ENGINEERING INDUSTRY OUTLOOK IN UTTARAKHAND

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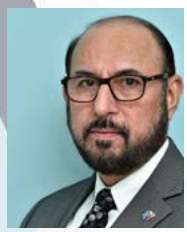
EEPCINDIA
ENGINEERING THE FUTURE

From the Desk of Chairman

Uttarakhand is one of the fastest growing states in India, with massive growth in capital investments arising from conducive industrial policy and generous tax benefits. Between 2011-12 and 2017-18, Gross State Domestic Product (GSDP) expanded to Rs 2.18 trillion (US$ 33.76 billion) whereas the Net State Domestic Product (NSDP) expanded to Rs 1.95 trillion (US$ 30.31 billion). The state offers a wide range of benefits in terms of interest incentives, financial assistance, subsidies and concessions. Single window system has been shaped in order to smoothen clearance of Industrial projects.

EEPC India has been catalytic in advocating brand India Engineering abroad. It has mirrored the evolution of this sector from USD 10 Million in 1955 to USD 76.2 Billion in 2017-18.

This study on **'Engineering Industry outlook in Uttarakhand'** would enable us to provide bespoke information and guidance to the manufacturers from this region. We have a wide base in the North in terms of membership and we thank the local Government and Government bodies and Techsci Research firm to undertake this project.



Ravi Sehgal
Chairman
EEPC INDIA

Regional Chairperson's Words

Government flagship programs such as 'Make in India' has created opportunities for the growth of manufacturing industries across different states in the country. This has led to strong growth prospects for engineering sector in Uttarakhand, owing to huge hydropower potential, vast forest land and abundance of minerals in the state. Uttarakhand engineering sector proves out to be one of the most promising sectors in the engineering industry of India. High potential for industrial growth and support of state & central government makes Uttarakhand to stand as a lucrative sector for sustainable development of capital goods and engineering sector of the country.

This whitepaper **"Engineering Industry Outlook in Uttarakhand"** is a guide to help better assess the demand supply scenario, opportunities to expand or invest in the industrial sector of the state, develop better understanding of the regulatory landscape and identify potential industrial sectors to invest in Uttarakhand.

I am really happy that EEPC India is conferring its 48th Regional Awards at Dehradun. It makes us connect more closely with exporters in the region and see their unique strengths. I congratulate all the attendees and convey my best wishes to all members of EEPC India for success in future.

Kamna Raj Aggarwalla
Regional Chairperson (NR)
EEPC INDIA

Executive Director's Words

Indian Manufacturing has come a long way from a supplier of low-value engineering goods, to a manufacturing base for sophisticated machines and equipment. The share of capital goods in engineering export basket has risen from 12% in 1956-57 to37% in 2017-18. The manufacturing sector of India has the potential to reach US$ 1 trillion by 2025 and India is expected to rank amongst the top three growth economies and manufacturing destination of the world by the year 2020

The 18 year old State – Uttarakhand has experienced phenomenal growth of 11.16 percent over 2012-2018 and FDI flows of USD 652 Million over 2000 - December 2017, due to Investor and Industry friendly State Government and its flexible policies.

The numbers- 25,294 small scale industries, 1802 Heavy and Medium industries and 54, 047 handricraft units calibrate the State industrial activity.

EEPC India having a strong membership base at National level owes to its Northern Region members for actively partaking in all our endeavours. In an attempt to expand our presence in this region, we have commissioned this study for Uttarakhand as one of the Northern Region States. This bespoke study would be the stepping stone to assist the local manufacturers.

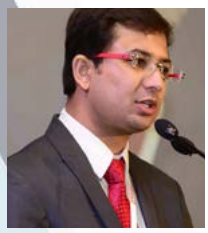
We thank the State Government for their help and Techsci Research firm for preparing the report for us.

Suranjan Gupta
Executive Director
EEPC INDIA

Message from TECHSCI RESEARCH

The Engineering sector in India is the largest and the most diversified of all manufacturing sectors. This whitepaper highlights current overview of engineering sector in Uttarakhand. TechSci Research is of strong view that this boom in Uttarakhand engineering sector will open-up vast business avenues for international as well as domestic manufacturers. The paper will also highlight issues and challenges pertaining to investments, raw-material availability, logistics, hydropower generation potential and regulations in Uttarakhand. These challenges eventually form vast business opportunities for the companies who plan to get benefitted by current raw material deficit and low-cost availability of skilled labor. Also, government investments with a focus on improvements in infrastructure to promote tourism, through an influx of large number of roadway projects in Uttarakhand is propelling the engineering sector.

I firmly believe that content of this knowledge paper will provide important insights to manufacturers, distributors, traders, EPCs, Builders, policy makers and government bodies in scripting a success story for engineering sector in Uttarakhand.



Karan Chechi
Research Director
TechSci Research

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Introduction

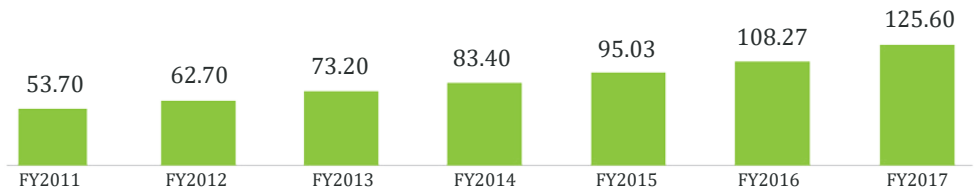
Indian engineering sector has registered strong growth over the last few years, driven by rising investments in infrastructure and industrial production. The presence of a diverse base of industrial machinery coupled with growth in sub-sectors such as infrastructure, power, mining, steel, automotive, oil & gas, refinery and consumer durables is driving growth in the country's engineering sector.

Engineering sector exports registered a significant year-on-year growth of 16.8%, reaching USD76.20 billion in FY2018 - the highest since independence. Government initiatives such as 'Make in India' and the slew of subsidy offered by the state government and the central governments in India for the upliftment of Ministry of Micro, Small and Medium Enterprises is expected to boost the industrial sector in India, bolstering the engineering sector.

