VISHWAKARMA UNIVERSITY

SDG 6 REPORT 2020

SUSTAINABLE DEVELOPMENT GOALS

VU VISHWAKARMA UNIVERSITY
Maximising Human Potential

University Grants Commission (UGC) Approved State Private University

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Maximising Human Potential

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 contributing towards improving 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 the UN 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 practices. Likewise, the Wilo Foundation- Vishwakarma University established through a grant from the Wilo Foundation, Germany promotes research in water treatment, purification and creates the much-needed social awareness about clean drinking water through its Water Quality Centre of Excellence.

Last year, for the first time in its history, VU published SDG reports under its Sustaibilibity mission which outlined the key initiatives undertaken by the Institute to meet the Sustainable Development Goals (SDGs) in 2019. This report provides a summary of the range of activities undertaken at VU during 2020 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 showcases some of the many such initiatives. In spite of being severely impacted 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 participated for the first time in the Times Higher Education (THE) Impact Rankings 2021, which looks at global universities' commitment and performance in furthering the SDGs. VU was ranked amongst the top 100-200 in the world for SDG7— Clean and Affordable Energy. The achievement is a recognition of VU's work in providing education to students from countries where energy crises are an issue. Likewise, VU ranked top 300 in the world for SDG6 — Clean Water and Sanitation which indicates a recognition of our education and research on water issues. 1,118 universities from 94 countries participated in this ranking exercise, which also saw VU's work recognized on several other SDG's.

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 2021

Vishwakarma University (VU) participated for the first time in the Times Higher Education (THE) Impact Rankings, which looks at global universities' commitment and performance in furthering the Sustainable Development Goals (SDGs). 1,118 universities from 94 countries participated in the ranking by submitting input during 2019, and the results were published on April 22, 2021, with VU ranked amongst top 100-200 in the world for SDG7 - Clean and Affordable Energy.

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

Overall Ranking 601-800

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 of society. There is a major drive to ensure that the bottom of the pyramid, the marginalized and needy community are beneficiaries in this endeavour. In particular, water treatment, purification, and creating much needed social awareness about clean drinking water and sanitation.

Establishment of Water Quality Centre of Excellence

A 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. The Centre is well- equipped with the latest models of sophisticated instruments, enabling it to conduct research and measure the physical, chemical, and biological parameters of water. They include Induced Couple plasma- Optical Emission Spectrophotometer, Atomic Absorption Spectrophotometer, High-Performance Liquid Chromatograph, Total Organic Carbon analyzer, Flame Photometer, Autotitrator, 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

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 neighbouring community members would only need to swipe their identity cards at the Water ATM to get clean, processed water. There is no need to carry water bottles; which has enabled VU 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 for its to society by way of establishing a Water ATM.

https://www.vupune.ac.in/images/MediaCoverage/sakal_17_June_2018.pdf

The social initiative, Drinking Water facility at Rural Areas

Playing the role of an intellectual driver of social change, VU, Pune in collaboration with Wilo Mather and Platt Private Pumps Limited, Pune, India, a movement has been initiated to take the technology of potable water dispensation to the grass-roots level. A survey has been carried out and a drinking water facility will be installed in the rural areas around the region.

https://unnatbharatabhiyan.gov.in/blog/index.php/vishwakarma-university-pune-providing-pure-water-drinking-facility/

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 and started in 2019. The stages include 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 and the operational controlled environment testing at the Technology Readiness Level 5 has been completed at VU.

Global Association for dissemination of knowledge on Water and Sanitation

VU has been recognized by IHE Delft, Institute of Water Education, the Netherlands as a second tier partner in the consortium along with the Asian Institute of Technology (AIT), Thailand for accelerating improvement in health and quality of life by disseminating knowledge on sanitation through postgraduate (MSc) programs, Diploma, and online (self-study and instructor-led) courses under GSGS Initiative led by IHE Delft supported by BMGF.

https://www.vupune.ac.in/academicsss/m-sc-waste-water-and-sanitation-management
https://sanitationeducation.org/msc-in-sanitation/

