

A peek into manufacturing engineering

YOUR ACADEMIC DOUBTS CLEARED

ASK THE COUNSELLOR

Shehre Banu

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Please give me a brief on the role of a manufacturing engineering and names of a few colleges that offer this course.

-Taha M, Ramgopalpet

Manufacturing engineers work wherever products are manufactured - in industry, government, research, service, and consulting. They plan, design, set up, modify, optimise and monitor manufacturing processes. They work in almost every industry and on a

wide range of products, mainly because the principles of manufacturing engineering apply to all industries. They work in numerous sectors such as food, drink, oil, plastics, automobiles, boats, aircrafts, pharmaceuticals, computer chips, toys, etc, and work on these products from design to distribution. Responsibilities vary depending upon the sector and organisation. Starting with the raw materials, they work with a prototype, usually created

electronically with computers, and plan the final manufacturing process. Team up and work with other engineers such as chemical engineer, mechanical engineer, electrical engineer, etc, to ensure that all product and system requirements are taken into consideration from the initial product conception to the finished result.

Integrate with accountants and the human resource to come up with methods/systems for the production of a product that is efficient as well cost effective, so that it provides a marketing edge for the final product. This includes the analysing of the consumption of the work force, workflow, estimating costs of materials, labour and also space requirements. For the efficiency of the product and also the manufacturing process, design testing methods for the finished products, conduct tests and prepare reports on the efficiency of the products. To review part's specification, pricing, and delivery



Manufacturing engineer has to work in collaboration with engineers from other departments

planning, work with suppliers and other vendors. Incorporate their knowledge of current techniques and equipment into their work, including computer-aided design, robotics, statistical process control, and computer-integrated manufacturing systems. Train technicians and guide through the manufacturing process and if they possess leadership skills for this it becomes an asset. Depending upon the scale

of the project, one is required to either take charge of the entire process or just one step and they can oversee production of all products or a single line. The manufacturing engineer supervises the assembly line and ensures worker safety throughout the process, organises plant start up and shut down to avoid loss of production time and ensure profits, coordinates with maintenance and repair services to keep equipment

operational. **Top colleges offering this course are:**

- BITS Pilani-Hyderabad, Shamirpet, Hyderabad
- Alagappa Chettiar College of Engineering and Technology, Chennai
- IIT Chennai, Chennai
- Karpagam University, Coimbatore

Please refer to link: http://education.sulekha.com/manufacturing-engineering_colleges

Young Hans Essay writing contest

Explore your imagination with words by sending in your essays to Young Hans. Topic for this week is **'When should parents let teens make their own decisions and why?'** Students from **Class V to Class X** can send in essays. Three best essays will be awarded prizes worth Rs 500, Rs 300, Rs 200 depending on how good it is. Oh wait, before you start imagining, go through the set of hurdles you have to overcome.

1. The essay should not be more than 350 words
2. Inputs should not be taken from Google. We can track copy paste essays through our software.
3. Send your name, class, school name, phone number and photo along with the essay.
4. Your essay should reach us by January 28 by 6 pm
5. Essays can be sent by mail to younghans@hmtv.in or can be sent by post to Essay Competition (mention topic), c/o The Hans India, Plot No 6, Anupuram Colony A S Rao Nagar, ECIL Hyderabad, Andhra Pradesh 500062. 040-49494545. It can also be hand delivered to the same address.



Private job vs govt job

I will finish my degree this year and am confused whether I should focus on grabbing a government job or a private job. Please guide.

-Mohit Bhargav, King Koti

Jobs of the central government, state government, municipal government come under the category of government jobs and jobs of the large multi-national corporations, small to medium size companies, NGOs (Non Government Organizations), and sole proprietor companies are all private jobs. Both categories have their own pros and cons. Therefore, you have to decide

based on your interests, strengths and your life time goal. Listed below are the few points to be considered to come to a decision.

- Government jobs**
- Higher Job security even if personal performance/economy is bad and therefore it is a safe and lucrative option.
 - Career growth opportunities is low as promotions are based on seniority
 - Relaxed and congenial due to lesser workload
 - Not driven by target and offers attractive and life-long benefits, like housing,



While govt job offers security, private job offers high salary

- health care, pension and provident funds
- Is less challenging. Can lead to complacency
- Starting pay is less but generally 10 per cent dearness allowance increases every six months apart from 3 per cent increment. If you want a thorough balance between work and spending quality time with your family/friends and want to avail pension long with

health facility at old age then a public sector job is for you.

