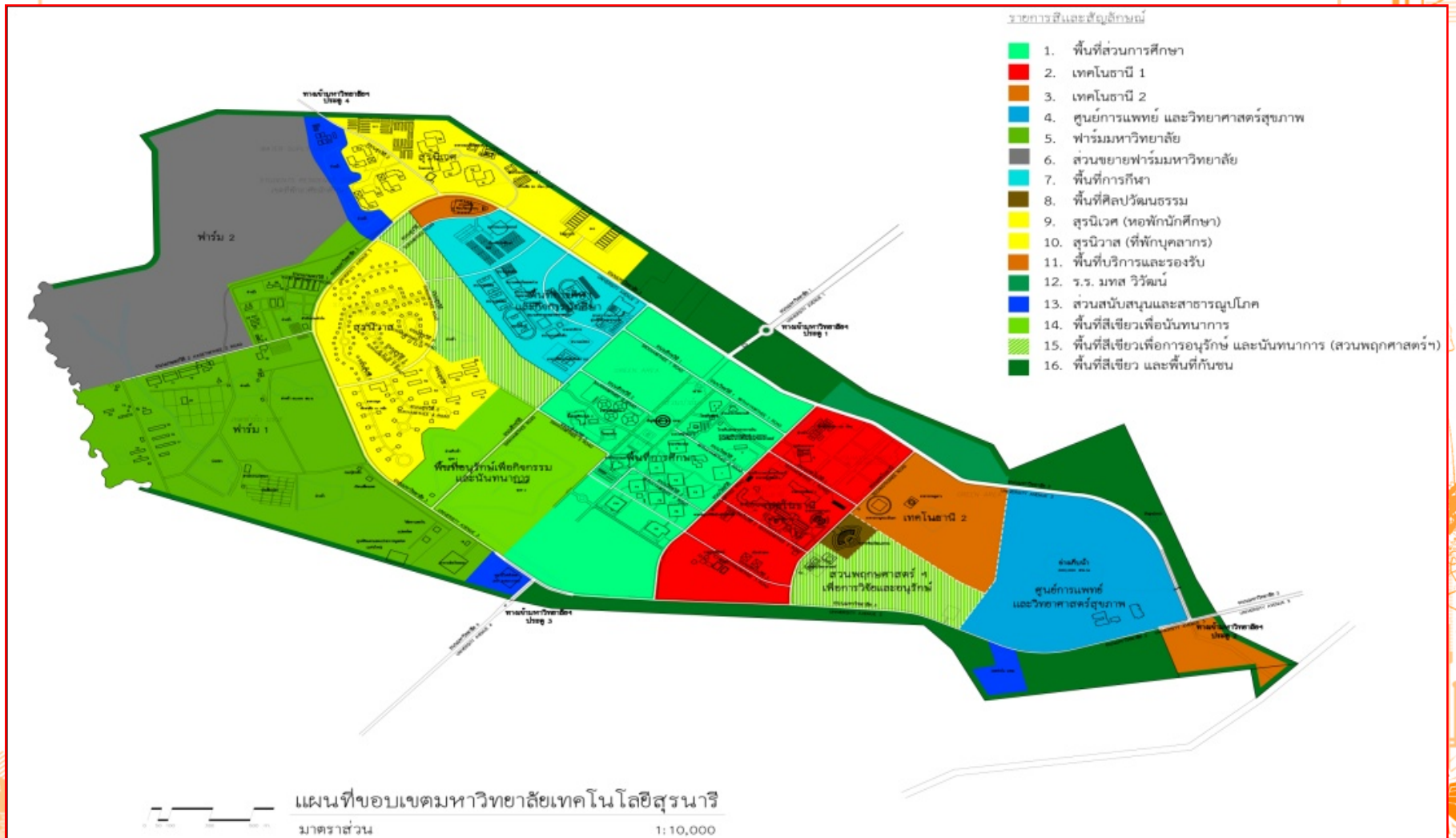
3. Implementation.

