



This certificate is awarded to

# **Bursa Uludag University**

as The 357<sup>th</sup> World's Most Sustainable University in 2022 UI GreenMetric World University Rankings

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# FACT FILE 2022 UI GREENMETRIC WORLD UNIVERSITY RANKINGS

# **BURSA ULUDAG UNIVERSITY**

Turkey

Gorukle Campus 16059 Nilufer



### **UNIVERSITY PROFILE**

Name	: Bursa Uludag University
Established	: 1970
Country	: Turkey

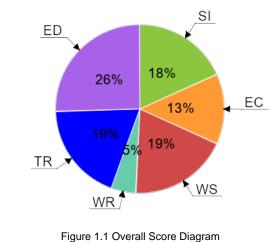


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### **1. VERIFIED DATA**

Category	Point	Maximum Point	Percentage
Setting and Infrastructure (SI)	1,230	1500	82.00 %
Energy and Climate Change (EC)	900	2100	42.86 %
Waste (WS)	1,275	1800	70.83 %
Water (WR)	310	1000	31.00 %
Transportation (TR)	1,275	1800	70.83 %
Education (ED)	1,750	1800	97.22 %
Total Score	6,740	10000	67.40 %



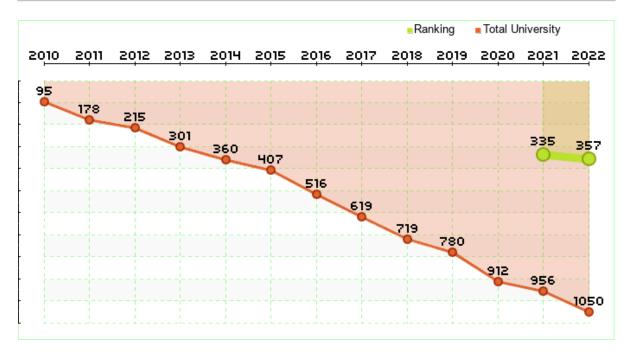
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# 2. RESULTS SUMMARY

World Ranking	SI Ranking	EC Ranking	WS Ranking
	84	693	342
257			
	WR Ranking	TR Ranking	ED Ranking
	767	364	42

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## **3. WORLD RANKINGS HISTORY**





# **4. RANKING IN TURKEY**

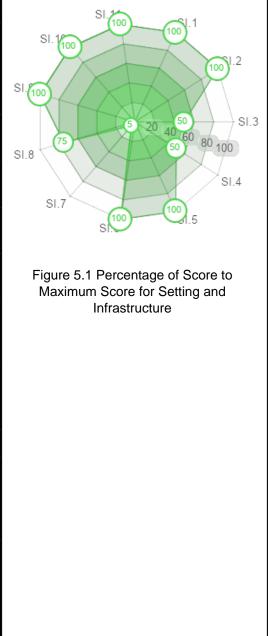
Country Ranking	SI Ranking	EC Ranking	WS Ranking
	11	53	30
21			
	WR Ranking	TR Ranking	ED Ranking
	60	35	3

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# 5. RESULTS DETAIL

### **Setting and Infrastructure**

	Indicator		
SI.1	The ratio of open space area towards total area	200	
SI.2	Area on campus covered in forest	100	s
SI.3	Area on campus covered in planted vegetation	100	s
SI.4	Area on campus for water absorbance	50	
SI.5	The ratio of open space area divided campus population	200	
SI.6	University budget for sustainability effort	200	
SI.7	Percentage of operation and maintenance activities of building in one year period	5	
SI.8	Campus facilities for disabled, special needs and or maternity care	75	
SI.9	Security and safety facilities	100	
SI.10	Health infrastructure facilities for students, academics and administrative staff's wellbeing	100	
SI.11	Conservation: plant, animal and wildlife, genetic resources for food and agriculture secured in either medium or long-term conservation facilities	100	



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### **Energy and Climate Change**

