

### GIDC Degree Engineering College, Abrama, Navsari

Block No.997, Village Abrama, Tal. Jalalpore ,Dist. Navsari- 396406. Gujarat, India. **Phone:**:+91 02637 229040 **Email:** gidcengcol@gmail.com

# **Department of Mechanical Engineering**



# **Mechanical Engineering**

Mechanical engineering is a diverse subject that derives its breadth from the need to design and manufacture everything from small individual parts and devices (e.g., micro scale sensors and inkjet printer nozzles) to large systems (e.g., spacecraft and machine tools). The role of a mechanical engineer is to take a product from an idea to the marketplace. In order to accomplish this, a broad range of skills are needed. The mechanical engineer needs to acquire particular skills and knowledge. He/she needs to understand the forces and the thermal environment that a product, its parts, or its subsystems will encounter; to design them for functionality, aesthetics, and the ability to withstand the forces and the thermal environment they will be subjected to; and to determine the best way to manufacture them and ensure they will operate without failure. Perhaps the one skill that is the mechanical engineer's exclusive domain is the ability to analyze and design objects and systems with motion.

Since these skills are required for virtually everything that is made, mechanical engineering is perhaps the broadest and most diverse of engineering disciplines. Mechanical engineers play a central role in such industries as automotive (from the car chassis to its every subsystem—engine, transmission, sensors); aerospace (airplanes, aircraft engines, control systems for airplanes and spacecraft); biotechnology (implants, prosthetic devices, fluidic systems for pharmaceutical industries); computers and electronics (disk drives, printers, cooling systems, semiconductor tools); micro electro mechanical systems, or MEMS

(sensors, actuators, micro power generation); energy conversion (gas turbines, wind turbines, solar energy, fuel cells); environmental control (HVAC, air-conditioning, refrigeration, compressors); automation (robots, data and image acquisition, recognition, control); manufacturing (machining, machine tools, prototyping, micro fabrication).

To put it simply, mechanical engineering deals with anything that moves, including the human body, a very complex machine. Mechanical engineers learn about materials, solid and fluid mechanics, thermodynamics, heat transfer, control, instrumentation, design, and manufacturing to understand mechanical systems. Specialized mechanical engineering subjects include biomechanics, cartilage-tissue engineering, energy conversion, laser-assisted materials processing, combustion, MEMS, micro fluidic devices, fracture mechanics, nano mechanics, mechanisms, micro power generation, tribology (friction and wear), and vibrations. The American Society of Mechanical Engineers (ASME) currently lists 36 technical divisions, from advanced energy systems and aerospace engineering to solid-waste engineering and textile engineering.

The breadth of the mechanical engineering discipline allows students a variety of career options beyond some of the industries listed above. Regardless of the particular path they envision for themselves after they graduate, their education will have provided them with the creative thinking that allows them to design an exciting product or system, the analytical tools to achieve their design goals, the ability to overcome all constraints, and the teamwork needed to design, market, and produce a system. These valuable skills could also launch a career in medicine, law, consulting, management, banking, finance, and so on.

For those interested in applied scientific and mathematical aspects of the discipline, graduate study in mechanical engineering can lead to a career of research and teaching.

## Department of Mechanical Engineering at GDEC, Abrama

The Department of Mechanical Engineering at GDEC-Abrama, is to provide students with a sound mechanical engineering education, enhance the understanding and application of mechanical engineering principles, for techno economic development of the country, and improve the quality of life of our citizens through teaching, research, and outreach programs. The Department offers eight-semester Bachelor of Engineering (B.E.) course with an annual intake of 120.

The Department has excellent staff, comprising of 16 academic staff members and 8 efficient members of the support staff. The Department is backed by a number of most Sophisticated Laboratories, Mechanical Workshop & Excellent Infra-Structure.

