# VISHWAKARMA UNIVERSITY

## SDG 9 REPORT 2019

SUSTAINABLE
DEVELOPMENT
GOALS

**VU** **VISHWAKARMA**
**U N I V E R S I T Y**
*Maximising Human Potential*

University Grants Commission (UGC) Approved State Private University

*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 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**

**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE

**Build resilient infrastructure, promote sustainable industrialization and foster innovation**

## Robust Industry Connect

Vishwakarma University (VU) upholds the spirit of fostering transformational and contextual research and innovation for the greater good.  The process of education, research, and outreach and innovation and outreach at VU follows the contours of change set by the industry and society. The objective of the engagement with industry is to provide a socially and environmentally responsible solution to the real-life problems of the industry that results in substantial impact.

The industry in the context of this region includes large enterprises, small & medium enterprises, social enterprises, start-ups, and independent professionals. The transdisciplinary centers of excellence in Vishwakarma University provide an enabling platform to meaningfully engage with industry to foster ideation to impact the value chain. Also, Vishwakarma University inculcates all the unique features in the curriculum, teaching-learning, internships, placements, research, and innovation through various activities. The initiatives for industry connect include;

1. Industry on Campus
2. Centres of Excellence in collaboration with industries
3. Industry Collaborations for sponsored and contract research
4. MoUs with Industry
5. Memberships of Professional Bodies
6. Industry Advisory Board
7. Esteemed Recruiters
8. Events and Sponsorships
9. Representation of Industry Professionals

https://www.vupune.ac.in/placement-vu-news/robust-industry-connect

## Industry-University Interaction (Placement and Career Progression Office)

The primary goal of the Placement and Career Progression Office is to facilitate a greater level of interaction between industry professionals and internal stakeholders like faculty and students.
https://www.vupune.ac.in/ed-cell

## Key thrust areas are as follows;

To seek inputs for curriculum improvement and alignment.
To broad base connections with industry professionals across sectors.
To give a wider industry exposure to students and faculty members.
To assist the departments is inviting industry experts and organizing events.
To create opportunities for faculty members and students to work on industry projects.
To identify employment, internship, and mentorship opportunities for students.
To collaborate for innovative projects, entrepreneurship, research, and development.
To forge partnerships for value-added courses and hands-on training for students.

## Major initiatives for industry-university linkages are as follows;

• Industry on Campus and Centres of Excellence
• Representation of industry professionals on various committees
• Industry Visits, Live Projects, Freelancing, and Shadowing
• Campus Recruitment Programme and Industry Internships
• Workshops, Talks, Expert Interactions, and Jury
• Memberships of Professional Bodies
• Events and Sponsorships
• Industry Advisory Boards
• Incubation Facilities

## Industry Interaction Activities

- One Week Employability Enhancement Programme for the final year students
- Career Orientation Sessions for the First Year Students
- Summer Internship Briefing for the pre-final year students
- Industry on Campus activities for students
- Activities by the Centres of Excellences for students and faculty
- Recruitment drives for the summer internship and semester-long internships
- Live Projects opportunities for the students round the year
- Industry Visits, Hands-on Training, and Workshops by practitioners
- Recruitment drives for placement and jobs
- Industry connect and industry outreach work
- Meetings of the Industry Advisory Boards
- Participation of Industry Professionals in Board of Studies meetings
- Training to students on soft skills and technical skills by industry experts
- Participation in several industry events by faculty and students

## MoUs with Industry

The MoUs with industries enables the strengthening of industry-academia engagement. The agreements are signed with reputed organizations comprising large enterprises, MSMEs, Professional Bodies, startups, and Social Organizations operating at regional, national, and international levels. Each of these partnerships has a well-defined scope, objectives, and engagement, team members.

