



OFFICIAL TRANSCRIPTS OF MR. ASHUTOSH RAMESH PATIL

Dear Sir/Madam,

This is to certify that Mr. Ashutosh Ramesh Patil was a bona-fide student of Vishwakarma Institute of Technology, an autonomous institute affiliated to Savitribai Phule Pune University, (formerly known as the University of Poona/University of Pune) India from July 2016 onwards. He joined the college in the year 2016 for the regular, four-year undergraduate course in Mechanical Engineering. He has successfully completed this four years Course in the Autonomous syllabus, examination, and evaluation pattern in Mechanical Engineering at Vishwakarma Institute of Technology in October 2020. The degree (Bachelor of Technology) will be issued by Savitribai Phule Pune University.

Mr. Ashutosh Ramesh Patil is applying for his further studies at your esteemed Institute. During the years in this institute he has proved to be sincere and hardworking student. He bears a good moral character and fine conduct. I assure you that he will be an asset to your institution / organization.

To facilitate the review of his application, we enclose the following

1. Salient features of
 - a) Savitribai Phule Pune University
 - b) Vishwakarma Institute of Technology, Pune
 - c) Department of Mechanical Engineering
2. Teaching & Examination scheme under the autonomous format.
3. Certified grade sheets of Mr. Ashutosh Ramesh Patil.



**Registrar,
Vishwakarma Institute of Technology
Pune - 411037, India.**



SAVITRIBAI PHULE PUNE UNIVERSITY

Savitribai Phule Pune University is a university located in the western India, in the city of Pune. It was founded in 1948 and is one of the India's premier universities. **The university has been awarded "A+" rating, the highest rating, by the National Assessment and Accreditation council (NAAC) for its overall performance.**

The campus of the university is spread over an area of 411 acres. It houses 46 academic departments which provide a wide array of academic programs in the fields of Arts, Commerce, Science, Engineering & Technology, Management, Law, Education, Social Science etc.

The university has 612 affiliated colleges, offering undergraduate, graduate and doctoral programs. **The medium of instruction is English.**

There are many national level research centers established at the university such as, Institute of Bioinformatics & Biotechnology (IBB), Indian Space Research Organization Cell (ISRO), Inter University Center for Astronomy & Astrophysics (IUCAA), Center for Modeling and Simulation, Center for information & Network Security (CINS), Center for Network Computing (CNC), Center for Sensor Studies (CSS), National Center for Free Radical Research (NCFRR), Science & Technology Park, Educational Multimedia Research Center (EMRC), Center for Development of advance Computing (CDAC), National Center for Cell Science (NCIS), National Center for Radio Astronomy (NCRA).

Savitribai Phule Pune University attracts the largest number of foreign students in comparison to all other Indian Universities. Currently there are around 75,000 students from over 102 countries studying at the university and its affiliated colleges.

Savitribai Phule Pune University, has acquired a reputation of being the leading Centre of higher education and research in India.





VISHWAKARMA INSTITUTE OF TECHNOLOGY

Vishwakarma Institute of Technology is a highly commendable renowned private institute, which occupies a pride place amongst the premier Technical Institutes in the Western region of India. Established in 1984, financed and run by The Bansilal Ramnath Agarwal Charitable Trust, it is affiliated to Savitribai Phule Pune University. It is recognized by the Government of Maharashtra, and is approved by A.I.C.T.E. (All India Council of Technical Education). **The Institute has obtained National Assessment and Accreditation council (NAAC) 'A++' Grade from November 2018, with a CGPA 3.53 on a scale of 4.**

The Institute has 9 undergraduate programs and 8 post-graduate programs, Ph.D. A large number of our students have been admitted to various international universities in countries like USA, U.K., Germany, France, etc.

The college is spread over 17 acres of land and comprises of academic building areas, playgrounds and hostel on a plot admeasuring 6.5 acres with built up area of 32045 square meters. It has at present over 3700 students, 218 qualified faculty members, more than 70 laboratories having instruments worth Rs.101.7 million.

