



योग: कर्मसु कौशलम्

**Darshan**  
UNIVERSITY

**B.Tech.**  
MECHANICAL ENGINEERING



A  
**technical**  
**under-graduate**  
program  
that focuses on  
**skill & practical oriented**  
education to make students  
**industry-ready**

# Mechanical Engineering

























It is the application of science and technology to solve real-world problems. The program emphasizes the strong theoretical fundamentals of mechanical engineering by imparting practical and hands-on experience. The field of mechanical engineering touches virtually every aspect of modern life, from mobile phones and biomedical devices to aircraft and power plants.

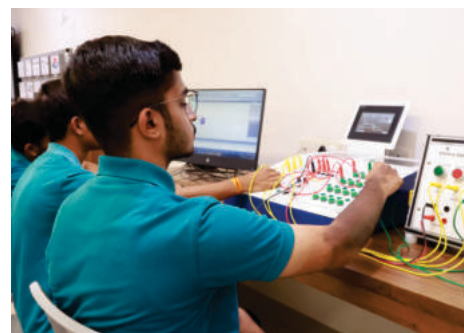
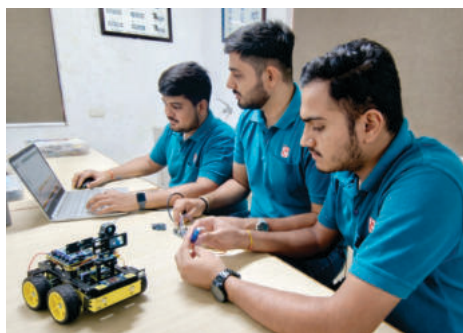
*The program is ideal for the students who wish to pursue their career in industrial sectors like Automobile, Aviation, CAD/CAM, Defence, Energy, FMCG, HVAC, Manufacturing, Marine, Railways, Oil & Gas, Pharma, Robotics and more...*

## B.Tech. in Mechanical Engineering @ Darshan University

- Live Industrial Field Learning & Assessment for Students by Industry Experts.
- Training for Industry Professionals in our Advanced Technology Labs by our Qualified Faculties.
- Highly Qualified, Industry-Linked Faculties with 15+ Years of Average Experience.
- Continuous Upgradation of Laboratories to Meet Dynamic Industry Demands.
- Strong Focus on Skill Development Activities to Make Students Industry-Ready.
- Exposure to Cutting-Edge Technologies through Seminars, Workshops & Expert Talks.
- 95%+ Placement Record Since 2018.

## Skill Development Activities @ DU

Sem.-3	Sem.-4	Sem.-5	Sem.-6	Sem.-7	Sem.-3 to 8
 AutoCAD	 Creo	 IoT	 PLC	 AR/VR	 Mock Interview
 Material Testing	 MS-Office	 NX Software	 FEA	 CNC	 Aptitude & Technical Test
 GD&T	 Flow Measurement	 Welding	 Aerial Robot	 Rapid Prototyping	 Group Discussion
 Measurement	 Pump Troubleshooting	 Machine Tools	 Ind. Automation	 AI/ML based Robotics	 Soft Skills



# Syllabus

## Semester-1

- Mathematics - I
- Basics of Electrical Engineering
- Engineering Drawing
- Workshop
- English
- Environmental Studies

## Semester-2

- Indian Constitution
- Electronics Workshop
- Mathematics - II
- Science for Mechanical Engineering
- Elements of Mechanical Engineering
- Introduction to Python Programming

## Semester-3

- Mechanical Measurement & Metrology
- Mechanics of Solids
- Engineering Thermodynamics
- Industrial Drafting Lab
- Kinematics and Theory of Machines
- Fundamentals of Accounting

## Semester-4

- Advanced Engineering Mathematics
- Fluid Mechanics
- Fundamentals of Machine Design
- Manufacturing Processes - I
- Material Science and Metallurgy
- Solid Modelling Lab

## Semester-5

- Professional Communication - I
- Fluid Power Engineering
- Heat Transfer
- Machine Design - I
- Manufacturing Processes - II
- Open Elective - I
- Professional Elective - I

## Semester-6

- Professional Communication - II
- Applied Thermal Engineering
- Dynamics of Machinery
- Machine Design - II
- Open Elective - II
- Professional Elective - II
- Professional Elective - III


## Semester-7

- Life Management & Human Values
- Finite Element Analysis Lab
- Minor Project
- Operation Research
- Smart Manufacturing
- Professional Elective - IV
- Professional Elective - V

## Semester-8

- Internship / Major Project

## Electives

**Futuristic Technologies:**  IOT & Applications, Extended Reality (AR/VR), Unmanned Aerial Vehicle (Drone), Industrial Automation & AI-ML based Robotics etc.

