

# VISHWAKARMA UNIVERSITY

SDG 4 REPORT 2019









## 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.

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**







**4** QUALITY  
EDUCATION



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



Vishwakarma University (VU) envisions excellence in imparting quality education and nurturing talent. Maximizing human potential is the vision of Vishwakarma University. The faculty of VU is in the constant pursuit of drawing a career with an innovative outlook by adopting contemporary pedagogy reflecting cultural, ideological, and intellectual diversity. Vishwakarma University's collaborative approach with sustainable growth, transparency, and accountability in all the programs to bring out the socially and morally sound citizen. VU has adapted to the changing needs and technology by digitalization platform development.

### **Centre of Excellence and Academic programs focusing on SDG**

Environmental study is a mandatory subject for all the academic programmes at VU, and Sustainable Development Goals are the focus of the designed curriculum. Vishwakarma University has collaborated with the Asian Institute of Technology, Thailand under Global Sanitation Graduate School, IHE Delft, Netherland to launch programs focusing on water and sanitation issues. A center dedicated to Water and Sanitation aspects with the Wilo foundation is well established at Vishwakarma University addressing SDG 6 <https://www.vupune.ac.in/water-quality-centre-of-excellence> , Eco Campus Initiative, SDG7 is primarily focused, and various projects have been carried out in association with IES.

SAP i360 Innovation lab at Vishwakarma University provides a platform to work on real-life problems of the industries <https://www.vupune.ac.in/sap-i360-innovation-center>. "The i360 Centre aims to create future-ready professionals with considerable experience in working with digital technologies. By collaborating with Vishwakarma University, we are empowering the students to cultivate an innovative mindset that allows them to address current and future needs of not just business but of the nation itself". The students take up real-life problems and work collaboratively to meet SDGs.

Center for E-Learning and Industry 4.0 (C4i4) at Vishwakarma University, 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/images/CELI4.0\\_web\\_contents.pdf](https://www.vupune.ac.in/images/CELI4.0_web_contents.pdf)

### **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. We propose to make experiential and immersive learning a part of our best practices in pedagogy.

<https://www.vupune.ac.in/vishwakarma-unity-center-of-excellence>



## Vishwakarma Enterprise Resource Planning (ERP)

Vishwakarma University has developed its own ERP system that helps to automate and manage the entire campus operations, administration, and learning needs in a very effective way. This comprehensive in-house developed ERP system streamlines the complete student life cycle from Enquiry to Graduation as well as administrative processes. A brief overview of various modules and functionality implemented in the Vishwakarma University ERP system are given in the following figure.

Academic Administration	Back office Management	Examination	IT Systems	Student Portal
<ul style="list-style-type: none"> <li>• Admission</li> <li>• Eligibility</li> <li>• Syllabus</li> <li>• Subject Assignment</li> <li>• Teacher Portal</li> <li>• Attendance System</li> <li>• Time Table</li> <li>• Teacher's Portal</li> </ul>	<ul style="list-style-type: none"> <li>• Student Section Automation</li> <li>• Fee Challan and Finance Approval</li> <li>• Admission Process and Cancel Admission</li> <li>• Students Certificate</li> </ul>	<ul style="list-style-type: none"> <li>• CIE</li> <li>• Results</li> <li>• Hall Ticket</li> <li>• Pre-Examination</li> <li>• Post Examination</li> </ul>	<ul style="list-style-type: none"> <li>• Communication Gateway</li> <li>• Integration - API / Web service</li> <li>• Online Payment</li> <li>• Phd Application</li> <li>• Job Portal</li> </ul>	<ul style="list-style-type: none"> <li>• Profile and subject selection</li> <li>• Application Forms for Admission, Examination</li> <li>• Hall Ticket and Result download</li> <li>• Reval, Photocopy</li> </ul>