	Indicator	Score	
EC.1	Energy efficient appliances usage	100	
EC.2	Smart building program implementation	15	
EC.3	Number of renewable energy source in campus	75	
EC.4	The total electricity usage divided by total campus population	225	
EC.5	The ratio of renewable energy production towards total energy usage per year	10	
EC.6	Element of green building implementation	50	
EC.7	Greenhouse gas emission reduction program	150	
EC.8	The ratio of total carbon footprint divided campus population	150	
EC.9	Number of innovative program(s) in Energy and Climate Change	50	
EC.10	Impactful university program(s) on climate change	75	



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

### Waste

	Indicator		
WS.1	Recycling program for university waste	75	WS.6 WS.1
WS.2	Program to reduce the use of paper and plastic in campus	300	25 25
WS.3	Organic waste treatment	225	WS.000 /S.2
WS.4	Inorganic waste treatment	300	100
WS.5	Toxic waste treatment	300	(100) (75)
WS.6	Sewerage disposal	75	WS.3
			Figure 5.3 Percentage of Score to Maximum Score for Waste

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### Water

	Indicator	Score	<b>~</b> \/ <b>R</b> .1
WR.1	Water conservation program	200	
WR.2	Water recycling program	0	WR.5
WR.3	The use of water efficient appliances	100	5 WR.2
WR.4	Consumption of treated water	0	20 40 60 80
WR.5	Water pollution control in campus area	10	WR.4
			Figure 5.4 Percentage of Score to Maximum Score for Water

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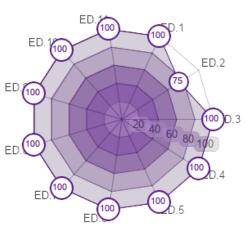
## Transportation

	Indicator	Score	TR.1
TR.1	The ratio of total vehicles (cars and motorcycles) divided by total campus population	100	TR 100 50 75 TR.2
TR.2	Shuttle services	225	TR.100 (0,20 40 - 75) TR.3
TR.3	Zero Emission Vehicles (ZEV) policy on campus	150	50 60 80 100
TR.4	The ratio of Zero Emission Vehicles (ZEV) divided by total campus population	100	TR.6
TR.5	Ratio of parking area to total campus area	200	Figure 5.5 Percentage of Score to Maximum Score for Transportation
TR.6	Transportation program designed to limit or decrease the parking area on campus for the last 3 years	0	
TR.7	Number of transportation initiatives to decrease private vehicles on campus	200	
TR.8	Pedestrian policy on campus	300	

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### Education

	Indicator	Score
ED.1	The ratio of sustainability courses towards total courses/modules	300
ED.2	The ratio of sustainability research funding towards total research funding	150
ED.3	Sustainability publications	200
ED.4	Sustainability events	200
ED.5	Sustainability student organizations	200
ED.6	Sustainability websites	200
ED.7	Sustainability report	100
ED.8	Number of cultural activities on campus	100
ED.9	Number of university program(s) to improve teaching and learning	100
ED.10	Number of sustainability community services project organized and/or involving students	100
ED.11	Number of sustainability- related startups	100



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Figure 5.6 Percentage of Score to Maximum Score for Education

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# 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 from 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 Dr.Junaidi, Dr.Budi Hartono, Dr.Allan Lauder, and Prof. Dr. Ir. Gunawan Tjahjono formulated UI GreenMetric Questionnaire and introduced UI Ranking to the world. In 2011, 11 new indicators in 5 categories have been added. Subsequently Education has been 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 has been set for the asessors.

UI GreenMetric took 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; Universities' Responsibility for Sustainabile Development Goals and World's Complex Challenges in 2020; Universities, UI GreenMetric, and SDGs in the Time of Pandemic in 2021; and Collective Actions for Transforming Sustainable Universities in the Post-Pandemic Time in 2022 as its annual themes. In 2022, 1050 universities from 85 countries participate in the rankings.