1. Setting and Infrastructure

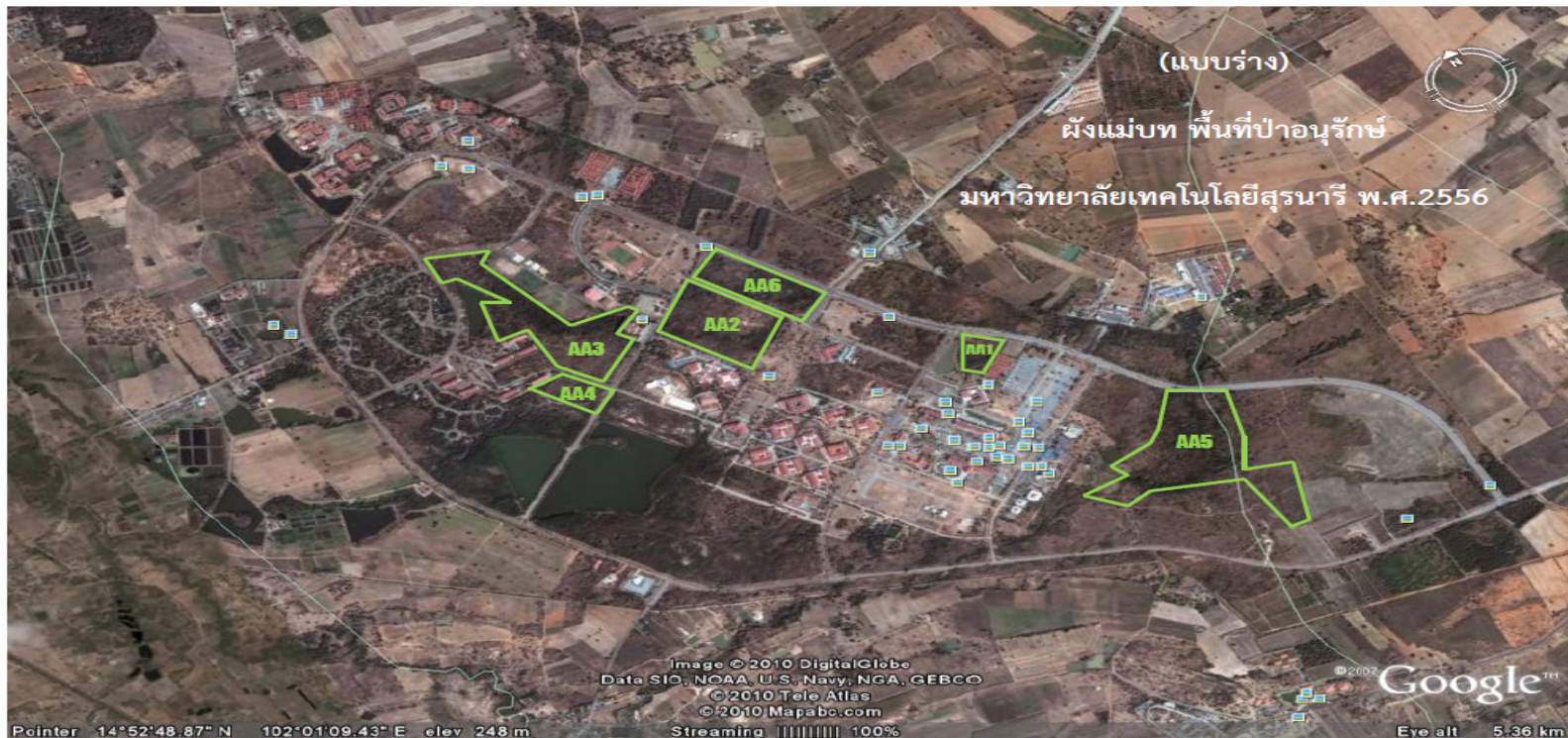


SUTGreen-Clean 

1. New 20 years long-term SUT master plan in accordance SUT Strategic Plan.



2. Green reservation area – 2013 SUT reservation area master plan (Plant Genetic Conservation Project under the Royal Initiative of HRH Princess Maha Chaki Sirindhon - RSPG)