Government of India has appointed EEPC India as the nodal body in charge of promotion of engineering goods, products and services in the country. India exports transport equipment, capital goods, other machinery/equipment and light engineering products such as castings, forgings and fasteners across the world.

The growth in the capital goods and engineering sector highlights the expanding heavy and light engineering sector in India. In FY2017, capital goods and engineering sector turnover reached USD125.60 billion in the country. Indian government invested USD1.2 billion for the development of a R&D center for Advanced Ultra Super Critical (AUSC) technology for thermal plants in 2016, which is expected to further drive the capital goods and engineering sector in the coming years.

Figure 1: India Capital Goods and Engineering Sector Market Turnover, By Value, FY2011-FY2017 (USD Billion)



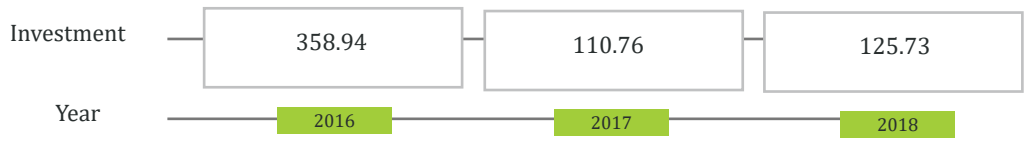
Source: TechSci Research

Indian engineering sector is categorized into two major segments - heavy engineering and light engineering. While growth in heavy engineering segment is majorly driven by growth in heavy electrical equipment sector, growth in light engineering segment is fueled by medical and surgical equipment industry.

Heavy engineering sector has many sub-sectors, including:

- Machine Tools
- Textile Machinery
- Cement Machinery
- Material Handling Equipment
- Plastic Processing Machinery
- Dies, Molds and Tools
- Process Plant Equipment
- Earth Moving and Construction
- Rubber Machinery
- Sugar Machinery
- Paper & Packaging Machinery

India Budget Allocation to Heavy Industries, By Value, 2016-2018 (USD Million)



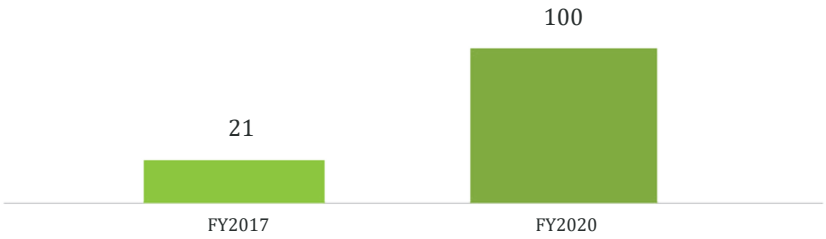
Source: Department of Heavy Industries and Public Enterprises

Heavy Engineering Sector – Key Segments

Electrical equipment:

Anticipated growth in the power industry is expected to drive growth in the electrical equipment industry. Electrical equipment market size is forecast to reach USD100 billion by FY2020 from USD21 billion in FY2017.

Figure 2: India Electrical Equipment Market Size, By Value, FY2017 & FY2020F

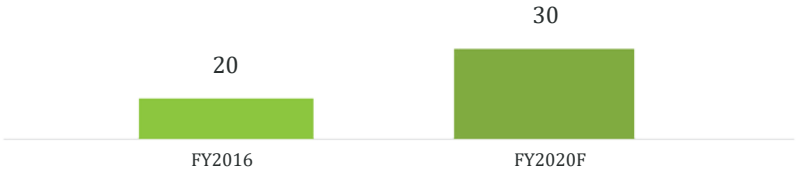


Source: Department of Heavy Industries, India Electrical and Electronics Manufacturer Association, NASSCOM

Telecom equipment:

Telecom equipment market is projected to reach USD30 billion by FY2020 from USD20 billion in FY2016.

Figure 3: India Telecom Equipment Market Size, By Value, FY2016 & FY2020F



Source: Department of Heavy Industries, India Electrical and Electronics Manufacturer Association, NASSCOM

Construction Equipment:

Sales volume in the construction equipment market of India is forecast to reach 131,000 units by FY2022. The sector grew at 25-30% in FY2017. Construction equipment market is projected to reach USD7 billion by FY2020 from USD4.2 billion in FY2017.

Light Engineering Sector - Key Segments

Casting and forging:

The Indian casting industry produces 6 MMT of various grades of casting. The total production by the Indian forging industry in FY2016 stood at 2.45 MMT and is forecast to surpass 2.97 MMT in FY2018.

