



# Punyashlok Ahilyadevi Holkar Solapur University

## CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

### 7.1 Institutional Values and Social Responsibilities

#### Environmental Consciousness and Sustainability

Metric No.	Water conservation facilities available in the Institution:
7.1.4	<ol style="list-style-type: none"><li>1. Rain water harvesting</li><li>2. Borewell /Open well recharge</li><li>3. Construction of tanks and bunds</li><li>4. Waste water recycling</li><li>5. Maintenance of water bodies and distribution system in the campus</li></ol>

# Borewell Recharge

**SOLAPUR UNIVERSITY SOLAPUR**

**RAIN WATER HARVESTING Unit-I**

Rainwater harvesting is a process involving collection & storage of rainwater with the help of artificially designed system that runs off natural or man-made catchment areas e.g. roof top, rock surface, hill slopes or artificially repaired impressions / semi pervious land surface.

Undoubtedly a number of factors contribute to the amount of water harvested e.g. the frequency and the quality of rainfall, catchment characteristics water demands and the quantum of runoff and above all speed and ease with which rain water percolate through the subsoil to recharge the ground water.

The technique is being revived today to give back to nature what we take from it.

Rain water harvesting is a simple economic and eco-friendly method of water conservation and also is an ideal solution to recharge the ground water.

The rain water that falls on the surface roof top is guided to bore wells or pits or new/old abandoned wells through small diameter pipes to recharge underground water which can be used later whenever required. Rain water can be harvested to the extent of 55000 lit. per 100 sq.m area per year from the roof tops depending on the extent of rain fall in the area.

The typical roof top rain water harvesting system comprises

1. Roof catchment
2. Gutters
3. Down pipe and first flushing pipe
4. Filter unit
5. Storage tank

Benefits of artificial recharge in urban areas are

1. Improvement in infiltration and reduction in runoff.
2. Improvement in groundwater levels and yields.
3. Reduce strain on special village panchayats/municipal corporations and water suppliers.
4. Improvement in quantity
5. Estimated quantity of additional recharge from 100sq.m roof top area is 55000 lit

Steps involved in roof top rain water harvesting:

1. Roof top rain water is collected using a PVC pipe.
2. Filter using various sand grades and bricks.
3. Excess water from the slump is taken to the well or ditch.
4. Water from the well recharges the aquifers.

Some important and handy calculations:

Catchment area of rectangular surface (metric units)  
 Length (m) x width (m) = catchment area (m<sup>2</sup>)  
 Estimated net runoff from an impervious catchment surface adjusted by its runoff coefficient (metric units) depending on the surface as 0.80. the net runoff is converted into liters for actual projection.

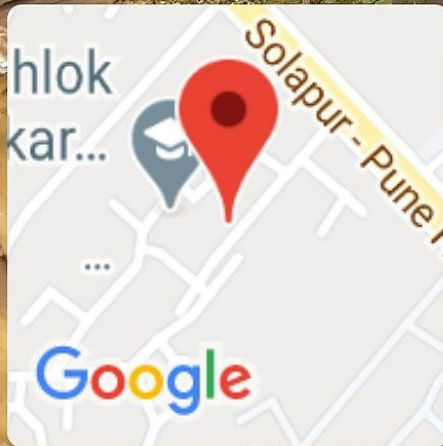
Rainwater runoff potential:  
 Catchment area (m<sup>2</sup> x rainfall(mm) x runoff coefficient = net runoff(m<sup>3</sup>)

Name of the building	Roof top area m <sup>2</sup>	Total quantity of water collected m <sup>3</sup>	Liters
Administrative building	1235.52	715.02	715020

PROSPECTED BUILDINGS

Name of the building	Roof top area m <sup>2</sup>	Total quantity of water collected m <sup>3</sup>	Liters
Physical Sciences	1128.94	653.34	653340
Social Sciences	3150.92	1823.50	1823500
Computational Sciences	934.15	529.03	529030
<b>Total</b>	<b>5500</b>	<b>3005.87</b>	<b>3005870</b>

Results: Due to this solar roof rain water harvesting system the respective bore that is shown in the above table are carried out by considering the mean annual rainfall of Solapur district taken as 1235.52 mm. The system is carried out by considering the mean annual rainfall of Solapur district taken as 1235.52 mm. The system is carried out by considering the mean annual rainfall of Solapur district taken as 1235.52 mm.