AA

= บริเวณพื้นที่ป่าอนุรักษ์ถาวร (หมายถึง พื้นที่ป่าที่ไม่ควรเข้าไปทำกิจกรรมใดๆ หรือ รบกวนพื้นที่ให้เกิดการเปลี่ยนแปลง)

3. Improving SUT public parks to service SUT students and personnel and general public.



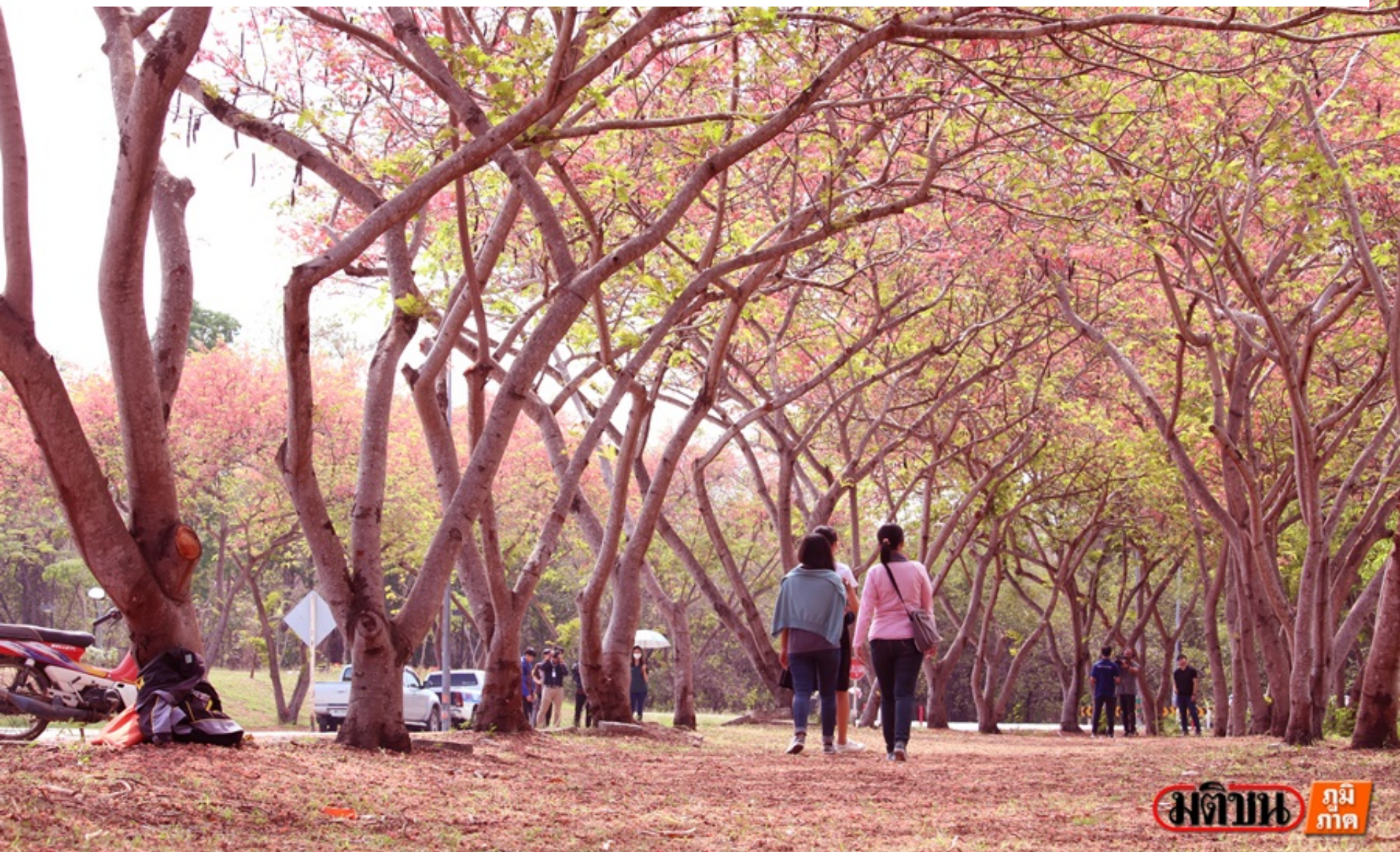
One of the most beautiful tree tunnels in Thailand. Lines of 200+ Samanea saman along University Farm.