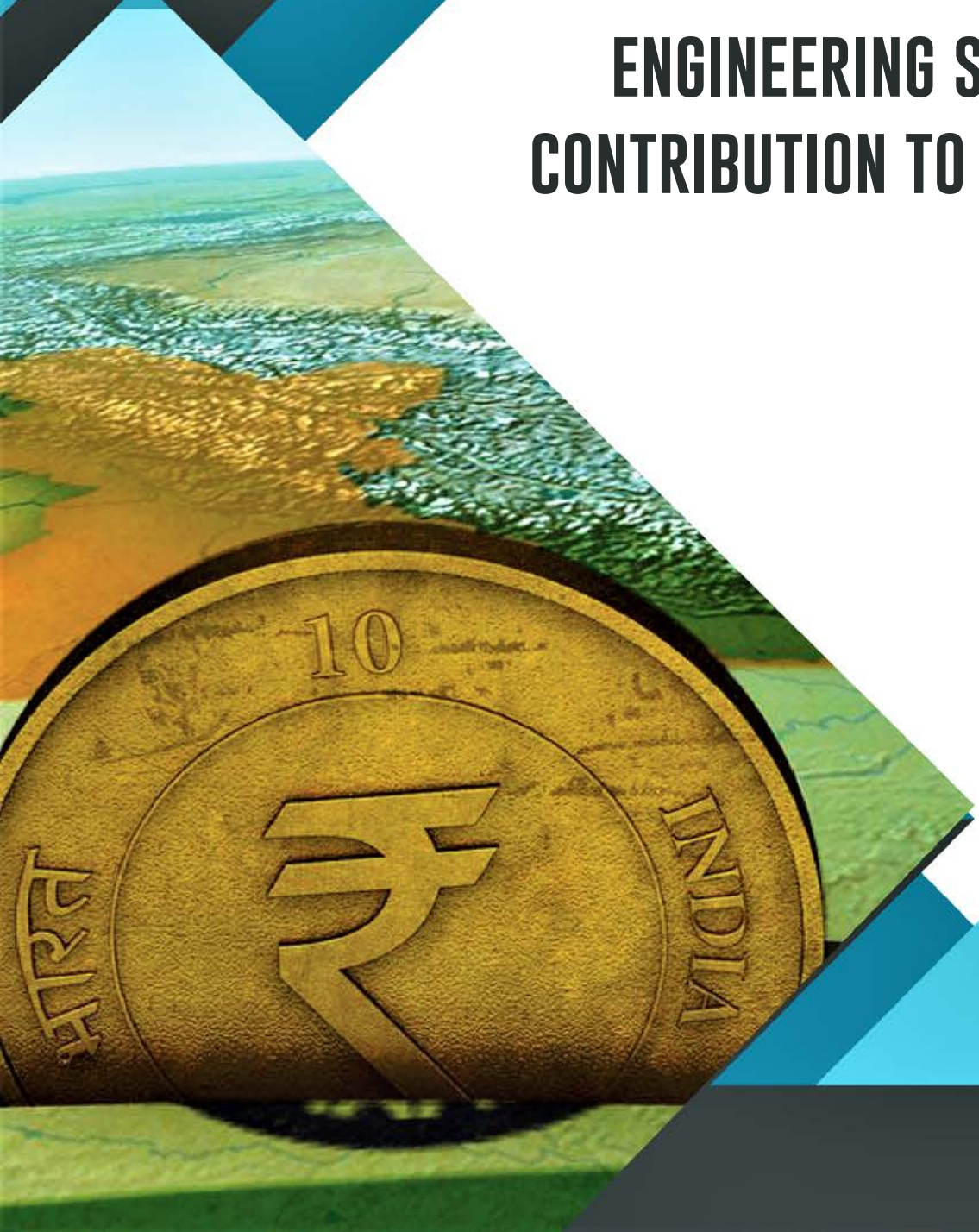
Medical and surgical equipment:

A wide range of medical equipment such as ECG and X-ray scanners are manufactured in the country's medical and surgical equipment industry. The indigenous industry caters to 40% of demand, while the remaining is met through imports. Exports of optical, measuring, and medical instruments reached USD1.43 billion during April-September 2017.

Industrial fasteners:

The fastener industry in India can be classified into high tensile and mild steel fasteners. Mild steel fasteners are primarily manufactured by the unorganized sector, while the high tensile steel segment is dominated by the organized sector.

ENGINEERING SECTOR CONTRIBUTION TO ECONOMY



ENGINEERING SECTOR CONTRIBUTION TO ECONOMY

Indian engineering sector accounts for 5% of the country's GDP. Growing domestic demand, increasing investments and growth opportunities, supportive government policies, and global and domestic focus on establishing low-cost plants are propelling the engineering sector in India.

Contribution of the manufacturing sector to India's GDP has reported a steady increase over the past few years and was valued at USD225 billion in 2014. In the last few years alone, the engineering & machinery sector played a crucial role in boosting the Indian economy and also contributes towards the promotion of associated industrial sectors of the country.

UTTARAKHAND ENGINEERING SECTOR DEMAND ASSESSMENT

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HEAVY ENGINEERING

Uttarakhand stands 3rd at the national level with a hydropower capacity of 1707.87 MW, of which only 174.82MW has been harnessed, thereby offering a tremendous opportunity for developing the untapped potential. The small hydro power (SHP) potential of Uttarakhand accounts for only 9% of India's SHP Potential. Further, the abundance of rivers and water streams in Uttarakhand provides an opportunity for hydropower generation in the state.

Table 1: Installed Capacity of Power Utilities in Uttarakhand, As of December 2017

Ownership/Sector	Thermal (MW)			Nuclear (MW)	Hydro (MW)	Renewable Energy Sources (MW)
	Coal	Gas	Diesel			
State	-	-	-	-	1252.15	62.87
Private	99.00	450.00	-	-	730.00	264.28
Central	300.50	69.35	-	22.28	469.24	-

Source: Central Electricity Authority

In Uttarakhand, the state's nodal agency for renewable energy development UREDA has installed mini and micro hydropower projects as a measure for supplying electricity to 300 remotely located villages

Table 2: List of Upcoming Hydropower Plant Projects in Uttarakhand, By Capacity (MW)

Name of Project	Implementing Agency	Capacity	Commissioning Year
Tapovan Vishnugad	NTPC	520	2019
Tehri PSS	THDC	1000	2019
Lata Tapovan	NTPC	171	2022
Vishnugad Pipalkoti	THDC	444	2020
Vyasi	UJNVL	120	2019
Phata Byung	Ms. Lanco	76	2018
Singoli Bhatwari	L&T and UHPL	99	2020

Source: Central Electricity Authority

The aforementioned factors coupled with investments made by private and public sector players for setting up hydropower plants would boost the heavy engineering segments such as turbines & generators and boilers in Uttarakhand.

Transformers Demand

Transformers are an essential part of power plants for the supply of power to distant locations such as hilly areas of Kumon and Gharwal. Further, supportive initiatives such as the installation of 2,000 solar power units with a production capacity of 44MW in Dehradun by the Uttarakhand Renewable Energy Development Agency (UREDA) are expected to aid Uttarakhand in achieving its goal of producing 8% power from solar plants by 2020, thereby propelling the demand for transformers in the state.