Vishwakarma Institute of Technology offers the following undergraduate and post graduate programs (**The medium of instruction is English**):

Under Graduate Programs:

Degree offered: : Bachelor of Technology (B. Tech.)

Sr. No	Programs
1	Industrial Engineering
2	Electronics Engineering
3	Mechanical Engineering
4	Computer Engineering
5	Instrumentation and Control Engineering
6	Chemical Engineering
7	Production Engineering
8	Electronics & Telecommunications Engineering
9	Information Technology





Post graduate Programs:

Degree offered: Master of Technology (M. Tech.)

Sr. No	Programs
1	Mechanical Engineering (Heat Power Engineering)
2	Mechanical Engineering (Design Engineering)
3	Computer Science & Engineering (Information Technology)
4	Industrial Engineering
5	Instrumentation & Control Engineering (Process Instrumentation)
6	Chemical Engineering
7	Electronics & Telecommunications Engineering
8	Master of Computer Applications (MCA)

Research Programs:

Degree offered: (Ph.D.)

Sr. No	Programs
1	Mechanical Engineering
2	Chemical Engineering
3	Industrial Engineering
4	Instrumentation and Control Engineering
5	Electronics & Telecommunications Engineering
6	Computer Engineering

Vishwakarma Institute of Technology is ISO 9001-2008 certified Institute since April 2007.

Admission to the undergraduate courses is based on the state level and national level competitive test conducted by the respective governments. Admissions to Postgraduate programs are based on national competitive test i.e. Graduate Aptitude Test in Engineering (GATE), conducted by Indian Institutes of Technology. The competition is extremely keen and admission is restricted to less than the top 1.0% of candidates appearing for the said examination





Vision & Mission

Vision :

"To be globally acclaimed Institute in Technical Education and Research for holistic Socio-economic development".

Mission :

- To impart knowledge & skill based Education in Collaboration with Industry, Academia & Research Organization.
- To strengthen global collaboration for Students, Faculty Exchange and joint research.
- To prepare competent Engineers with the spirit of Entrepreneurship.
- To Inculcate and Strengthen Research Aptitude amongst the Students and Faculty.





IMPORTANT FEATURES OF VISHWAKARMA INSTITUTE OF TECHNOLOGY

1. Vishwakarma Institute of Technology is a premier engineering institute from India established in Pune in the year 1984.
2. The institute is **permanently affiliated to Savitribai Phule Pune University** which is a reputed university and ranks amongst top universities in the country. **The university is NAAC (National Assessment and Accreditation Council) accredited with "A+" grade.**
3. The institute was conferred **autonomous status** by University Grants Commission (UGC) since July 2008.
4. The institute is **NAAC (National Assessment and Accreditation Council) accredited with "A++" grade.**
5. The institute is **ISO 9001:2008 certified** since 2007.
6. Undergraduate programs of the institute are **NBA (National Board of Accreditation) accredited.**
7. The institute has received Indian Merchants' Chambers **Ramakrishna Bajaj National Quality Award 2011 Cycle.**
8. The institute is amongst the **top five preferred institutes** in the state of Maharashtra, India and amongst top ten preferred institutes in the western region of the country.
9. The Institute has university approved research centers in six departments namely Chemical Engineering, Computer Engineering, Electronics Engineering, Industrial Engineering, Instrumentation & Control Engineering and Mechanical Engineering.
10. The institute has signed MOUs with many reputed universities like Penn State University (U.S.A), Marist College (U.S.A.), Binghamton University (U.S.A.), Cork Institute of Technology (Ireland), 17 Universities from State of Ontario in Canada, Group des Ecoles des Mines (France), Asian Institute of Technology, (Bangkok), Hanyang University, Seoul (South Korea), etc. for student exchange, faculty exchange & project exchange activities.
11. Under the autonomy, the institute has adopted credit based system, grading policy and continuous assessment of the student through class tests, mid-semester examination and an end semester examination.
12. Apart from the core courses, the institute offers courses in liberal arts, music, dance, sports, yoga & foreign language etc. to engineering students under General Proficiency courses. This motivates students to participate and succeed in various prestigious cultural, social, sports, and co-curricular activities.
13. The institute has formulated various students' chapters like ISA, IEEE, ACM and SAE.
14. The institute has signed many MOUs with many industries like TATA Motors, Emerson, IBM and Accenture for student internship, research & consultancy work and participation of industries in the teaching-learning process.
15. The institute holds excellent placement records in many reputed multinationals.





