

GREAT PLACES TO WORK

MECHANICAL ENGINEERING

Prepared by

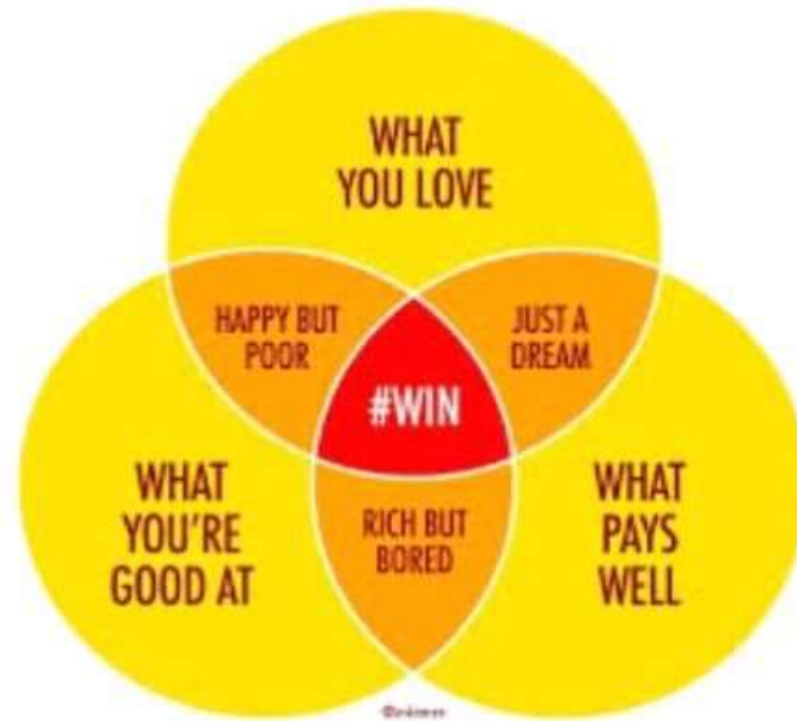
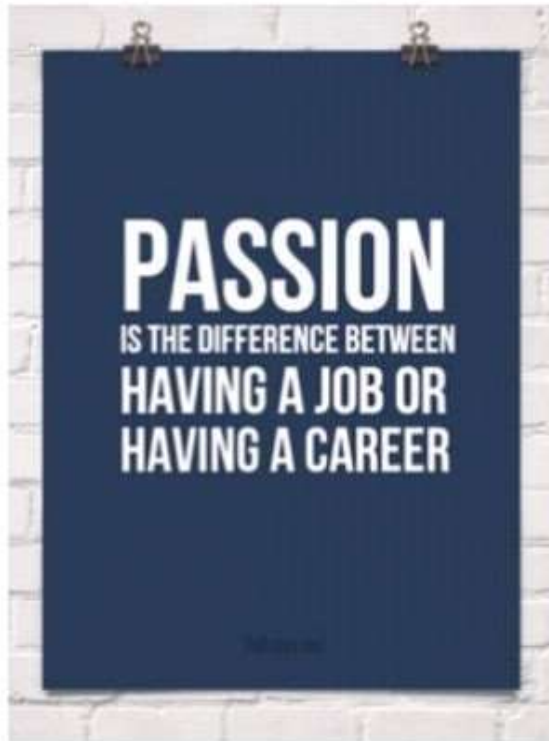
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Mechanical Engineering



- ▣ Mechanical engineering is one of the broadest studies in engineering
- ▣ The design and creation of mechanical technologies that benefit society
- ▣ They utilize power to work with all types of mechanical devices, and all types of manufacturing and plant designs