Table 3: Partial List of Solar Power Plants in Uttarakhand, By Capacity (MW)

Project Details	Capacity (MW)	Commissioning Year
Rudrpur Solar Power Plant	5	February, 2016
Bhagwanpur Solar Power Plant	65	April, 2017
Sitarganj and Khurpia Solar Power Plant	50	January, 2018

Source: TechSci Research

Switchgear and Control Gear Demand

Increasing hydro and solar power plant installations in the state coupled with the subsidy provided by the union government for uplifting the engineering sector of Uttarakhand is anticipated to boost the demand for electronic equipment such as switchgear and control gear. Moreover, presence of the plastic processing base and availability of raw materials for switchgear and control gear production in Uttarakhand is expected to increase the switchgear and control gear demand in the coming years.

Textile Machinery Demand

In 2016, the government of Uttarakhand introduced a mega textile policy to set up a series of textile parks in the Kumaon region by offering attractive incentives. Three textile parks in Kashipur, Jaspur and Sitarganj are being set up where a host of incentives will be available to attract new investments. According to the policy, a project having an investment of more than USD48.78 billion will be christened under the mega textile park project and the industrialist would be given 20% of the land premium at the time of allotment. The government is offering a state capital subsidy of 7%, along with a VAT concession on the purchase of raw materials and sale of finished goods, and a rebate of USD0.014 per unit on power bills. The mega textile park is also attracting various international players, for instance, Zhejiang Daoqin, a Chinese company, has invested around USD390.03 million in a textile plant located at an industrial estate in Uttarakhand. The investment is expected to help the textile industry to take major steps forward and in turn boost the demand for textile machinery in the coming years.

Cement Machinery Demand

India, the second largest producer of cement in the world, had a production capacity of 455 million tons of cement in 2017. Increasing focus on the improvement of infrastructure, in addition to heavy investments by the government to undertake large roadway projects, is encouraging cement manufacturers to target Uttarakhand to set up cement production sites. Moreover, favorable government policies to set up manufacturing facilities in the state are anticipated to propel the demand for cement machinery in Uttarakhand. Abundance of untapped cement grade limestone reserves in the hilly areas and terrains of the state such as Almora, Bageshwar, Dehradun, Pithoragarh and Garhwal districts also attracts cement manufacturers for setting up their facilities in order to avail raw materials at reasonable prices, consequently, driving the demand for cement machinery in Uttarakhand.

Table 4: List of Large Cement Manufacturing Plants in Uttarakhand, By Capacity, 2016 (Million Tons)

Large Cement Manufacturing Plant	Capacity (Million Tons)
Ambuja Cement Limited, Roorkee	1
Jaypee Group*, Roorkee	1.2
Shree Cements Limited, Roorkee	1.8
Total	4

Source: Indian Bureau of Mines

* The plant has been acquired by Ultratech Cements in 2017

Plastic Processing Machinery Demand

Expanding food processing sector in Uttarakhand coupled with the presence of large plastics manufacturing base in the cities such as Ramnagar and Rudrapur is likely to boost the demand for plastics processing machinery in the state over the coming years.

Table 5: Ramnagar Plastics Production, By Volume, 2016 (Ton/Year)

Product Category	Production (Ton/Year)
Plastic Sacs & Bags	7500
Plastic Pipes and Components	1250
Masterbatches	7000

Source: TechSci Research

Machine Tools & Dies Demand

Machine tools are considered a strategic industry segment. They are an essential part of discreet manufacturing industries such as automotive, defense, railways, plastic machinery and others.

Indian government's flagship programs such as Make in India and Skill India coupled with the growing automobile consumption in Uttarakhand are anticipated to increase the demand for machine tools and dies & molding equipment in the coming years.

Earth Moving Construction and Mining Equipment & Material Handling Equipment Demand

Uttarakhand is known as 'Dev Bhumi' due to the presence of noted temples and heavenly destinations. Further, 'Chardham' and 'Hemkund Sahib' Yatra are the backbone for Uttarakhand tourism and its economy. In 2015, the Ministry of Road Transport and Highways under the supervision of Cabinet Minister Nitin Gadkari launched a project Char Dham Highway Project. Supportive government investments such as Char Dham Yatra Highway Project would boost the demand for earth moving construction and mining equipment in the state.

Table 6: Char Dham Highway Project Details, As of 2016

Details	Cost of Civil Construction (USD Billion)	Cost of Land Acquisition (USD Billion)	Cost of Forest Clearance (USD Billion)
Rishikesh-Rudraprayag, NH-58	1358.97	37.00	13.01
Rudraprayag-Mana, NH-58	864.75	104.47	32.88
Rishikesh-Dharasu, NH94	859.00	171.45	28.10
Dharasu-Gangotri, NH-108	1287.61	47.85	16.91
Rudraprayag-Gaurikhund, NH-109	1169.56	59.05	20.41
Tanakpur-Pithoragarh, NH-125	916.11	64.93	31.69

Source: TechSci Research

Government of India launched the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) scheme in 2015, which is aimed at establishing infrastructure that could ensure adequate robust sewage networks and water supply for urban transformation of the few states.

Under this scheme, Uttarakhand government has launched state annual action plan (SAAP) 2016-17, which released funds for the construction of water supply infrastructure, storm water drainage and open spaces and parks, which is expected to boost the demand for material handling equipment in the coming years.

Table 7: Uttarakhand Sector-wise Breakup of Consolidated Investment, By Value, FY2016-FY2017 (USD Billion)

Name of Town/Infrastructure Facility	Water Supply	Sewerage and Septage Management	Drainage
Dehradun	132.85	271.16	520.4
Haridwar	54.73	130.1	55.70
Haldwani- Kathgodam	104.80	94.32	18.65
Rudrapur	76.75	78.58	47.59
Kashipur	88.46	76.45	-
Roorkee	26.02	190.20	18.65
Nainital	4.81	33.17	47.59

Source: State Annual Action Plan

Process Plant Equipment Demand

Food & beverages sector is one of the strongest sectors of Uttarakhand after pharmaceuticals. In July 2016, Parle Agro invested around USD130.10 billion for setting up its third factory in North India after Varanasi and Ghaziabad. The company has finalized 12-acre land area for constructing the facility in Sitarganj area in the state. Moreover, In June 2016, Coca Cola invested USD29.27 billion for establishing a bottling unit in Sitarganj at 70-acre land.

