

# Career Guidance



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Hyderabad

# Why & What is Engineering?

## WHY ENGINEERING



Build & improve things  
to solve problems



Intellectually  
challenging

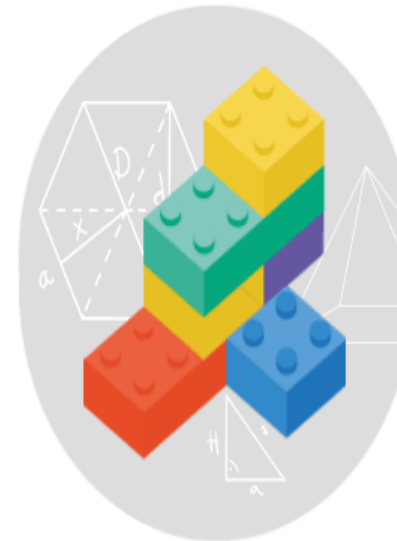


Wide career  
opportunities



Gain practical &  
transferable skills

## WHAT IS ENGINEERING



**"It's about using math and science to  
solve problems"**



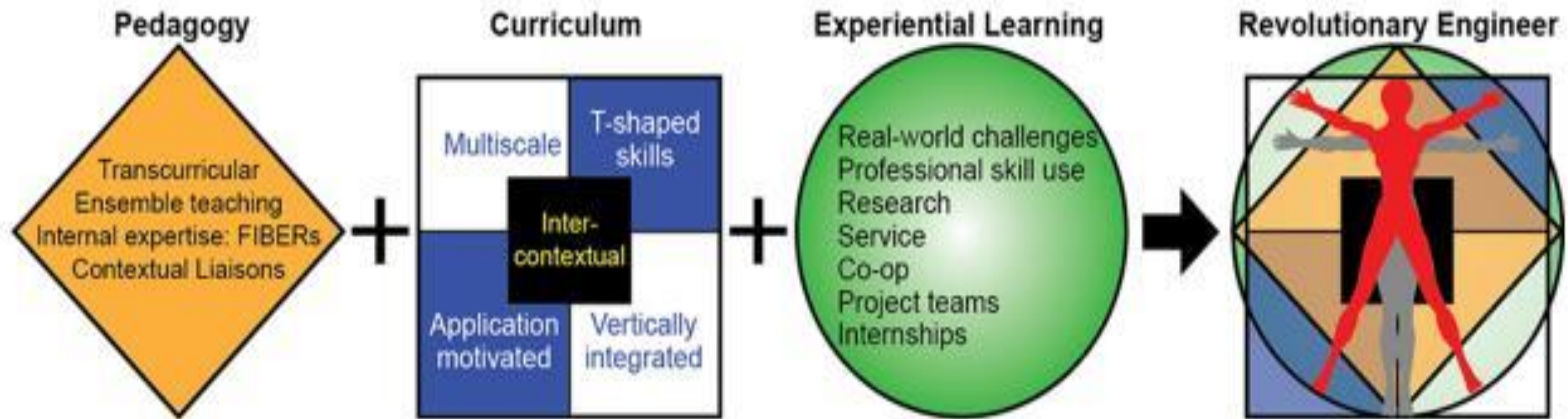
Application of math & science to design,  
build & improve all sort of things



*Example:*

Buildings, laptops & smartphones are  
built by engineers

# Transformation in Engineering



# What Next?



# Need Career Guidance?





# How to Choose the Right Career After Graduation



# How to Choose the Right Career After Graduation



# Things to do When Confused About Your Career Path

- Learn to have fun with subjects
- Develop creativity
- Pursue experience, through research
- Plan career improvements





# How to Choose the Right Career After Graduation

## Action to be taken:

- ❖ Don't move away from Your Hobbies
- ❖ Talk to a Career Counselor
- ❖ Interview Professionals(Seniors/Alumni)
- ❖ Try for Internship
- ❖ Prefer Higher Education if your confused

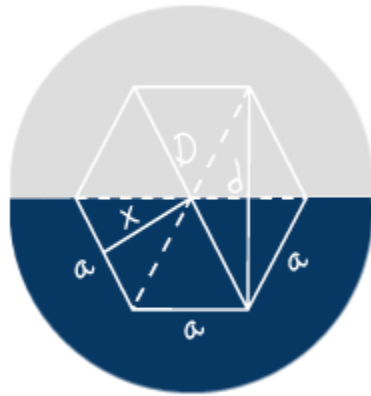
# How to Choose the Right Career After Graduation

## Right state of mind:

- ❖ Never Be Afraid
- ❖ Be Open for advises
- ❖ Follow your Values
- ❖ Don't Settle for anything