**Kondi, Maharashtra, India**  
**Unnamed Road, Kondi, Maharashtra 413255, India**  
**Lat N 17° 43' 23.4012"**  
**Long E 75° 50' 30.0444"**  
**17/02/21 04:39 PM**

**Borewell Recharge**



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**Kondi, Maharashtra, India**  
**Unnamed Road, Kondi, Maharashtra 413255, India**  
**Lat N 17° 43' 23.412"**  
**Long E 75° 50' 30.0552"**  
**17/02/21 04:40 PM**

# Rain Water Harvesting



**SOLAPUR UNIVERSITY  
SOLAPUR**

## RAIN WATER HARVESTING Unit-I

Rainwater harvesting is a process involving collection & storage of rainwater with the help of artificially designed system that runs off natural or man-made catchment areas e.g. roof top, rock surface, hill slopes or artificially repaired impressions / semi pervious land surface.

Undoubtedly-a number, of factor contribute to the amount of water harvested e.g. the frequency and the quality of rainfall, catchment characteristics water demands and the quantum of runoff and above all speed and ease with which rain water percolate through the subsoil to recharge the ground water.

The technique is being revived today to give back to nature what we take from it.

Rain water harvesting is a simple, economic and ecofriendly method of water conservation and also is an ideal solution to recharge the ground water.

The rain water that falls on the surface roof top is guided to bore wells or pits or new/old abandoned wells through small diameter wells to recharge underground water which can be used later whenever required. Rain water can be invested to the 100 sq.m area to save 100000 lps dep... in the area.

The typical roof top rain water harvesting system comprises

1. Roof catchment
2. Gutters
3. Down pipe and first flushing pipe
4. Filter unit
5. Storage tank

Steps involved in roof top rain water harvesting:-

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Estimated net runoff from an impervious catchment surface adjusted by its runoff coefficient (metric units) depending on the surface as 0.80. the net runoff is converted into liters for actual projection.

Rainwater runoff potential,  
Catchment area (m<sup>2</sup>) x rainfall(mm) x runoff coefficient = net runoff(m<sup>3</sup>)

Name of the building	Roof top area	Total quantity of water collected	
Administrative building	M <sup>2</sup> 1235.52	M <sup>3</sup> 715.02	Liters 715020

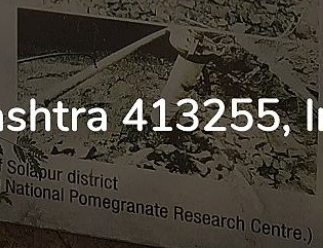
### PROSPECTED BUILDINGS

Name of the building	Roof top area	Total quantity of water collected	
Physical Sciences	M <sup>2</sup> 1128.94	M <sup>3</sup> 653.34	Liters 653340
Social Sciences	3150.02	1823.50	1823500
Computational Sciences	914.15	529.03	529030
			3005870

(Note - All these calculations are based on the mean annual rainfall of Solapur district taken as 1000 mm.)

Benefits of artificial recharge in urban areas are

1. Improvement in infiltration and reduction in runoff.
2. Improvement in groundwater levels and yields.
3. Reduce strain on special village panchayats/municipal corporations and water suppliers.
4. Improvement in quantity
5. Estimated quantity of additional recharge from 100sq.m roof top area is 55000 lit



**Kondi, Maharashtra, India**  
**Unnamed Road Kondi, Maharashtra 413255, India**

**Lat N 17° 43' 23.538"**

**Long E 75° 50' 30.1848"**

**17/02/21 04:39 PM**

**Borewell**



**Kondi, Maharashtra, India**

**Hiraj Road, Kondi, Maharashtra 413255, India**

**Lat N 17° 43' 19.434"**

**Long E 75° 50' 24.4356"**

**18/02/21 01:47 PM**

**Water Bund**



**Kondi, Maharashtra, India**  
**Hiraj Road, Kondi, Maharashtra 413255, India**  
**Lat N 17° 43' 30.2088"**  
**Long E 75° 50' 25.3644"**  
**17/02/21 04:23 PM**