Growing investments by F&B giants coupled with stringent government regulations for maintaining good manufacturing practices would propel the demand for process plant equipment in Uttarakhand.

LIGHT ENGINEERING

Casting and Forging Equipment Demand

In 2015, Uttarakhand government introduced industrial subsidy schemes to uplift the state's industrial sector. This scheme has attracted investments from several companies, for instance, Tata Motors has made investments in the capacity expansion of its Pantnagar automobile manufacturing plant.

Mahindra & Mahindra Ltd. produced more than 0.7 million vehicles at its Haridwar plant in 2015, highlighting the increased automobile production in the state. Casting and forging equipment find their application in the automobile manufacturing process. Supportive government schemes such as 'Industrial Development Scheme' introduced in 2018 coupled with the subsidy provided by Uttarakhand government is anticipated to boost the demand for casting and forging equipment and drive the market demand for automobiles in the coming years.

Medical and Surgical Equipment Demand

In 2017, the government of India launched Uttarakhand Health Systems Development Project for India to improve quality health services, particularly in the hilly districts of the state. The project is valued at USD125 million and is expected to be completed by 2023.

Growing investments along with the strong pharmaceutical cluster in the capital region of Uttarakhand with an annual turnover of USD174 billion is expected to bolster the demand for medical and surgical equipment in the state.

Industrial Fasteners Demand

In 2016, overall demand for industrial fasteners in India exceeded USD500 million mark. Growth in demand for industrial fasteners can be directly associated with the growth of automotive sector in the country. High tensile fasteners dominate the industrial fastener market in India. Moreover, North India accounts for the largest share in the country's industrial fasteners market, owing to the strong presence of automobile manufacturers in Delhi and Haryana. Over the coming years, demand for fasteners is expected to grow in Uttarakhand, backed by shifting north Indian automotive production base to the state. Several auto component and automobile manufacturers such as Mahindra & Mahindra, Ashok Leyland, Tata Motors and Honda, etc., have set up their production facilities in the industrial estate of Pantnagar and Haridwar. Due to which, leading fastener manufacturers in India such as Sundaram Fasteners Limited and BQF are strengthening their presence in the state to cater to the rising demand for high tensile and mid steel fasteners in Uttarakhand.

Demand for fasteners in the state is also anticipated to be driven by increasing focus on renewable energy projects, existence of textile manufacturing industry and growing presence of general industries. Additionally, 100% FDI and industry delicensing has paved ways for the entry of leading international fastener manufacturers in India, thereby, providing lucrative growth prospects for industrial fastener industry in Uttarakhand, as the state has favorable policies for setting up industries.

UTTARAKHAND ENGINEERING SECTOR OUTLOOK

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Present Scenario

Uttarakhand is emerging as one of the fastest growing states in India. With GSDP of around USD33.4 billion in 2017, the economy of the state is exhibiting a year-on-year growth rate of more than 11%. As of 2015, total number of small-scale industries in the state is around 42,000 and the total number of medium and heavy industries exceed 1,800.

Key industrial sectors of the state include:

- Infrastructure
- Electricity and Hydropower Generation
- Agri-based Industries (Horticulture and Floriculture)
- IT AND ITES
- Tourism
- Pharmaceuticals, Aromatics and Others
- Process Plant Equipment

Table 8: India and Uttarakhand Engineering Sector Growth Indicators, 2017

Parameters	Uttarakhand	All States
Operational PPPs	121	9,068
Exporting SEZs	0	222
GSDP Growth Rate (%)	11.25	9.82
Per Capita GSDP (USD)	3,051.27	1,966.20
Installed Power Capacity (MW)	3,333.35	334,146.91
National Highway Length (Kms)	2,842	115,435

Source: IBEF

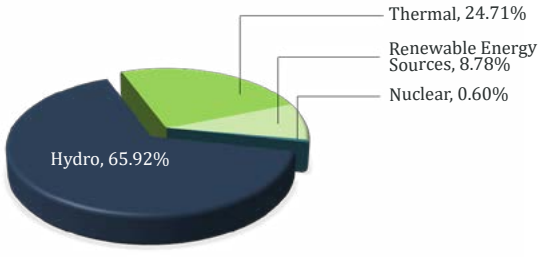
Uttarakhand, having an urbanization rate of more than 30%, has an integrated industrial estate in Pantnagar, Haridwar and Sitarganj, a pharma city in Selaqui and an IT park in Dehradun. Moreover, high potential for hydropower generation, focus on developing Dehradun into the only smart city of Uttarakhand and its contiguity to the national capital region are anticipated to boost the engineering sector in the state.

Engineering sector of the state primarily includes infrastructure, power, mining, construction and other sub-sectors. The engineering sector in India has witnessed remarkable growth during the past decade, owing to favorable government policies and increasing FDI inflows. Government of India initiatives such as new Science and Technology Development policy, National Manufacturing Policy and developments such as strategic alliances with global manufacturing giants to start production in India are anticipated to positively influence the emerging engineering sector of Uttarakhand. Abundance of minerals such as copper, limestone, magnesite, rock phosphate, dolomite and gypsum across the state of Uttarakhand has led to the development of various lucrative schemes by the central and the state government to promote the inflows of foreign direct investments and private sector investments. These schemes have steered the investors to capitalize on the potential in the mining sector, consequently resulting in strong demand for heavy engineering equipment such as earth moving equipment, mining equipment, machinery for material handling, etc.

Moreover, pressing need for the development of infrastructure for efficient mobility to the remote areas of the state is thriving the way for setting up medium and small-scale industries in the mountainous regions of Uttarakhand. Additionally, announcements by the central government to promote the country's engineering sector by providing tax exemption to manufacturing companies making an investment of more than USD18.4 million in plants and machinery has led to the growth of engineering sector in Uttarakhand over the last couple of years.