# Skills Required?

## KEY SKILLS



An aptitude  
for mathematics



Ability to think  
logically

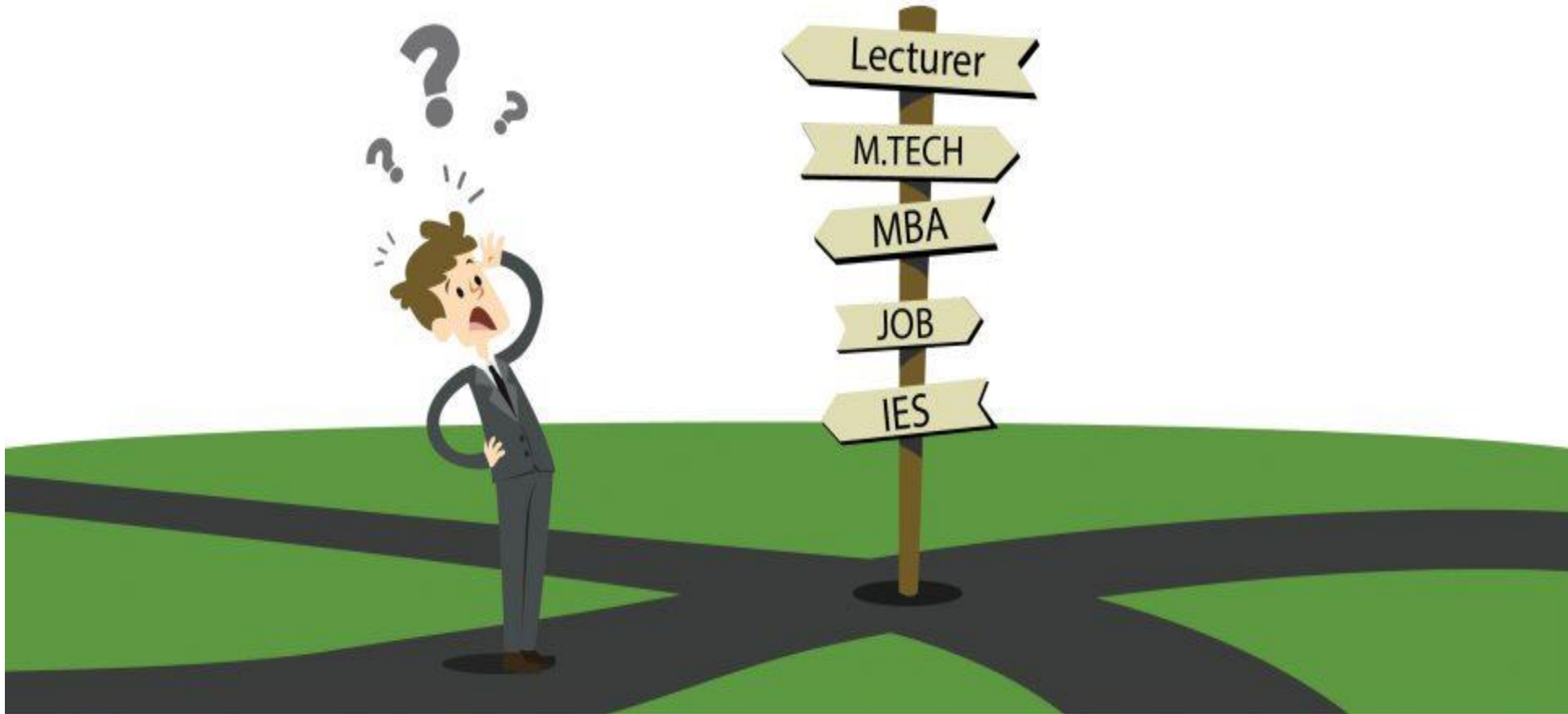


Ability to think  
creatively

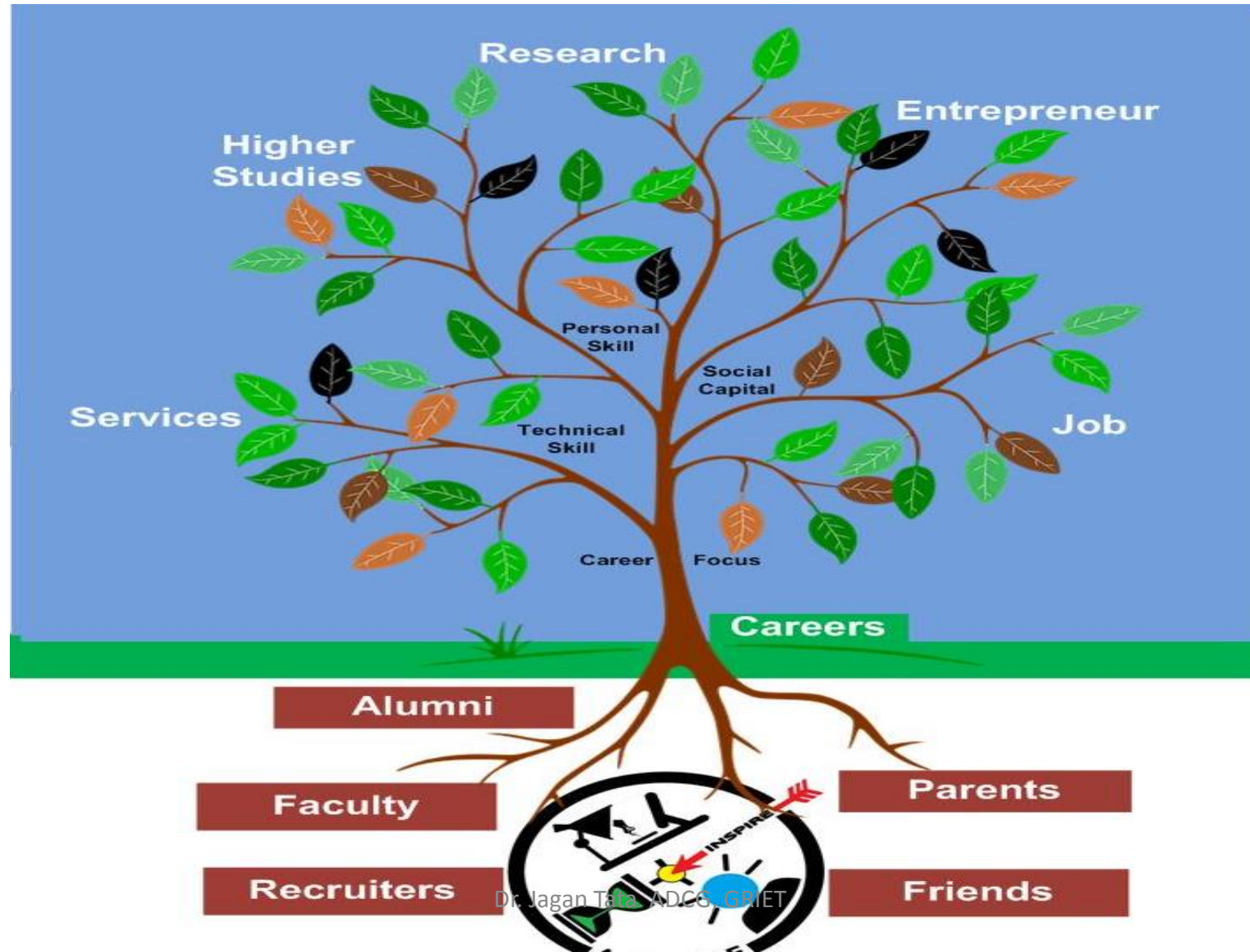


Drive &  
determination

# Are you at the Cross Roads?

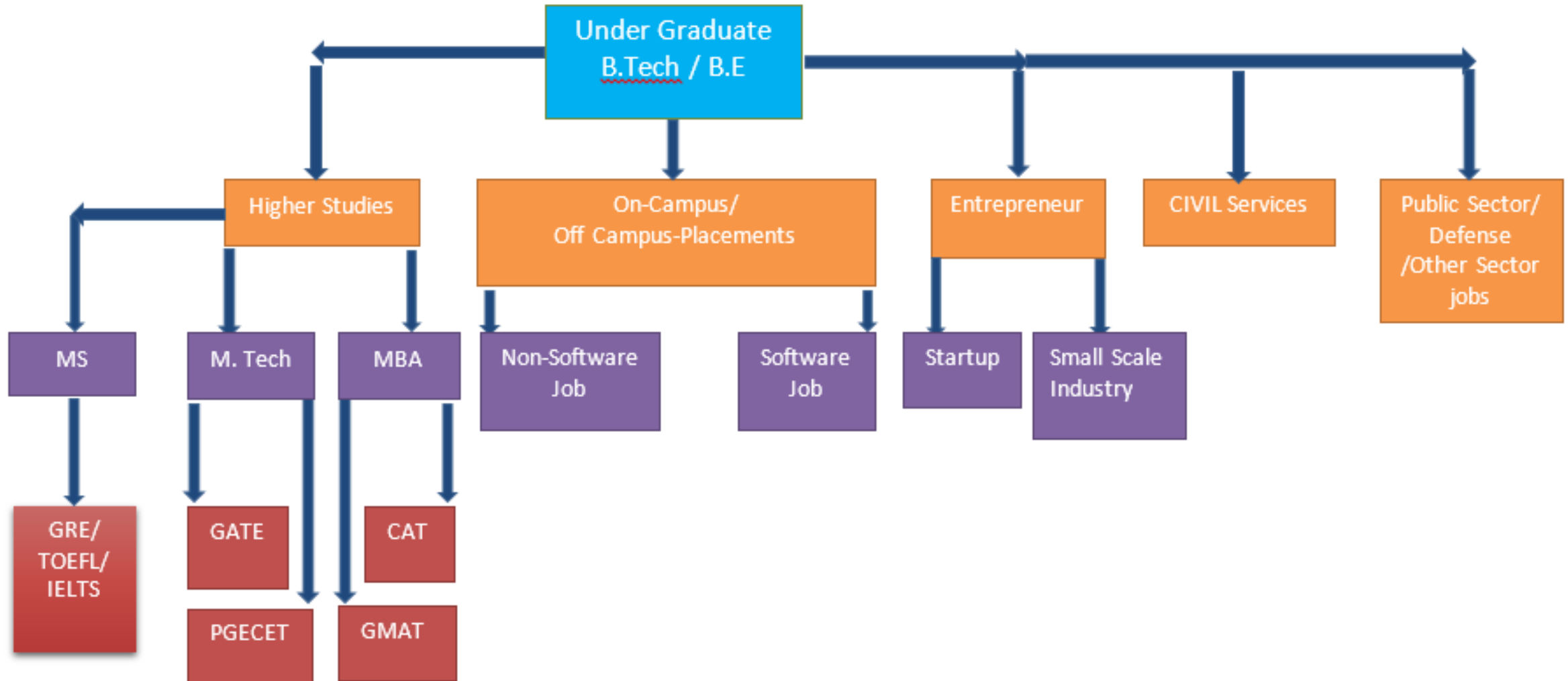


# Career Tree after B.Tech/B.E

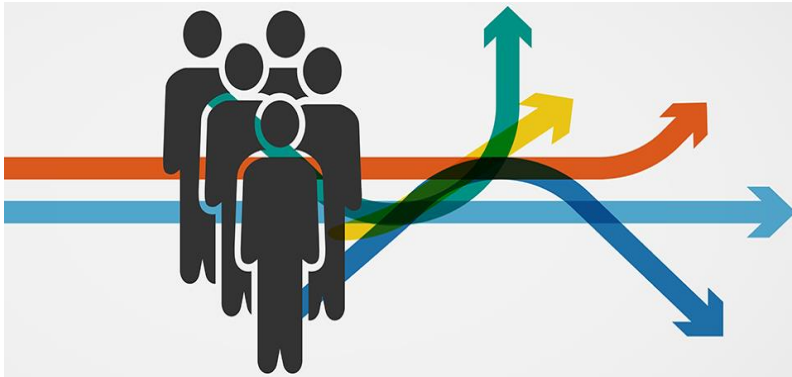




# Detailed Career Path after B.Tech/B.E



# Higher Studies/Best Options



Indian Engineering  
Services



# Civil Engineering



S.No	Software to CIVIL Engineers
1	Microsoft Office (Microsoft Excel)
2	EABS
3	SAP2000
4	QGIS
5	QCAD
6	STAAD PRO
7	MIDAS
8	<b>Rivet</b>
9	WMMS
10	Auto TURN
11	Water CAD
12	Storm CAD etc...



