

VISHWAKARMA UNIVERSITY

SDG 4 REPORT 2020





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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 Sustainability 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





4 QUALITY
EDUCATION



**Ensure inclusive and equitable
quality education and promote
lifelong learning opportunities
for all**

Quality Education

Vishwakarma University, Pune (VU) is a natural offshoot of the Vishwakarma Group of Institutions' educational legacy spanning more than 35 years. The University has been established as a State Private University through the Maharashtra Government Act in the year 2017. Being University Grants Commission (UGC) approved, VU is authorized to design and implement its own curriculum, conduct examinations, and award degrees. VU is a Member of the Association of Indian Universities (AIU, New Delhi) and awarded as a Emerging University by the Associated Chambers of Commerce & Industry of India (ASSOCHAM - Estd. 1920).

Programmes at VU, Pune are approved by respective councils, namely

- Pharmacy – D. Pharm & B.Pharm programmes are approved by Pharmacy Council of India, New Delhi.
- Law - BBA LLB and LLB programmes are approved by BAR Council of India, New Delhi.
- Architecture - B.Arch programme is approved by Council of Architecture, New Delhi.

<https://www.vupune.ac.in/admissions/approvals-recognitions>

Learning by Doing

VU focuses on academic excellence, positively impacting the student community and the society at large. The learning model at VU is a combination of knowing, practicing, performing, and reflecting. The “learning by doing” approach practiced through industry participation provides an opportunity for practical and pragmatic learning to students. Through a contemporary curriculum and ecosystem of holistic development, the university aims to prepare learners to pursue fulfilling career paths. One such example is VU's association with Lakshminarayana Global Centre of Excellence (LGCE). <https://www.vupune.ac.in/academicss/b-a-music-course-college-institute-admission-pune>
<https://www.vupune.ac.in/department-of-music>

In a first of its kind effort by a private university, VU has established a degree programme (BA (Hon.)) in music, with focus on Hindustani, percussion as well as Western Classical music. The BA Honours degree program in music will not only impart the nuances of all kinds of global music but also provide a platform to launch a career in the music world. This degree programme is designed and blessed to have world-renowned music maestros, violinist Padma Bhushan Dr. L. Subramanian and well-known playback singer Padmashri Kavita Krishnamurti, on board as mentors.

<https://indianexpress.com/article/lifestyle/art-and-culture/song-sung-true-kavita-krishnamurthy-lakshminarayana-global-music-festival-l-subramaniam-6223674/>

There is a unique blend of Indian classical music, western classical music as well as practical music industry-related topics, with 70 percent of the course focusing on practical and experiential learning which would eventually groom performers and music industry professionals. As a part of the curriculum, the programme includes the Lakshminarayana Global Music Festival organised by VU in collaboration with LGCE which was organised on 8 January 2020 at Ganesh Kala Krida Manch in Pune, where VU students were provided with a unique opportunity to listen to world-class Indian as well as western performers and participate in the various events

The performance by Dr. L. Subramaniam, Kavita Krishnamurti and Symphony Orchestra of Castile and Leon from Spain enthralled the audience with a musical experience that touched their souls. Dr L Subramniam has established global collaborations through the special initiatives to inspire future generations of musicians to gain knowledge and appreciation of different genres of music.

Education in Covid Era

Educational institutions closed down campuses as lockdowns ensued due to the spread of COVID-19, which became a norm to contain the virus. VU, while abiding by the norms of no in-person teaching on campus embarked on a quick digital transition and established a Centre for E-Learning. Due to a well-planned strategy, synergy and determination there was a smooth transition to the technology-enabled blended learning pedagogy.