Private sector jobs

- Pay is higher but there is no job security. People in the senior most position also stand to lose their job on any given day in the private sector. There is no labour law or union guard to protect the employee interest. Moreover, some of the larger companies hire every year but because of the forced attrition policy the bottom 10 per cent of the staff, based on performance, is laid off each year. Smaller companies have the

risk of going out of business if economy is bad. You will get high career potential growth opportunities if the performance is good and the salary hike will be faster. Stressful environment. Is mainly target driven and highly challenging and gives lot of exposure that fuels personal growth. You can achieve a high level of success in a shorter time and after working for 20 to 25 years you can retire. If you have a desire to take up challenges and want to settle early then you can choose to pursue a private sector job.

Answer quiz, win prizes worth Rs 1,000

Answer the five questions mentioned in the quiz on Page 2 and give yourself a chance to win cash prizes. Those with all-correct answers picked through a lucky draw will be awarded cash prize at the end of the week. I prize: Rs 500, II prize: Rs 300, III Prize: Rs 200



Onam

Have you heard of the Onam festival? Perhaps some of you have. We shall tell you something about Onam. Mahabali was an Asura King. He ruled over the whole world. He was brave and generous. There was no sickness in his country. There was no theft. People spoke the truth. The country was rich. All were happy. But the King had pride. He thought there was no one greater than himself. God wanted to punish him for his pride. So he took the form of a young boy. Because he was short, he was called Vamana. He came to Mahabali and asked him for a gift of land. He said, "Will you give me land, as much as I could cover with three of my steps?"

Certainly," said Mahabali. God suddenly grew very big. People then called him Vikrama or the Powerful. He covered the whole earth with one step, and the sky with another! He asked Mahabali, "Where is the land for my third step?" "Here," said Mahabali, and pointed to his head, and bowed. He saw that Vamana was God Himself. God placed His

foot on his head and pushed him down to Patala. This was punishment for Mahabali's pride. Patala is a dark region beneath the earth. Mahabali's subjects were grieved. They prayed to God, "Oh God, please let us have our good king back." God said, "All right, he shall come back to you once in a year." So once in a year, Mahabali comes to the Earth. It is on Onam day. The day falls in August-September. People celebrate the day as a festival. They wear new clothes, worship God, feast and run boat races. It is popular in Kerala in the west coast of India. (From Culture Course-BVB)



Republic Day Special

By Sidhartha Yadav, Class VII, Little Flower High School, Thorrur, Warangal.

India of my dreams...

Ayush Singh

In Mahatma Gandhi's 'India of My Dreams', he speaks about the people, the leaders, the tradition and culture followed in the country. 'India of my dreams' is a topic, which is as wide and deep as universe and to write about it is like 'romancing' with India. There is so much to dream about India; so much to cherish, so much to cheer, so much to hate, so much to love, so much desire about it; the list is endless. The topic poses a dilemma -what should be penned (composed or recorded) and what should be omitted. This is a very emotional topic, too close to my heart. And now after a long thinking process, I have got a solution for my dilemma and here it is- I, like everyone else, would firstly want a corruption-free India but as all of us know it isn't possible so I'll not leave it as a dream but pray so as to reduce the corruption levels. Next follows my dream of pollution-free India, a greener and a cleaner India in every walk of life. I would want Indians on the top, from being the best footballers to the best mathematician... I would want an India where dictatorship (but the condition would be the dictator will be an honest person who can sacrifice anything for his country) would be followed so the corruption levels would steeply decrease and people would have a strong leader (someone as Arvind Kejriwal in democracy). I would also want a place where kids don't have to follow any rules and they would enjoy everything and live a life like a free bird, though a few rules to keep a

check on children should be framed. I would want a country which respects the farmers of their nation and worship them as gods, after all they are the backbone of our nation. Not only farmers but also other hardworking people must be respected. Respect reminds me of safety and respect for women of our nation, so I would also want an India which is completely safe for her women. At last, I dream for my dreams to come true.

- B Ayush Singh, Class X, The Hyderabad Public School