# Civil Engineering

## List Of Top Civil Engineering Companies In India



Larsen and Toubro



Tata Group

**LANCO**

Lanco Infratech



Punj Lloyd  
Punj Lloyd

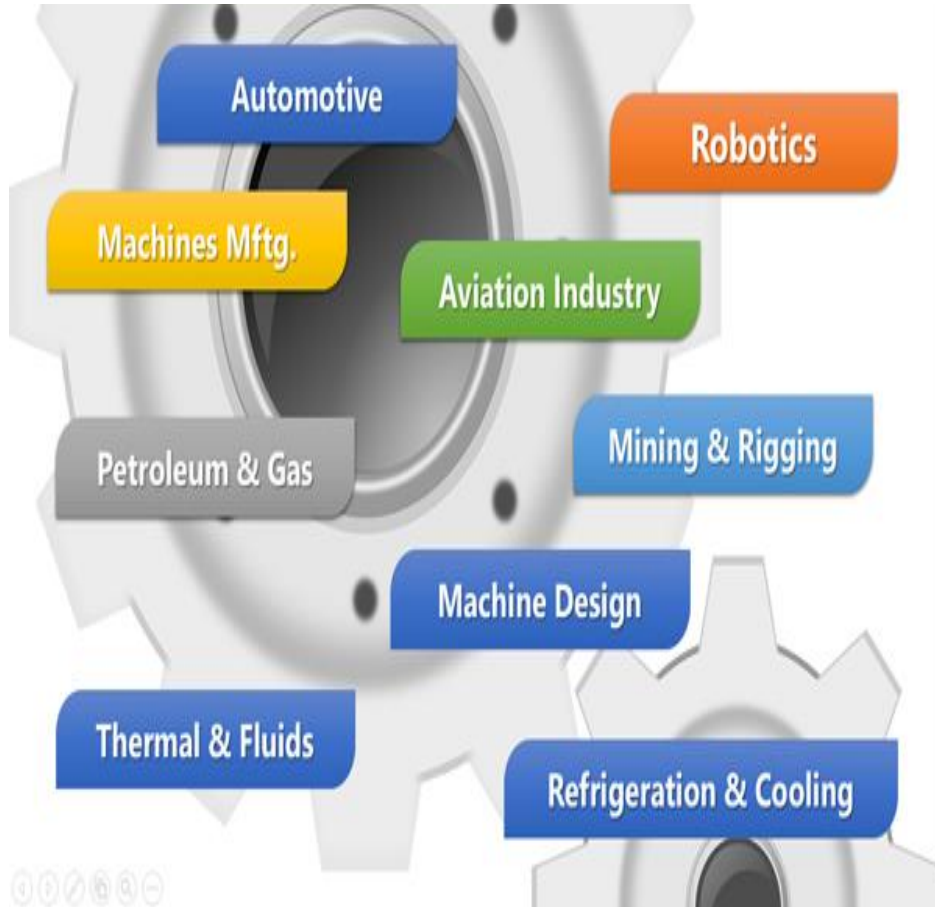
**HCC**

Hindustan Construction  
Company

## TOP 10 CONSTRUCTION COMPANIES IN INDIA



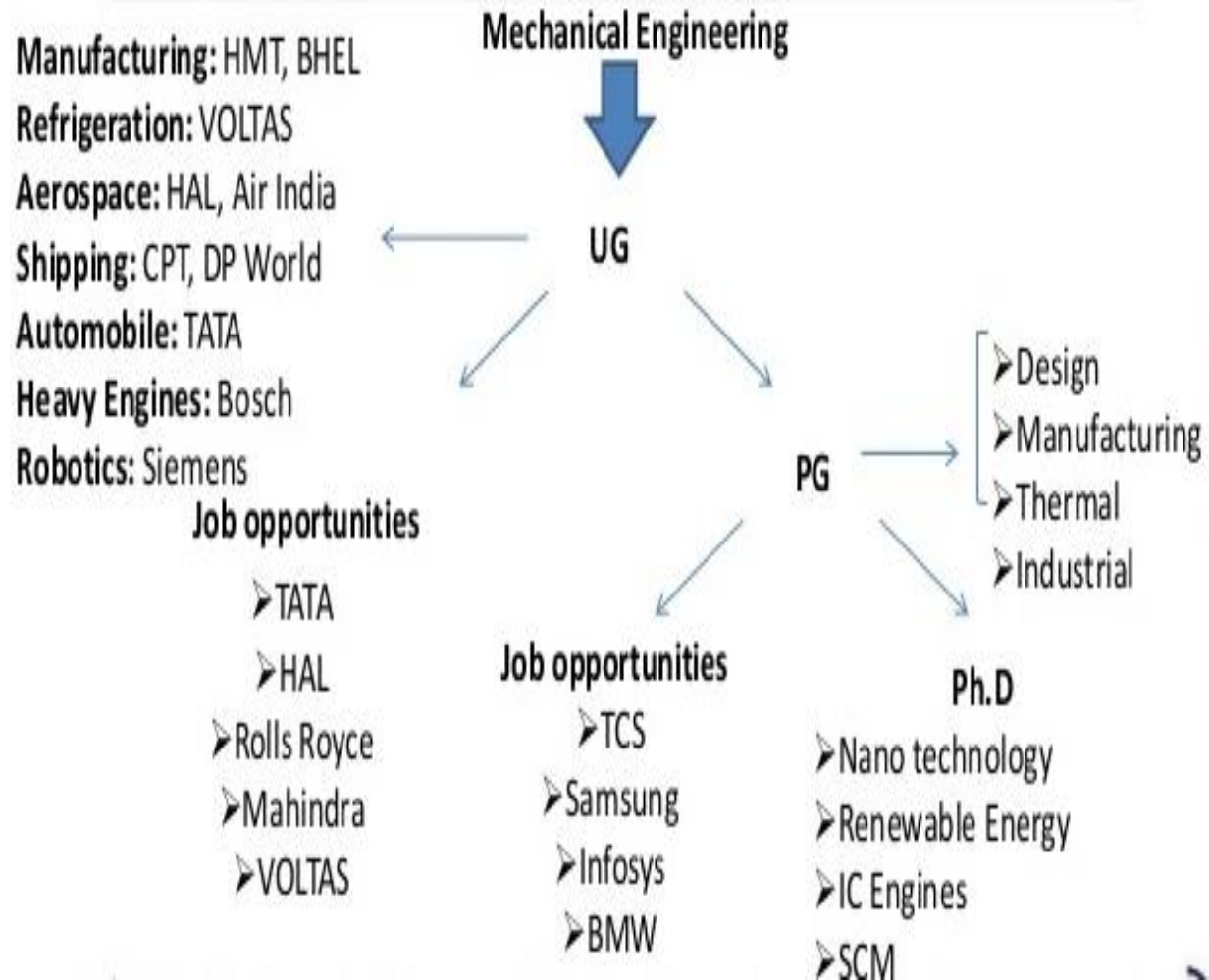
# Mechanical Engineering



S.No	Software to Mechanical Engineers
1	Autodesk Product Design Suite.
2	Matlab
3	CATIA
4	ZW3D
5	Mech Designer
6	PTC Creo
7	Brics CAD
8	Solid Edge
9	Auto CAD
10	Inventor Professional
11	Autodesk CAM
12	Autodesk Simulation
13	Vault
14	Fusion Lifecycle
15	Tinkercad

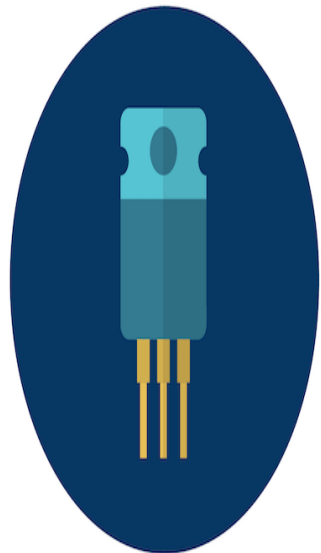


# Mechanical Engineering



# Electrical and Electronics Engineering

## WHAT IS E&E ENGINEERING



"It covers two separate fields - electrical and electronics"



**Electrical Engineering** deals with the various ways to effectively and efficiently use electricity



**Electronic Engineering** deals with using and controlling electrical power to interpret an instruction and perform a desired task

### Software to EEE Engineers

**MATLAB**

**Labview**

**ECAD**

**PSCAD**

**Mi-power**

**dSPACE**

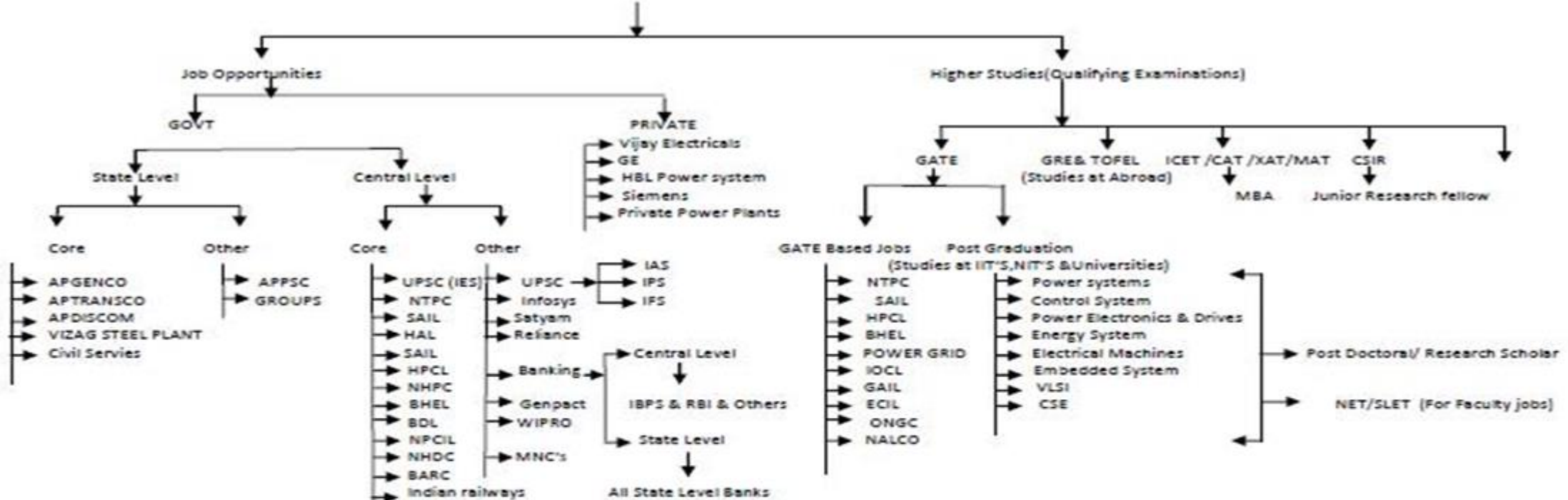
**EMTP-RV**

**ARM**

**Orcad**

JOB Category	Companies
Industrial Automation	<a href="#">ABB</a> , <a href="#">Seimens</a> , <a href="#">Schneider Electric</a> , <a href="#">Rockwell Automation</a>
Substation Automation	ABB, Seimens, <a href="#">Alstom</a> , <a href="#">Areva</a> , Schneider Electric
Power System Analysis	Digsilent
Microchip Design	microchip
Equipment Manufacturing	ABB, Seimens, Alstom, Areva, Schneider Electric
Power System Equipment Manufacturing	ABB, Seimens, Alstom, Areva, Schneider Electric
Plant Operation & Maintenance	All Private and Government owned Cement, Steel, Oil and Gas, Aluminium, Paper, Copper Plants. All Private and Government owned Power Plants, Transmission Companies and Distribution utilities.
Research and Development Careers	ABB, Seimens, Alstom, Areva, Schneider Electric

# Electrical and Electronics Engineering



**Authorized dealers of all international leading electrical brands**

Finolex	MAK	ROMA	Anchor	RIE	INDO ENERGY	MAK	MAK
CP	ABB	H	CG	Enabtree	ALMOND	S	NPL
BAJAJ	VENUS	75	PHILIPS	OSRAM	PHILIPS	OSRAM	OSRAM

# Electronics and Communication Engineering



Electronics and Communication Engineering		
JOB Category	Required Skill Set	Job Openings
VLSI	Verilog and VHDL	<a href="#">VLSI Jobs</a>
Circuit Design	Electronics Circuit Design Basics	<a href="#">Circuit Design Jobs</a>
Chip Design	Transistor Process technology , Microprocessors	<a href="#">Embedded Jobs</a>
Mobile Communications	Network Switching, Communication Basics, Voice over Internet protocols and interactive voice recognition	<a href="#">Telecom Jobs</a>
Networking	CCNA or CCNP Certification.	<a href="#">CCNA CCNP Jobs</a>
Software/Computing	C, C++, Java, Microprocessors, Micro-Controllers, IoT Basics	Software & Hardware