### **Academic Staff**

#### **Members**

Dr. Hiralal S. Patil Head & Professor

Dr. Dilip C. Patel Head of Work shop and Associate Professor

Prof. Mayur R. Patel **Assistant Professor** Prof. Daksh R. Tandel Assistant Professor Prof. Hariketan B. Patel Assistant Professor **Assistant Professor** Prof. Bharat H. Gajera Prof. Hitesh C. Rana Assistant Professor Prof. Bruhad S. Naik Assistant Professor Prof. Dharmik A. Patel Assistant Professor Prof. Harsh R. Naik Assistant Professor Prof. Tarun N. Patel Assistant Professor

Prof. Tarun N. Patel
Assistant Professor
Prof. Akash A. Patel
Assistant Professor
Prof. Nitish K Lad
Assistant Professor
Prof. Krunal A. Hathiwala
Assistant Professor
Prof. Dhaval S. Chaudhari
Assistant Professor

Prof. Jigar S. Rathod Assistant Professor

### **Support Staff Members**

Mr.Hitesh N. Patel Lab Assistant
Mr.Jatin K. Patel Lab Assistant
Mr.Brijesh B. Patel Lab Assistant

Mr.Divyesh C. Patel Workshop Technician
Mr.Bhavesh N. Tandel Workshop Technician
Mr.Kiran C. Nayaka Workshop Technician
Mr.Ismail I. Saiyad Workshop Technician

Mr.Bhavin M. Patel Lab Attendant

# **Laboratory Facilities**

Separate Laboratories are fully equipped with the latest equipments recommended by GTU and AICTE





**Heat and Mass Transfer Lab** 



Refrigeration And Air Conditioning Lab



Material Science And Metallurgy Lab



**Mechanical Measurement and Metrology** 



Computer Aided Design Lab



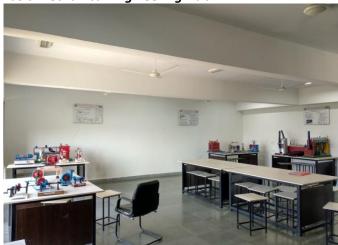
Machines and Mechanisms Lab



Dynamics of Machinery Lab



Basic Mechanical Engineering Lab



**Engineering Graphics and Design Lab** 



Workshop



Fluid Mechanics Lab



Fluid Power Engineering Lab



Manufacturing Process Lab



Production Technology Lab



**Black Smithy Shop** 



Conventional and Nonconventional Energy Lab



# Mechanical Seat Distribution in Prominent Engineering Colleges in Gujarat

INSTITUTES	LOCATION	INTAKE	INSTITUTE	ANNUAL
			ESTABLISHED	TUITION
				FEES
GIDC DEGREE	NAVSARI	120	2012	68000
ENGINEERING COLLEGE				
NAVSARI				
GUJARAT POWER	MEHSANA	60	2011	80000
ENGINEERING AND				
RESEARCH INSTITUTE				
MEHSANA INSTITUTE OF	AHEMDABAD	60	2014	135000
INFRASTRUCTURE,	AREMIDADAD	00	2014	133000
TECHNOLOGY, RESEARCH				
AND MANAGEMENT,				
AHMEDABAD				
ADIT, VALLABH	V.V.NAGAR	120	2000	106000
VIDHYANAGAR		120 222	•	
AADISHWAR COLLEGE OF	GANDHINAGAR	120+180	2009	71000
TECHNOLOGY - VENUS  AARYA-VEER COLLEGE	RAJKOT	60	2014	53000
OF ENGINEERING &	KAJKUI	00	2014	33000
TECHNOLOGY, RAJKOT				
ADITYA SILVER OAK	AHMEDABAD	120	2014	63000
INSTITUTE OF				
TECHNOLOGY				
AHMEDABAD INSTITUTE,	AHMEDABAD	168	2004	71,000
AHMEDABAD		120		12.000
ALPHA, GANDHINAGAR	KALOL	120	2009	63,000
AMIRAJ, AHMEDABAD APOLLO INSTITUTE OF	AHMEDABAD AHMEDABAD	60	2012 2014	73,000 55000
ENGINEERING	ATIMEDADAD	00	2014	33000
APOLLO INSTITUTE OF	AHMEDABAD	60	2014	61000
ENGINEERING &				
TECHNOLOGY				
ARRDEKTA,	KHEDBRAHMA	180	2011	56,000
KHEDBRAHMA			2011	<b>-</b> 1.000
ARUN MUNCHHALA,	DHARI	60	2011	74,000
DHARI, AMRELI ATMIYA, RAJKOT	RAJKOT	240	2004	81,000
AURUM INSTITUTE OF	RAJKOT	180	2004	75000
TECHNOLOGY				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
B.H.GARDI, RAJKOT	RAJKOT	180	2008	50,000
BABARIA, VADODARA	VADODARA	180	2004	96,000
BALAJI, JUNAGADH	JUNAGADH	180	2009	72,000
BHAGWAN MAHAVIR,	SURAT	240	2008	73,000
SURAT	VVVACAD	00	1050	1.500
BVM GIA, VALLABH	V.V.NAGAR	90	1958	1,500
VIDHYANAGAR BVM SFI, VALLABH	V.V.NAGAR	30	2012	107,000
VIDHYANAGAR	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		2012	107,000
C.K.PITHAWALA, SURAT	SURAT	120	1998	78,000
C.U.SHAH, WADHWAN	WADHWAN	120	2001	75000
CHAROTAR INSTITUTE,	CHANGA	120	2001	112000
CHANAGA				
CHHOTTUBHAI, SURAT	SURAT	120	2009	79,000
D.A.DEGREE, VADODARA	KHEDA	240	2013	59,000