**Design:** Rapid Prototyping, Product Design & Development, Computer Aided Design etc

**Thermal:** Power Plant Engineering, Refrigeration & Air-Conditioning, Renewable Energy Engineering, Energy Efficiencies in Industrial Utilities, Turbomachines etc.

**Manufacturing:** Industrial Engineering & Management, Quality and Reliability Engineering, Production Technology, Entrepreneurship, Advanced Manufacturing Processes, Automobile Engineering etc.

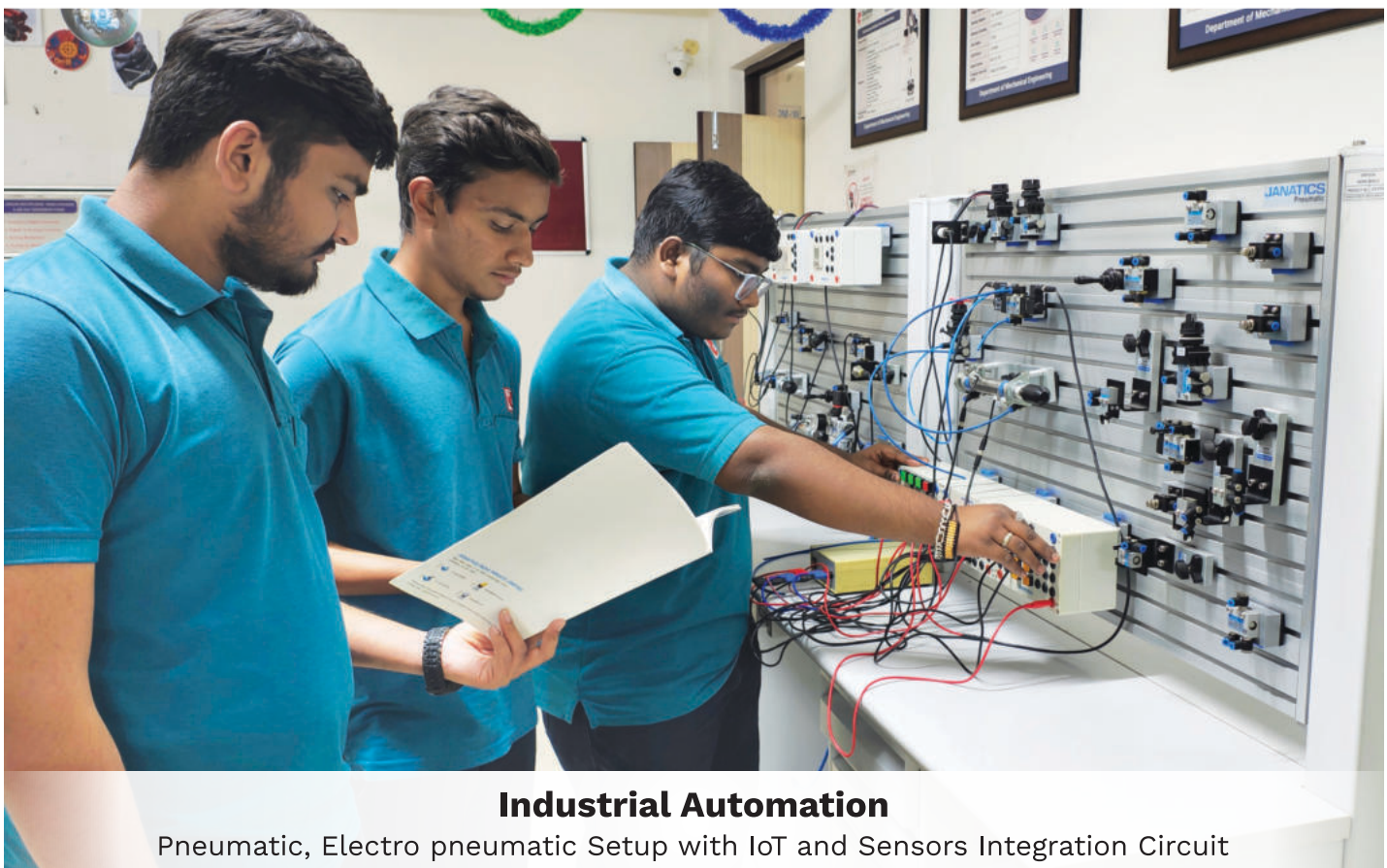
 : Unique approach of the department to develop proficiency of students in futuristic and latest technologies