Kondi, Maharashtra, India

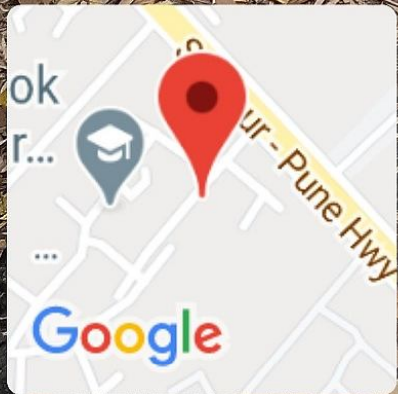
Hiraj Road, Kondi, Maharashtra 413255, India

Lat N 17° 43' 29.0352"

Long E 75° 50' 29.7816"

17/02/21 04:23 PM

Water Bund



**Kondi, Maharashtra, India**

Pandharpur - Tuljapur - Solapur - Georai Rd, Kondi, Maharashtra

413255, India

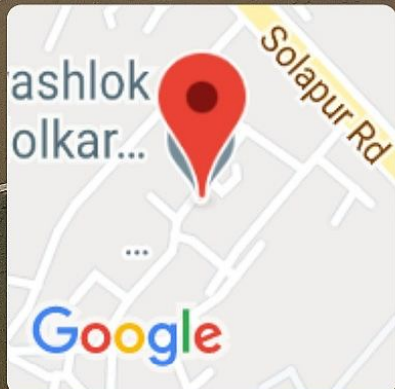
Lat N 17° 43' 24.2652"

Long E 75° 50' 31.8192"

17/02/21 04:36 PM



**Water Tank**



Hiraj Road, Kondi, Maharashtra 413255, India, Maharashtra, India

PAH Solapur University Solapur

Lat N 17° 43' 24.0564"

Long E 75° 50' 27.8232"

17/02/21 04:57 PM

## सोलापूर विद्यापीठ

कुलसचिव कार्यालय (अभियांत्रिकी विभाग)  
सोलापूर पुणे राष्ट्रीय महामार्ग, केगाव सोलापूर-४१३२५५  
ईपीएबीक्स ०२१७- २७४४७७८ (११ लाईन्स)  
विस्तृत क्र. ११९ फॅक्स नं. ०२१७- २७४४७७०  
संकेत स्थळ - <http://su.digitaluniversity.ac/www.sus.ac.in>  
ई-मेल [engineering@sus.ac.in](mailto:engineering@sus.ac.in)



NACC Accredited - २०१५  
B Grade (CGPA २.६२)

## SOLAPUR UNIVERSITY

Registrar office / (Engg. section)  
Solapur - Pune National Highway, kegaon solapur - ४१३ २५५  
EPABX No. ०२१७ - २७४४७७८ (११ Line)  
Ext. No. ११९ Fax No. ०२१७ २७४४७७०  
Web site :- <http://su.digitaluniversity.ac/www.sus.ac.in>  
Email id :- [engineering@sus.ac.in](mailto:engineering@sus.ac.in)

संदर्भ जा. क्र.सोविसो/अभियांत्रिकी विभाग/२०१८-१९/६२५

दि. २२ JAN २०१९

प्रति,

मा. कार्यकारी अभियंता,

महाराष्ट्र जिवन प्राधिकरण

सोलापूर.

विषय :- प्रस्तुत विद्यापीठ परिसरातील RUSA अंतर्गत प्राप्त होणाऱ्या अनुदानामधुन १. Providing and laying of Grainage line work in University campus २. Waste water treatment Plnat in University campus ३. Construciton of Rain water harvesting in university ही तिन्ही कामे अंशदान ठेव योजनेअंतर्गत आपल्या विभागाकडे वर्ग करण्यात आलेल्या कामाचा उपयोगीता प्रमाण पत्र (Utilization certificate) मिळणेबाबत..

महोदय,

उपरोक्त विषयांन्वये प्रस्तुत विद्यापीठ परिसरातील RUSA अंतर्गत प्राप्त होणाऱ्या अनुदानामधुन १. Providing and laying of Grainage line work in University campus २. Waste water treatment Plnat in University campus ३. Construciton of Rain water harvesting in university चे आपल्या विभागाकडे अंशदान ठेव योजने अंतर्गत वर्ग करण्यात आलेले आहे.