DARSHAN, RAJKOT	RAJKOT	120	2009	73,000
DR. JIVRAJ MEHTA	ANAND	120	2010	70000
INSTITUTE OF	TH VI II (D	120	2010	70000
TECHNOLOGY				
DR. SUBHASH TECHNICAL	JUNAGADH	120	2010	70000
CAMPUS,	JOINTONDII	120	2010	70000
ENGINEERING COLLEGE,	GODHRA	120	2010	62000
TUWA	Gobiner	120	2010	02000
FACULTY OF	VADODRA	120	2010	63000
ENGINEERING,	VIID OBTUT	120	2010	03000
AUTOMOBILE &				
INFORMATION				
TECHNOLOGY				
DDIT SFI, NADIAD	NADIAD	120	2010	144,000
FETR, BARDOLI	BARDOLI	120	2010	56,000
G H PATEL COLLEGE OF	ANAND	120	1996	119000
ENGINEERING &				
TECHNOLOGY				
G.K. BHARAD, RAJKOT	RAJKOT	60	2009	67,000
GCET, VALLABH	V.V.NAGAR	60	1997	78,000
VIDHYANAGAR				
GEC, BHARUCH	BHARUCH	120	2004	1,500
GEC, BHAVNAGAR	BHAVNAGAR	120	2008	1,500
GEC, BHUJ	BHUJ	120	1995	1500
GEC, DAHOD	DAHOD	120	2004	1,500
GEC, GODHRA	GODHRA	60	2009	1,500
GEC, MODASA	MODASA	120	1989	1,500
GEC, PALANPUR	PALANPUR	60	2009	1,500
GEC, PATAN	PATAN	120	2004	1,500
GEC, RAJKOT	RAJKOT	60	2009	1,500
GEC, SURAT	SURAT	60	2004	1,500
GEC, VALSAD	VALSAD	120	2004	1,500
GIT, GANDHINAGAR	GANDHINAGAR	240	2006	62,000
GROW MORE	SABARKANTHA	120	2012	70000
FOUNDATION'S GROUP OF				
INSTITUTIONS				
GITS, PRANTIJ	PRANTIJ	60	2009	56,000
GYANMANJARI INSTITUTE	BHAVNAGAR	60	2015	60000
OF TECHNOLOGY				
HANSABA, SIDHHPUR	PATAN	180	2012	74,000
HASMUKH GOSWAMI,	AHMEDABAD	180	2012	61,000
AHMEDABAD	DITTI	120	2010	60,000
HJD, KERA	BHUJ	120	2010	60,000
INDRASHIL INSTITUTE OF	MEHSANA	120	2009	50000
SCIENCE AND				
TECHNLOGOY  INTUIT IN ALCH	KALOL	240	2006	92,000
INDUS, KALOL IPCOWALA, PETLAD	PETLAD	120	2000	82,000 51000
,		240	2011	
ITMUTC, WAGHODIA K.J, VADODARA	WAGHODIA VADODARA	120	2011	97,000
KIT, KALOL	KALOL	240	2006	67,000
KANKESHWARIDEVI	JAMNAGAR	60	2014	74000
INSTITUTE OF	JAMINAUAK		2017	/ 4000
TECHNOLOGY,				
KNOWLEDGE INSTITUE	ANAND	60	2016	50000
OF TECHNOLOGY AND	THU HU		2010	30000
ENGINEERING				
L.D, AHMEDABAD	AHMEDABAD	120	1948	1,500
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L.E, MORBI	MORBI	60	1951	1,500
LIT, SARIGAM	VALSAD	120	2005	72,000
LCIT, VISNAGAR	VISNAGAR	120	2002	77,000