## Cutting-Edge Laboratories



### **AI-ML RoboMech Lab**

Mitsubishi AI-ML based Robotic Arm – Static & Dynamic Operation Setup



### **Industrial Automation**

Pneumatic, Electro pneumatic Setup with IoT and Sensors Integration Circuit

## Cutting-Edge Laboratories



## Cutting-Edge Laboratories



Rapid Prototyping Lab



Advanced Metrology Lab



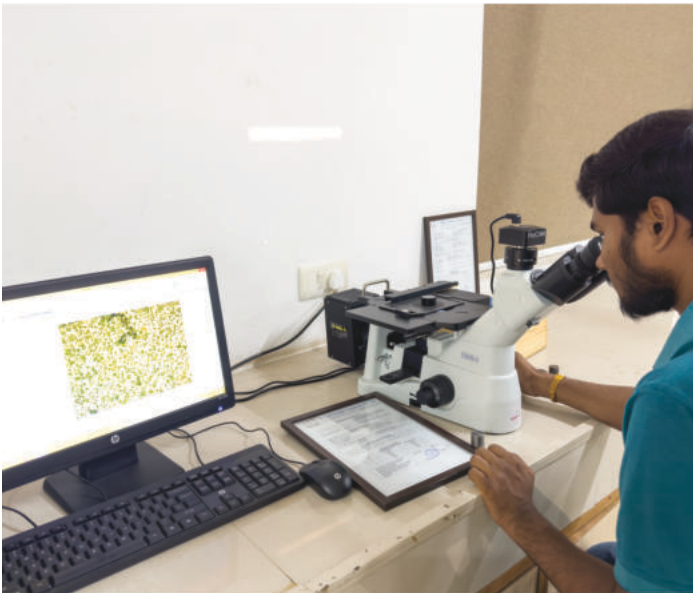
Advanced Metallurgy Lab



Mechanical Workshop



CNC / VMC Lab



## Cutting-Edge Laboratories



CAD/CAM Lab



Refrigeration & Air Conditioning Lab



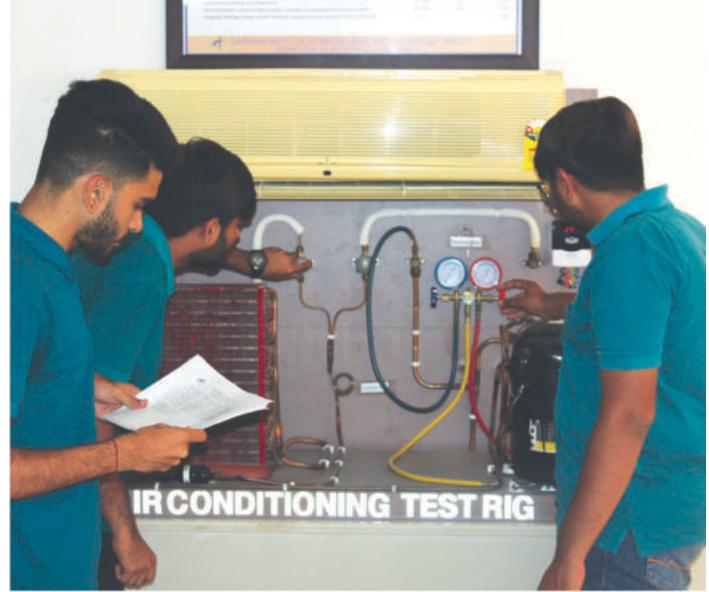
Kinematics & Dynamics Lab



Heat Transfer Lab



Fluid Mechanics & Machinery Lab



## Dean



### **Dr. Jignasa P. Mehta**

Dean & Head, Institute of Engineering & Technology  
Ph.D. (Mechanical Engineering)

Experience : 32 Years

Phone : 9427495745, 9727747319

Email : [mechanical@darshan.ac.in](mailto:mechanical@darshan.ac.in)

Dr. Jignasa Mehta has completed her B.E. (Mechanical) from L.E. College, Morbi. She was awarded two Gold Medals one in B.E. – Mechanical and one in overall engineering branches at Saurashtra University. She has completed M.E. (Machine Design) from BVM, Vallabh Vidyanagar and Ph.D. (Mechanical Engineering) from Sardar Patel University, Vallabh Vidyanagar.

