

# Engineering Education & Career Growth

---

Written & Conceptualized by:

**Bonani Dhar**

Adviser Faculty & Students Development Cell (FSDC),

CDGI

Development Sociologist, Gender & Training Specialist

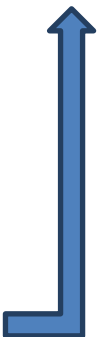
Ex-World Bank & UN



Engineers, Scientists, Researchers contribute to the Nations' development and growth for longer term sustainability, so are the Doctors, Administrators and Academicians. Each of the professional field has its own value. India has given a number of top class Engineers and IT Professionals to the world class organizations.

With the Government of India's special emphasis on **"MAKE IN INDIA"** Project, the Engineering Education has become all the more important. The sectors included in the Project will need a huge number of Engineers in the days to come.

We have a number of bright intellectual and extremely intelligent professionals who have reached the top from very humble backgrounds. Their contributions to the Nation's and World's growth are substantial. We have **Sunder Pichai,CEO-Google**. Sunder completed his Class X at Jawahar Vidyalaya, Ashok Nagar Chennai and completed the Class XII from VanaVanischool located in the IIT, Chennai.<sup>[16][17]</sup>Pichai earned his degree from [Indian Institute of Technology Kharagpur](#) in **Metallurgical Engineering**.<sup>[18]</sup> He holds an [M.S.](#) from [Stanford University](#) in Material Sciences and Engineering and an [MBA](#) from the [Wharton School of the University of Pennsylvania](#).<sup>[19]</sup>



where he was named a [Siebel Scholar](#)<sup>[20][21]</sup> and a Palmer Scholar, respectively.

← **Satya Narayana Nadella** is an Indian-born American business executive. He is the current **CEO Microsoft**. He was appointed as CEO on 4 February 2014, succeeding Steve Ballmer. [Wikipedia Nadella has a](#) bachelor's degree in **Electrical Engineering**<sup>[14]</sup> from the [Manipal Institute of Technology](#) in 1988 (then affiliated with [Mangalore University](#)), [Manipal, Karnataka](#).<sup>[15][16]</sup>



Nadella subsequently traveled to the U.S. to study for an M.S. degree in [computer science](#) at the [University of Wisconsin–Milwaukee](#),<sup>[17]</sup> receiving his degree in 1990.<sup>[18]</sup> Later he received an MBA from the [University of Chicago Booth School of Business](#).<sup>[19][20]</sup>

← **Sanjay Kumar Jha** who hails from Bihar is now the **CEO of Global Foundries**, the world's first full-service semi-conductor foundry. He received a [B.S.](#) in

engineering from the [University of Liverpool](#) and a [Ph.D.](#) in **Electronics engineering** from the [University of Strathclyde](#). The University of Strathclyde is a Scottish public research university located in Glasgow, United Kingdom.

**One of the highest-paid Indian executives in the US**, he was earlier the chief executive officer of Motorola's mobile devices business.

**Rajeev Suri**  
**President and Chief Executive Officer, Nokia**



Rajeev has a Bachelor of Engineering (**Electronics and Communications**) from Manipal Institute of Technology, India.



**George Kurian**  
**Chief Executive Officer, NetApp**

US-based computer storage and data management company NetApp also has an Indian at the helm.

George did his schooling at St Joseph's Boys High School, Bengaluru. After that he joined IIT Madras. But he left IIT to pursue a degree in **Electrical Engineering** from Princeton University and a master's degree in business administration from Stanford University USA.

This list of such bright Indians Engineers, who are contributing on the global platform is endless. We Indians are very hard working and with strong will power we do achieve new heights in each of the fields we aspire for. However, Engineering has a vast canvas of opportunities.



**Make in India** is launched and is one of the most ambitious Government's fast tracks Project. We can expect many Foreign Direct Investments (FDI) to come in and benefit Indian skilled manpower in the first step. Hence, there is a huge need for core Engineers. The growth of this area is enormous in

the time to come with Government reforms in Policies and its focus on Make in India Project.