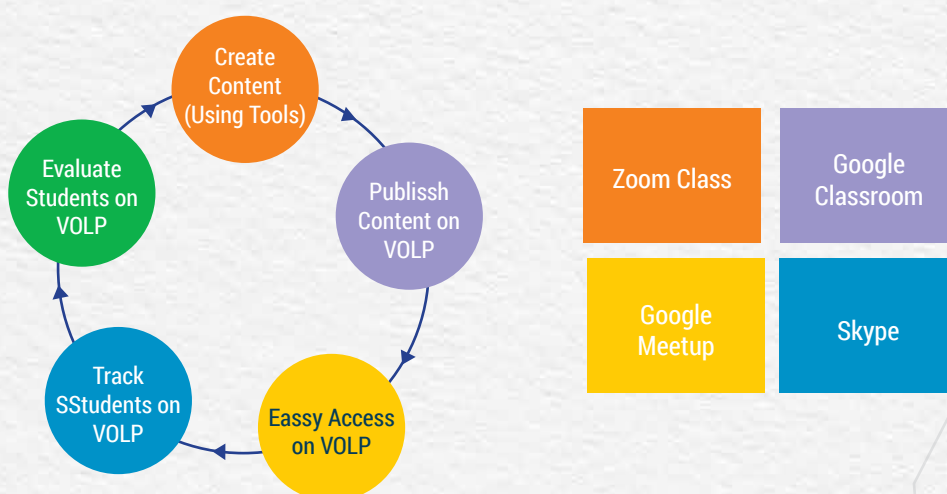
Along with the continuation of online classes, VU was determined to ensure nonlinear participatory communication with students on the digital platform. It developed a learning management system i.e. the Vishwakarma Online Learning Platform (VOLP), a cloud-based, personalized, secure, and user-friendly system which uses Vue.js, the latest user interface design framework for better user experience.

Android and i-OS enabled mobile app versions integrated usage of Google-meet, YouTube videos, Zoom meetings, and various hands-on-tools to help students attend virtual classes and labs. VU partnered with Indo Universal Consortium for Engineering Education (IUCEE) to train its faculty. Faculty and students have completed international internships enabled by IUCEE in online teaching-learning methods. Faculty participated in innovative experiments in online teaching by making use of various platforms and tools such as Whiteboard, OneNote, virtual board, screen recording software, social proton, 3D atlas, mentimeter, etc and also received training in instructional design, digital content development tools, and online course delivery methods and Amazon cloud elastic load balancer for addressing student traffic.

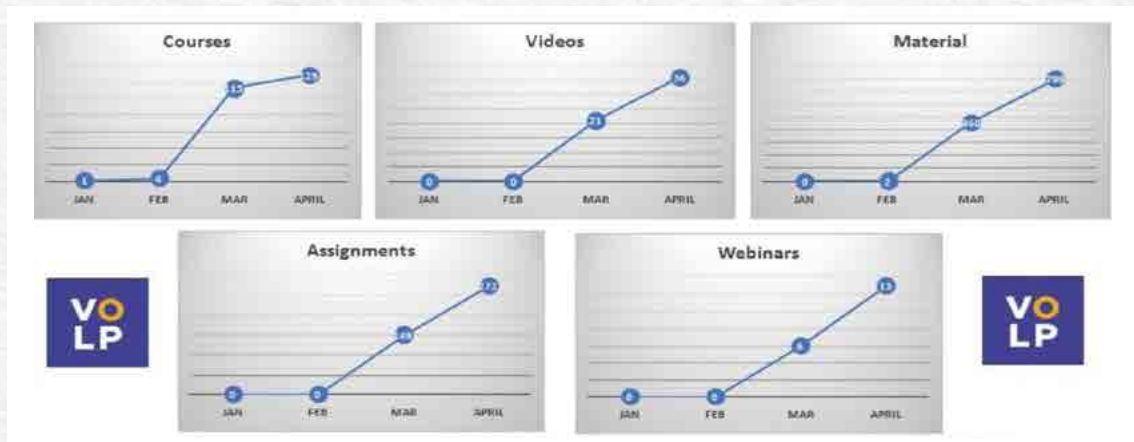
It was a truly daunting task for the faculty and students to adapt to this sudden disruption considering the limited use of digital platforms for teaching-learning prior to the pandemic. However, a well-planned strategy, synergy and determination helped ensure a smooth transition to the technology-enabled blended learning pedagogy using a combination of synchronous and asynchronous modes.

The success of this undertaking is reflected in the fact that today over 800 courses are online with 150+ faculty contributions and around 3000+ student registrations.

Blending Synchronous and Asynchronous Self Paced Learning



Timeline of Transition to Online Teaching Learning on VOLP



VOLP has enabled learning through videos, simulations, case studies, assignments, and quizzes and also helped students to build their profiles for job posting or career guidance. This effort is also in consonance with the VU Eco-Campus Initiative to reduce the carbon footprints.