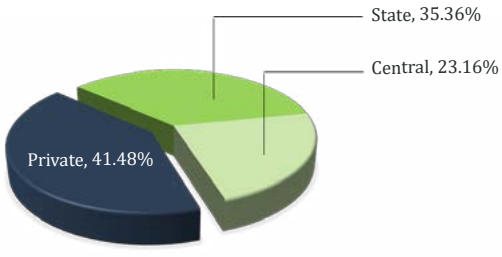
Increasing efforts of private entities and the state government of Uttarakhand to accelerate the infrastructure and industrial development of the state are anticipated to aid the state's engineering sector, thereby boosting demand for heavy engineering equipment such as cement machinery and material handling as well as light weight engineering equipment.High potential for the development of hydroelectricity infrastructure in the state has led to surge in demand for turbines and generators. Moreover, provisions of incentives to companies for setting up facilities in areas such as special economic zones (SEZs) and National Investment and Manufacturing Zones (NIMZ), especially, in J&K, Himachal Pradesh and Uttarakhand along with benefits such as exemption of taxes are anticipated to drive the demand for engineering equipment. Huge hydropower potential of more than 25,000MW in Uttarakhand is drawing investments in the sector, majorly from the private sector entities.

Figure 4: Uttarakhand Installed Power Capacity Share, By Type, By Volume, 2016



Source: Centre for Policy Research

Figure 5: Uttarakhand Installed Power Capacity Share, By Ownership, By Volume, 2016



Source: Centre for Policy Research

Scope & Opportunities

Engineering sector of Uttarakhand may further capitalize on the opportunities from the development in following sectors through investments in medium and small enterprises:

1. Steel Fabrication
2. Scientific Mining
3. Precast Building Materials
4. Apparel Parks
5. Herbal Parks, Herbal Medicines, Cosmetics and Aromatics
6. Automobile Manufacturing and Auto Components
7. Handicrafts and Handlooms
8. Electronic City, FMCG and Forest based industries, etc.

Schemes by the Ministry of Food Processing Industries (MoFPI), assistance by the government for the establishment of food parks and implementation of a new single window clearance system that will act as a medium for investors to obtain information on government policies are anticipated to provide opportunities to private manufacturers for entering the manufacturing sector in Uttarakhand. Measures to augment the domestic production base through allocation of tenders by the state and central governments and development of roadway infrastructure has provided platform for engineering companies to operate in Uttarakhand. Thereby, increasing the demand for material handling, earth moving, process plant and other engineering equipment.

Introduction of lower power tariffs, provision of uninterrupted power to industrial units and waiving off peak hour restrictions on MSME are expected to ensure rapid growth in agro-based and food processing industries in Uttarakhand, which would boost demand for machinery to process plastic materials, equipment for process plants, etc., thereby rendering positive outlook for the growth of engineering and manufacturing sectors in Uttarakhand. Additionally, establishment of export-oriented entities related to medicinal herbs, aromatic plants, etc., to capitalize on the advantage of having 68% of the total area covered under forest land in the state is anticipated to provide lucrative opportunities for companies to set up facilities in Uttarakhand, thereby, propelling the growth of state's engineering sector.

MARKET DYNAMICS

MARKET DYNAMICS

DRIVERS

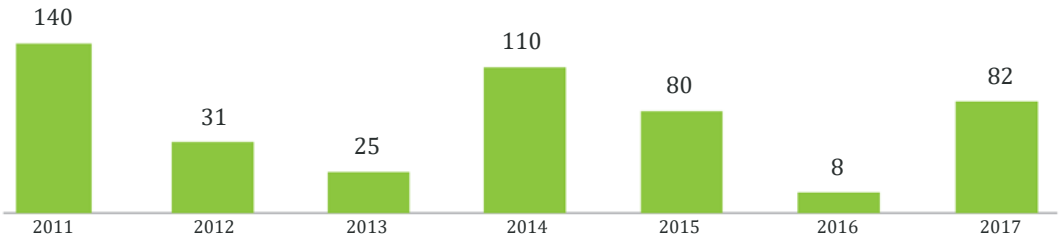
Potential for Hydropower Generation

State of Uttarakhand holds immense potential for the development of hydropower. Increasing number of public private partnerships and government incentive programs aimed at the development of state's power industry are aiding its engineering sector. Additionally, abundance of freshwater sources and shortage of electricity in the regions across the state are fueling the demand for boilers, generators, control gears, switchgears, turbines and other heavy engineering equipment.

Government Support and Favorable Regulatory Policies

Uttarakhand government offers a range of incentives, subsidies, financial assistance, tax exemption and relaxations to fuel the growth of industrial sector in the state. Stability in the political environment in the region is further driving industrial growth in the state. Government of Uttarakhand is set to develop 11 new industrial hubs equipped with modern infrastructure under Hill Industrial Policy. Moreover, 100% FDI and planned investments worth USD7.72 billion by the central government to kickstart 70 new roadway projects by 2019 in Uttarakhand is likely to drive the state's engineering sector.

Figure 6: Uttarakhand Cumulative FDI Inflows, 2011-2017 (USD Million)



Source: IBEF

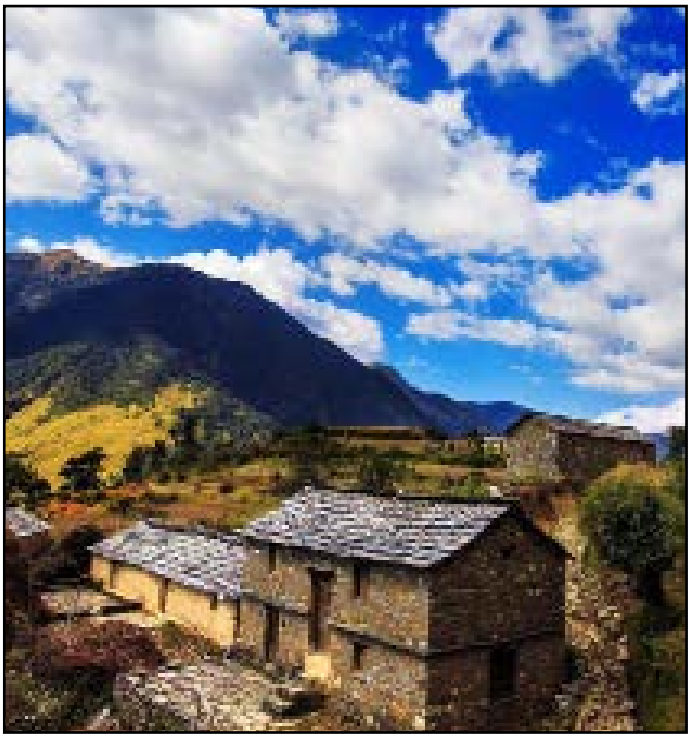
Growing Textile, Tourism and Agri based Industries

