UNIVERSITAS INDONESIA
Veritas, Probitas, Iustitia

UI GreenMetric
World University Rankings

Certificate

This certificate is awarded to

Universiti Tun Hussein Onn Malaysia

as The 238th 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

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

Malaysia

Universiti Tun Hussein Onn Malaysia 86400 Parit Raja Batu Pahat Johor Darul Ta'zim MALAYSIA.

UNIVERSITY PROFILE

Name	:	Universiti Tun Hussein Onn Malaysia
Established	:	1993
Country	:	Malaysia

1. VERIFIED DATA

Category	Point	Percentage of Point to Total Score	Maximum Point	Percentage of Point to Maximum Point
Setting and Infrastructure (SI)	1,100	17 %	1,500	73.33 %
Energy and Climate Change (EC)	1,250	19 %	2,100	59.52 %
Waste (WS)	900	14 %	1,800	50.00 %
Water (WR)	650	10 %	1,000	65.00 %
Transportation (TR)	1,275	20 %	1,800	70.83 %
Education (ED)	1,300	20 %	1,800	72.22 %
Total Score	6,475	100 %	10,000	64.75 %

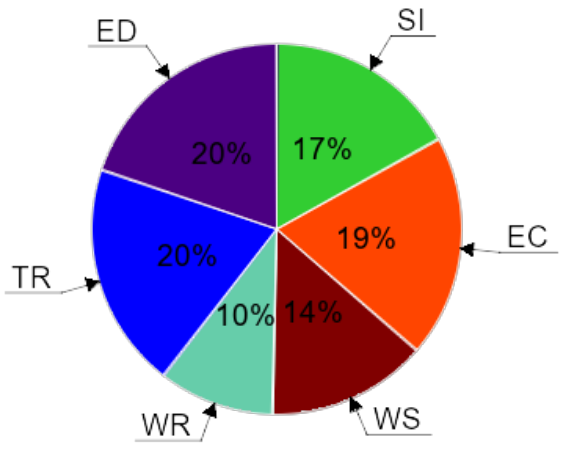


Figure 1.1 Overall Score Diagram

2. RESULTS SUMMARY

World Ranking	SI Ranking	EC Ranking	WS Ranking
238	112	263	474
	WR Ranking	**TR Ranking**	**ED Ranking**
	276	236	280