LDRP, GANDHINAGAR	GANDHINAGAR	120	2005	88,000
LJIT, AHMEDABAD	AHMEDABAD	240	2008	73,000
M.K. COLLEGE OF	PATAN	60	2016	45000
ENGINEERING &	·			
TECHNOLOGICAL				
RESEARCH				
MAHAVIR SWAMI, SURAT	SURAT	120	2012	74,000
MARWADI, FOE, RAJKOT	RAJKOT	120	2009	84,000
MARWADI, FOT, RAJKOT	RAJKOT	120	2012	84,000
MERCHANT, VISNAGAR	VISNAGAR	120	2009	62,000
MERCHANT INSTITUTE OF	VISNAGAR	60	2009	55000
TECHNOLOGY	VIBITIOTIC	00	2007	33000
MGITER, NAVASARI	NAVSARI	180	2004	61,000
MGITER, NAVASARI	NAVSARI	60	2012	61,000
MSU, VADODARA	VADODARA	90	1949	1,500
NARNARAYAN SHASTRI,	DASKROI	120	2008	63,000
DASKROI	DASIMOI	120	2000	03,000
	VADODARA	180	2013	67,000
NEOTECH, VADODARA NIRMA, AHMEDABAD	AHMEDABAD	120	1995	1,51,000
NOBLE, JUNAGADH	JUNAGADH	180	2008	55,000
	JUNAGADH	120	2012	67,000
OM, JUNAGADH				
OM, PANCHMAHAL	SAHERA	60	2010	41,000
PACIFIC, SURAT	SURAT	120	2012	77,000
PANDIT DEENDAYAL	GANDHINAGAR	120	2007	204000
PETROLEUM				
UNIVERSITY***	WADINVAN	100	2012	74.000
PANDIT NATHULAL,	WADHWAN	180	2012	74,000
SURENDRANAGAR	WACHODIA	240	2010	74.000
PARUL NEW, WAGHODIA	WAGHODIA	240	2010	74,000
PARUL OLD, WAGHODIA	WAGHODIA	60	2003	74,000
PRIME INSTITUTE OF	MAROLI	60	2016	60000
ENGINEERING &				
TECHNOLOGY	GANDHINAGAR	120	2007	05.000
PDPU, GANDHINAGAR			2007	85,000
R.K, RAJKOT	RAJKOT	120	2006	65,000
SAFFRONY, MEHSANA	MEHSANA	120	2006	74,000
S. S. AGRAWAL INSTITUTE	NAVSARI	60	2014	63000
OF ENGINEERING &				
TECHNOLOGY	ALIMEDADAD	240	2012	74.000
SAL ENGINEERING,	AHMEDABAD	240	2012	74,000
AHMEDABAD	AIIMEDADAD	60	2000	64,000
SAL INSTITUTE, AHMEDABAD	AHMEDABAD	60	2009	64,000
	AHMEDABAD	240	2000	56000
SAL INSTITUTE OF	AHMEDABAD	240	2009	56000
TECHNOLOGY &				
ENGINEERING RESEARCH	HIMMATNAGAR	180	2010	52,000
SAMARTH, HIMATNAGAR				
SANJAYBHAI RAJGURU,	RAJKOT	180	2008	72,000
RAJKOT SANKAL CHAND	VISNAGAR	120	2001	60,000
SANKALCHAND,	NAUAR	120	2001	00,000
VISNAGAR	MEUCANA	120	2000	60,000
SARDAR PATEL, MEHSANA	MEHSANA		2009	60,000
SATSANGI, MEHSANA	MEHSANA	120	2010	64,000
SHANKARSINGH	GANDHINAGAR	120	2009	77,000
VAGHELA, GANDHINAGAR				