DEPARTMENT OF MECHANICAL ENGINEERING

Mr. Ashutosh Ramesh Patil has attended the regular B. Tech. course. The course consists of a total of eight semesters over a span of four years. The first year of B. Tech. is common to all branches. Courses taken by the student from F.Y. B. Tech to Final Year B. Tech are approved by concerned Board of Studies (B.O.S.).

Salient features of the B. Tech Mechanical Engineering Course:

- Core Areas
 1. Thermal Engineering
 2. Theory of Machines
 3. Manufacturing Engineering
 4. Metallurgy and Material Science
 5. Fluid Engineering
 6. Machine Design
 7. CAD/CAM/CAE
 8. Refrigeration and Air-conditioning
 9. Engine Technology
 10. Measurements
- Elective Areas
 1. Kinematic Analysis and Synthesis
 2. Kinematics-Dynamics
 3. Robotics
 4. Mechatronics
 5. Finite Element Analysis
 6. Optimization Techniques
 7. Tribology
 8. Industrial Fluid Power
 9. Turbomachines
 10. Thermal Power Plant
 11. Heat Exchange Devices
 12. Hybrid Vehicles
- Tie-ups with Industry
 1. Best project award for Final year B. Tech students from Forbes Marshall.
 2. Sponsored projects in industries like Tata Motors, Mahindra & Mahindra, Forbes Marshall, John Deere etc.
 3. Internship programme in various industries
 4. Scholarships from SAE Western India Region
- Research Support
 1. Participation of students in various research projects handled by faculty
- Any other information
 1. Student Exchange programme with OMG Canada and France
 2. Electives offered by Purdue University through Purdue Next programme
 3. Student participation in SAE activities and competitions like SAE BAJA, SAE SUPRA etc.
 4. Industry visits to industries like Thermax, Forbes Marshall, Power plants, Kirloskar, John Deere, Mahindra & Mahindra etc.
 5. Expert Lectures by Eminent Industry persons and IIT Professors





EXAMINATION AND GRADING SCHEME

Vishwakarma Institute of Technology is an Autonomous Institute affiliated to Savitribai Phule Pune University. The institute has adopted a credit based assessment system for the evaluation of academic Performance of the student. Accordingly, Cumulative Performance Index (**CPI**) on the scale of 10 is awarded.

The following are the details of the Examination Scheme prescribed for the degree course (Bachelor of Technology) in Mechanical Engineering by the Vishwakarma Institute of Technology, along with the performance of the following candidate in the examination

Name: Mr. Ashutosh Ramesh Patil

Period of Study: August 2016 to October 2020.

1. The Bachelor's degree program in Mechanical Engineering is of four years duration and each academic year has two semesters. The examination pattern consists of Class Tests, an online Mid-semester Examination & an End semester Examination.
2. The medium of instruction is English.
3. All subjects are compulsory, except those specified as electives. The student also chooses the mini project and major project.
4. Theory papers, Comprehensive Viva Voce (CVV), practical and Project examinations require a minimum of 40% marks for passing.
5. The Grading Scheme of Vishwakarma Institute of Technology is as follows:

GRADE POINTS: AA- (Excellent/Out Standing): 10	AB - (Very Good): 9
BB-(Good): 8	BC - (Fair): 7
CC- (Above Average): 6	CD - (Average): 5
DD- (Below Average): 4	FF - (Fail): 0
FR- (Fail):0 (End Semester Examination Permitted)	

ABBREVIATIONS: AP- (Audit Course Passed)
 II- (Absent for the Exam but not detained)
 XX-(Detained, Re-register for course)
 PP-(Passed only for non-Credit Course)
 NP-(Not passed-only for non-Credit Course)
 CPI-Cumulative Performance Index
 SPI-Semester Performance Index



**CERTIFIED GRADE SHEETS****Name: Mr. Ashutosh Ramesh Patil****GR Number: 161672****1st Academic Year (2016 to 2017)****Passing Month & Year: May 2017****Program: Bachelor of Technology in Mechanical Engineering**
Semester I

Course Title	Hours Per Week		Credits		Grades	
	T	L	T	L	T	L
Electrical Technology	3	2	4		BB	
Engineering Physics	3	2	4		BC	
Fundamental of programming	2	4	4		DD	
Indian Philosophy and Ethics	2	0	2		BB	
Linear Algebra	2	1	3		BB	
Constitution of India	0	2		1		AB
French	2	2		3		BB
Manufacturing Workshop	0	2		1		AA
Soft Skills	1	2		2		BB
English	2	0		0		PP

Semester II

Course Title	Hours Per Week		Credits		Grades	
	T	L	T	L	T	L
Applied Chemistry	2	2	3		BC	
Applied Mechanics	3	2	4		AB	
Behavioral science	2	0	2		BB	
Differential and Integral Calculus	2	1	3		BB	
Electronics Technology	2	0	2		BC	
Thermodynamics	2	0	2		BB	
Engineering Graphics	3	4		5		CC
General Seminar	0	2		1		AB
Machining Workshop	0	2		1		AA
Mini Project	0	4		2		AB
Yoga and Pranayam	0	2		1		AB

First Semester Record			Second Semester Record			Cumulative Semester Record		
No of Credits to be Earned	Actual Credits Earned	SPI	No of Credits to be Earned	Actual Credits Earned	SPI	No of Credits to be Earned	Actual Credits Earned	CPI
24	24	7.29	26	26	7.81	50	50	7.56

Abbreviations: T- Theory course PD- Professional Development course SPI- Semester Performance Index
 L- Laboratory course GP- General Proficiency course CPI- Cumulative Performance Index
 PS- Project/Seminar

Registrar, Vishwakarma Institute of Technology

**CERTIFIED GRADE SHEETS**

Name: Mr. Ashutosh Ramesh Patil
GR Number: 161672

2nd Academic Year (2017 to 2018)
Passing Month & Year: May 2018

Program: Bachelor of Technology in Mechanical Engineering**Semester III**

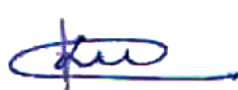
Course Title	Hours Per Week		Credits		Grades	
	T	L	T	L	T	L
Applied Thermodynamics	3	2	4		BC	
Engineering and Managerial Economics	2	0	2		BC	
Kinematics and Mechanics	3	2	4		BC	
Machine Drawing	3	2	4		AB	
Manufacturing Process	3	2	3		AB	
Material Science	3	2	4		BB	
Workshop Practice	0	2		2		AA

Semester IV

Course Title	Hours Per Week		Credits		Grades	
	T	L	T	L	T	L
Costing and Cost Control	2	0	2		AB	
Differential Vector and Vector Analysis	3	0	3		BB	
Electrical and Electronics Engineering	3	2	4		AA	
Fluid Mechanics	3	3	4		AB	
Modeling and Simulation of Mechanical System	3	2	4		BB	
Strength of Machine Element	3	2	4		AB	
Mini Project	0	6		2		AB