Photo By Chop Tel 0810745945
email: hiran1962@hotmail.co.th

<http://www.painaidii.com/diary/diary-detail/002640/lang/th/>

Lines of 150+ *Cassia grandis* in front of Student Union building.





Lines of 1000+ *L. floribunda* along 2 km of University avenue.

2. Energy and Climate Change



SUTGreen-Clean 

Smart Building Project – using more smart devices to monitor and control of the building.



3. Waste



SUTGreen-Clean 

SUT Mechanical and Biological Waste Treatment plant – 10 tones/day.



4. Water



SUTGreen-Clean 

SUT waste water recycling system: phase I – recycled 30% of the waste water from buildings for plant watering and rest room.



5. Transportation



SUTGreen-Clean 

Free-public electric mini buses and free-public bicycles with bicycle lanes in the SUT campus area.



6. Education



SUTGreen-Clean 

1. Offering academic courses on “sustainability” - 884 courses which is 33 % of the total courses.
2. Research budget – Averaged of US\$3,580,900/yr with a big jump in 2015.

	Year			Averaged
	2013	2014	2015	
research budget on environment and sustainable development (Baths)	68,664,884	78,280,706	229,045,155	125,330,248
Total research budget (Baths)	354,291,374	249,399,753	278,202,574	293,964,567

3. Publication – Averaged of 147 papers/yr with 46.5% increased annually.

Types of Publications	Numbers		
	2013	2014	2015
International Journal	2	78	60
National Journal	33	11	13
International Conference/Seminar	27	33	91
National Conference/Seminar	37	28	27
Total	99	150	191
Average	147		

<http://green.sut.ac.th>

Green & Clean University | X

smart.sut.ac.th/green/2015/

Apps ★ Bookmarks SUT :: มหาวิทยาลัยเทคโนโลยีสุรนารี Imported From IE

Sittichai

มหาวิทยาลัยเทคโนโลยีสุรนารี
SURANAREE UNIVERSITY OF TECHNOLOGY
มหาวิทยาลัยแห่งการสร้างสรรค์นวัตกรรม

SUTGreen-Clean

GREEN & CLEAN UNIVERSITY UI GREEN METRIC 2015 UI GREEN METRIC 2014 ACTIVITY & PROJECT LIFE IN THE ACADEMIC RESORT VIDEO GALLERY


**GREEN AS CLEAN
UNIVERSITY
POLICY**


**ENVIROMENT
FUND**


**ACADEMIC
RESORT**


**ENERGY AND
CLIMATE CHANGE**


**WASTE
MANAGEMENT
INNOVATION**


**WATER
CONSERVATION**


TRANSPORTATION


**EDUCATION FOR
GREEN**

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Challenges for the Green and Clean University Implementation.

1. Changing the mindset, attitude and behaviors of the people toward "sustainability" - More educations must be given.
2. Sustainability comes with cost -Maintenance of environmental-friendly infrastructure; higher prices on GREEN appliances, devices and instruments.
3. More support from the government to ensure the sustainability of the implementation.
4. In needs for Research funding on sustainability.