# Electronics and Communication Engineering



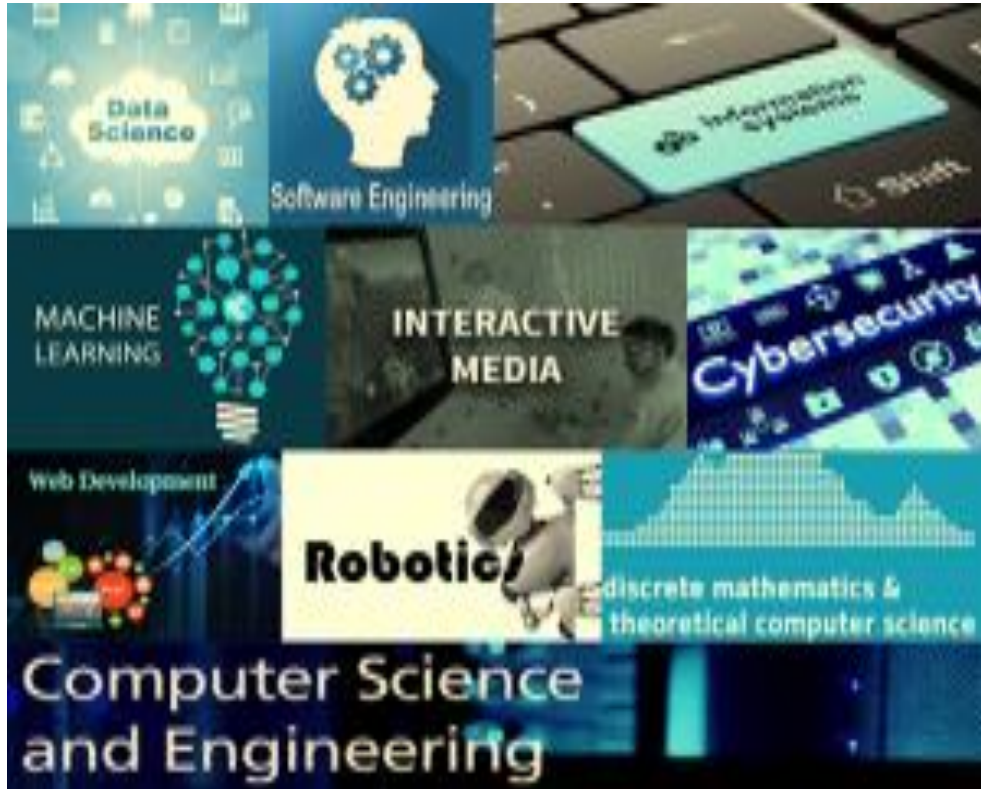


# Computer Science and Information Technology

JOB Category	Required Skill Set
Web Designer	HTML, HTML5 , Javascript, Flash
Web Developer	J2EE, ASP.Net, PHP
Application Developer	C, C++, Core Java, .Net, Java Swing
Database Administrator	Pl SQL, Database Tuning
Network Engineer	CCNA, CCNP Certification
Embedded Systems	Embedded C
VLSI programmer	Verilog, VHDL
Enterprise Applications	SAP
Hardware Engineer	CSE Basics
Computer Scientist	Complex Problem Solving Skills
Big Data Analytics	Hadoop, Python.....



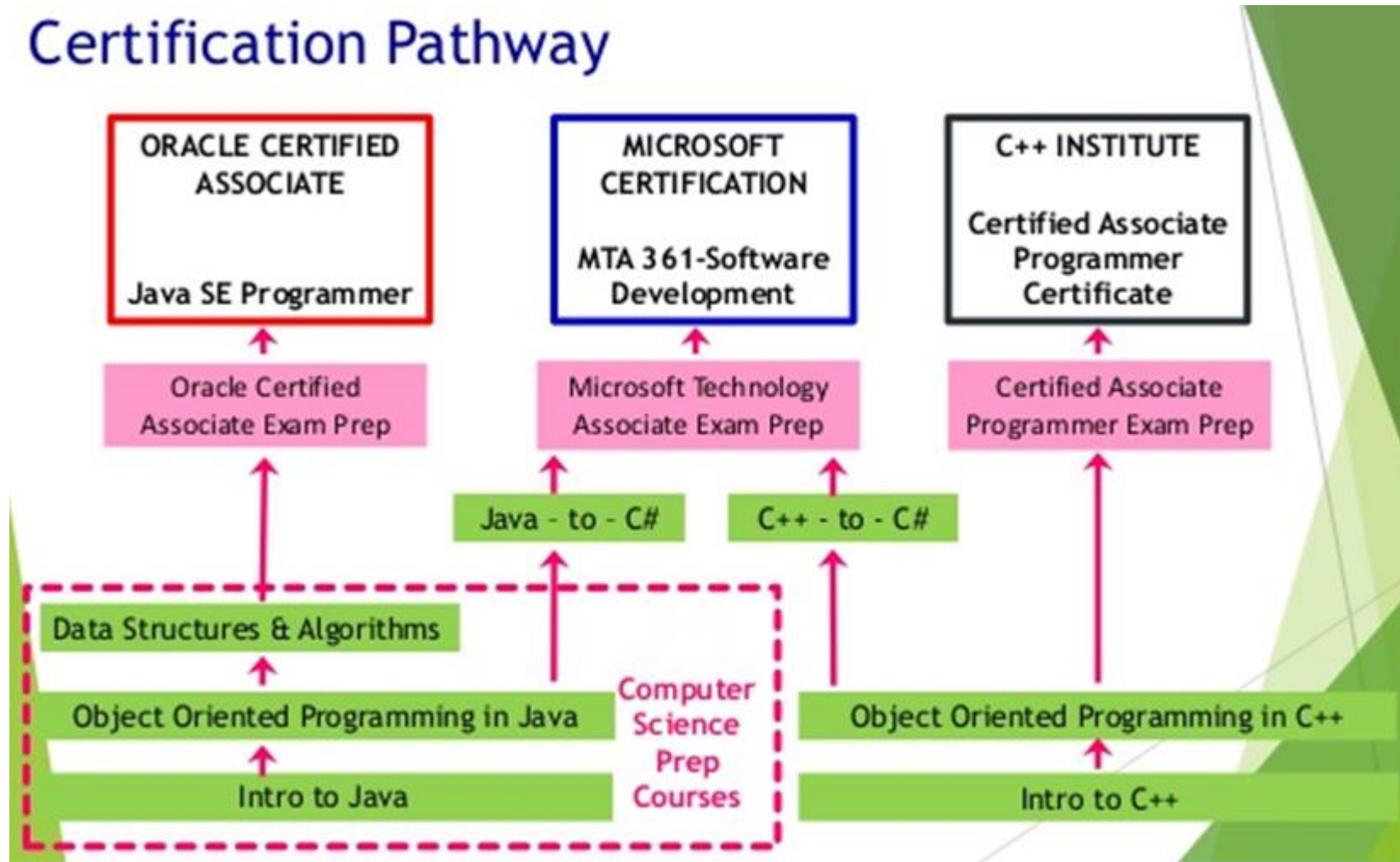
# Computer Science and Information Technology