3. WORLD RANKINGS HISTORY

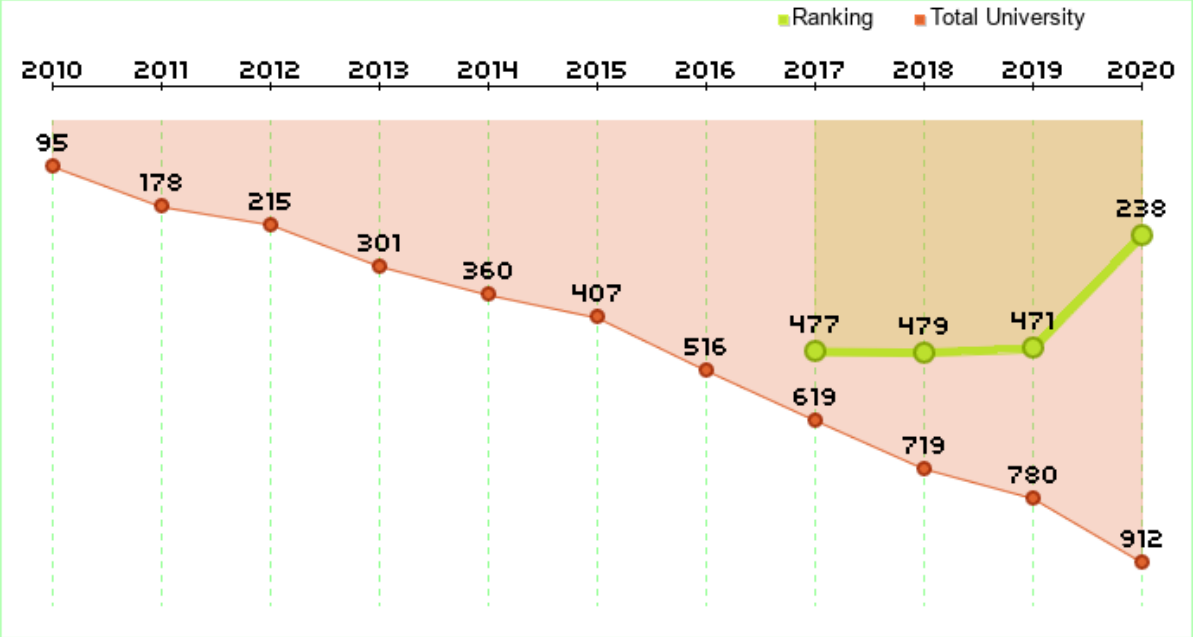


Figure 3.1 World Rankings History Diagram

4. RANKING IN MALAYSIA

Country Ranking	SI Ranking	EC Ranking	WS Ranking
11	12	7	14
	WR Ranking	**TR Ranking**	**ED Ranking**
	12	11	12

5. RESULTS DETAIL

Setting and Infrastructure

Indicator		Score
SI.1	The ratio of open space area to total area	150
SI.2	Total area on campus covered in forest vegetation	100
SI.3	Total area on campus covered in planted	300
SI.4	Total area on campus for water absorption besides the forest and planted	200
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	50

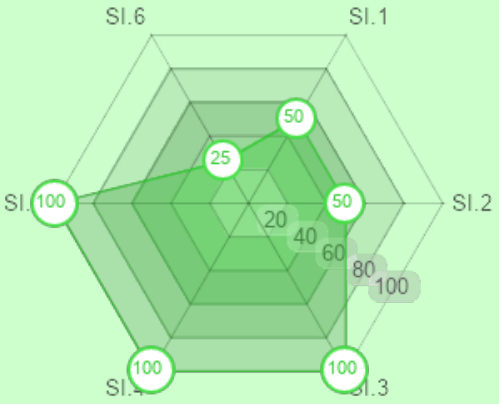


Figure 5.1 Percentage of Score to Maximum Score for Setting and Infrastructure

Energy and Climate Change

Indicator		Score
EC.1	Energy efficient appliances usage	150
EC.2	Smart building implementation	150
EC.3	Number of renewable energy source in campus	150
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	0
EC.6	Elements of green building implementation as reflected in all construction and renovation policies	300
EC.7	Greenhouse gas emission reduction program	200
EC.8	Total carbon footprint divided by total campus population	150

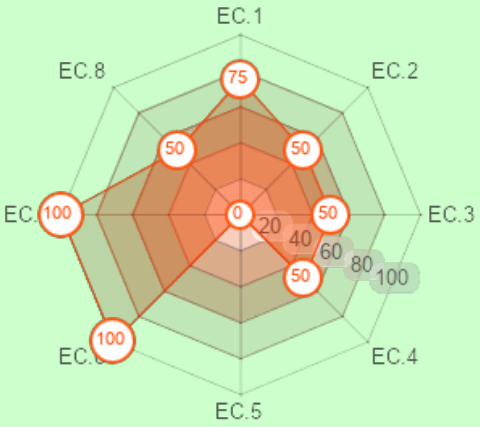


Figure 5.2 Percentage of Score to Maximum Score for Energy and Climate Change

Waste

Indicator		Score
WS.1	Recycling program for university's waste	75
WS.2	Program to reduce the use of paper and plastic on campus	300
WS.3	Organic waste treatment	75
WS.4	Inorganic waste treatment	75
WS.5	Toxic waste treatment	300
WS.6	Sewage disposal	75