SHANTILAL SHAH, BHAVNAGAR	BHAVNAGAR	120	1983	1,500
SHRI SWAMI ATMANAND, SURAT	SURAT	120	2009	64,000
SHRI J. M. SABVA INSTITUTE OF ENGINEERING &	BOTAD	120	2011	46000
TECHNOLOGY SHRI SITARAMBHAI NARANJI PATEL INSTITUTE OF	BARDOLI	120	2008	65000
TECHNOLOGY SHRI LABHUBHAI TRIVEDI	RAJKOT	120	2010	61000
INSTITUTE OF ENGINEERING AND TECHNOLOGY				
SHROFF ROTARY, VALIA	VALIA	60	2011	87,000
SIGMA, WAGHODIA	WAGHODIA	180	2008	60,000
SIGMA ENGINEERING COLLEGE (MATAR	BHARUCH	120		70000
SILVER OAK, AHMEDABAD	AHMEDABAD	480	2009	75,000
SVIT, VASAD	VASAD	120	1997	74,000
SMT. SHANTABEN HARIBHAI GAJERA ENGINEERING COLLEGE	AMRELI	60	2015	55000
SMT. S. R. PATEL ENGINEERING COLLEGE	MEHSANA	60	2009	77000
SWAMINARAYAN COLLEGE OF ENGINEERING &	GANDHINAGAR	120	2014	53000
TECHNOLOGY (DEGREE) SHRI SADVIDYAMANDAL	BHARUCH	180	1996	56000
INSTITUTE OF TECHNOLOGY		100		2000
SCHOOL OF ENGINEERING AND APPLIED SCIENCE, AHMEDABAD UNIVERSITY***	AHEMDABAD	45	2012	135000
SCHOOL OF ENGINEERING & APPLIED SCIENCES, RAI UNIVERSITY***	AHEMDABAD	90	2012	64000
SCHOOL OF ENGINEERING AND TECHNOLOGY***	VADODRA	60	2015	109000
SCHOOL OF TECHNOLOGY, GSFC UNIVERSITY***	VADODRA	60	205	100000
SANKALCHAND, VISNAGAR	VISNAGAR	120	2001	60,000
SWAMINARAYAN, KALOL	KALOL	60	2012	61,000
TAKSHASHILA, RAJKOT	RAJKOT	180	2009	52,000
TATVA, MODASA	MODASA	120	2010	51,000
UNIVERSAL, KALOL	KALOL	180	2008	46,000
UVPEC, MEHSANA	MEHSANA	60	1997	87,000
V.V.P, RAJKOT	RAJKOT	120	1996	82,000
VADODARA INSTITUTE, WAGHODIA	WAGHODIA	180	2012	52,000
P.P. SAVANI	SURAT	60	2017	75000
VEERAYATAN, MANDVI	MANDVI	120	2010	60,000