# Computer Science and Information Technology



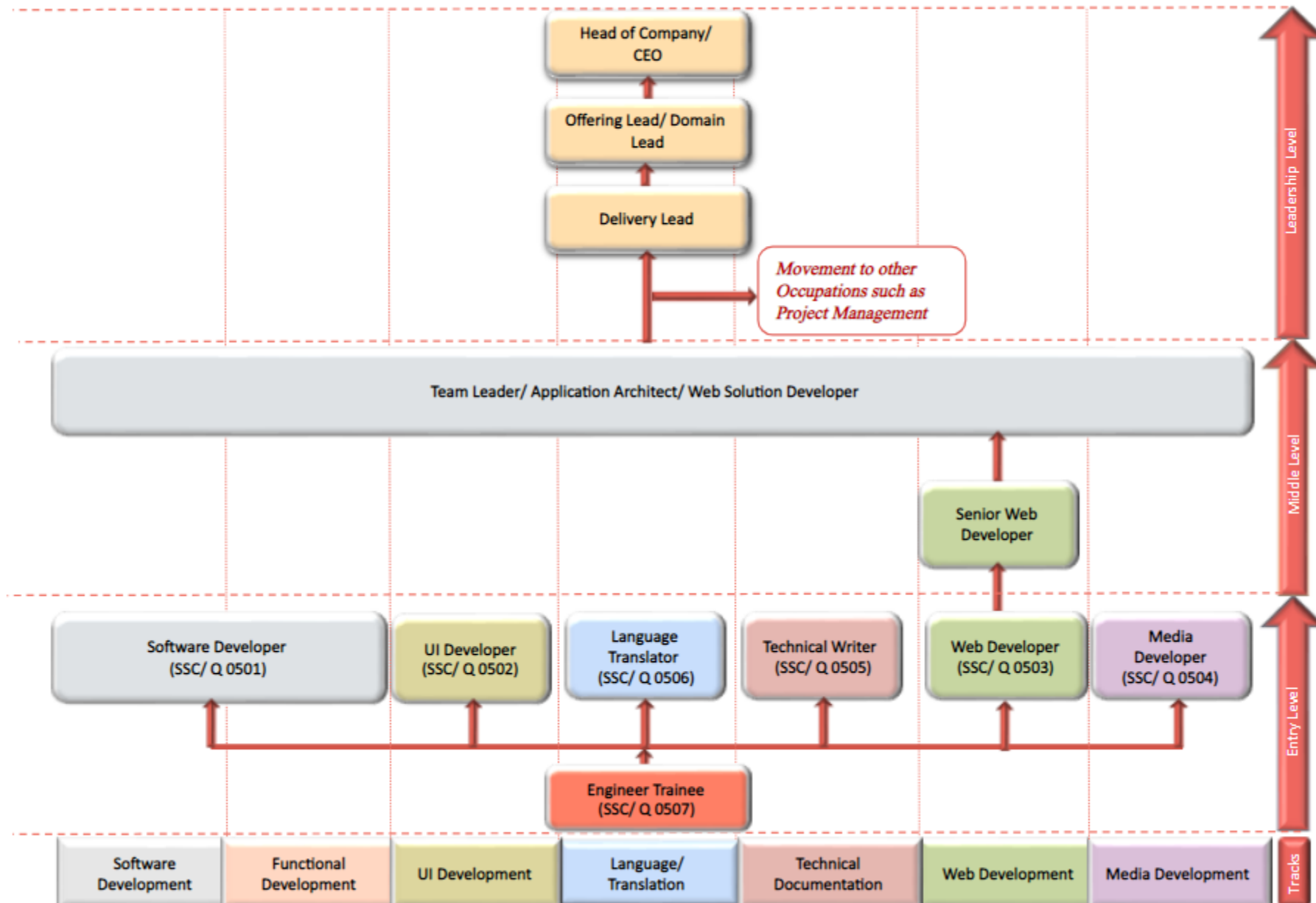
## Certification Pathway



# Steps in Information Technology Jobs

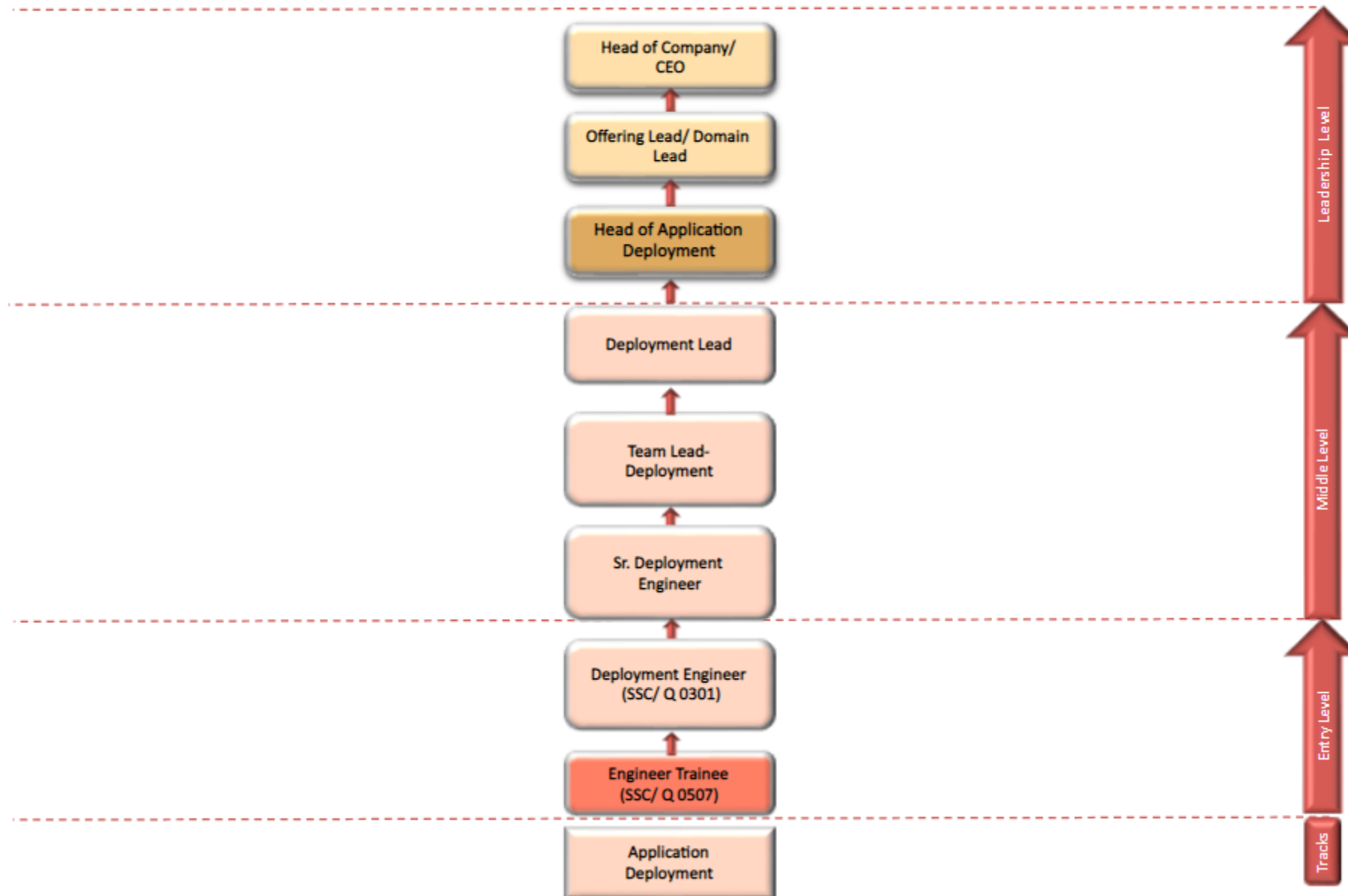


# Career Map for Application Development

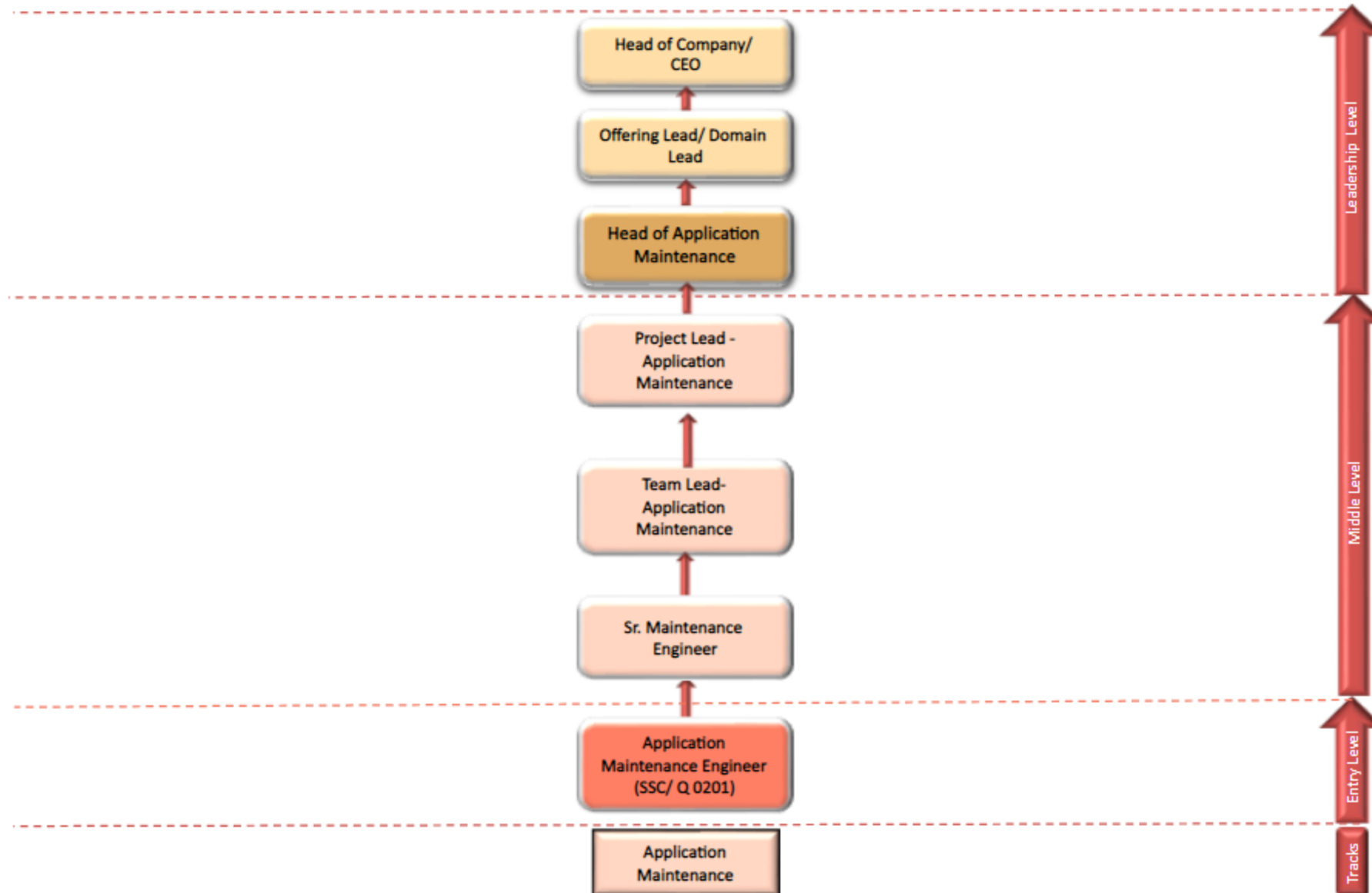




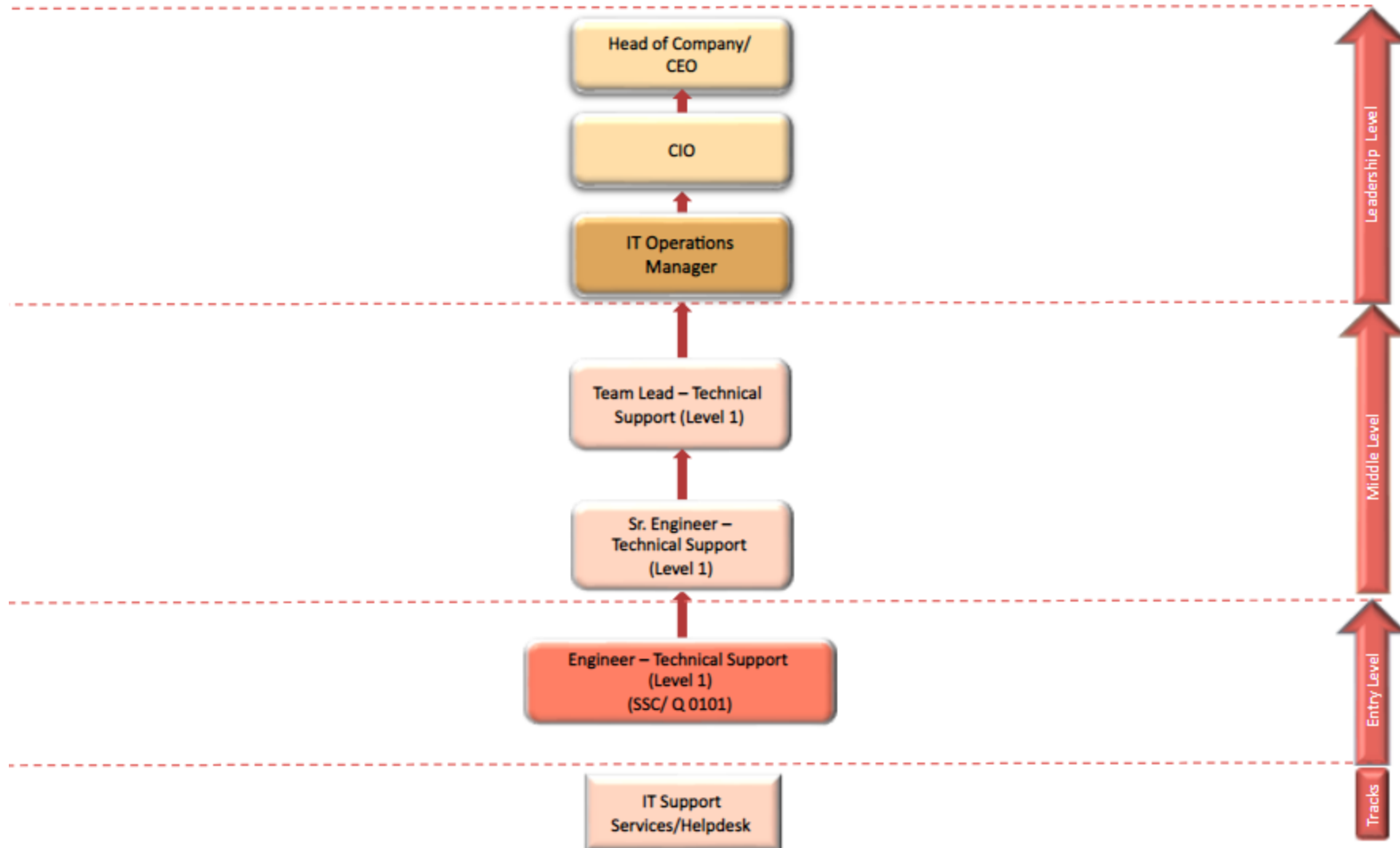
## Career Map for Application Deployment