विषयांकीत कामे करण्याकरिता आपल्या विभागाकडे रु. २,००,०००/- दिनांक ०३/०८२०१८ रोजी व रु.१,२५,००,०००/- दिनांक १० डिसेंबर २०१८असे एकुण रु.१,२७,००,०००/- इतकी रक्कम ऑनलाईन पध्दतीने वर्ग करण्यात आलेली आहे.

तरी आपणाकडुन तिन्ही कामांची सध्यस्थिती व वर्ग करण्यात आलेल्या रक्कमेचे उपयोगीता प्रमाणपत्र (Utilization certificate) विद्यापीठ कार्यालयास सत्वर सादर करावे.

कळावे.

आपला विश्वासु,

प्रा. व्ही. बी. घुटे  
(प्र. कुलसचिव)

सहपत्र :- काही नाही  
speed post EN564854442IN.  
कळते आहे.

23/1/19.

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# SOLAPUR UNIVERSITY



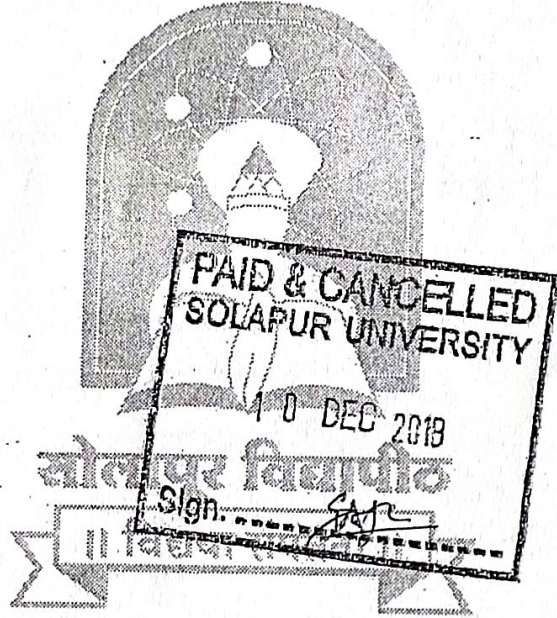
सोलापूर विद्यापीठ  
॥ विद्या संपत्ता ॥

Payment Voucher ( F.Y. : 2018 - 2019 )

Number : 2838

Dated : 10-Dec-2018

Particulars	Amount
Account : Executive Engineer, MJP Urban & Rural Schemes Divisi	1,25,00,000.00



Admin. Sanction : Hon.V.C. & F.A.O.  
Remarks : Being amount paid to Executive Engineer, MJP Urban & Rural Schemes Division No.2 By Ch.No.021258 for Providing & Laying of Drainage Line Work, Waste Water Treatment Plant & Cons.of Rain Water Treatment Advance By order of HON. V.C.

JNR One Crore Twenty Five Lakh Only.

Grand Total ₹ 1,25,00,000.00

Clerk

Accountant

Asst. Registrar

Finance & Accounts Officer

# महाराष्ट्र जीवन प्राधिकरण विभाग, सोलापूर

कार्यकारी अभियंता,  
महाराष्ट्र जीवन प्राधिकरण विभाग,  
जीवन भवन २३२ मोदीखाना,  
सोलापूर ४१३ ००१



(०२१७) कार्यालय ३ २३११६९३

फक्स - (०२१७) २३१३३८७

E-Mail-  
mjpsolapur@rediffmail.com

जावक क्र/तांशा/ १७३७ /२०१८ दिनांक २८/०५/२०१८

प्रति,

मा.कुलसचिव,  
सोलापूर विद्यापीठ,  
सोलापूर

विषय :- सोलापूर विद्यापीठ येथील ड्रेनेज/कामाच्या अंदाजपत्रकाबाबत

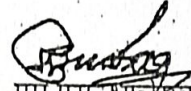
संदर्भ :- उपअभियंता, मजीप्रा उपवि.क्र.२ सोलापूर यांचे प.क्र. तांशा.१/३०० दि. १८-०५-२०१८

वरेन वॉटर हाव्हिंग्स

सोलापूर विद्यापीठ परिसरात ड्रेनेजचे काम करण्या संदर्भात आपणाकडून सुचविण्यात आले आहे. या कामाचे सविस्तर अंदाजपत्रके व आराखडे तयार करण्याचे काम मजीप्रा उपवि.क्र.२ सोलापूर कडून प्रगतीपथावर आहे.