Career vs. Job



Career



▣ CAREER PATHS IN MECHANICAL ENGINEERING



Automobile Engineering



Energy & Utilities Industry



Robotics Engineering

□ CAREER PATHS IN MECHANICAL ENGINEERING



Bio Mechanical engineering

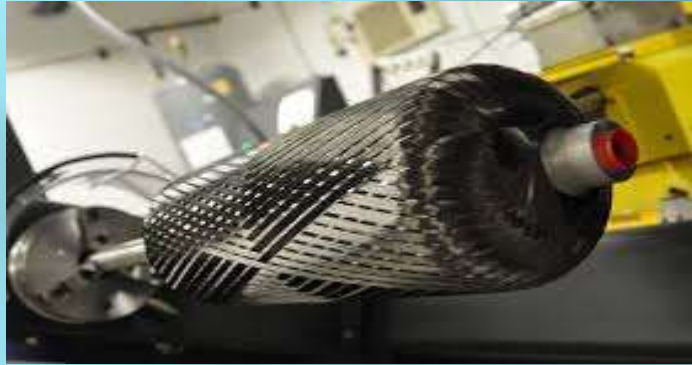


Manufacturing

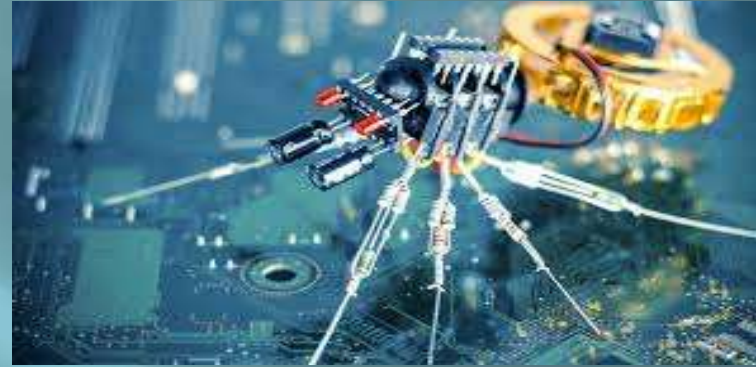


Microelectronic Mechanical
systems

□ CAREER PATHS IN MECHANICAL ENGINEERING



Composite materials engineering



Nanotechnology



Aerospace Engineering

Major players

Aero engines

- Pratt & Whitney
- Rolls Royce
- GE
- HAL
- BELL Helicopters
- Volvo Aero
- Snecma
- Honeywell

Aerospace & Defence

- Lockheed Martin
- Boeing
- Airbus
- Goodrich
- All DRDO Labs
- Bombardier
- Northrop Grumman
- General Dynamics
- GKN

Energy

- GE
- Siemens
- Alstom
- MHI
- Rolles Royce
- Toshiba Electric
- Suzlon
- Vestas
- Sun Power
- Ocean Power

Industrial

- Atlas Copco
- BEML
- Caterpillar
- Hitachi
- JCB
- Doosan
- Forbes Marshall
- L&T
- Ingersoll Rand
- Bosch
- Thermax

Oil & Gas

- Shell
- GE
- Chevron
- Exxon Mobil
- BP
- ConocoPhillips
- Haliburton
- Schlumberger