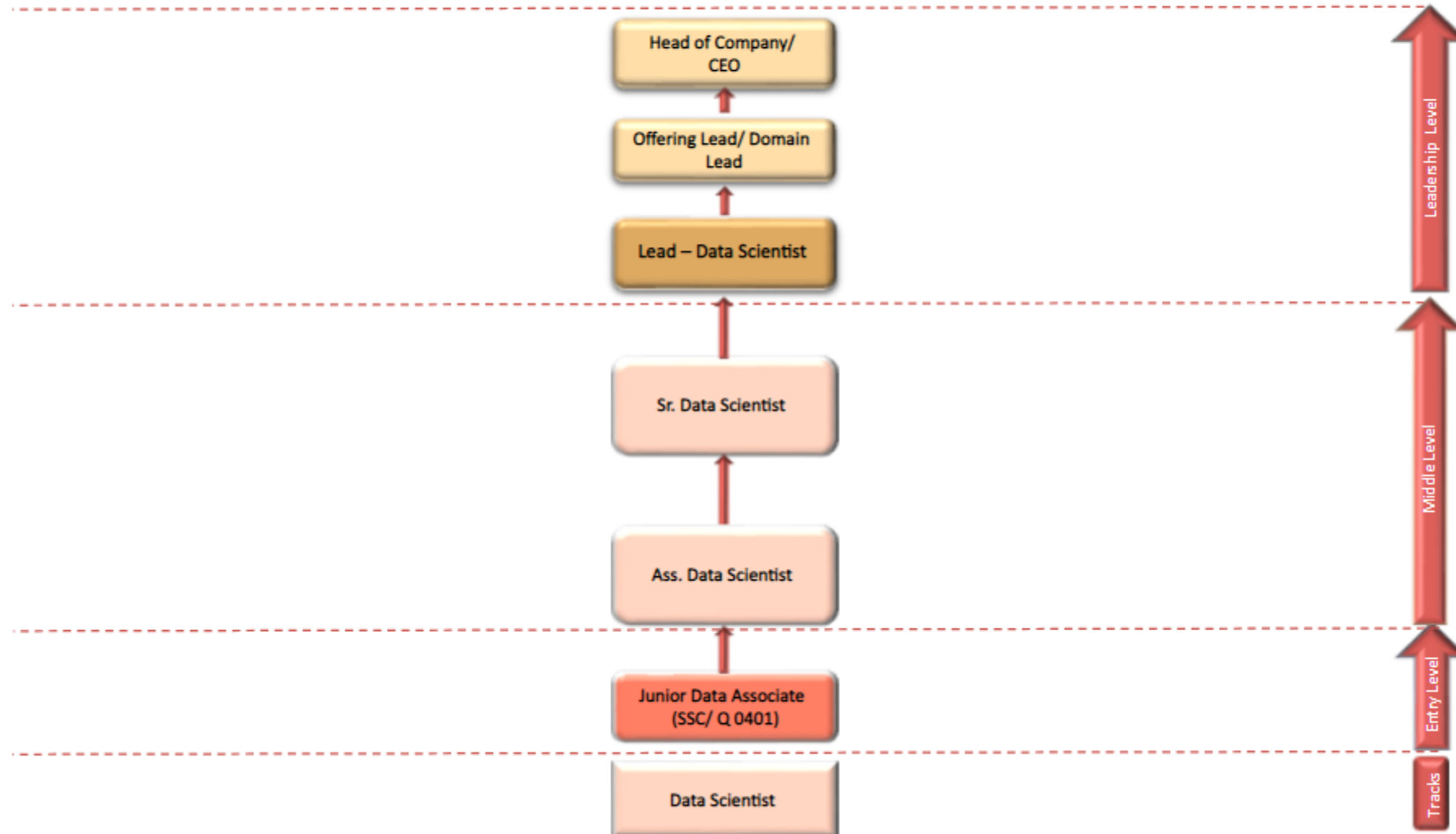
## Career Map for Application Maintenance



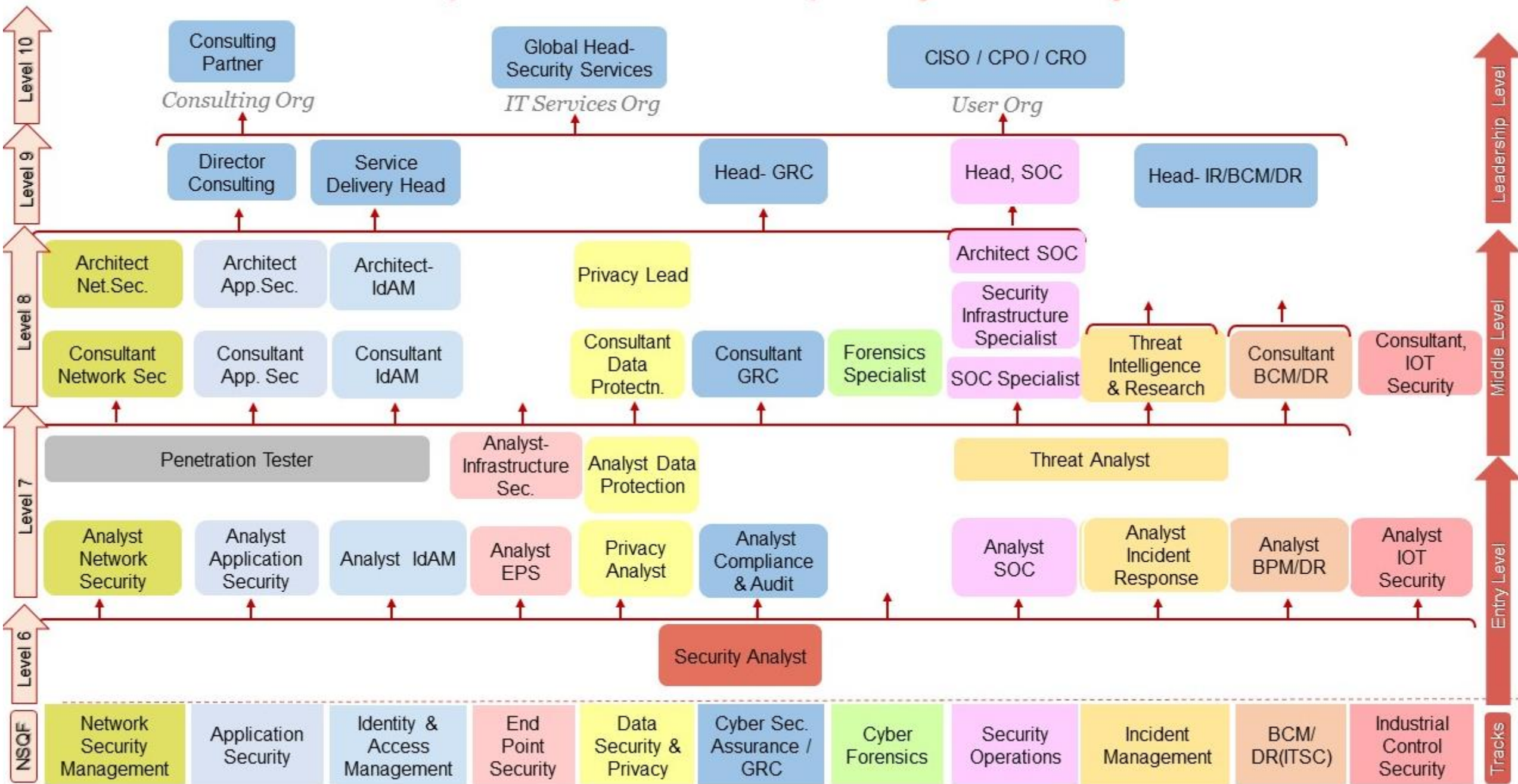
# Career Map for IT Support Services/Helpdesk



