



UNIVERSITAS
INDONESIA
Veritas, Probitas, Justitia



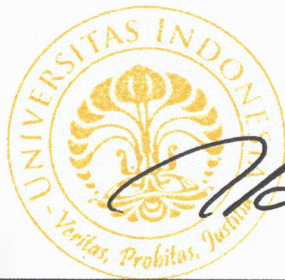
Certificate

This certificate is awarded to

Suranaree University of Technology

as The 115th World's Most Sustainable University
in 2020 UI GreenMetric World University Rankings

Jakarta, 7 December 2020



Prof. Ari Kuncoro, S.E., M.A., Ph.D

Rector of Universitas Indonesia



Prof. Riri Fitri Sari, M.M., M.Sc

Chairperson of UI GreenMetric
World University Rankings



FACT FILE 2020

UI GREENMETRIC WORLD UNIVERSITY RANKINGS

SURANAREE UNIVERSITY OF TECHNOLOGY

Thailand

111 University Avenue, Muang District, Nakhon Ratchasima 30000,
Thailand

UNIVERSITY PROFILE

Name : Suranaree University of Technology

Established : 1990

Country : Thailand



1. VERIFIED DATA

| Category | Point | Percentage of Point to Total Score | Maximum Point | Percentage of Point to Maximum Point |
|---------------------------------|--------------|------------------------------------|---------------|--------------------------------------|
| Setting and Infrastructure (SI) | 1,250 | 17 % | 1,500 | 83.33 % |
| Energy and Climate Change (EC) | 1,350 | 18 % | 2,100 | 64.29 % |
| Waste (WS) | 1,125 | 15 % | 1,800 | 62.50 % |
| Water (WR) | 800 | 11 % | 1,000 | 80.00 % |
| Transportation (TR) | 1,425 | 19 % | 1,800 | 79.17 % |
| Education (ED) | 1,425 | 19 % | 1,800 | 79.17 % |
| Total Score | 7,375 | 100 % | 10,000 | 73.75 % |

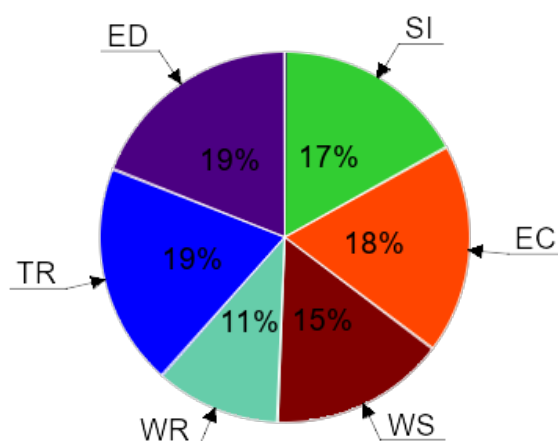


Figure 1.1 Overall Score Diagram

2. RESULTS SUMMARY

| | | | |
|----------------------|-------------------|-------------------|-------------------|
| World Ranking | SI Ranking | EC Ranking | WS Ranking |
| 115 | 27 | 182 | 313 |
| | WR Ranking | TR Ranking | ED Ranking |
| | 116 | 110 | 177 |