Uttarakhand has always been an attractive tourist destination, owing to the presence of natural landscapes and pilgrimage sites. Annual growth in the number of tourists, in addition to the government efforts to promote the state as a global tourist destination with a target of hosting 500 thousand tourists by 2022, is pushing the need for the development of quality infrastructure, which in turn is expected to boost the demand for engineering equipment. Wool, handicrafts, woven fabrics, textile and food processing industries are establishing production bases in the industrial setups across the state. Growing focus on setting up food processing, pharmaceutical and textile industries in the hilly areas to capitalize on availability of skilled labor, tax incentives, raw materials such as rare herbs and medicinal plants, etc., is anticipated to further drive the demand for heavy and light weight engineering equipment in Uttarakhand.

CHALLENGES

Existing Power Shortfalls

Although the state holds enormous potential for renewable energy, current power shortfalls are hindering the production and productivity of various industrial setups in Uttarakhand. Shortage of electricity required to run industrial setups poses a challenge to the expansion of industrial base in the state.



Poor Infrastructure

Lack of proper infrastructure, owing to poor connectivity through roads, ports and railways to the remote areas and the mountainous regions of the state, hinders the possibilities of setting up large industrial units in the hilly areas, due to problems associated with logistics of the products. Although inauguration of new roadway projects and investments towards infrastructure development is increasing, insignificant telecom connectivity in the remote areas and lack of drainage systems are challenging the growth of engineering sector of Uttarakhand.

TRADE DYNAMICS

TRADE DYNAMICS

EXPORTS

The United States and Europe account for more than 60% share in engineering goods exports from India. Engineering exports from India stood at USD76.2 billion in FY2018, exhibiting a growth rate of more than 16% in comparison to export value of USD65.2 billion in FY2017.

Table 9: India Engineering Equipment Exports, By Value (USD Million) & By Volume (Tons), 2017

Commodity	HS Code	Export Value (USD Million)	Export Quantities (Tons)
Steam & Vapor Boilers	8402	165.33	37,900
Steam & Vapor Turbines	8406	95.71	3,417
Hydraulic Turbines, Water Wheels, etc.	8410	49.32	2,805
Agriculture, Forestry Machinery	843680	0.83	78
Machinery for Lifting, Handling, Loading or Unloading	842890	28.12	2,756
Central Heating Boilers	840310	3.35	320

Source: ITC

IMPORTS

Table 10: India Engineering Equipment Imports, By Value (USD Million) & By Volume (Tons), 2017

Commodity	HS Code	Import Value (USD Million)	Import Quantities (Tons)
Steam & Vapor Boilers	8402	13.15	1,356
Steam & Vapor Turbines	8406	76.22	5,865 (2015)
Hydraulic Turbines, Water Wheels, etc.	8410	9.55	229 (2016)
Agriculture, Forestry Machinery	843680	7.64	753
Machinery for Lifting, Handling, Loading or Unloading	842890	89.11	9.530
Central Heating Boilers	8403	0.40	38

Source: ITC

POLICY & REGULATORY LANDSCAPE

POLICY & REGULATORY LANDSCAPE

HILL INDUSTRIAL POLICY, 2011

As per the Hill Industrial Policy, the government of Uttarakhand is set to establish 11 new industrial hubs, with complete focus on developing these bases in the state's hilly areas. These hubs would be eligible to avail government incentives such as price purchase preference and transport subsidy. Under this policy, the minimum requirement of land to set up a facility has been reduced to 2 acres from 30 acres. Remote areas and hilly areas are categorized under group A and group B, respectively.

UTTARAKHAND MSME POLICY, 2015

Under the MSME policy, the subsidy for capital investments would range from 30% to 40%. The government would provide a 40% subsidy for setting up facilities in the category A districts of Pithoragarh, Chamoli, Uttarkashi, Bageshwar, Champawat and Rudraprayag, and a 30% subsidy in the category B districts of Almora, Pauri and Tehri. Under the policy, power, transport and interest subsidies are also provided.

NEW STATE INDUSTRIAL POLICY, 2003

As per the policy, government of Uttarakhand focuses on promoting investments in industrial sector through PPPs, development of industrial estates such as IIEs in Pantnagar, Sitarganj and Haridwar, IIDCs, special economic zones and industrial parks, and promotion of small-scale industries. The policy includes a subsidy of 15% or up to USD73,170 on capital investment, stamp-duty concessions, no restrictions on using power during peak hours, etc.