# Career Map for Data Scientists

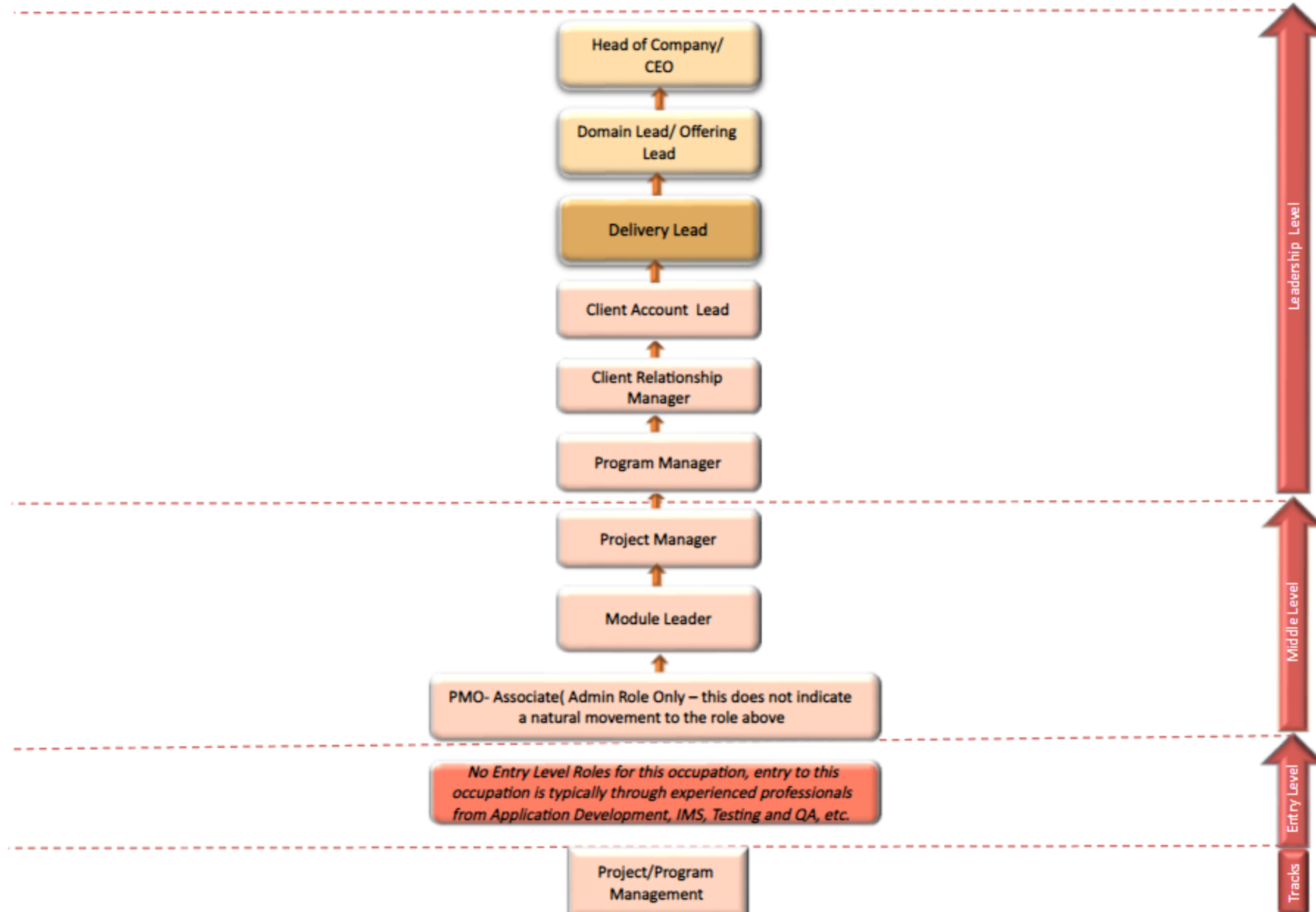


# Occupation cum Career Map for Cyber Security

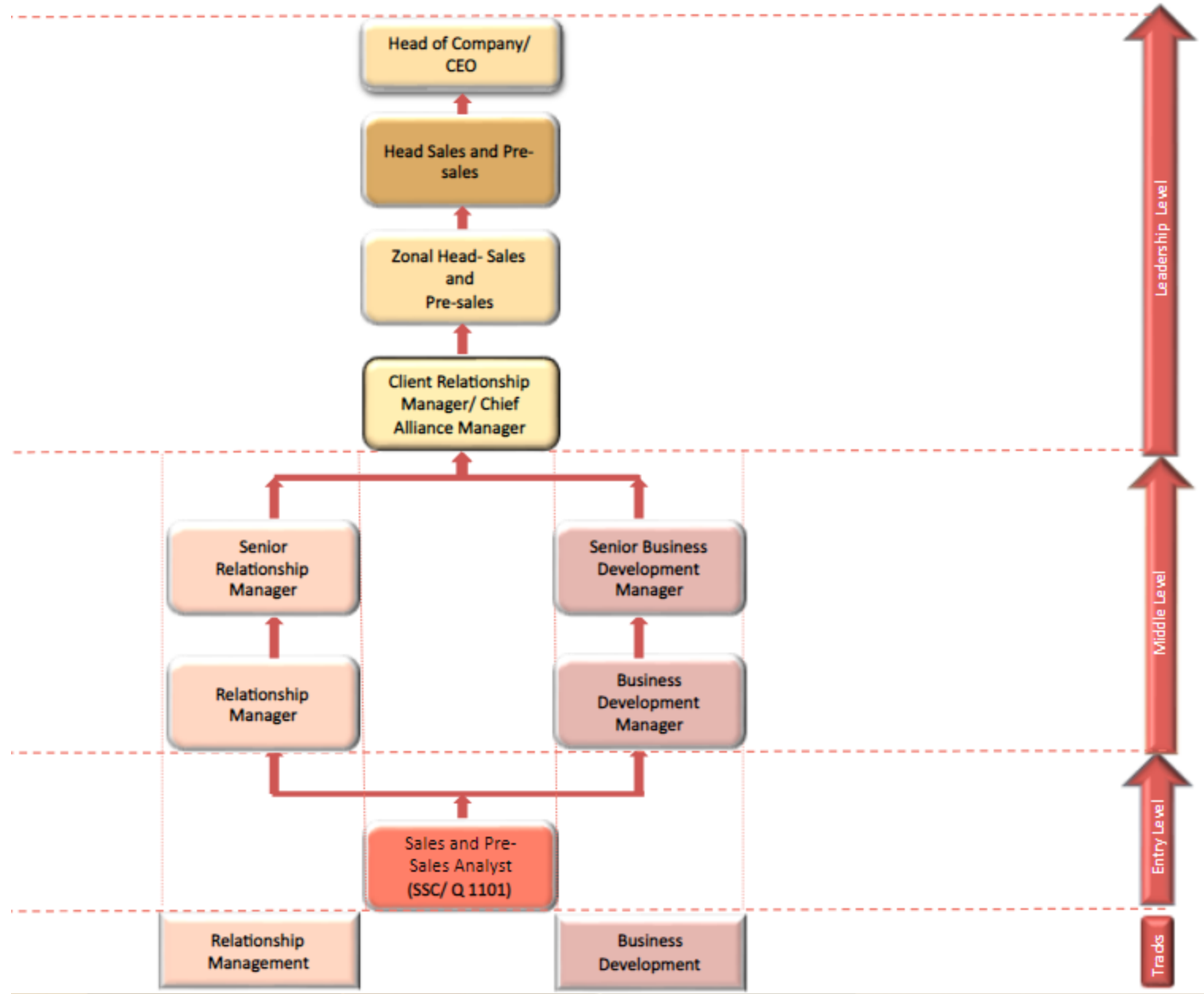




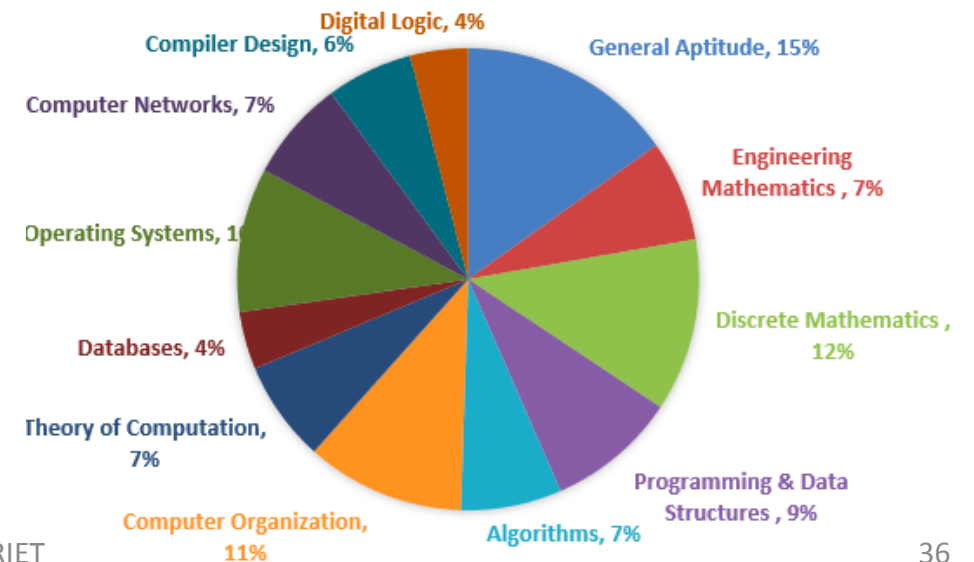
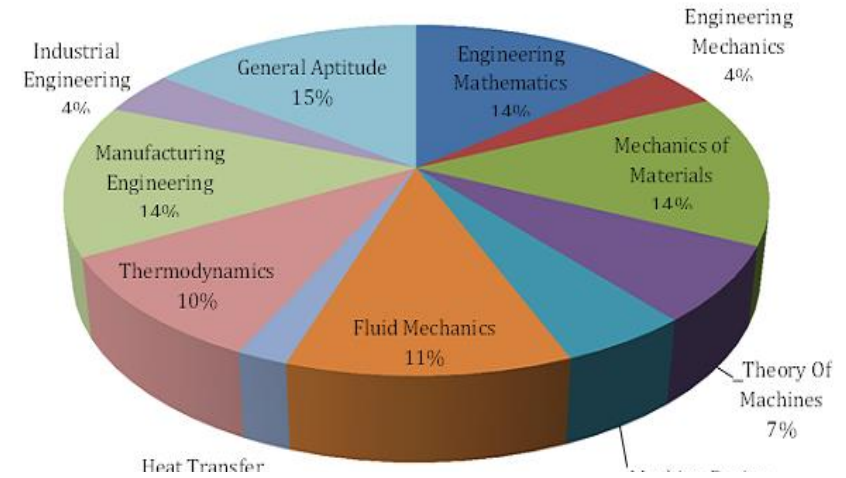
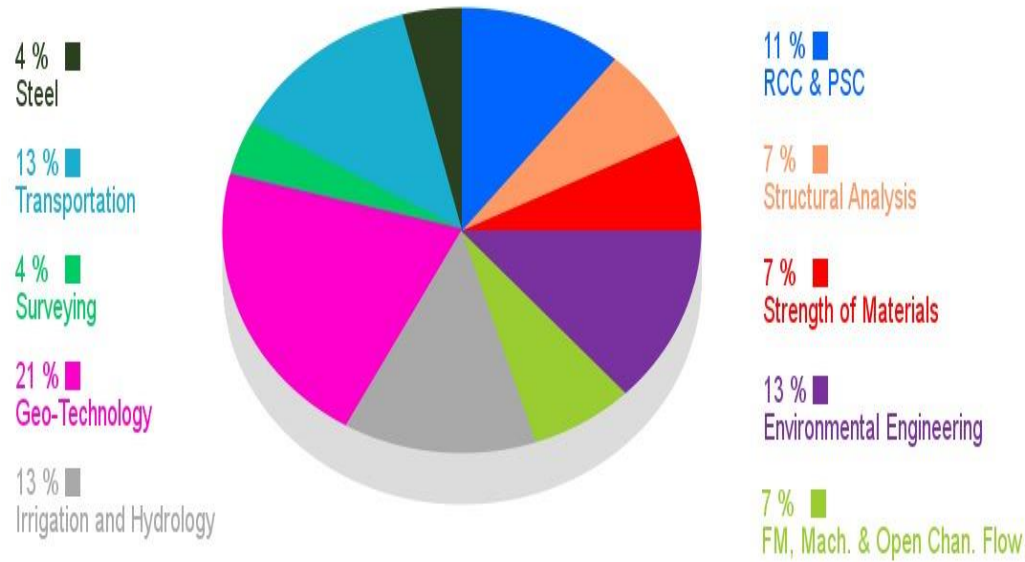
# Career Map for Project/Program Management