**The scope of work is mutually decided and consists of aspects like follows;**

- Researching emerging issues in the industry
- Providing training to students, teachers, and industry professionals
- Facilitating projects and internships by students in the industry
- Supporting innovations, new projects, and entrepreneurship
- Promoting projects for product development or process developments
- Strengthening efforts to enhance employability of students

**The MoUs are signed with and active engagement is going on with the following organizations;**
https://www.vupune.ac.in/centres-of-excellence

| S.N. | Name of the Organization | Primary Focus |
|------|--------------------------|---------------|
| 1 | Wilo India | Centre of Excellence – Water Quality |
| 2 | Centre for Industry 4.0 (C4i4) Labs A Department of Heavy Industries, Government of India Initiative | Centre of Excellence – Industry 4.0 |
| 3 | Unity Technologies | Centre of Excellence – Augmented Reality, Mixed Reality, and Immersive Technologies |
| 4 | Integrated Environmental Solutions | Centre of Excellence – Energy Efficient Buildings |
| 5 | Energy Research Institute @NTU Singapore (ERI@N) | Eco-campus projects on Sustainability |
| 6 | The State University of New York at Binghamton | Centre of Excellence – Design Thinking and Innovation |
| 7 | Philips Healthcare | Collaborative Research in Healthcare |
| 8 | Seiler Garepa Pvt. Ltd. | Industry Exposure to Students |

| S.N. | Name of the Organization | Primary Focus |
|------|--------------------------|---------------|
| 9 | Auto Cluster Development & Research Institute | Industry Exposure to Students |
| 10 | Friends Union for Energizing Lives (FUEL) | Employability Enhancement of Students |
| 11 | Mahesh Industries Group (MIG) | Interface with Micro, Small and Medium Enterprises |
| 12 | Quick Heal | Cyber Security Training and Awareness |
| 13 | Center for Policy Research (CPR) | Joint Research on Social Issues |
| 14 | TGC Technologies Pvt. Ltd. | Capacity Building and Projects in Gamification |
| 15 | Kesari MICE | Industry Participation in Curriculum Design and Delivery – Travel & Tourism |
| 16 | Hodek Vibration Technologies Pvt. Ltd | Collaborative Research and Joint Projects |
| 17 | Buldhana Urban Cooperative Credit Society | Industry Participation in Curriculum Design and Delivery – Micro-Finance |
| 18 | HCL Technologies | Software Training and Skill Development of Students |
| 19 | CII-Young Indians | Youth Development and Leadership |
| 20 | Jnana Prabodhini's Institute of Psychology (JPIP) | Psychometric Assessment and Counseling |

## Memberships of Professional Bodies

- Association of Designers of India (ADI)
- National Institute of Personnel Management (NIPM)
- Indian Society for Training & Development (ISTD)
- National Entrepreneurship Network (NEN)
- Mahratta Chamber of Commerce, Industries and Agriculture (MCCIA)
- National Institute for Quality and Reliability (NIQR)
- Confederation of Indian Industry-Young Indians (CII-YI)
- Telecom Sector Skill Council (TSSC)
- Federation of Indian Chambers of Commerce & Industry (FICCI)

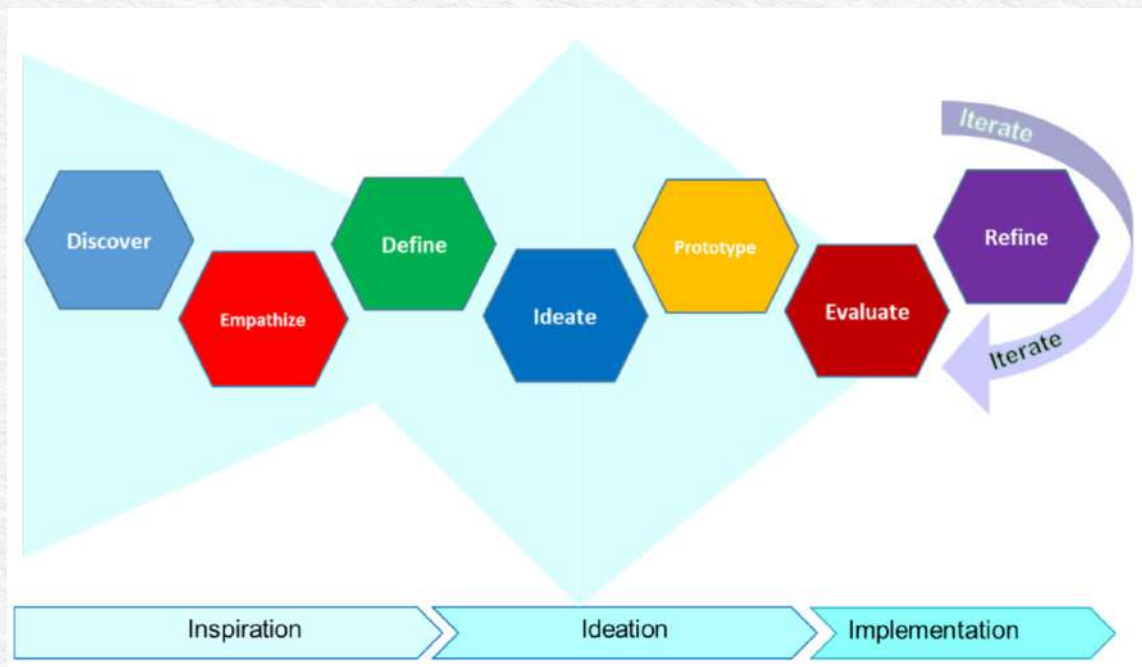## VU – IQube: Creating a hospitable policy environment for innovation and encourage innovation