Benefits of the Make in India Project is that our huge skilled Manpower and youth are expected to get good jobs. The young Engineers in different core

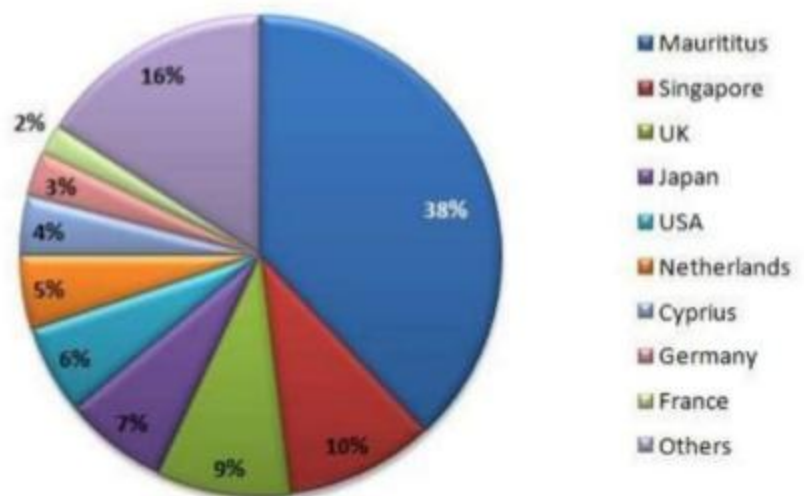
Engineering fields will be absorbed in the various sectors.



## Make in India – Key sectors

- Policy in Defence sector liberalised and FDI cap raised from 26% to 49%.
- 100% FDI under automatic route permitted in construction, operation and maintenance in specified Rail Infrastructure projects
- Easing of norms underway for FDI in the Construction Development sector

**Investor countries in India**



**The Sectors included in Make in India Project are:**

- **Automobile**
- **Automobile Components**
- **Aviation**
- **Bio-Technology**
- **Chemicals**
- **Construction**
- **Defense Manufacturing**
- **Electrical Machinery**
- **Electronic Systems**
- **Food Technology**
- **IT & BPM**
- **Leather**
- **Media and Entertainment**
- **Mining**
- **Oil & Gas**
- **Petrochemicals**
- **Ports & Shipping**
- **Railways**
- **Renewable Energy**
- **Roads & Highways**
- **Space**
- **Textile & Garments**
- **Thermal power**
- **Tourism & Hospitality**
- **Wellness**

## PM Modi Exhorts the World to “Make in India”



- Need to boost investor sentiment
- Look at FDI in a two-fold manner: “First Develop India” vs. “Foreign Direct Investment”
- Ensure “corporate government responsibility” for effective governance
- Boost manufacturing to help growth of the middle class and create jobs
- Develop a growth oriented environment to enhance ease of doing business
- Develop a “3D” outlook: tap **d**emocracy, **d**emography and **d**emand
- Channelise India’s rich demographic dividend for competitive advantage
- Train manpower in an industry-aligned fashion
- Implement “Digital India” for an informed citizenry
- Rollout a “Look East and Link West” approach
- Envision integrated clusters with roads, rails, airports and associated infrastructure
- Ensure State and Centre coordination for export promotion



<http://www.makeinindia.com/sectors>

<http://www.makeinindia.com/about>

<https://www.youtube.com/watch?v=bVQn2oikBnw>

<http://www.indianweb2.com/2013/04/09/10-great-unknown-indian-technology-legends/>

---

Best Regards.

**Dr. Joy Banerjee,**

**An Alumnus of IIT (KGP), Arthur D. Little Boston, USA, Ex-World Bank, USA  
Group Director**

**Chameli Devi Group of Institutions  
Indore, M.P.**

**Email: [director@cdgi.edu.in](mailto:director@cdgi.edu.in)**

**Phone: 0731- 4243602**

**+91-9617426564, +919811021727**

---