3. WORLD RANKINGS HISTORY

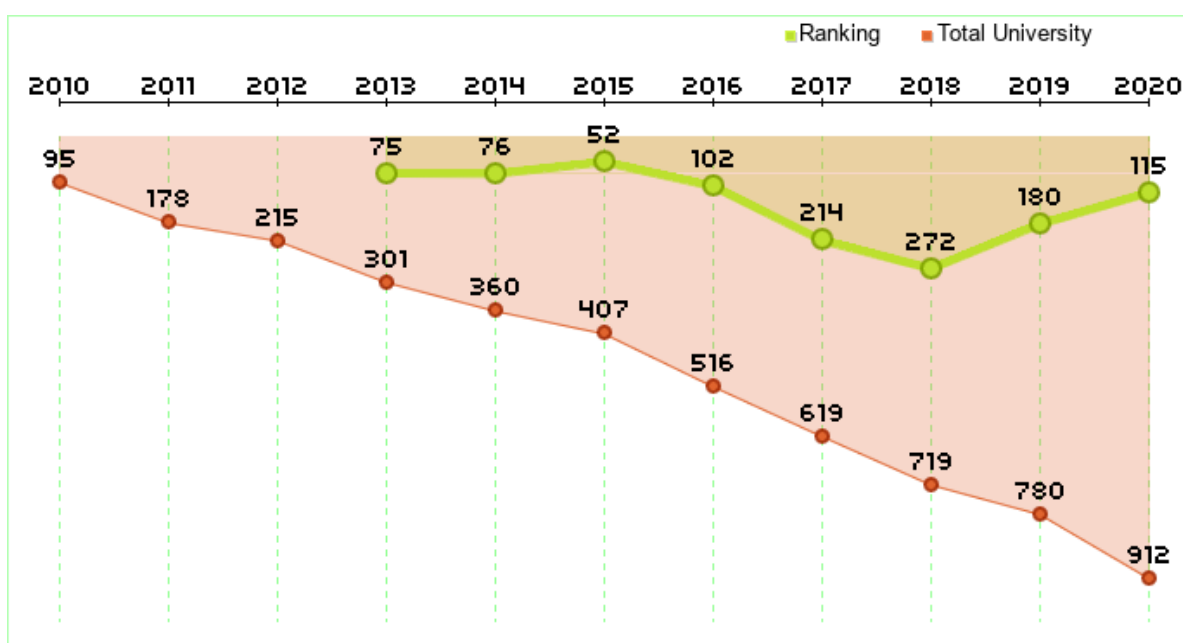


Figure 3.1 World Rankings History Diagram

4. RANKING IN THAILAND

| | | | |
|------------------------|-------------------|-------------------|-------------------|
| Country Ranking | SI Ranking | EC Ranking | WS Ranking |
| 8 | 2 | 5 | 13 |
| | WR Ranking | TR Ranking | ED Ranking |
| | 8 | 11 | 12 |

5. RESULTS DETAIL

Setting and Infrastructure

| Indicator | | Score |
|-----------|--|-------|
| SI.1 | The ratio of open space area to total area | 300 |
| SI.2 | Total area on campus covered in forest vegetation | 150 |
| SI.3 | Total area on campus covered in planted | 150 |
| SI.4 | Total area on campus for water absorption besides the forest and planted | 150 |
| SI.5 | The total open space area divided by total campus population | 300 |
| SI.6 | Percentage of university budget for sustainability efforts within a year | 200 |

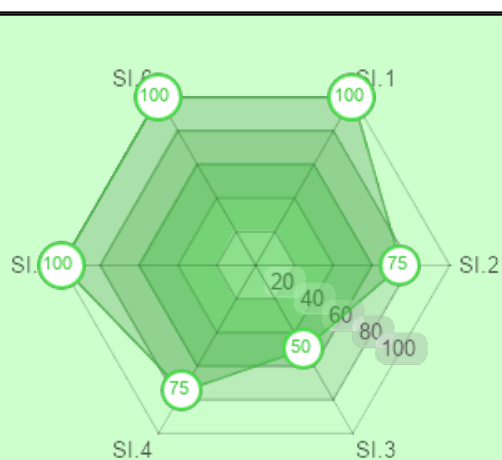


Figure 5.1 Percentage of Score to Maximum Score for Setting and Infrastructure

Energy and Climate Change

| Indicator | | Score |
|-----------|--|-------|
| EC.1 | Energy efficient appliances usage | 150 |
| EC.2 | Smart building implementation | 225 |
| EC.3 | Number of renewable energy source in campus | 225 |
| EC.4 | Total electricity usage divided by total campus population | 150 |
| EC.5 | The ratio of renewable energy production divided by total energy usage per year | 50 |
| EC.6 | Elements of green building implementation as reflected in all construction and renovation policies | 300 |
| EC.7 | Greenhouse gas emission reduction program | 100 |
| EC.8 | Total carbon footprint divided by total campus population | 150 |

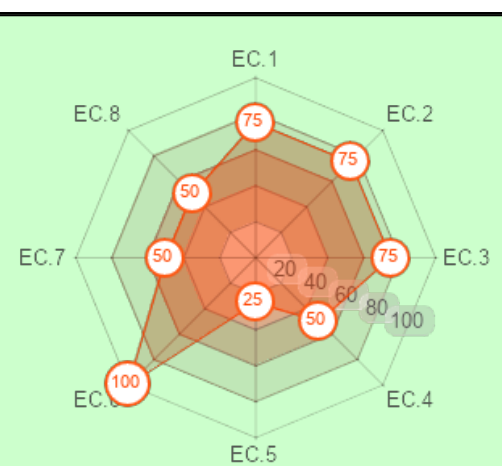


Figure 5.2 Percentage of Score to Maximum Score for Energy and Climate Change

Waste

| Indicator | | Score |
|-----------|--|-------|
| WS.1 | Recycling program for university's waste | 225 |
| WS.2 | Program to reduce the use of paper and plastic on campus | 300 |
| WS.3 | Organic waste treatment | 150 |
| WS.4 | Inorganic waste treatment | 150 |
| WS.5 | Toxic waste treatment | 150 |
| WS.6 | Sewage disposal | 150 |
| | | |