Focusing on Idea, Innovation, IPR, and Entrepreneurship in a synergetic and integrated way VU-IQube seeks to facilitate the culture of innovation in VU and to build an Eco-system that enables self-empowerment.

VU-IQube is to guide students through the intricacies and complexities of bringing their ideas to fruition. Providing the technical support and hand-holding required to convert your ideas into workable, scalable models.

https://www.vupune.ac.in/vu-iqube

**Design Thinking and Innovation Process**

The Design Thinking and Innovation process was developed through collaboration between Vishwakarma University (VU) and Binghamton University, New York and was established as the foundation for joint Center of Excellence in Design Thinking and Innovation located at Vishwakarma University.



The intent of this design thinking and innovation framework is to help students, faculty, government organizations, non-government organizations and industry partners transform business or societal challenges into a viable product or service that can be readily commercialized into the marketplace. Some key points of the VU/BU Design Thinking and Innovation process are: A strong focus on the societal and economic ecosystem within which the problem resides, an immersive approach with end-users and key stakeholders, marketization and commercialization analysis and a skillful integration of art, business and engineering disciplines. This design thinking and innovation framework helps in transforming ideas into reality.

## Transforming Ideas into Reality

In the process of transforming ideas into reality, Vishwakarma University inculcates the aspect of innovation right from the entry of a student to the university. Patents have been filed in 2019 as a result of the creative and innovative ideas of the students and faculty.

Title: System and Process for Intelligent Waste Management in Vehicle; Patent Application Number: 201921046386; Status: Filed (14 November 2019)

Title: AAI - Artificial Analytical Intelligence (GRIFFIN); Patent Application Number: 201921046387; Status: Filed (14 November 2019)

Title: System and Process for digital and automated hospitality; Patent Application Number: 201921046385; Status: Filed (14 November 2019)

Title: System and Process for Digital and Automated Mobility; Patent Application Number: 201921046384; Status: Filed (14 November 2019)

Title: Smart cooling shoe midas – Ascending to next-gen; Patent Application Number: 201921046388; Status: Filed (14 November 2019)

## Copyrights:

Title: Design Thinking Process, Registered No:  L-87720/2019, Date: 09/12/2019

Title: Develop and implement a system to classify fruits into fresh or spoiled category using deep neural networks, Registered No: L-87010/2019

## Book:

Title: Step-by-Step Guide for WiFi Hacking with Kali Linux, Publisher: Amazon [e-Book],     Publication Date: 4th March 2019,  Amazon Standard Identification Number (ASIN): B07PFCSBMB

Title: Batch Scripting: Virus Scripts & Windows Tweak, Publisher: Amazon [e-Book], Publication Date: November 2019, Amazon Standard Identification Number (ASIN): B081M4G5R9

Some of the projects under the Eco Campus initiative can be well visualized.
https://www.vupune.ac.in/vu-ecocampus/vuecocampusprojects-internships

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