

# VISHWAKARMA UNIVERSITY

SDG 6 REPORT 2021







# About This Report

The United Nations “Transforming our World: the 2030 Agenda for Sustainable Development” which includes the 17 Sustainable Development Goals (SDGs) has great importance and significance to universities. The SDGs provide for a shared global vision towards sustainable development for all. Vishwakarma University (VU) firmly believes in the vital role that universities can play in the achievement of the SDGs, and has ingrained this aspect in all of its strategies and operations. As encapsulated in its motto - maximizing human potential, VU, since the year of its inception, has worked endlessly towards creating an enabling environment to ensure the wholesome development of its students - preparing them for life and livelihood.

VU has embarked on an exciting journey to transform the VU Campus to become an EcoCampus, which will be a testbed for innovative sustainability solutions for the future. The vision of the VU EcoCampus is to develop VU as “a global Sustainability thought leader, committed to improving the society, by providing an empowering partnership for the development of technology and educating the future generation”. Sustainability with an aim to reduce the carbon footprint was the key theme of the function organised to celebrate the launch of the ‘Eco Campus’.

This report showcases VU’s commitment to sustainable development goals in which VU has been actively working in partnership with diverse stakeholders. One such example is VU’s Certificate Programme in Sustainability Management in Cooperation with the Hof University of Applied Sciences Germany, a program in which students gain a deep understanding of state-of-the-art business management techniques and more importantly latest sustainable methods. Likewise, the Wilo Foundation-Vishwakarma University established through a grant from the Wilo Foundation, Germany promotes research in water treatment, purification and create the much-needed social awareness about clean drinking water through its Water Quality Centre of Excellence.

From last 2 years, VU is published SDG reports under its Sustainability mission which outlined the key initiatives undertaken by the Institute to meet the Sustainable Development Goals (SDGs). This report provides a summary of the range of activities undertaken at VU during 2021 to meet the SDGs through its teaching, research, outreach and public engagement, and operations. VU conducts a diverse range of activities across the Institute, and this report lists only some of many such initiatives. Even when all of us were severely affected by the COVID-19 pandemic, VU continually strives to implement sustainability in all its core operations, including by creating a platform to showcase its efforts toward the SDGs in a comprehensive and detailed manner.

VU continually strives to contribute to the sustainable development of the nation and society at large by developing educated and productive human resources that observe and adhere to the practices of equity, inclusiveness, excellence, ethics, and professional standards.

**Prof. (Dr) Siddharth Jabade**  
**Vice-Chancellor**  
**Vishwakarma University, Pune, India**

## VU's Participation in the THE Impact Rankings 2022

Vishwakarma University (VU) also participated last year in Times Higher Education (THE) Impact Rankings 2022, which looks at global universities' commitment and performance in furthering the Sustainable Development Goals (SDGs).

VU took part in the 4 SDGs listed below plus the mandatory SDG17, and the results were as follows:

### Overall Ranking 1001+





**6** CLEAN WATER  
AND SANITATION



**Ensure access to water and  
sanitation for all**

Vishwakarma University (VU) promotes education, research, innovation, and outreach in the domain of water and sanitation. VU's mission is to enable innovative technologies, best practices, and development in the context of the need, relevance, socialization, and localization to the community at large for the greater good. There is a major drive to ensure the bottom of the pyramid, the marginalized and needy community is very much beneficiary in this endeavour. In particular, water treatment, purification, and creates much needed social awareness about clean drinking water and sanitation.

### **Establishment of Water Quality Centre of Excellence**

State of the art, Water Quality Centre of Excellence in collaboration with Wilo Foundation, Germany at VU, is a step towards fulfilling the motto of carrying out transformational research in the domain of water and sanitation <http://www.wilo-foundation.de/en/funded-projects/science/water-quality-centre-of-excellence-at-vishwakarma-university-pune-india.html>

This Centre has sophisticated equipment to measure physical, chemical, and biological parameters of water. To conduct research and measure the physical, chemical, and biological parameters of water, the Centre is well- equipped with the latest models of sophisticated instruments. They include Induced Couple plasma- Optical Emission Spectrophotometer, Atomic Absorption Spectrophotometer, High-Performance Liquid Chromatograph, Total Organic Carbon analyser, Flame Photometer, Auto titrator, Microscope with Camera, Colony Counter, Incubators, Fluoride Meter, Colorimeter.