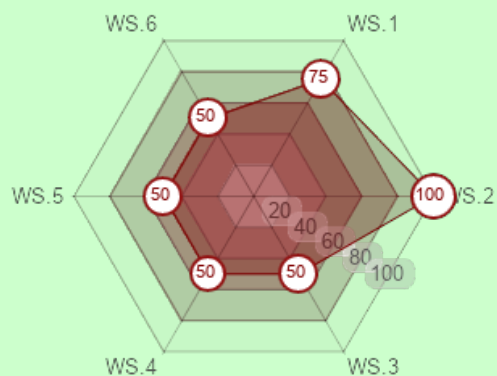


Figure 5.3 Percentage of Score to Maximum Score for Waste

Water

| Indicator | | Score |
|-----------|--|-------|
| WR.1 | Water conservation program & implementations | 225 |
| WR.2 | Water recycling program implementation | 225 |
| WR.3 | Water efficient appliances usage | 200 |
| WR.4 | Consumption of treated water | 150 |
| | | |

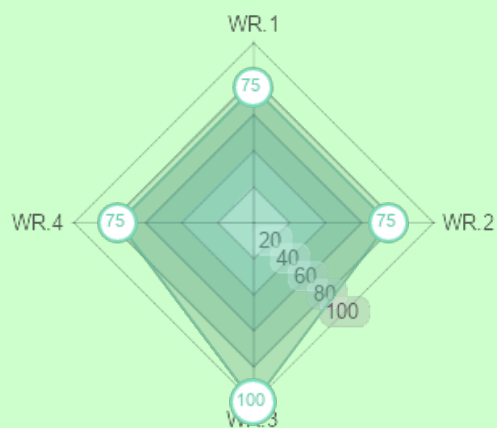


Figure 5.4 Percentage of Score to Maximum Score for Water

Transportation

| Indicator | | Score |
|-----------|--|-------|
| TR.1 | The total number of vehicles (cars and motorcycles) divided by total campus' population | 100 |
| TR.2 | Shuttle services | 225 |
| TR.3 | Zero Emission Vehicles (ZEV) policy on campus | 200 |
| TR.4 | The total number of Zero Emission Vehicles (ZEV) divided by total campus population | 150 |
| TR.5 | The ratio of the ground parking area to total campus area | 150 |
| TR.6 | Transportation program designed to limit or decrease the parking area on campus for the last 3 years | 100 |
| TR.7 | Number of transportation initiatives to decrease private vehicles on campus | 200 |
| TR.8 | Pedestrian path on campus | 300 |

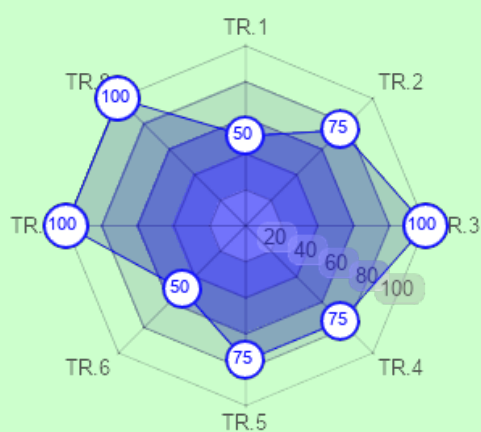


Figure 5.5 Percentage of Score to Maximum Score for Transportation

Education

| Indicator | | Score |
|-----------|--|-------|
| ED.1 | The ratio of sustainability courses to total courses/modules | 300 |
| ED.2 | The ratio of sustainability research funding to total research funding | 300 |
| ED.3 | Scholarly publications on sustainability | 150 |
| ED.4 | Events related to sustainability | 225 |
| ED.5 | Student organizations related to sustainability | 225 |
| ED.6 | University-run sustainability website | 150 |
| ED.7 | Sustainability report | 75 |