या कामासाठी सर्वेक्षण, अंदाजपत्रके व आराखडे व कामाचा सविस्तर प्रकल्प अहवाल तयार करण्यासाठी किमान रु. २.०० लाख इतकी आगाऊ रक्कम या कार्यालयाकडे कार्यकारी अभियंता, मजीप्रा विभाग, सोलापूर यांचे नावे धनादेश द्वारे किंवा धनाकर्षाद्वारे भरणा करण्यात यावी ही विनंती.

सोबत - नाही

  
एम.एस. भालराव  
कार्यकारी अभियंता,

प्रत- उपअभियंता, मजीप्रा उपवि.क्र.२ सोलापूर यांना

आपले संदर्भिय पत्राच्या अनुषंगाने माहितीस्तव व कार्यवाहीसाठी

महाराष्ट्र जीवन प्राधिकरण उपविभाग क्र. २ सोलापूर.
उपअभियंता
वरिष्ठ लिपीक
शाखा
आ.क्र. ५२७
दिनांक ३०/०५/२०१८



FACT FILE 2020

# UI GREENMETRIC WORLD UNIVERSITY RANKINGS

## PUNYASHLOK AHILYADEVI HOLKAR SOLAPUR UNIVERSITY SOLAPUR

India

Punyashlok Ahilyadevi Holkar Solapur University Dnyanteerth  
Nagar, Kegaon, Solapur-Pune National Highway, Solapur- 413255,  
Maharashtra (India)

# UNIVERSITY PROFILE

Name : Punyashlok Ahilyadevi Holkar  
Solapur University Solapur

Established : 2004

Country : India



## 1. VERIFIED DATA

Category	Point	Percentage of Point to Total Score	Maximum Point	Percentage of Point to Maximum Point
Setting and Infrastructure (SI)	700	18 %	1,500	46.67 %
Energy and Climate Change (EC)	975	25 %	2,100	46.43 %
Waste (WS)	675	17 %	1,800	37.50 %
Water (WR)	275	7 %	1,000	27.50 %
Transportation (TR)	250	6 %	1,800	13.89 %
Education (ED)	1,050	27 %	1,800	58.33 %
<b>Total Score</b>	<b>3,925</b>	<b>100 %</b>	<b>10,000</b>	<b>39.25 %</b>

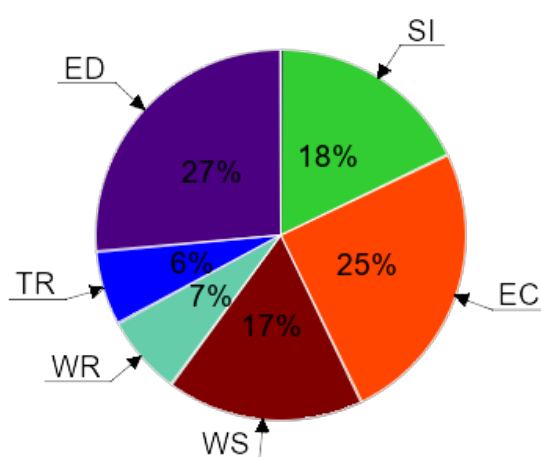


Figure 1.1 Overall Score Diagram

## 2. RESULTS SUMMARY

<b>World Ranking</b>	<b>SI Ranking</b>	<b>EC Ranking</b>	<b>WS Ranking</b>
<b>704</b>	<b>552</b>	<b>484</b>	<b>649</b>
	<b>WR Ranking</b>	<b>TR Ranking</b>	<b>ED Ranking</b>
	<b>689</b>	<b>887</b>	<b>488</b>