#### **The main objectives of the Centre are to perform the following functions:**

- Awareness and sensitization
- Policy and advocacy
- Innovative technology development
- Adaptation and proliferation
- Facilitation in terms of assistance in water quality measurement
- Socialization of best practices and innovations
- Collaboration and networking towards SDG 6

<https://www.vupune.ac.in/centres-of-excellence/wilo-vu-water-quality-centre-of-excellence>

[https://www.vupune.ac.in/images/MediaCoverage/Times\\_of\\_India\\_18\\_June\\_2018.pdf](https://www.vupune.ac.in/images/MediaCoverage/Times_of_India_18_June_2018.pdf)

### **Wilo Safe Water Hut at VU**

VU has established an innovative water ATM at its Kondhwa campus in collaboration with Wilo Mather and Platt. Students, faculty members, and surrounding community members would only need to swipe their identity cards at Water ATM to get clean, processed water. There is no need to carry water bottles; this has enabled us to proceed with the plastic-free VU campus mission. The water treatment obviates the issues encountered by the conventional Reverse Osmosis process, which are substantial water requirement, clogging of the membrane, and removal of the beneficial minerals. This easy to operate Water ATMs can be built in rural areas to meet the need for clean drinking water. On the occasion of the inauguration of the Water Quality Centre of Excellence, Prof. Bullinger, Chairman, Wilo Foundation congratulated VU for not only making efforts to create awareness about drinking water but also to contribute to society by way of establishing Water ATM.

[https://www.vupune.ac.in/images/MediaCoverage/sakal\\_17\\_June\\_2018.pdf](https://www.vupune.ac.in/images/MediaCoverage/sakal_17_June_2018.pdf)

### The social initiative, Drinking Water facility at Rural Areas

Vishwakarma University under the scheme of Unnat Bharat Abhiyan (UBA) had adopted five villages namely Samrevadi, Bhilarwadi, Thoptevadi (Ghera), Thoptevadi (Purva) and Mordari which are situated near Sinhagad Fort, Pune, Maharashtra. Around 67 students studying in Bachelor of Engineering (B.E.) interacted with the villagers on different issues related to water, sanitation, health, and hygiene under the guidance of UBA Coordinator, Dr. Kailas Bhosale.

The survey reflected that the residents lack several basic facilities including pure drinking water. The students found that villagers were using water from wells, but the quality of water was poor and unhealthy. As a result, villagers were facing various medical issues. Unnat Bharat Abhiyan (UBA) is a much needed and highly challenging initiative in this direction.

To address this health problems of villages, under UBA, Vishwakarma University installed water ATM of capacity 500 Litters per Day to provide safe and clean drinking water in these adapted villages.

#### @ Thoptevadi (Ghera) – RO Plant



#### RO Water Plant @ Mordari





### RO Water Plant @ Sambrewadi



### RO Water Plant @ Bhilarwadi



<https://unnatbharatabhiyan.gov.in/blog/index.php/tag/vishwakarma-university-pune/>

### Vertical Sewage Treatment Plant

To deliver clean water to society in the areas with limited land availability, VU collaborated with Wilo Mather and Platt Pumps Private Limited, Pune, India to jointly conceptualize and develop a Vertical Sewage Treatment Plant (VSTP) to generate potable water. The capacity of the plant is 10,000 liters of water per day. The project will be completed in three phases. The project started in 2019. The stages included ideation of VSTP Technology, Conceptualization of the VSTP, Designing of Individual Components, System Design, and Configuration, Installation of VSTP in Campus, Patent, Investigation, Testing, Validation, Simulation, and modelling. Five faculty members and students from Science and Technology are engaged in this project. The VSTP is installed at the VU campus. The operational controlled environment testing at the Technology Readiness Level 5 is completed at VU.