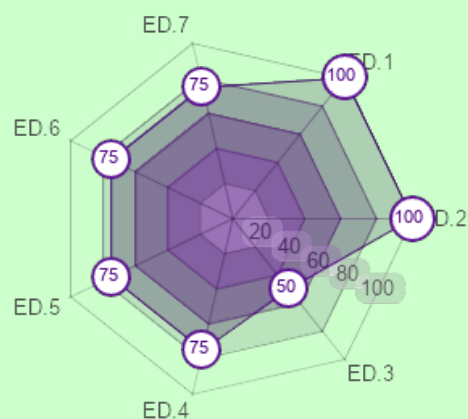


Figure 5.6 Percentage of Score to Maximum Score for Education



UI GREENMETRIC WORLD UNIVERSITY RANKINGS

About UI GreenMetric

UI GreenMetric World University Rankings is an annual publication of university rankings on sustainability. It is an initiative of the University of Indonesia that ranks universities around the world based on their commitment and actions towards sustainability. UI GreenMetric World University Rankings aims to increase university awareness towards sustainability.

History

UI GreenMetric World University Rankings is a non-profit initiative of University of Indonesia developed since 2010.

In 2009 the University of Indonesia hosted an International Conference on World University Rankings. The conference was attended by World University rankers such as Webometrics, HEEACT, and others. In 2010, Prof. Dr. Gumilar Rusliwa Somantri as Rector of the University of Indonesia at that time-initiated UI GreenMetric World University Rankings and appointed Prof. Riri Fitri Sari as the chairperson. Soon a team consisting of Junaidi, Budi Hartono, Allan Lauder, and Prof. Dr. Ir. Gunawan Tjahjono formulated UIGM Questionnaire and introduced UI Ranking to the world. In 2011, 11 new indicators in 5 categories have been added. Subsequently Education was added as a new category in 2012. By the year 2015, a massive improvement was introduced including carbon footprint and a more systematic data collection. In 2016 an online based review and validation system was prepared for the assessors.

Table 1. UI GreenMetric Timeline

| UI GreenMetric Timeline | |
|-------------------------|---|
| 2010 | UI GreenMetric published for 95 Universities |
| 2011 | UI GreenMetric added 11 new indicators within 5 categories |
| 2012 | Education became one of the categories |
| 2015 | Introducing Carbon Footprint and Fact file document |
| 2016 | Focusing on university action towards sustainability |
| 2017 | UIGWURN established |
| 2018 | Focusing on SDGs and enlargement of memberships |
| 2019 | Improving questionnaire and data collection method |
| 2020 | Introducing three new questions on social and economic aspects, such as (1) Startup for the green economy; (2) Public access to open spaces; (3) Community services |

UIGM works on different themes every year. They are Policy into Action in 2016, Global Partnership for Sustainable Future in 2017, Universities, Impacts, and Sustainable Development Goals (SDGs) in 2018, Sustainable University in a Changing World: Lessons, Challenges and Opportunities in 2019, and Universities Responsibility for Sustainable Development Goals and World’s Complex challenges in 2020. In 2020 912 universities from 84 countries participate in the rankings.

To reach and coordinate more participating universities, UI GreenMetric World University Rankings Network (UI GWURN) was established in 2017 with 1-2 national coordinators in each country. To make it work, Junaidi formulated a strategic framework for the network. Currently, there are 35 national coordinators in 30 countries in Asia, America, Africa and Europe. Each voluntarily organizes national workshop inviting other universities in their country. With the network UI GreenMetric World University Rankings has been increasingly recognized as the first and only universities ranking on sustainability with a global network. Since 2017 participating universities benchmark, do continuous improvement, and develop partnerships in the area of sustainability with other members.

As a member of International Ranking Expert Groups (IREG), more activities and collaboration among participating universities are expected to achieve our common goal: sustainable university for sustainable future. UI GreenMetric itself developed its own ranking system by studying other ranking systems such as: The Times Higher Education World University Rankings (THE) sponsored by Thomson Reuters, the QS World University Rankings, the Academic Ranking of World Universities (ARWU) published by Shanghai Jiao Tong University (SJTU), and the Webometrics Ranking of World Universities (Webometrics), published by Cybermetrics Lab, CINDOC-CSIC in Spain.

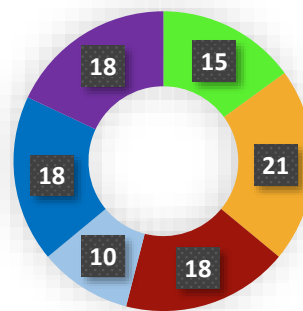
Methodology

UI GreenMetric collects data through online questionnaire. All participants answer questions in the questionnaire and provide evidence. After that, UI GreenMetric expert members and reviewers validate the answers based on the evidence provided. This year's categories and weighting of points are shown as follows. The specific indicators and their points awarded are shown in Table 3. Each indicator has been uniquely identified by a category code and a number (e.g. SI 5).