### Vishwakarma University ERP system modules

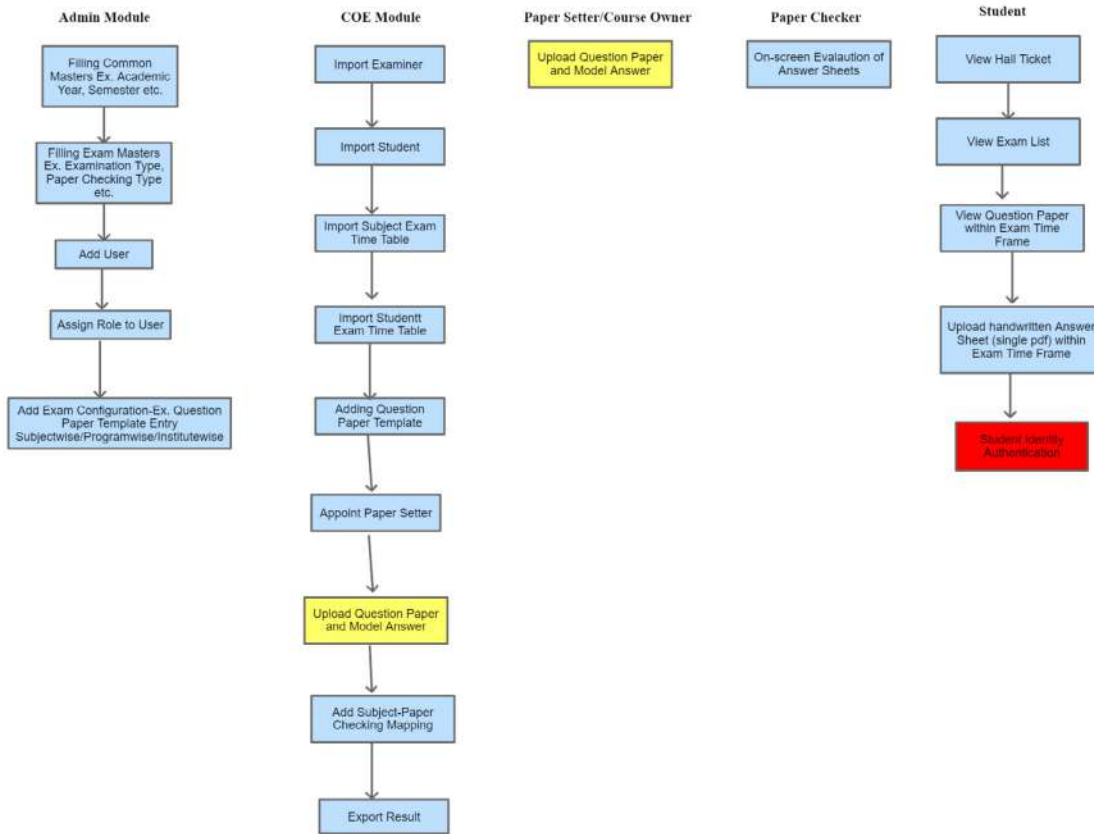
## Vishwakarma EasyCheck Digital Evaluation Module

Vishwakarma University has in-house developed digital evaluation module called EasyCheck, to cut back on the labour-intensive task of sorting, evaluating, and preserving paper-based exams. Vishwakarma University's in-house developed EasyCheck digital evaluation module is the ideal digital solution for managing the examination evaluation process. EasyCheck digital evaluation is an innovative solution for improved efficiency and quality. By automating manual evaluations, EasyCheck helps institutions minimize cost, effort, and errors in the evaluation process. With the EasyCheck Solution pen and paper answer sheets can be digitized and marked on-screen. This not only improves the speed but also drastically minimizes errors and improves the quality of the evaluation. The scanned answer sheets are electronically distributed, thus allowing examiners to mark them and include any comments or annotations.

The EasyCheck Digital Evaluation is an efficient process that transforms the existing complex manual process into an accurate and transparent one. From scanning of answer sheets to processing of results and solutions.

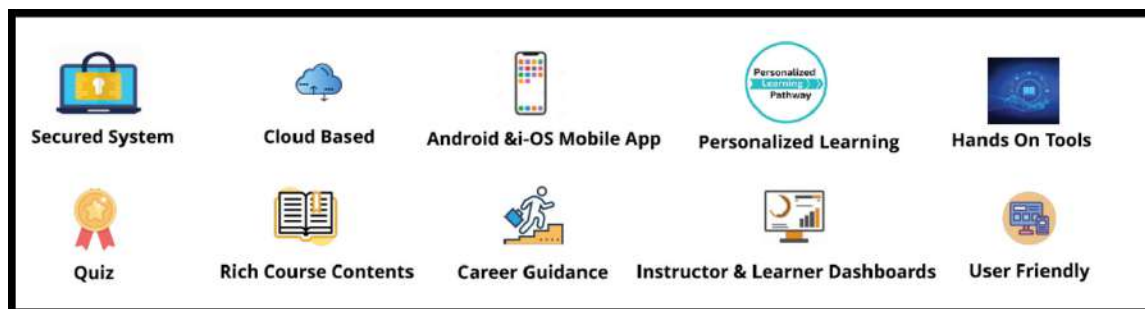


## EasyCheck-Digital Evaluation Module Detailing



## Vishwakarma Online Learning Platform (VOLP)

Vishwakarma University has developed its own online learning management system(LMS) called Vishwakarma Online Learning Platform (VOLP). VOLP has features of Google suit (Google classroom and other add-ons), YouTube videos, zoom meetings, webinars, announcing, and messaging features like Whatsapp are already incorporated. The technology team is fine-tuning with additional application suits to be used considering utility, security, and privacy concerns. It is used to supplement classroom learning with videos, simulations, case studies, practice assignments, industry connect, etc. to help students enhance their career potential in a better way. The technology-enabled blended learning pedagogy aided faculty members and students to easily transit to online education. Prof. Nachamma from Singapore has been conducting faculty capacity development programmes for technology-enabled learning and modern pedagogical methods.