To reach and coordinate more participating universities, UI GWURN was established in 2017 with a national coordinator in each country. To make it work, Dr.Junaidi formulated a strategic framework for the network. Currently, there are 39 national coordinators in Asia, America, Africa and Europe. Each voluntarily organizes national workshop inviting other universities in their country. Since its establishment in 2010, it has been increasingly recognized as the first university ranking on sustainability and has

Table	Table 1. UI GreenMetric Timeline				
U	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 toward sustainability				
2017	UIGWURN established				
2018	Focusing on SGDs and				
	enlargement of				
	memberships				
2019	Improving questionnaire				
	and data collection method				
2020	Three new questions				
	on social and economic				
	impacts, such as (1)				
	Startup for the green				
	economy; (2) Public access				
	to open spaces; (3)				
	Community services				
2021	Introducing social, cultural,				
	economic, and pandemic				
	aspects in the questionnaire				
2022	Adding an indicator related				
	to water pollution and				
	adjustment related to the				
	current pandemic condition				

been used by participating universities to benchmark and do continuous improvement in the area of sustainability.

As a member of 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 an online questionnaire. All participants complete the questionnaire with evidence. After that, UI GreenMetric expert members and reviewers validate the answers based on the evidence that participants provide. This

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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 last will depend on its Water (WR) score.

Table 2. Categories used 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).

No	CRITERIA	Point	Weighting
1	Setting and Infrastructure (SI)		15%
SI1	The ratio of open space area to total area	200	
SI2	Total area on campus covered in forest vegetation	100	
SI3	Total area on campus covered in planted vegetation	200	
SI4	Total area on campus for water absorption besides the forest and planted vegetation	100	
SI5	The total open space area divided by total campus population	200	
SI6	Percentage of university budget for sustainability efforts	200	
SI7	Percentage of operation and maintenance activities of building in one year period	100	
SI8	Campus facilities for disabled, special needs and or maternity care	100	
SI9	Security and safety facilities	100	
SI10	Health infrastructure facilities for students, academics and administrative staff's wellbeing	100	
SI11	Conservation: plant, animal and wildlife, genetic resources for food and agriculture secured in either medium or long-term conservation facilities	100	
	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	200	
EC7	Greenhouse gas emission reduction program	200	
EC8	Total carbon footprint divided by total campus' population (metric tons per person)	200	
EC9	Number of the innovative program(s) in Energy and Climate Change	100	
EC10	Impactful university program(s) on climate change	100	

#### Table 3 Indicators and categories

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			- eve
	Total	2100	
3	Waste (WS)		18%
VS1	Recycling program for university's waste	300	
VS2	Program to reduce the use of paper and plastic on campus	300	
VS3	Organic waste treatment	300	
v35 VS4	Inorganic waste treatment	300	
VS5	Toxic waste treatment	300	
VS6	Sewage disposal	300	
	Total	1800	
4	Water (WR)		10%
4 VR1	Water (WK) Water conservation program & implementation	200	10/0
VR1 VR2	Water conservation program & implementation Water recycling program implementation	200	
VRZ VR3	Water recycling program implementation Water-efficient appliances usage	200	
VR3 VR4	Consumption of treated water	200	
VR4 VR5	Water pollution control in the campus area	200	
/5	Total	1000	
5	Transportation (TR)	1005	18%
5 [R1	Transportation (TR) The total number of vehicles (cars and motorcycles) divided by the total campus'	200	18%
Κı	population	200	
rr2	Shuttle services	300	
rr3	Zero Emission Vehicles (ZEV) policy on campus	200	
rr4	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	
rr6	Program to limit or decrease the parking area on campus for the last 3 years (from 2019 to 2021)	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	200	
ED3	Number of scholarly publications on sustainability	200	
ED4	Number of events related to sustainability	200	
ED5	Number of student organizations related to sustainability	200	[ ] /
ED6	University-run sustainability website	200	·
ED7	Sustainability report	100	·
-	Number of cultural activities on campus	100	
ED8	Number of university program(s) to improve teaching and learning	100	
ED9	Number of sustainability community services project organized and/or involving	100	
	students Number of sustainability-related startups	100	

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