In our list, universities with the same total score will be ranked according to the highest weighted indicators, i.e firstly based on its Energy and Climate Change (EC) score, then based on the total score for Waste (WS), Transportation (TR), Education (ED). Subsequently, it will be based on its Setting and Infrastructure (SI) score, and lastly on its Water (WR) score.

Table 2. Categories in the ranking and their weighting

| No | Category | Percentage of Total Points (%) |
|----|---------------------------------|--------------------------------|
| 1 | Setting and Infrastructure (SI) | 15 |
| 2 | Energy and Climate Change (EC) | 21 |
| 3 | Waste (WS) | 18 |
| 4 | Water (WR) | 10 |
| 5 | Transportation (TR) | 18 |
| 6 | Education (ED) | 18 |
| | TOTAL | 100 |



The specific indicators and their points awarded are shown in Table 3. Each indicator has been uniquely identified by a category code and a number (e.g. SI 5).

Table 3 Indicators and categories

| No | CRITERIA | Point | Weighting |
|----------|--|-------------|------------|
| 1 | Setting and Infrastructure (SI) | | 15% |
| SI1 | The ratio of open space area to total area | 300 | |
| SI2 | Total area on campus covered in forest vegetation | 200 | |
| SI3 | Total area on campus covered in planted | 300 | |
| SI4 | Total area on campus for water absorption besides the forest and planted | 200 | |
| SI5 | The total open space area divided by total campus population | 300 | |
| SI6 | Percentage of university budget for sustainability efforts within a year | 200 | |
| | Total | 1500 | |
| 2 | Energy and Climate Change (EC) | | 21% |
| EC1 | Energy efficient appliances usage | 200 | |
| EC2 | Smart building implementation | 300 | |
| EC3 | Number of renewable energy sources on campus | 300 | |
| EC4 | Total electricity usage divided by total campus' population (kWh per person) | 300 | |
| EC5 | The ratio of renewable energy production divided by total energy usage per year | 200 | |
| EC6 | Elements of green building implementation as reflected in all construction and renovation policies | 300 | |
| EC7 | Greenhouse gas emission reduction program | 200 | |
| EC8 | Total carbon footprint divided by total campus' population (metric tons per person) | 300 | |
| | Total | 2100 | |
| 3 | Waste (WS) | | 18% |
| WS1 | Recycling program for university's waste | 300 | |

| | | | |
|----------|--|-------------|------------|
| WS2 | Program to reduce the use of paper and plastic on campus | 300 | |
| WS3 | Organic waste treatment | 300 | |
| WS4 | Inorganic waste treatment | 300 | |
| WS5 | Toxic waste treatment | 300 | |
| WS6 | Sewage disposal | 300 | |
| | Total | 1800 | |
| 4 | Water (WR) | | 10% |
| WR1 | Water conservation program & implementations | 300 | |
| WR2 | Water recycling program implementation | 300 | |
| WR3 | Water efficient appliances usage | 200 | |
| WR4 | Consumption of treated water | 200 | |
| | Total | 1000 | |
| 5 | Transportation (TR) | | 18% |
| TR1 | The total number of vehicles (cars and motorcycles) divided by total campus' population | 200 | |
| TR2 | Shuttle services | 300 | |
| TR3 | Zero Emission Vehicles (ZEV) policy on campus | 200 | |
| TR4 | The total number of Zero Emission Vehicles (ZEV) divided by total campus population | 200 | |
| TR5 | Ratio of ground parking area to total campus' area | 200 | |
| TR6 | Program to limit or decrease the parking area on campus for the last 3 years (from 2017 to 2019) | 200 | |
| TR7 | Number of initiatives to decrease private vehicles on campus | 200 | |
| TR8 | Pedestrian path on campus | 300 | |
| | Total | 1800 | |
| 6 | Education and Research (ED) | | 18% |
| ED1 | The ratio of sustainability courses to total courses/subjects | 300 | |
| ED2 | The ratio of sustainability research funding to total research funding | 300 | |
| ED3 | Number of scholarly publications on sustainability | 300 | |
| ED4 | Number of events related to sustainability | 300 | |
| ED5 | Number of student organizations related to sustainability | 300 | |
| ED6 | University-run sustainability website | 200 | |
| ED7 | Sustainability report | 100 | |
| | Total | 1800 | |

UI GreenMetric Team World University Rankings

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