## Cross-Functional, Cross-Cultural and Multidisciplinary Approach

VU has international collaborations in the US, Canada, Europe, Africa, Korea, Taiwan, South East Asia including Singapore, Thailand, etc. VU is part of the ERASMUS+ program wherein students are selected



(and are pursuing as of today) for a student exchange program with Hof University of Applied Sciences, Germany. VU has established formal strategic partnership agreements with the State University of New York, Binghamton, National University (USA), Nanyang Technological University (NTU), National University of Singapore, the Korea Institute of Science and Technology, The University of Ngaoundere (Cameroon), Wufeng University (Taiwan), University of Ontario (Canada), Hof University of Applied Sciences (Germany), IMT Lille Douai (France), AIT Thailand, Chulalongkorn and Kasetsart University (Thailand) to inculcate cross-cultural approach amongst the students.

### **Experiential Learning**

Excellence, innovation, inclusivity, and equitable aspect are the core of VU education ethos. VU strives to intensify crusade for creating a well-groomed human resource to contribute to our country, industry, and society at large. The very essence is to develop (1) Capacity to absorb innovations and skills to further innovate in local context (2) Nurture innovations of social and industrial relevance (3) Acquire, Adapt and Actualize innovations to solve local challenges and contribute to Make in India initiative (4) Enable bottom of the pyramid participation in the innovation value chain for inclusive and equitable growth.

It comprises a combination of knowing, practicing, performing, and reflecting. The “learning by doing” approach is practiced as against the “learning by rote” approach enabled through industry participation pragmatically and practically. The unique pedagogical approach enables knowledge-based decision by the student fraternity. This “learning to learn” endeavor prepares students to apply the right knowledge at the right time in the right context. In the classroom and laboratory blended teaching, the participants go through the cycle of doing, reflecting, and applying.

### **VUIC 2019**

Vishwakarma University organized an international conference in March 2019 aiming at innovation-based science and technological socially and environmentally responsible high impact solutions for society and humanity. It aimed for sensitizing society, students, and researchers and provide a platform to present quality research work / publish state-of-the-art scientific and technological developments.

Global society in various parts of the world is facing problems like scarcity of potable water, a livable planet, sustainable solutions, health solutions, equality, etc. Different themes such as AI, IoT, ML, HPC, and Sustainable Technologies, Business Analytics, Digital Media and Communication, Entrepreneurship Development, Tourism, and Hospitality, Social Innovation, Innovations, Science, and Technology for humanitarian developments addressing almost all SDGs. Nobel Laureate, Prof. Dr. Ada Yonath graced the occasion being chief guest of the conference. <https://www.vupune.ac.in/international-conference>

### **SRUJANOTSAV, October 2019**

To meet the SDG targets, innovative and creative mindsets is the mantra. A colorful and memorable exhibition was organized at Vishwakarma University by the Faculty of Art and Design students. The exhibition was a display of artistic skills and thought processes. Students of Art and Design - Product Design Department worked on Bamboo Products. They used Bamboo Material to make innovative and useful products like Chandeliers, Tables, Carry Bags, Lamps, Pens which are eco-friendly and can replace Wood. Students of Interior Design worked on Sofa and home interior products made out of Waste Barracks, tires.





<https://www.vupune.ac.in/vishwakarma-news/srujanotsav-brings-a-splash-of-diwali-colours>

### ZEE Business SAP Dare to Dream Awards 2019

Vishwakarma University and its students from SAP i360 Innovation Lab made history on Saturday, 5th October 2019. Yes, it is the first time that students' innovative ideas and projects were selected to be presented in a prestigious ZEE Business SAP Dare to Dream Awards 2019 function. These awards are granted to the CEOs and who dared to dream big and made a dent in the business world through their path-breaking ideas. The forum was fully packed with more than 150 CEOs and entrepreneurs. These innovative solutions were very well received and will be implemented soon in industries. The projects relate to the hospitality industry, automotive industry, and society <https://www.vupune.ac.in/vishwakarma-news/zee-business-awards-2019>

### VIRAASAT, November 2019

Viraasat-A first of its a kind annual Fashion Show put together by the students of Vishwakarma University's Fashion Design Department. "Viraasat" is inspired by the best of the traditions of Indian textile through a riveting line-up of contemporary designs all crafted and curated by the budding designers of Vishwakarma University. The attractions included Daboo Printing, Jute, and Khun fabrics, among a host of other innovative themes, that respect our roots of tradition and environmental responsibility/ eco-friendly aspect. A platform for budding fashion designers to experiment, innovate, and inspire society.





<https://www.vupune.ac.in/vishwakarma-news/vishwakarma-university-s-viraasat-gives-promising-fashion-prodigies>

### **Social Immersion Project**

At Vishwakarma University, an immersion project is a bridge between classroom learning and real-world application. These projects provide an opportunity for self-reflection about personal goals and other aspects of one's life, such as civic responsibility, social justice, and one's understanding of poverty and discrimination. Short term immersion projects provide students with multiple opportunities for growth and learning beyond the classroom environment. Research supports previous literature that providing opportunities for students to experience persons and situations beyond the classroom may broaden their commitments to reflection and action. Social Immersion Project helps VU students to be better citizens by knowing, understanding, and finding sustainable solutions for pressing community needs. They also learn and practice the skills learned in the classroom to building a better community. Apart from nurturing relationships, these projects give a social perspective to the students and build their managerial skills – planning, interpersonal, selling, financial, and entrepreneurial skills. <https://www.vupune.ac.in/social-immersion-project>





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