Major Players

Transportation

- GE Rail
- All Major Auto companies

Healthcare

- GE
- Siemens
- Philips
- Toshiba

Electronic Equipment

- Applied Materials
- Philips
- ABB
- Samsung

Consulting

- Mckinsey
- BCG
- PWC
- Black & Vetach
- KPMG

Engineering Software

- Siemens
- Hyperworks
- PTC
- TRIAD
- ANSYS
- Geometric

Core Company	Company Profile	Preferred Stream	Company Websites to Apply Directly
Ashok Leyland	Ashok Leyland is an Indian automobile manufacturing company based in Chennai, India.	Mechanical, Electrical	http://www.ashokleyland.com/apply-job
BEL	PSU that manufactures advanced electronic products for Indian Armed Forces	Mech, CSc, ECE	http://www.bel-india.com/recruitment
BHEL	PSU that operates as engg. and manufacturing company.	Mech, ECE, EEE	http://www.bhel.com/jobs.php
Bioxcel	Strategic consulting organization supporting life sciences organizations with corporate decisions.	All	http://www.bioxcel.com/current-opening
Coal India	It produces non-coking and coking coal of various grades for diverse applications.	Mech, ECE, EEE, Civil	http://www.coalindia.in/OurPeople.aspx?tab=2
Escorts	Operates in agri-machinery, construction & material handling equipment, railway equipment & auto components.	Mech, EEE, Civil	http://www.escortsgroup.com/careers.html
Essar	The company generally works in the sectors like power, communication, energy, steel, shipping ports, logistics & construction.	Mech, ECE, EEE, Civil	http://www.essar.com/section_level1.aspx?cont_id=CFO0vZgo02Q=
Godrej & Boyce	FMCG that functions in real estate, consumer products, industrial engg., appliances, furniture, security & agri products.	All	http://www.godrej.com/godrej/Careers/index.aspx?id=38&menuid=1510
	Hindustan Petroleum Corporation Limited (HPCL) is		

HPCL	Hindustan Petroleum Corporation Limited (HPCL) is an Indian state-owned oil and natural gas company with its headquarters at Mumbai, Maharashtra and with Navratna status	Mechanical, Civil	http://www.hindustanpetroleum.com/
Hughes Systique	It offers Technology consulting, system architecture design & software development services.	All	http://hsc.com/tabid/59/Default.aspx
IOCL	It works in refining, pipeline transportation & marketing, of petroleum products to exploration & production of crude oil & gas.	Mech, EEE, Civil, CSc	http://www.iocl.com/PeopleCareers/job.aspx
John Deere	Provides advanced products & services for agri, forestry, construction, lawn & turf care, landscaping & irrigation.	Mech, EEE	http://www.deere.com/wps/dcom/en_US/corporate/our_company/careers/careers.page?
L&T Construction	It has played a prominent role in India's industrial & infra development.	Mech, Civil, EEE	http://www.Intecc.com/homepage/common/careers.htm
Mahindra & Mahindra	The company works in Automotive, Farm equipment & IT businesses, as well as select positions in other sectors.	Mech, Civil, ECE, EEE	http://www.mahindra.com/Careers
NHPC	National Hydroelectric Power Corporation was incorporated in the year 1975 with an authorized cs. 2000 million and with an objective to plan, promote and organize an integrated and efficient development of hydroelectric power in all aspects.	Mechanical, Civil, Electrical	http://www.nhpcindia.com/

	<p>promote and organize an integrated and efficient development of hydroelectric power in all aspects.</p>	Electrical	
NTPC	<p>It is the largest power generation facility in India with a commissioned capacity of 39174 MW through its 30 power stations.</p>	Mech, Civil, ECE, EEE	http://www.ntpc.co.in/index.php?option=com_content&view=article&id=239&Itemid=77&lang=en
ONGC	<p>PSU that is engaged in exploration & production of Oil & Gas in India & Abroad</p>	Mech, ECE, EEE	http://www.ongcindia.com/wps/wcm/connect/ongcindia/Home/Career/Career+Profiles/
Panacea	<p>Panacea Biotec is the third largest biotechnology company as well as among the top 50 pharmaceutical companies of India.</p>	Biotech	http://www.panaceabiotec.com/Open_Position.html
Punj Lloyd	<p>It specializes in energy & infra sectors.</p>	Mech, Civil, EEE	http://www.punjllloyd.com/careers/careers-punj-lloyd
Reliance	<p>Reliance Industries Limited (RIL) operates in three segments: petrochemicals, refining and oil & gas.</p>	Mech, Civil, EEE	http://www.ril.com/html/careers/careers.html
SAIL	<p>It is leading steel making company of India.</p>	All	http://sail.shine.com/jobs/
Siemens	<p>It functions in the areas of Industry, Healthcare, Energy, Infra & cities, & Siemens Financial services.</p>	ECE, Mech, CSc	http://www.siemens.co.in/en/jobs_careers/index.htm