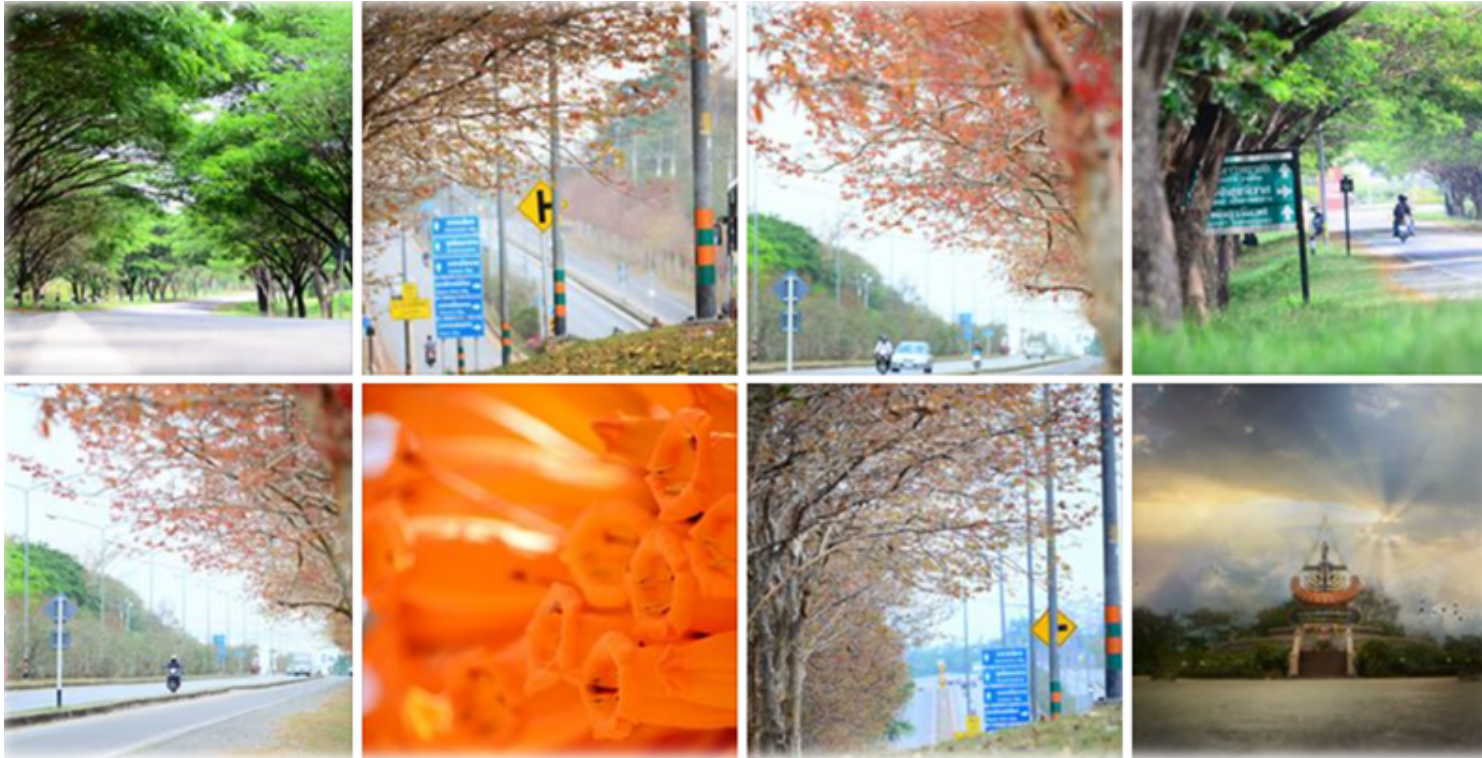
4. Conclusion Remarks.

1. SUT's performance in Setting and Infrastructure of UI Greenmetric 2016 ranking has been achieved from our long-term commitments and implementations to transform a deforested area to a "Green and Clean University".

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2. SUT is willing to maintain a commitment to be a “World-class Sustainable University” within 2020 and a reliable pillar of society on sustainability.





THANK YOU

<http://green.sut.ac.th>

SUT as a Green and Clean University