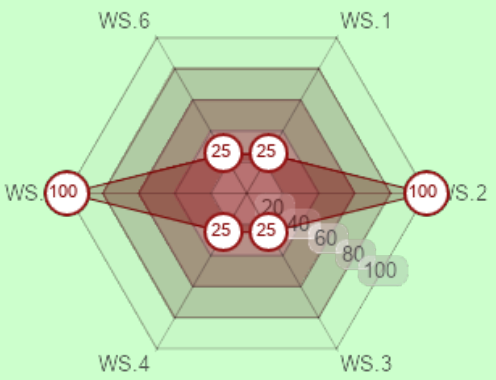


Figure 5.3 Percentage of Score to Maximum Score for Waste

Water

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

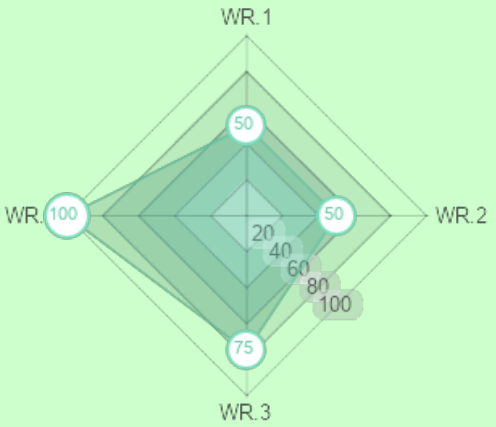


Figure 5.4 Percentage of Score to Maximum Score for Water

Transportation

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

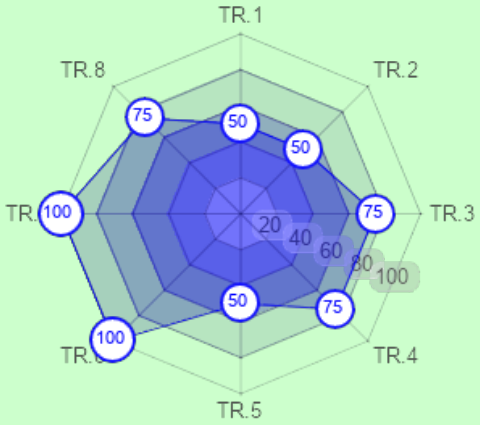


Figure 5.5 Percentage of Score to Maximum Score for Transportation

Education

Indicator		Score
ED.1	The ratio of sustainability courses to total courses/modules	150
ED.2	The ratio of sustainability research funding to total research funding	150
ED.3	Scholarly publications on sustainability	300
ED.4	Events related to sustainability	300
ED.5	Student organizations related to sustainability	150
ED.6	University-run sustainability website	200
ED.7	Sustainability report	50

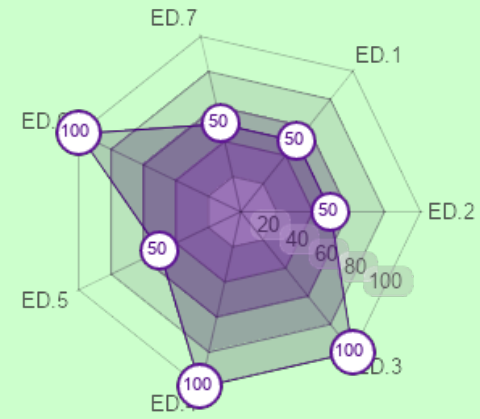


Figure 5.6 Percentage of Score to Maximum Score for Education

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 SGDs and enlargement of memberships
2019	Improving questionaire 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 Thompson 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.

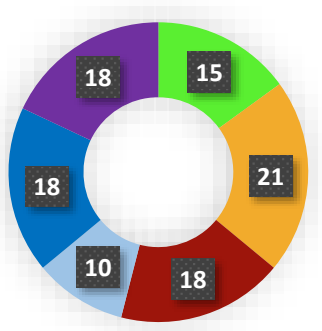
Methodology

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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