She has started her professional career with the ADICO group, Rajkot as an Engineer. Prior to joining the institute, she has worked at V.V.P - Rajkot for 24 years and also served as Head of the Mechanical Engineering Department for 12 years. She has published 18 papers in various reputed international Journals & Conferences, she is also a member of the editorial board and reviewer for various international journals.

At present, she is also working as an Independent Technical Director of Rolex Rings, Rajkot And Jyoti CNC Pvt Ltd, Rajkot.

# Key Faculties



## Dr. Ashvin Makadia

- Ph.D., M.Tech. (CAD/CAM)
- 32 Years Experience
- ashvin.makadia@darshan.ac.in
- 9426429122
- CAD/CAM, Design



## Mukesh Vekaria

- Ph.D. (Pursuing), M.Tech. (Thermal)
- 19 Years Experience
- mukesh.vekaria@darshan.ac.in
- 9998986259
- Thermal, I.C. Engine, Automobile



## Bhavin Vegada

- Ph.D. (Pursuing), M.Tech. (Thermal)
- 15 Years Experience
- bhavin.vegada@darshan.ac.in
- 9825366601
- Heat Transfer, Fluid



## Vimal Limbasiya

- Ph.D. (Pursuing), M.Tech. (CAD/CAM)
- 15 Years Experience
- vimal.limbasiya@darshan.ac.in
- 9879360219
- Machine Design, CAD/CAM/CAE



## Sagar Kanjiya

- Ph.D. (Pursuing), M.E. (Thermal)
- 12 Years Experience
- sagarkumar.kanjiya@darshan.ac.in
- 9408040240
- Thermal, Fluid, Ind. Automation



## Paras Vegada

- M.Tech., B.E. (Mechanical)
- 16 Years Experience
- paras.vegada@darshan.ac.in
- 9724340710
- Manufacturing, Metrology, IE



## Ankur Tank

- M.E. (Pursuing), B.E. (Mechanical)
- 15 Years Experience
- ankur.tank@darshan.ac.in
- 9712804466
- AR/VR, Industrial Robotics, CAD/CAM



## Ashutosh Joshi

- M.E. (Machine Design), B.E. (Mech.)
- 17 Years Experience
- ashutosh.joshi@darshan.ac.in
- 8758874198
- Product Design, Machine Design



## Savan Fefar

- Ph.D (Pursuing), M.Tech (Production)
- 13 Years Experience
- savan.fefar@darshan.ac.in
- 8866582389
- Additive Manufacturing, Production



## Vineet Bhatt

- M.E.(CAD/CAM), B.E.(Mech)
- 1 Year Experience
- vineet.bhatt@darshan.ac.in
- 8866582389
- Additive Manufacturing, CAD/CAM



## Prakashchandra Parajiya (Lab Assistant)

- Diploma
- 13 Years Experience
- prakashchandr.parajiya@darshan.ac.in
- 9913133705
- Design, Thermal, Measurement



## Arjun Bhadesiya (Workshop Instructor)

- Diploma , ITI (Gold Medalist)
- 14 Years Experience
- arjun.bhadesiya@darshan.ac.in
- 9099790398
- Manufacturing, Production

## Industry Integrated Activities



### Live Learning @ Industries

- Learn Core Subjects with Live Manufacturing Processes.
- Experience Real Time Learning in Industries.
- Empowering Students with Industry Ready Skills.

### Practical / Exam @ Industries

- Practical / Exam in Real Industrial Environment by Industry Experts.
- Evaluation Performance of Student by Industry Professionals.
- Exposure to Real Time Problem Solving Makes Students Interview Ready.



### Training to Industry Professionals

- Deliver Training to Industry Professionals on Latest Technologies by our Qualified Staff.
- Transforming Knowledge and Skills to Industrial People.
- Empowering Professional with Future Ready Skills.