<https://research.vupune.ac.in/researchProjects>

## World Water Day 2021

In the mission of moving towards Sustainable Development Goals 6 that aims at providing access of pure drinking water and sanitation to all, Water Quality Centre of Excellence at Vishwakarma University in association with Wilo India, and Department of Water, Sanitation and Hygiene takes this opportunity to create awareness and sensitize the society towards this critical issue by organizing this annual event on the occasion of World's water day. Theme of the event is "Swajal" symbolizing ownership of this natural resource.

It talks about realization of taking ownership of Water. Different competitions have been organized such as Ideathon which invited innovative ideas from young mind to save, conserve and manage Water resources, aim is to trigger the innovative element of each individual and bring the idea into reality. Quiz and Rapid Fire is another event which illuminates the brain to think about different aspects of Water and Sanitation around us. To bring out awareness for critical issues, visuals are the best way to convey our thoughts, through Poster Making, we aim to create much more needed awareness amongst the society. A special category titled "Boond Boond Se Sagar" gives a platform to set examples before the people who finds difficult to conserve Water at their individual levels. As it is said that every drop counts, there is no requirements of special equipment at individual levels to do so. We all at home, offices, buildings, institutes, malls, railways stations, restaurants can save water and contribute to the SDG6.

The day experienced an array of new thoughts, ideas and visualized commitment to solving water issues. World Water Day 2021 organized by Wilo-VU Water Quality Centre of Excellence and Department of WASH, at Vishwakarma University exhibited participation from different institutes and universities from Maharashtra and also from Tunisia North Africa, Institutes like MIT WPU, Symbiosis Institute of Technology, Law College Aurangabad and Government Polytechnic Aurangabad and so on. Around 100 students participated in different competitions like Ideathon, poster and Quiz and the special entry "Boond Boond se Sagar".



<https://www.vupune.ac.in/event/celebration-of-world-water-day-to-be-organized-by-wilo-vu-water-quality-centre-of-excellence-and-dept-of-water-sanitation-and-hygiene>

<https://www.facebook.com/vishwakarmauniversity/posts/pfbid02PFudXCF4Kf98bdU69BHNjYwZGX48AA5qfexuh2ChdMnk1VGvEFTRiF6AVicosY8l>

## The India Water Conference

Vishwakarma University along with Sustainability Initiatives, Pune organized a Digital Conference- The India Water Conference on 30th March 2021. The aim of conference was to create awareness and promote an inspired and active citizenry for better urban development.

Prof. Dr Siddharth Jabade, Vice Chancellor of Vishwakarma University shared experience and knowledge on Case Study on Water Research and Water ATMs during the conference. Esteemed speakers from RFRF Foundation Nagpur and Vasundharaa Geo Technologies, Pune were also invited to share their knowledge and expertise to achieve mission of SDG 6.

**THE INDIA WATER DIGITAL CONFERENCE**  
Tuesday, 30th March, 2021

Sustainability Initiatives **LIVE**

**KEY NOTE SPEAKER**

**Dr. Rajiv Sinha**  
Professor  
Department of Earth Sciences  
IIT Kanpur

**SPEAKERS**

**Dr. Sidharth Jabade**  
Vice Chancellor  
Vishwakarma University, Pune  
(Case Study on Water Research and Water ATMs)

**Dr. Dhananjay Bhatkhande**  
Director, Water Quality Centre  
of Excellence, Vishwakarma University, Pune  
(Case Study on Water Research and Water ATMs)

**Dr. Shraddha Khamparia**  
Deputy Director, Water Quality Centre  
of Excellence, Vishwakarma University, Pune  
(Case Study on Water Research and Water ATMs)