VENUS, GANDHINAGAR	GANDHINAGAR	180	2009	55,000
VGEC, AHMEDABAD	AHMEDABAD	60	2008	1,500
VIDHYADEEP, OLPAD	OLPAD	180	2011	72,000
VIT, VALIA	VALIA	120	2003	52,000
Total Seat in Mechanical Engineering		13053		

### **Job Prospect**

Mechanical engineering graduates are sought by employers in almost all sectors of the engineering industry. These include:

- ➤ Aerospace industry researches, designs, manufactures, operates and maintains aircraft
- ➤ Automotive industry designs, manufactures, distributes and markets motor vehicles
- ➤ Chemical industry covers oil companies, chemicals manufacturers and the businesses that support them (eg to build new plants or develop new process technologies)
- ➤ Construction industry designs and builds infrastructure, buildings and buildings services (eg heating and ventilation)
- ➤ **Defence industry** provides equipment, support and services for the armed forces and national security
- ➤ **Electronics industry** designs and manufactures components and complete equipment for sectors from automotive to medicine and the military
- Fast moving consumer goods industry manufactures products such as household cleaning items, personal hygiene goods and convenience foods
- ➤ Marine industry develops and helps operate vessels
- ➤ Materials and metals industry activities include developing new materials and manufacturing components or end products
- ➤ **Pharmaceuticals industry** develops and manufactures drugs
- ➤ Rail industry designs, constructs, manages and maintains rail system components from trains and tracks to electrical power systems and train control systems
- ➤ **Utilities industry** helps supply power, water, waste management and telecoms.

#### **International Focus**

Engineering professionals would prefer the destination where they are going to work. Highly qualified professionals from this field, such as post-graduates from various IITs, often seek suitable employment in foreign countries. This is because many countries are very conducive for engineering companies due to government policies, infrastructure, skill set available and

so on. It is not that only highly qualified mechanical engineers get opportunity to work abroad. If you are employed in a multinational company, you may also get the chance to work on offshore projects. On average, a mechanical engineer who is just starting out in the profession can expect to earn about \$51,000 a year. Within several years, that annual salary can jump to an average of over \$70,000.

### **Top countries provide Mechanical Engineering career growth:**

- ➤ Germany
- > USA
- ➤ UAE & Middle East
- > Japan
- > Italy
- > China
- > India

### Top mechanical engineering companies in INDIA

- **1. TATA Group:** Tata group is one of most known business groups in world. Tata have their presence in almost all the major sectors. Tata Steel is among top ten steel companies in world. In India, Tata Steel started at Jamshedpur. More of their locations are at Jharkhand, Odisha and Chhattisgarh. Apart from steel, other Tata identities are Tata Power (Power), Tata BP Solar (Power), Voltas (Refrigeration and Air Conditioning), Telco Construction Equipment's and many more. **Website:Tata Group** (<a href="http://www.tata.com/">http://www.tata.com/</a>)
- **2. Kirloskar:** Kirloskar Group works in core mechanical engineering fields. They manufacture Engines and Parts, Compressors, Valves, Pumps, Agricultural Products, Refrigeration and Air Conditioning related things and many more. Pune is Head Quarter of Kirloskar.

**Website: KirloskarGroup**(http://kirloskarapps.kirloskar.com/kirloskar/web/home.html)

- **3. Godrej Group:** Godrej group is also a big business group in India. They cover many fields. They are leaders in Refrigeration and Air Conditioning, Locks and Furniture. Godrej headquarter is in Mumbai, Maharashtra. Recently, I read the news that Godrej was the last producer of the Typewriter. Recently, they closed it. Godrej Industries has been ranked in top 15 in the "Best Companies to Work for in India" survey done by Mercer Consulting and Business Today in 2008. **Website: Godrej Group** (http://www.godrej.com/)
- **4. Larsen & Toubro** (**L&T**): L&T is huge Engineering and Construction firm. They work in different industries like Aerospace, Automobiles, Electrical, Mining, Metals, and Petrochemical etc. Their headquarter is at Mumbai, Maharashtra. They have good