## Activities @ DU (Apart from Curriculum)



Expert Talk



Technical Workshop



Industrial Visit



Presentation



Mini Projects



Mock Interview

## MoUs

				<b>100+</b> MoUs

## Our Students @ Reputed Companies

<p><b>Harshad Sutariya</b> Batch 2009-13</p> 		<p><b>Neel Jagani</b> Batch 2009-13</p> 		<p><b>Him Poojara</b> Batch 2010-14</p> 	
	<p><b>Meet Kapdi</b> Batch 2016-20</p> 		<p><b>Devendra Jadeja</b> Batch 2010-14</p> 		<p><b>Jay Joshi</b> Batch 2012-16</p> 
<p><b>Divyesh Savaniya</b> Batch 2014-18</p> 		<p><b>Bansal Ajudiya</b> Batch 2012-16</p> 		<p><b>Karan Gandhi</b> Batch 2013-16</p> 	
	<p><b>Harshil Gadhethariya</b> Batch 2016-19</p> 		<p><b>Nikunj Delvadiya</b> Batch 2011-15</p> 		<p><b>Mayur Ghevariya</b> Batch 2010-14</p> 
<p><b>Vivek Limbad</b> Batch 2009-13</p> 		<p><b>Karan Makwana</b> Batch 2012-16</p> 		<p><b>Akash Hindocha</b> Batch 2011-15</p> 	
	<p><b>Ashish Amrutiya</b> Batch 2010-14</p> 		<p><b>Pallav Vakharia</b> Batch 2011-15</p> 		<p><b>Jaydip Jarsaniya</b> Batch 2012-16</p> 
<p><b>Vasim Tank</b> Batch 2011-15</p> 		<p><b>Priyank Parmar</b> Batch 2009-13</p> 		<p><b>Ankit Mursaniya</b> Batch 2014-18</p> 	

# Our Students @ Reputed Companies

<p><b>Brijesh Nakum</b> Batch 2019-23</p>  	<p><b>Nilay Raval</b> Batch 2009-13</p>  	<p><b>Hitesh Patel</b> Batch 2012-16</p>  
<p><b>Hiren Gediya</b> Batch 2009-13</p>  	<p><b>Sanket Kalavadiya</b> Batch 2011-15</p>  	<p><b>Sagar Visavelia</b> Batch 2011-15</p>  
<p><b>Kumarpal Belani</b> Batch 2013-17</p>  	<p><b>Dev Makwana</b> Batch 2011-15</p>  	<p><b>Vishal Paghadal</b> Batch 2014-18</p>  
<p><b>Hardik Solanki</b> Batch 2013-19</p>  	<p><b>Vishal Dholiya</b> Batch 2011-15</p>  	<p><b>Nilay Panchasara</b> Batch 2016-20</p>  
<p><b>Vishal Katudiya</b> Batch 2011-15</p>  	<p><b>Mayur Rajodiya</b> Batch 2011-15</p>  	<p><b>Manthan Kanjariya</b> Batch 2018-21</p>  
<p><b>Viraj Donga</b> Batch 2011-15</p>  	<p><b>Nikunj Detroja</b> Batch 2012-16</p>  	<p><b>Devendra Devaiya</b> Batch 2012-16</p>  
<p><b>Dhaval Maru</b> Batch 2012-16</p>  	<p><b>Prakhar Upasani</b> Batch 2015-19</p>  	<p><b>Bhautesh Vara</b> Batch 2017-20</p>  