Third Semester Record			Fourth Semester Record			Cumulative Semester Record		
No of Credits to be Earned	Actual Credits Earned	SPI	No of Credits to be Earned	Actual Credits Earned	SPI	No of Credits to be Earned	Actual Credits Earned	CPI
23	23	8.04	23	23	8.87	96	96	7.99

Abbreviations: T- Theory course PD- Professional Development course SPI- Semester Performance Index
 L- Laboratory course GP- General Proficiency course CPI- Cumulative Performance Index
 PS- Project/Seminar


Registrar, Vishwakarma Institute of Technology



**CERTIFIED GRADE SHEETS****Name: Mr. Ashutosh Ramesh Patil****GR Number: 161672****3rd Academic Year (2018 to 2019)****Passing Month & Year: May 2019****Program: Bachelor of Technology in Mechanical Engineering****Semester V**

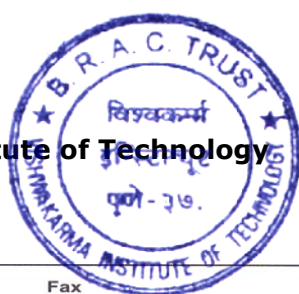
Course Title	Hours Per Week		Credits		Grades	
	T	L	T	L	T	L
Fluid Machinery and Fluid Power	3	2	4		AB	
Heat Transfer	3	2	4		AB	
Mechanical Design	3	2	4		BB	
Production Technology	3	2	4		BB	
Engineering Design and Development 1	0	6		4	AB	
Seminar	0	2		1		AB

Semester VI

Course Title	Hours Per Week		Credits		Grades	
	T	L	T	L	T	L
Engineering Design for OFF-Highway Vehicles	3	2	4		BB	
Internal Combustion Engine	3	2	4		BB	
Mechatronics	3	2	4		AB	
Theory of Machine	3	2	4		AB	
Engineering Design and Development 2	0	6		4		AA
Summer Training	0	2		1		AA
General Proficiency 2	0	1		0		PP
Professional Development 1	0	1		0		PP

Fifth Semester Record			Sixth Semester Record			Cumulative Semester Record		
No of Credits to be Earned	Actual Credits Earned	SPI	No of Credits to be Earned	Actual Credits Earned	SPI	No of Credits to be Earned	Actual Credits Earned	CPI
21	21	8.62	21	21	8.86	138	138	8.22

Abbreviations: T- Theory course PD- Professional Development course SPI- Semester Performance Index
 L- Laboratory course GP- General Proficiency course CPI- Cumulative Performance Index
 PS- Project/Seminar

Registrar, Vishwakarma Institute of Technology

**CERTIFIED GRADE SHEETS****Name: Mr. Ashutosh Ramesh Patil****4th Academic Year (2019 to 2020)****GR Number: 161672****Passing Month & Year: October 2020****Program: Bachelor of Technology in Mechanical Engineering****Semester VII**

Course Title	Hours Per Week		Credits		Grades	
	T	L	T	L	T	L
Research Internship	-	-		16		AB

Semester VIII

Course Title	Hours Per Week		Credits		Grades	
	T	L	T	L	T	L
CAD / CAM / CAE	3	2	4		AB	
Vibrational Analysis	3	2	4		BC	
Refrigeration and Air Conditioning	3	2	4		AB	
Major Project	0	6		4		AA

Seventh Semester Record			Eighth Semester Record			Cumulative Semester Record		
No of Credits to be Earned	Actual Credits Earned	SPI	No of Credits to be Earned	Actual Credits Earned	SPI	No of Credits to be Earned	Actual Credits Earned	CPI
16	16	9	16	16	8.75	170	170	8.34

Abbreviations: T- Theory course PD- Professional Development course SPI- Semester Performance Index
 L- Laboratory course GP- General Proficiency course CPI- Cumulative Performance Index
 PS- Project/Seminar

Registrar, Vishwakarma Institute of Technology