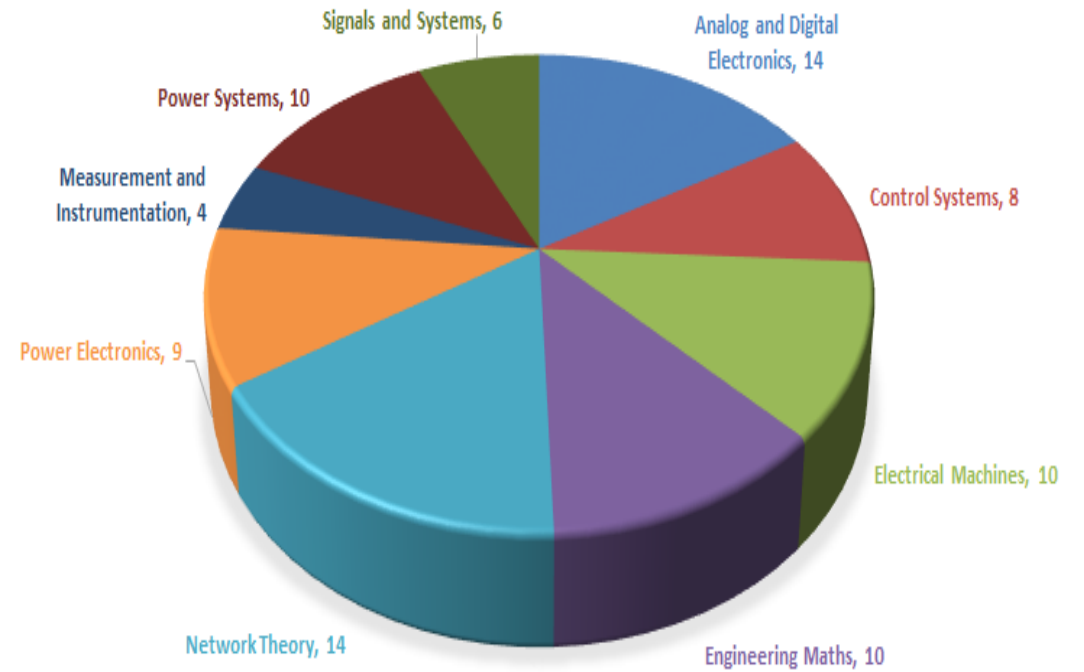
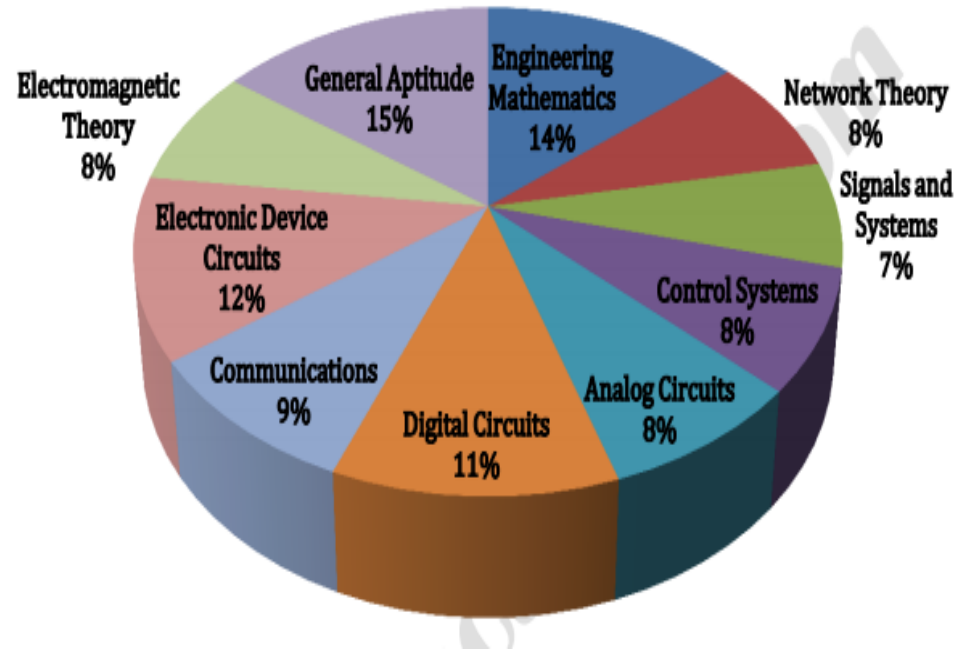
# Career Map for Sales and Pre-sales



# GATE: CIVIL, ME, CSE & IT



# GATE: ECE & EEE





# Higher Studies


## Master of Sciences (MS)

Top Universities for MS, Phd in USA
Massachusetts Institute of Technology
MA Stanford University
University of California
University of Illinois
California Institute of Technology
Georgia Institute of Technology
GA University of Michigan
Carnegie Mellon University Pittsburgh
NY Princeton University

# Various Jobs after Engineering



# Online Resources



**NPTEL**  
National Programme on Technology Enhanced Learning

1000+ courses  
20,000+ video hours  
450 MILLION views  
Anyone, Anywhere can learn Anytime at  
<http://nptel.ac.in/>

2257 5905/08  
nptel@iitm.ac.in  
NPTEL Office: Web Studio,  
11th Floor, IC & SR Building,  
IIT Madras, Chennai - 600036



FREE ONLINE EDUCATION  
**swayam**  
शिक्षित भारत, उन्नत भारत



**SWAYAM PRABHA**  
Free DTH Channel for Education



**Virtual  
Labs**

An MHRD Govt of India Initiative



National  
Digital Library  
of India

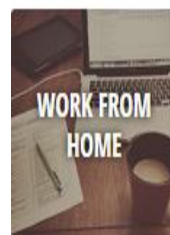


# Internships

<https://internshala.com>



## Internships in popular cities

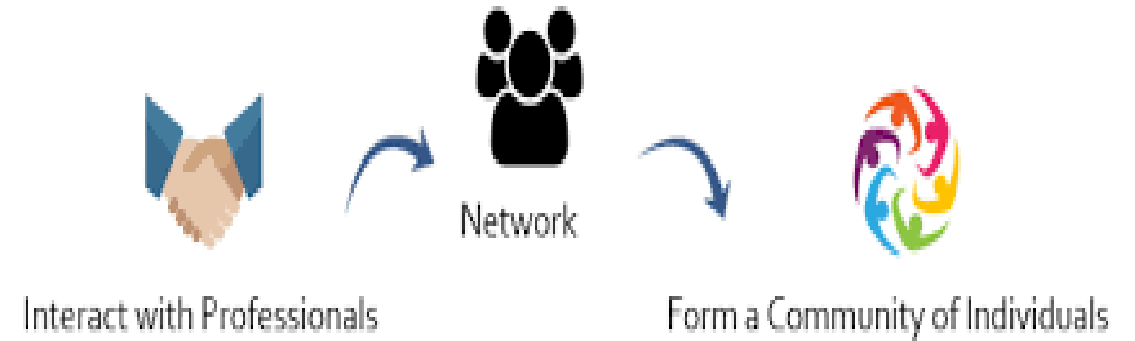


## Internships in popular categories





## Skill Development



# Sports and Games are Required?



# Best Options?

1. Enroll yourself in Career Guidance center
2. Prepare GATE/GRE/CAT/GMAT for M.Tech/M.E/M.S/MBA (higher studies)
3. Seek professional help
4. Try for an internship
5. Volunteer participation
6. Try for civil services (IAS/IPS/IES....)
7. Short term courses (Java, C, C++, IOT, AI, ML, Robotics, 3D Printing, etc....)
8. Go abroad for further professional education
9. Start your own Startup/ business
10. Start building network
11. Think about the Defense Services
12. Give time to Sports and Games



# Formulas to Success?

- **Plan your work**
  - **Work your Plan**
  - **Take Guidance if required**
  - **Commitment**
  - **Hard-work,**
  - **Knowledge Up-gradation**
  - **Adaptability**
  - **Innovative Thinking**
  - **Positive Attitude**
  - **Learn from the failures**
  - **Positive Attitude**
- **Desire, Discipline, Devotion, Dedication, Determination, Direction, Destination (7Ds)**
- **Set yourself for Success according to your own metrics from the begging**



# Best Time Line Options?

Sem/Year	I/I	I/II	II/I	II/II	III/I	III/II	IV/I	IV/II
Placement								

Sem/Year	I/I	I/II	II/I	II/II	III/I	III/II	IV/I	IV/II
GATE								

Sem/Year	I/I	I/II	II/I	II/II	III/I	III/II	IV/I	IV/II
CAT								

Sem/Year	I/I	I/II	II/I	II/II	III/I	III/II	IV/I	IV/II
GRE/GMAT/ TOEFL/IELTS								

Sem/Year	I/I	I/II	II/I	II/II	III/I	III/II	IV/I	IV/II	After B.Tech/B.E
IAS/IES/Bank/ RRB etc...									

# Best Time Line Options?

Sem/Year	I/I	I/II	II/I	II/II	III/I	III/II	IV/I	IV/II
Training	CRT	CRT	CRT	CRT	CRT	CRT	CRT	CRT

Sem/Year	I/I	I/II	II/I	II/II	III/I	III/II	IV/I	IV/II
Subject	Core	Core	Core	Core/ Electives	Core/ Electives	Core/ Electives	Core/ Electives	Core/ Electives
	NPTEL	NPTEL	NPTEL	NPTEL	NPTEL	NPTEL	NPTEL	NPTEL

Sem/Year	I/I	I/II	II/I	II/II	III/I	III/II	IV/I	IV/II
Computing	C	DS	C++	JAVA				

Sem/Year	I/I	I/II	II/I	II/II	III/I	III/II	IV/I	IV/II
Certification Programs	Oxford, Microsoft	JAVA, DBMS	CCNA	Oracle				

# About GRIET Career Guidance Cell/Department

- Career Options :** Providing to Students
- Career Planning :** Based on available options
- Career Guidance events :** Conducting Events
- Goal :** To Cater and Promote Right Career Path to Students

# Important Links

<https://www.mygov.in/>

<https://www.aicte-india.org/>

<https://www.ugc.ac.in/>

<https://internshala.com/>

<https://nptel.ac.in/>

<https://www.edx.org/>

<https://www.swayamprabha.gov.in/>

<https://www.nsdcindia.org/>

<http://www.nsic.co.in/>

<https://ndl.iitkgp.ac.in/>

<https://www.ets.org/gre>

<https://www.ets.org/toefl>

<https://www.ielts.org/>

<https://www.mba.com/>

<https://iimcat.ac.in/>

<http://gate.iitm.ac.in/>

<http://mhrd.gov.in/>

<http://www.upsc.gov.in/>

<https://tspsc.gov.in/>

<https://www.tsche.ac.in/>

<https://www.task.telangana.gov.in/Job-Openings>

<http://telanganajagruthi.org/>

*Wish you  
Good luck!*

**Thank You**

Dr. Jagan. Tata  
Professor of ECE &  
Associate Dean Career Guidance  
GRIET, Hyderabad