# Our Students @ Government Job

<p><b>Vishal Detroja</b> Batch 2010-14</p>  <p> Industries Commissionerate Government of Gujarat</p>	<p><b>Rutvik Vyas</b> Batch 2012-16</p>  <p> ગુજરાત રાજ્ય કર Gujarat State Tax</p>	<p><b>Gaurav Zalariya</b> Batch 2009-13</p>  <p></p>
 <p><b>Nirmal Patel</b> Batch 2013-17</p> <p> GSECL</p>	 <p><b>Divyaraj Zala</b> Batch 2012-16</p> <p> GSECL</p>	 <p><b>Kishan Saravaiya</b> Batch 2013-17</p> <p> Sabarmati Gas Ltd. (A Joint Venture of GSPCL and BPCL)</p>
<p><b>Mayur Joshi</b> Batch 2013-17</p>  <p> Sabarmati Gas Ltd. (A Joint Venture of GSPCL and BPCL)</p>	<p><b>Darshil Mehta</b> Batch 2012-16</p>  <p></p>	<p><b>Mahendra Barad</b> Batch 2013-17</p>  <p> GNAL Gujarat Natural Gas</p>
 <p><b>Palash Ukani</b> Batch 2010-14</p> <p> WRD</p>	 <p><b>Shyam Pisavadia</b> Batch 2012-16</p> <p> GSECL</p>	 <p><b>Ravi Kathad</b> Batch 2013-17</p> <p></p>
<p><b>Kuldeepsinh Sarvaiya</b> Batch 2018-21</p>  <p> Department of Posts</p>	<p><b>Bambhaniya Jaydip</b> Batch 2012-16</p>  <p></p>	<p><b>Mayur Kasundra</b> Batch 2009-13</p>  <p> Industrial Training Institute</p>
 <p><b>Usman Kherani</b> Batch 2010-14</p> <p> Industrial Training Institute</p>	 <p><b>Disha Gondiya</b> Batch 2010-14</p> <p> Industrial Training Institute</p>	 <p><b>Kishan Kanani</b> Batch 2010-14</p> <p> Industrial Training Institute</p>
<p><b>Purvaraj Jadeja</b> Batch 2009-13</p>  <p> Industrial Training Institute</p>	<p><b>Akshay Barad</b> Batch 2012-16</p>  <p></p>	<p><b>Hiren Ranwa</b> Batch 2015-19</p>  <p></p>

# Our Student Entrepreneures

<p><b>Sojitra Kaushik</b> Batch 2013-17</p>  <p>Jenisha Automation</p>		<p><b>Ponkiya Madhur</b> Batch 2009-13</p>  <p>Ironide Engineering</p>		<p><b>Baravaliya Nirav</b> Batch 2013-17</p>  <p>Jenisha Automation</p>	
	<p><b>Dudhatra Hem</b> Batch 2011-15</p>  <p>Uni-Tech Casting LLP</p>		<p><b>Sanghani Sanket</b> Batch 2011-15</p>  <p>Austramax Engineering</p>		<p><b>Vaghela Jigar</b> Batch 2010-14</p>  <p>Playway Systems</p>
<p><b>Dhorajiya Sandip</b> Batch 2009-13</p>  <p>SD Fitness Equipment</p>		<p><b>Chaniyara Gunjan</b> Batch 2013-17</p>  <p>Satyam Techno</p>		<p><b>Navapariya Vaibhav</b> Batch 2014-18</p>  <p>R. K. Auto Tech</p>	
	<p><b>Kachhela Rakesh</b> Batch 2012-16</p>  <p>Pramukh Solutions</p>		<p><b>Kyada Tanmay</b> Batch 2013-17</p>  <p>CAD-SOL Design Solution</p>		<p><b>Nonghanvadra Jenish</b> Batch 2012-16</p>  <p>Jay Mangal Engineering</p>
<p><b>Der Mohit</b> Batch 2011-15</p>  <p>Detailing Devils</p>		<p><b>Ranpariya Uttam</b> Batch 2012-16</p>  <p>Silver Foils Pvt. Ltd.</p>		<p><b>Rabadiya Devid</b> Batch 2011-15</p>  <p>Detailing Devils</p>	
	<p><b>Jani Maulik</b> Batch 2009-13</p>  <p>Krishna Plast</p>		<p><b>Bhensdadia Milan</b> Batch 2014-18</p>  <p>Phi Tech Solutions</p>		<p><b>Usdad Ankit</b> Batch 2013-17</p>  <p>Cognova Heat Treatment LLP</p>
<p><b>Thakar Priyank</b> Batch 2011-15</p>  <p>Karma Equipments Services</p>		<p><b>Hapaliya Brijesh</b> Batch 2014-18</p>  <p>Hapaliya Machineres Pvt. Ltd.</p>		<p><b>Hansaliya Rishit</b> Batch 2011-15</p>  <p>Karma Equipments Services</p>	