Career Paths as a Mechanical Engineer

- ▣ Business Leadership Path
- ▣ Technical Specialist Path
- ▣ General Management / Operational Management Path

Current Landscape: Holistic view

► Sectors v/s Functions

	Aero Engines	Aerospace & Defence	Energy	Industrial	O&G	Transportation	Healthcare	Electronic equipment
Design/ CAD	x	x	x	x	x	x	x	x
Material Science	x	x	x	x	x	x	x	x
Engineering Software	x	x	x	x	x	x	x	x
CAE	x	x	x	x	x	x	x	x
Manufacturing	x	x	x	x	x	x	x	x
Prototyping & Testing	x	x	x	x	x	x	x	x
Field Engineering	x	x	x	x	x	x	x	x
Product services	x	x	x	x	x	x	x	x
Consulting	x	x	x	x	x	x	x	x
Business administration	x	x	x	x	x	x	x	x
Technical Writing	x	x	x					

► Advanced Technologies at a Glance

Nanotechnology & MEMS – Micro/Nano devices, materials, processes, mechanics, systems

Robotics, Rapid Prototyping

Biotechnology – Computational Bioengineering, Functional Tissue Engineering

CAREER PROGRESSION

GRADUATE	3-5 YEARS EXPERIENCE	10 YEARS
Graduate Mechanical Engineer	Aeronautical Engineer	Lead Mechanical Engineer
Graduate Mechanical Design Engineer	CAD Product Design Engineer	Principal Mechanical Engineer
Graduate Mechanical Process Engineer	Marine Engineer	Senior Mechanical Engineer
Manufacturing Systems Engineer	Mechanical Engineer	
	Mechanical Engineer – Building Services	
	Mechanical Engineer – Materials Handling	
	Mechanical Engineer – Mining	
	Mechanical Engineer – Oil & Gas/Pipelines	
	Mechanical Engineer – Plant Performance	
	Mechanical Engineer – Power Station	
	Mechanical Engineer – Solar Industry	
	Mechanical Engineer – Underground	
	Mechanical Engineer – Water Treatment Projects	
	Mechanical Design Engineer	
	Mechanical Design Engineer – Automotive	
	Mechanical Design Engineer – Heavy Industry Design	
	Mechanical Design Engineer – Underground Drilling	
	Mechanical Equipment Engineer	
	Mechanical Maintenance Engineer	
	Mechanical Process Engineer – Design & Documentation	
	Mechanical Project Engineer – Oil & Gas	
	Mechanical Systems Engineer	
	Piping Engineer	
	Reliability Engineer – Mechanical	
	Tool Engineer	
	Underground Mechanical Construction Engineer	

Alternative Careers

An engineering degree at the University of Melbourne gives you a solid technical and design foundation combined with strong analytical, problem solving and communication skills valued across a range of industries. Over a third of our graduates choose to move into areas including:

- Management consulting
- Finance, economics and banking
- Business analysis
- Project management
- Technical sales, marketing and communications
- Intellectual property management
- Technical writing
- Teaching
- Government and policy

Careers in Research

If you are passionate about a certain field of mechanical engineering and would like to advance your research skills, enrolling in a research higher degree (RHD) could be a great option for you. RHDs enhance your ability to problem solve, think autonomously and creatively, and analyse. Careers in research are diverse and may include:

- academic positions at universities;
- policy-making or research positions at public sector organisations;
- private sector research and development projects;
- self-employed consulting positions on technical or policy issues in your area of expertise.

Careers Services and Industry Links

Students undertaking our programs have access to a range of careers services, and benefit from a curriculum that offers excellent opportunities to connect with industry through:

- an Industry Based Learning subject elective
- student projects partnered with industry
- guest lectures led by industry leaders and experts
- site visits hosted by key organisations
- industry networking events
- career panels featuring industry representatives
- résumé drop in sessions
- an online jobs and internships portal

Plan your career : Choose your strokes