MEGA INDUSTRIAL AND INVESTMENT POLICY, 2015

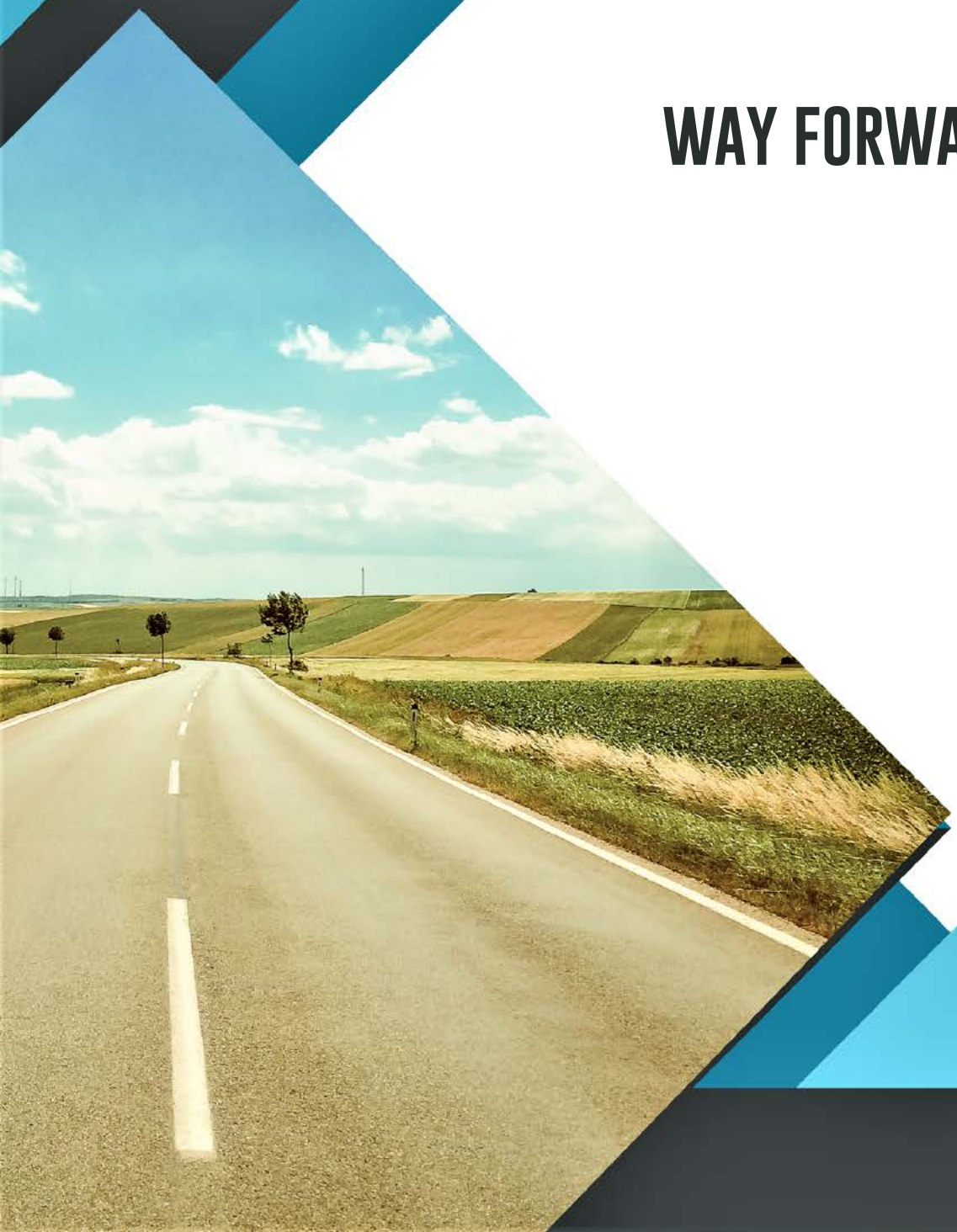
Government of Uttarakhand initiated this policy to support the development of dairy and textile processing units through rebates on power bills.

START-UP POLICY, 2017- 2024

Under the policy, the government encourages investments in the start-up sector with a focus to establish Uttarakhand as the entrepreneurship capital of India.

Upcoming industrial policies in Uttarakhand include New Mining Policy, New Film Policy, etc.

WAY FORWARD



WAY FORWARD

Focus on following parameters for the growth of engineering sector in Uttarakhand:

1. Development of infrastructure, especially roadways, to improve the connectivity and mobility across the hilly and remote areas in Uttarakhand.

2. Efficient utilization of the hydropower generation potential and overcoming issues of power shortage using other such renewable resources.

3. Development of drainage systems and telecommunication network for complete coverage in the remote areas.

4. Adopting measures to promote tourism, for sustainable development of the sector.

5. Encouraging manufacturing companies to set up facilities in the state through private public partnerships, etc.

6. Development of industry friendly policies and improvement in subsidies on logistics of industrial utilities.

ABOUT EEPC INDIA

EEPC India is the premier trade and investment promotion organization in India. It is sponsored by the Ministry of Commerce & Industry, Government of India and caters to the Indian engineering sector. As an advisory body it actively contributes to the policies of Government of India and acts as an interface between the engineering industry and the Government. Set up in 1955, EEPC India now has a membership base of over 13,000 out of whom 60% are SMEs.

EEPC India organizes a large number of promotional activities such as buyer-seller meets (BSM) – both in India and abroad, overseas trade fairs/exhibitions, and India pavilion/information booths in selected overseas exhibitions to demonstrate the capabilities of Indian engineering industry and to provide the overseas buyers with true value as propagated by Brand India.

India Engineering Exhibition (INDEE) is EEPC India's own brand and is one of the largest expositions of engineering in the world. This has been happening for the last few decades and is established as the largest and most important showcase for Indian engineering.

EEPC India facilitates sourcing from India and boosts the SMEs to raise their standard at par with the international best practices. It also encourages the SMEs to integrate their business to the global value chain. To encourage building global partnerships with India, EEPC India organizes International Engineering Sourcing Show (IESS), the largest display of engineering products and services every year. This is recognized as the only sourcing event in India – showcasing the latest technologies and a preferred meeting place for global buyers & sellers. This show is also important to encourage foreign investments in line with the newly initiated "Make in India" campaign, by Government of India.

Extending its regular agenda, EEPC India publishes several reports/studies to make the members aware about the international trends and opportunities in order to enhance their global footprints. Keeping 'Engineering the Future' as the motto, EEPC India serves as the reference point for the Indian engineering industry and the international business community in its efforts towards establishing India as a major engineering hub in the future.

What we do to to Promote the Exports of Engineering Goods

- Keep constant communication with Chambers of Commerce and other mercantile and public bodies throughout the world with a view to taking appropriate and necessary measures for maintaining or increasing the exports of engineering goods;

- Advise or represent to government, Local Authorities and public bodies on the policies and other measures;

- Upgradation of technology in order to boost India's engineering exports and establishing synergy between industry and academia;

- Prepare, edit, print, publish, issue, acquire and circulate books, papers, periodicals, gazettes, circulars and other literatures treating or bearing upon industry, trade or commerce, pertaining to engineering goods.

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About TechSci Research

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