## Scan QR Codes



Department of  
Mechanical Engineering



Mechanical  
Laboratories



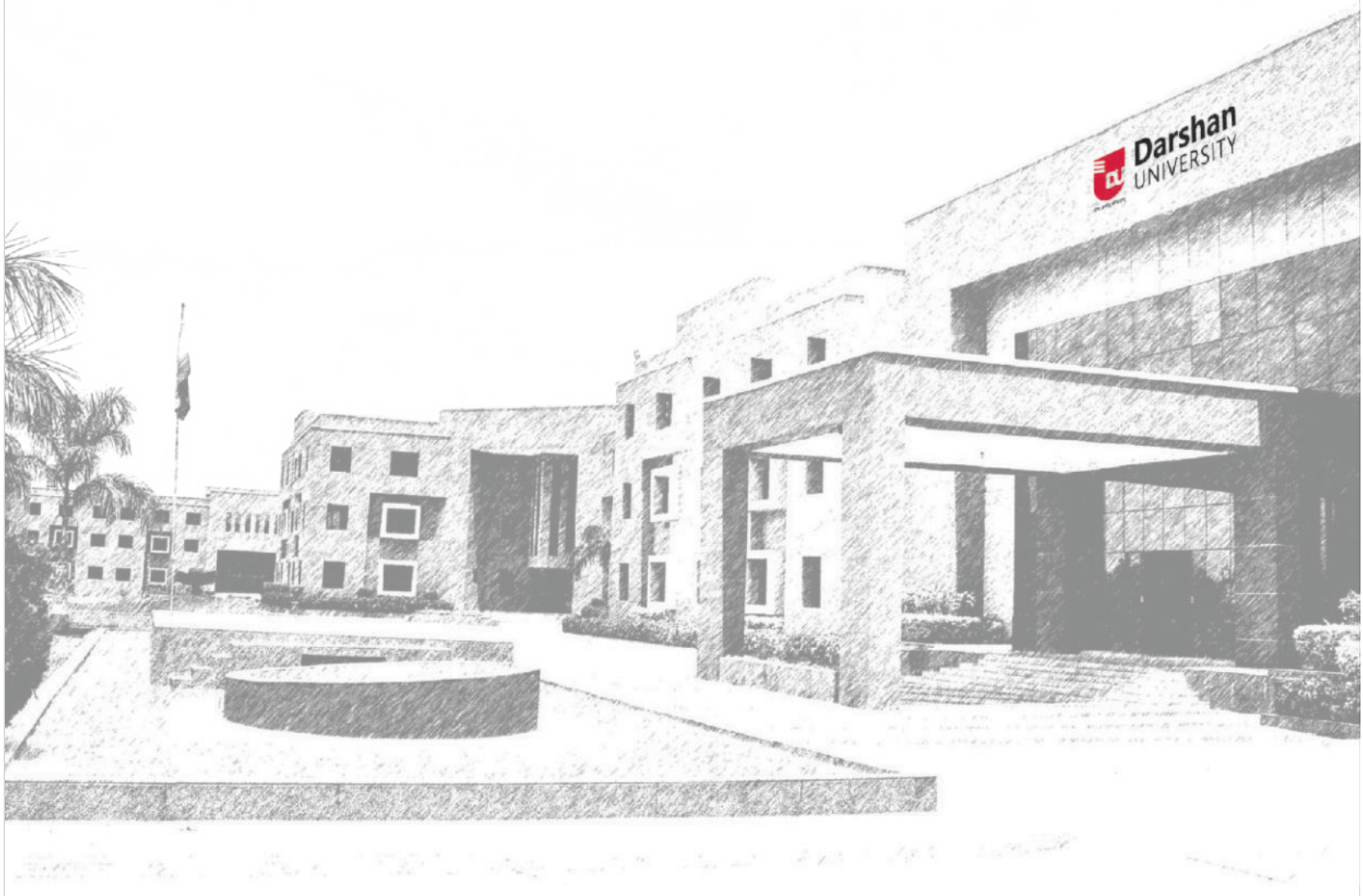
Mechanical  
Consultancy Cell



Career after  
Mechanical Engineering



Campus  
Video



**RECESSION PROOF**



योग: कर्मसु कोशलम्

**Darshan**  
UNIVERSITY

### University Campus

- 📍 Rajkot-Morbi Highway,  
Rajkot – 363650.
- ☎ 9727747310 / 11
- 🌐 [www.darshan.ac.in](http://www.darshan.ac.in)

### Counseling Centre

- 📍 401, Lotus Arcade, 8 - Royal Park,  
Between KKV Circle & Indira Circle  
150 Ft. Ring Road, Rajkot - 360005.
- ☎ 9712804466, 9408040240