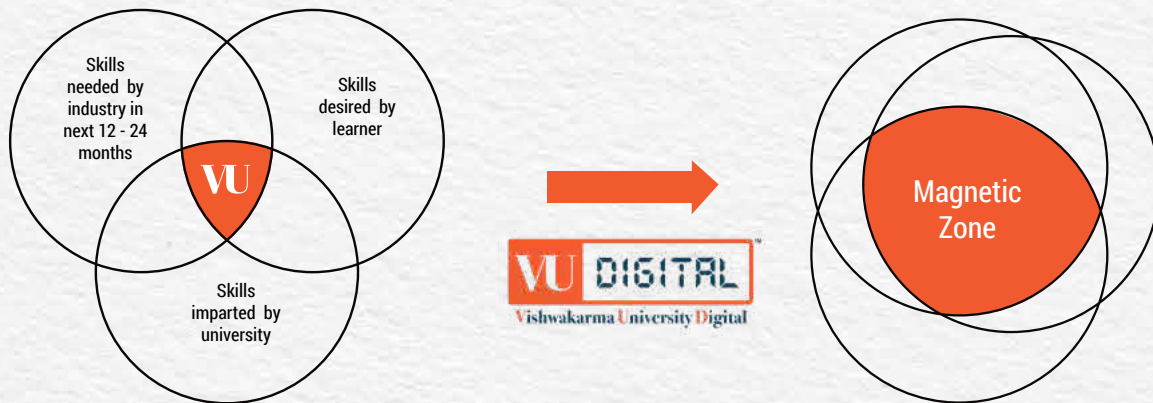
Taking forward its digital effort, VU developed a customised cloud-based AI-enabled EasyCheck proctored examination application. The innovative feature of uploading scanned hand-written answer sheets for evaluation is a robust, sustainable, and scalable model for online education and examination. Banking on its successful experiment, VU plans to make experiential and immersive learning an integral part of its pedagogy by establishing the Unity Centre of Excellence. The purpose of the Center will be training, development, and research in immersive technologies like augmented and virtual reality. This educational technology will be vital for remote-training and remote-collaboration and essential in work-from-home job situations.

Keeping its promise of maximising human potential as its tagline VU is embarking on a new venture called VU-Digital (VUD) a unique e-learning portal providing short and medium span flexible courses to all in diverse a continual education. The skill-based online courses offered on VU-Digital will facilitate career building and learner progression.

<https://www.vupune.ac.in/academics/vu-digital>

VU Digital

In line with its mission of maximising human potential as its tagline, VU is embarking on a new venture called VUD, which is a continual education e-learning portal providing short span flexible courses to all in diverse fields. VUD intends to establish a robust ecosystem in the form of an education framework of the future coined as "Education 4.0". This framework shall form the basis of bringing various stakeholders (industry, academia & young intellectual minds) together to contribute as well as get back something from the VUD. VUD plans to equip itself with highly relevant courses, innovative pedagogy and future technology tools of delivery. VUD will understand from leaders, job givers and professionals the future e-learning trends, needs and tools in order for it to be able to stand out and be always relevant. In essence, VUD is an overlap of magnetic zones, of skills desired by learners, skills imparted by universities and skills needed by industries.



Center for Industry 4.0

The Center for E-Learning and Industry 4.0 (C4i4) at VU, aims at Creating an Industry 4.0 (I4.0) knowledge-center for Industries and academia, delivering training on various I4.0 skills, producing I4.0 ready workforce or graduates, establishing an I4.0 learning lab and research center, undertaking industry- driven funded projects and research, establishing e-learning resource development studio, skill development for developing digital learning resources, e-resource generation, dissemination and accessibility, research in educational technology and e-learning and advocacy of E-learning based pedagogy and tools.

<https://www.vupune.ac.in/centres-of-excellence/centre-for-industry-4-0>

Unity Centre of Excellence

The Experiential and Immersive learning Pedagogy Unity Centre of Excellence at VU aims at training, development, and research in immersive technologies like augmented and virtual reality. With the foresight that immersive technologies and gamification to be the most impactful technologies for education 4.0. Unity trained teachers train students on these technologies to build various applications giving an immersive experience to users. Virtual and Augmented reality has a lot of application areas like education, healthcare, industry 4.0, film making, automotive, museums, architecture, travel, etc. It has a very high potential for remote-training and remote-collaboration which will be highly essential in work-from-home job situations. Center of immersive technologies organizes workshops, hackathons, competitions, and industry visits to give relevant exposure to students. VU proposes to make experiential and immersive learning a part of our best practices in pedagogy.

<https://www.vupune.ac.in/centres-of-excellence/unity-centre-of-excellence>



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