Dedicated Department to Water, Sanitation and Hygiene

The Department of Water, Sanitation and Hygiene (WASH) was established in 2020 to accelerate the impact of waste water treatment and sanitation management for the betterment of society and create professionals in this field. The programme imparted under the department provides knowledge and detailed insights into waste water and sanitation management to students. The students will also be equipped with personal skills for development of leadership and team working. The Department is well equipped with state-of-the-art Water Quality Centre of Excellence. The Department offers national/ International internships, live projects, utilizes innovative pedagogies. The Department adopts an innovative and integrated approach with global practices followed across the domains of waste water treatment, sanitation and urban development.

https://www.vupune.ac.in/department-of-wash

The association of VU with the Asian Institute of Technology (AIT) gives global exposure to the students and facilitates cross cultural research collaboration. The postgraduate program running in the Department of WASH is under the Global Sanitation Graduate School, an initiative by IHE Delft Institute of Water Education Netherlands. VU is a member of the Global Sanitation Graduate School as part of the consortium with AIT.

Awareness drive

VU organised a one week (6th to 14th April 2020) online open Webinar "VALVE" for value engagement which was focussed on creating awareness about the emerging domains and to assist students to take the right steps in terms of their career paths. A wide range of topics were taken on Water, Sanitation and Hygiene for the aspiring students of Commerce, Management, Since, Technology, Humanity and Social Sciences and Arts and Design fields.

Webinar on "Challenges and Opportunities on Water and Sanitation"

A on the topic "Challenges and Opportunities on Water and Sanitation" was conducted on 4th July 2020 with more than 60 participants. The aim of the webinar was to showcase the enormous requirement of water and sanitation professionals and to encourage students, working professionals to make a career / upgrade their knowledge in this domain.

Awareness on Handwashing Etiquette

The Department of Water, Sanitation and Hygiene of VU undertook a "Project on Development of Informative video during COVID" over a 4 week period (16 June 2020 to 11 July 2020) under a school project. The project aimed at creating awareness through informative video using animation and graphics in a lyrical way. During this pandemic, this creative video helped sensitize people from all age groups to maintain hygiene and follow handwashing etiquette (especially when the country was approaching and preparing for re-opening). In addition, Sustainable Development Goals 6 (Safe Water and Sanitation to all) has been kept in mind while developing this creative video. The activities included script writing, character building, animation, graphics, designing, composing music, voice over for developing the effective and engaging video.

https://youtu.be/6cFkMqlURBg https://youtu.be/ncBFm7NRY_Q

Workshop on "Regenerative Sanitation: A New Paradigm" for Sanitation 4.0

A workshop was organized on "Regenerative Sanitation: A New Paradigm" for Sanitation 4.0 on 17th September between 2 pm to 3 pm (IST) to create awareness and encourage students to take up this domain as their career.

https://m.facebook.com/story.php?story_fbid=2500590150233348&id=1742141919 411512

The Webinar was organized by the Department of Water, Sanitation and Hygiene of VU, under which a two year post graduate program on Waste Water and Sanitation Management has been launched in this academic year. International Expert Speaker, Prof. Thammarat Koottatep, Professor and Academic Chair (Marine Plastic Abatement Program), Asian Institute of Technology (AIT), Thailand focussed on the global Issues, technology, management and planning approach. The session was attended by students and faculty from different parts of India. Aspects of non sewered sanitation, ranging from capacity building, awareness, financial and management aspects, infrastructure, regulatory bodies, and institutional roles were indicatively covered in the session. Evolutionary trends in sanitation concepts, systems and technology were also highlighted in a global platform.

A bird's eye view of a shift from mechanistic world view to ecological worldview was very thoughtfully explained by Prof. Thammarat Koottatep. The attendees enthusiastically participated and asked questions on this innovative concept. The insights of the session opened a new gateway to critically evaluate and rethink this crucial topic. Prof. Dr. Dhananjay Bhatkhande, Director, Wilo-VU Water Quality Centre of Excellence and Dr. Shraddha Khamparia, Head, Department of Water, Sanitation and Hygiene were among the panelists for this session.





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