## 3. WORLD RANKINGS HISTORY

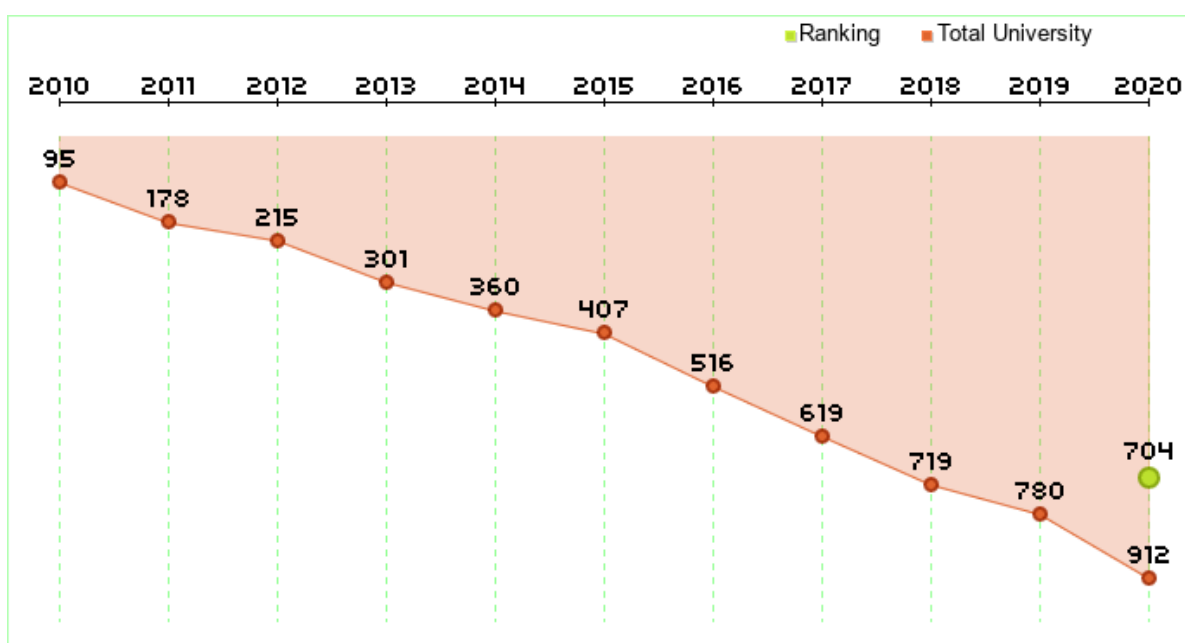


Figure 3.1 World Rankings History Diagram

## 4. RANKING IN INDIA

<b>Country Ranking</b>	<b>SI Ranking</b>	<b>EC Ranking</b>	<b>WS Ranking</b>
<b>22</b>	<b>20</b>	<b>13</b>	<b>21</b>
	<b>WR Ranking</b>	<b>TR Ranking</b>	<b>ED Ranking</b>
	<b>24</b>	<b>27</b>	<b>12</b>

## 5. RESULTS DETAIL

### Setting and Infrastructure

Indicator		Score
SI.1	The ratio of open space area to total area	75
SI.2	Total area on campus covered in forest vegetation	0
SI.3	Total area on campus covered in planted	150
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	225
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	100
EC.2	Smart building implementation	225
EC.3	Number of renewable energy source in campus	75
EC.4	Total electricity usage divided by total campus population	300
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	0
EC.7	Greenhouse gas emission reduction program	50
EC.8	Total carbon footprint divided by total campus population	225

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	150
WS.2	Program to reduce the use of paper and plastic on campus	150
WS.3	Organic waste treatment	75
WS.4	Inorganic waste treatment	75
WS.5	Toxic waste treatment	150
WS.6	Sewage disposal	75

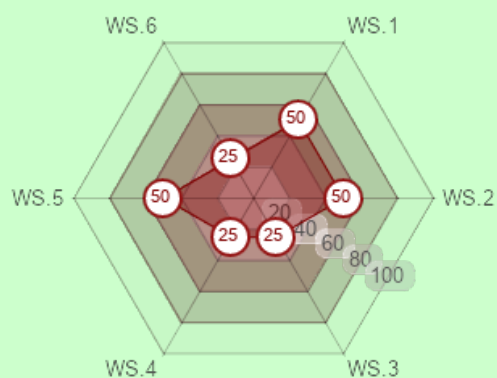


Figure 5.3 Percentage of Score to Maximum Score for Waste

## Water

Indicator		Score
WR.1	Water conservation program & implementations	150
WR.2	Water recycling program implementation	75
WR.3	Water efficient appliances usage	0
WR.4	Consumption of treated water	50