**Mr. Adwait Kulkarni**  
Director  
Vasundharaa Geo Technologies, Pune  
(Surface Water Monitoring using Satellite images)

**Dr. Rajesh Biniwale**  
Director General  
RFRF Foundation Nagpur  
(Water Conservation and Awareness)

**Mr. Milind Khot**  
BFS Marketing Inc,  
Nagpur  
(Water Conservation and Awareness)

**MODERATOR**

**Mr. Ashish Kulkarni**  
Convener  
Sustainability Initiatives, Pune

**MEDIA PARTNERS**  
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Digital Conference – India Water Conference_30th March 2021		
Facebook Live- Sustainability Initiatives		
Time	Speaker	Topic
10:00 – 10:15	Dr Poorva Keskar, Trustee, Sustainability Initiatives, Pune	Introduction
10:15 – 11:15	Dr Rajiv Sinha, Professor. Department of Earth Sciences, IIT Kanpur	Key Note Speaker
11:15 – 12:15	Dr Sidharth Jabade, Vice Chancellor, Vishwakarma University, Pune	Case Study on Water Research and Water ATMs
12:15 – 12:45	Mr Adwait Kulkarni, Director, Vasundharaa Geo Technologies, Pune	Surface Water Monitoring using Satellite images
12:45 – 13:30	Mr. Milind Khot and Dr Rajesh Biniwale, Director General RFRF Foundation Nagpur	Apne Nadiyonko Jano
13:30 – 13:40	Vote of Thanks	Ar Anagha Paranjape Purohit, Trustee, Sustainability Initiatives, Pune
Moderator- Mr Ashish Kulkarni, Convener, Sustainability Initiatives, Pune		

<http://www.sustainability-initiatives.org/articles/digital-conference-on-the-india-water-conference>

## Guest Session at Innovate4Cities Conference



Date: 11-15th October 2021

Venue: Zoom Platform

Prof. Dr Dhananjay Bhatkhande, Director of Water Quality Centre of Excellence on the invitation from Innovate4Cities conference delivered a session on Water as Resource for Cities

**Innovation in wastewater treatment using Novel Technologies**  
**Innovate4Cities Climate Change Conference**  
**11-15<sup>th</sup> October 2021**  
**Water as Resource for Cities**

Prof. Dhananjay S. Bhatkhande  
 Director Water Quality Centre of Excellence  
 Vishwakarma University  
 12<sup>st</sup> Oct 2021

### Water as a Resource for Cities

This session will look at water as a resource for cities at varied scales. Water management and infrastructure in cities needs to be looked at very critically for resilience against climate urban disasters. Development and demonstration of sustainable technologies for water management and mitigation. Also socio-economic aspect of water resource in urban areas will be talked about in this session.





Prof. Rajesh Biniwale  
Senior Scientist  
NEERI



Dr. Himanshu Kulkarni  
Executive Director & Secretary  
ACWADAM



Prof. Dhananjay Bhatkhande  
Director of Water Quality  
Vishwakarma University



Prof. M S Mohan Kumar  
Department of Civil Engineering  
Indian Institute of Science



Omar Ahmad  
Managing Editor  
South Asia - The Third Pole



Dr. Prasanna Jogdeo  
Co-founder  
Lemnon Green Solutions



Shailaja Deshpande  
Founder, Director  
Jeevitnadi



Sanskriti Mehon  
Senior Programme Director  
CET



Shivali Waichal  
Program Coordinator  
Sustainability Initiatives

Session Cultural performance courtesy MIT Vishweshanti Sangeet Academy, Rajbaugh, Pune

**Date:** 12.10.2021  
**Session Code:** 3.VII  
**Time:** 13:30-15:00 IST (10:00-11:30 CEST)  
**Register on:** [innovate4cities.org/2021](http://innovate4cities.org/2021)

Conference Organisers





Regional Curator Team





Supported by









<http://www.sustainability-initiatives.org/articles/innovate4-cities>



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