- manufacturing facilities present in India, like at Maharashtra, Karnataka, Gujarat and more. **Website: Larsen & Toubro** (http://www.larsentoubro.com/)
- **5. Thyssen Krupp:** This is big group working in wide field. They have 7 locations in India. They work in Component Technology, Material Services, Steel, Plant Technology etc. Locations In India: Hyderabad, Nasik, Pune, Mumbai, Bengluru. Website: **Global Website** (http://www.thyssenkrupp.com/)
- **6. Thermax:** Thermax is another great place for mechanical engineer. Their business areas are Boilers, Heaters, Cooling, Waste Water Treatment and Recycling, Power, Air Pollution Control etc. Thermax head quarter is at Pune, India. **Website: Thermax** (http://www.thermaxindia.com/)
- **7. Siemens:** Siemens is well known name world wide. They also cover wide product range. In India, they have 19 manufacturing plants. **Website: Siemens** (<a href="http://www.siemens.co.in/">http://www.siemens.co.in/</a>)
- **8. Suzlon:** Suzlon is 5th in Asia and 8th Worldwide in Wind Turbine Manufacturing. Suzlon's Headquarter is present at Pune, Maharashtra. Their production facilities and wind farms are present in Maharashtra, Gujarat, Karnataka and Tamilnadu. The company is working for Environment sector. **Website: Suzlon** (<a href="http://www.suzlon.com/">http://www.suzlon.com/</a>)
- **9. GE:** GE is working in fields like Appliances, Energy, Lighting, Rail etc. In India, GE is present at Delhi, Haryana, Andra Pradesh, Karnataka etc. **Website:GE** (<a href="http://www.ge.com/">http://www.ge.com/</a>)
- **10. BOSCH India:** Work in Automotive Technologies, Power Tools, Security Systems, Packaging Technology, Industrial equipment and many more. They have one of the most advanced production plants in India. In India, they are located at Bangalore, Pune, Ahmadabad, Chennai, Nasik and more. **Website:** (http://www.boschindia.com/)
- **11. Schneider Electric:** This is an Energy Management Company. They work in area of Automation and Control, Electrical Distribution, Energy Automation, Installation Systems, Building Management etc. Real great place to work at. **Website: Schneider India** (<a href="http://www.schneider-electric.com/site/home/index.cfm/in/">http://www.schneider-electric.com/site/home/index.cfm/in/</a>)
- **12. ABB Group:** ABB is another huge group. They have huge list of ABB Products. They have their facilities in many countries. In India, they are available at more than 20 places. **Website: ABB Group** (<a href="http://www.abb.co.in/">http://www.abb.co.in/</a>)
- **13. Crompton Greaves:** CG is India based company, major in Electric market. They have many occurrences in world and in India. **Website:** CG (<a href="http://www.cgglobal.com">http://www.cgglobal.com</a>)
- **14. Geometric Ltd:** Geometric is software option for the Mechanical Engineers. Geometric works in PLM(Product Lifecycle Management) domain. For Mechanical Engineers, having interest in PLM, Design Softwares, CAD, CAM, CAE, Geometric is real good place to work. They need to have the Mechanical Concepts along with Software Knowledge. Geometric

facilities are available at many places in world. In India, they are at Mumbai, Pune, Bengalore, Chennai etc. 3dPLM is joint venture of Geometric and Dassault Systems. It also works in the PLM domain. **Website:** Geometric Ltd. (http://www.geometricglobal.com/)

**15.** Large Government Organizations In India: These are the last in this list but one of the most desirable places to work for Mechanical Engineers.

**Bharat Heavy Electricals Limited**(http://www.bhel.com/home.php)

Bhabha Atomic Research Center (<a href="http://www.barc.ernet.in/">http://www.barc.ernet.in/</a>)

NTPC (<a href="http://www.ntpc.co.in/">http://www.ntpc.co.in/</a>)

**Indian Space Research Organization** (<a href="http://www.isro.org/">http://www.isro.org/</a>)

**Institute for Plasma Research** (http://www.ipr.org.in)

### Pay Package

Mechanical engineering offers a wide variety of career opportunities to job aspirants. The average monthly salary of mechanical engineers who are new to this profession is approximately in the range between Rs.10,000 and Rs.25,000. Good campus placements can fetch even better packages for deserving students. Mechanical engineers who hold a post-graduate degree from a reputed academic institute tend to get better offers than diploma and degree holders.

From here on the annual pay packet depends on a number of factors such as the skill set possessed, experience, expertise, the employer, nature of roles and responsibilities, etc. Highly skilled mechanical engineers can easily command pay packets as high as Rs 40-45 lacs per annum.

➤ An Average Engineer: Rs 15,000/- to Rs 20,000/- Per Month

➤ A Good Engineer: Rs 25,000/- to Rs 40,000/- Per Month

➤ Top Grade Engineer: Rs 50,000/- to Rs 100,000/- Per Month