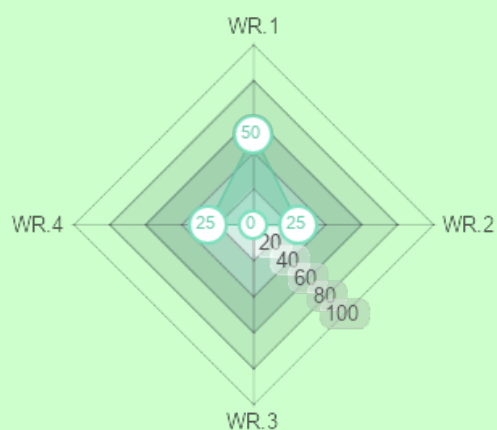


Figure 5.4 Percentage of Score to Maximum Score for Water

## Transportation

Indicator		Score
TR.1	The total number of vehicles (cars and motorcycles) divided by total campus' population	50
TR.2	Shuttle services	0
TR.3	Zero Emission Vehicles (ZEV) policy on campus	0
TR.4	The total number of Zero Emission Vehicles (ZEV) divided by total campus population	0
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	50
TR.7	Number of transportation initiatives to decrease private vehicles on campus	0
TR.8	Pedestrian path on campus	0

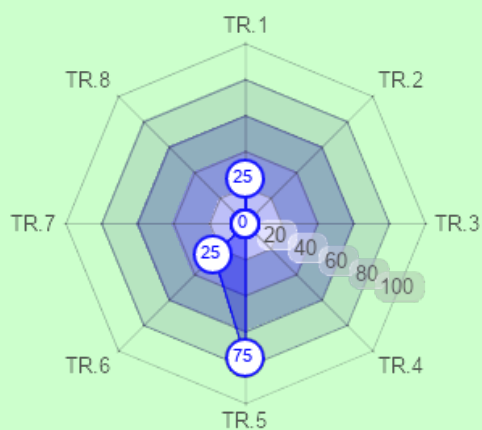


Figure 5.5 Percentage of Score to Maximum Score for Transportation

## Education

Indicator		Score
ED.1	The ratio of sustainability courses to total courses/modules	75
ED.2	The ratio of sustainability research funding to total research funding	300
ED.3	Scholarly publications on sustainability	75
ED.4	Events related to sustainability	300
ED.5	Student organizations related to sustainability	300
ED.6	University-run sustainability website	0
ED.7	Sustainability report	0

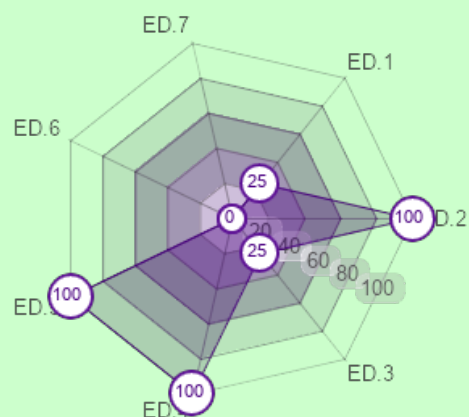


Figure 5.6 Percentage of Score to Maximum Score for Education



# 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.

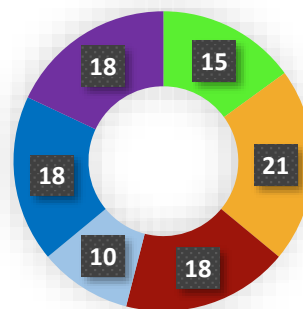
## Methodology

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
	<b>TOTAL</b>	<b>100</b>



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
<b>1</b>	<b>Setting and Infrastructure (SI)</b>		<b>15%</b>
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	
	<b>Total</b>	<b>1500</b>	
<b>2</b>	<b>Energy and Climate Change (EC)</b>		<b>21%</b>
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	
	<b>Total</b>	<b>2100</b>	
<b>3</b>	<b>Waste (WS)</b>		<b>18%</b>
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	
	<b>Total</b>	<b>1800</b>	
<b>4</b>	<b>Water (WR)</b>		<b>10%</b>
WR1	Water conservation program & implementations	300	
WR2	Water recycling program implementation	300	
WR3	Water efficient appliances usage	200	
WR4	Consumption of treated water	200	
	<b>Total</b>	<b>1000</b>	
<b>5</b>	<b>Transportation (TR)</b>		<b>18%</b>
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	
	<b>Total</b>	<b>1800</b>	
<b>6</b>	<b>Education and Research (ED)</b>		<b>18%</b>
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	
	<b>Total</b>	<b>1800</b>	

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