

Career Guidance



Gokaraju Rangaraju
Institute of Engineering and Technology
Hyderabad

Why & What is Engineering?

WHY ENGINEERING



Build & improve things
to solve problems



Intellectually
challenging

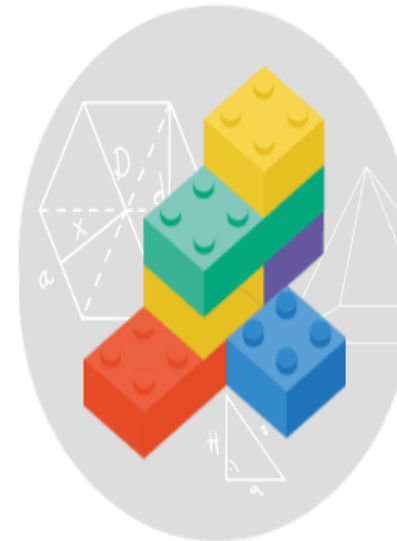


Wide career
opportunities



Gain practical &
transferable skills

WHAT IS ENGINEERING



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



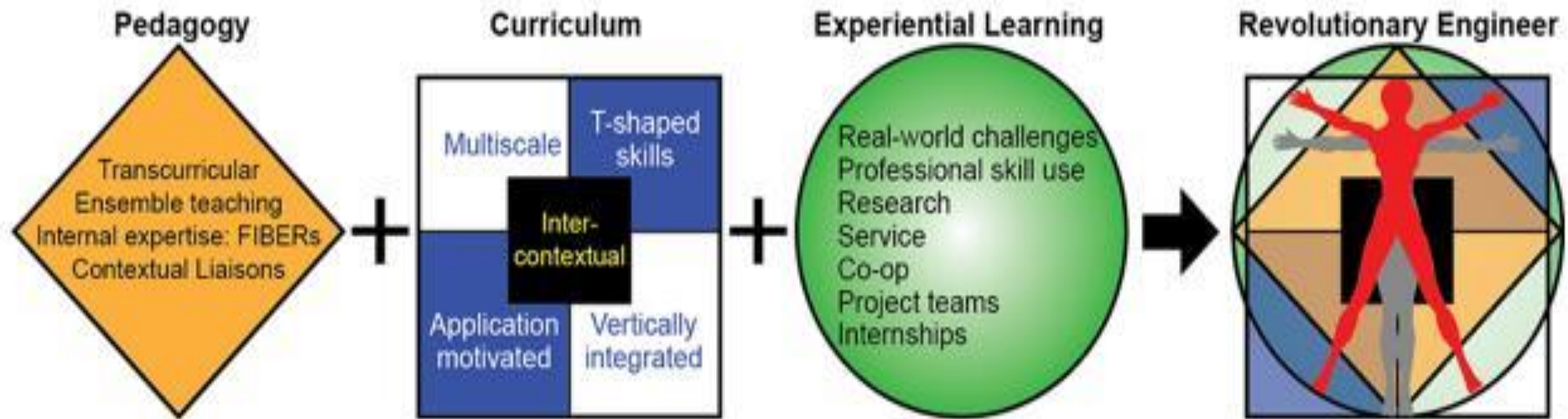
Application of math & science to design,
build & improve all sort of things



Example:

Buildings, laptops & smartphones are
built by engineers

Transformation in Engineering



What Next?



Need Career Guidance?



How to Choose the Right Career After Graduation



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

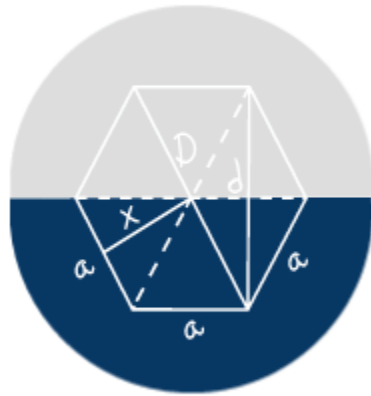
How to Choose the Right Career After Graduation

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

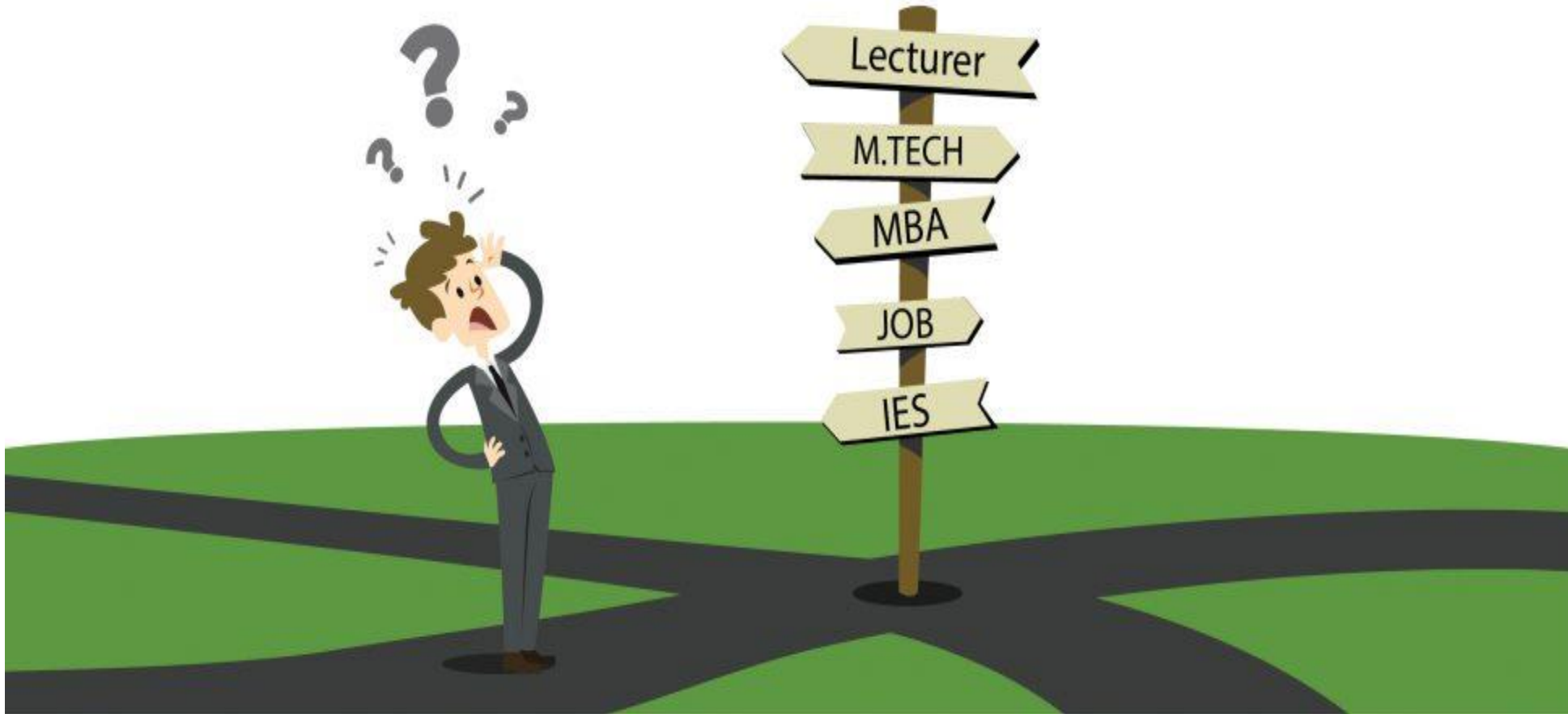


Ability to think
creatively

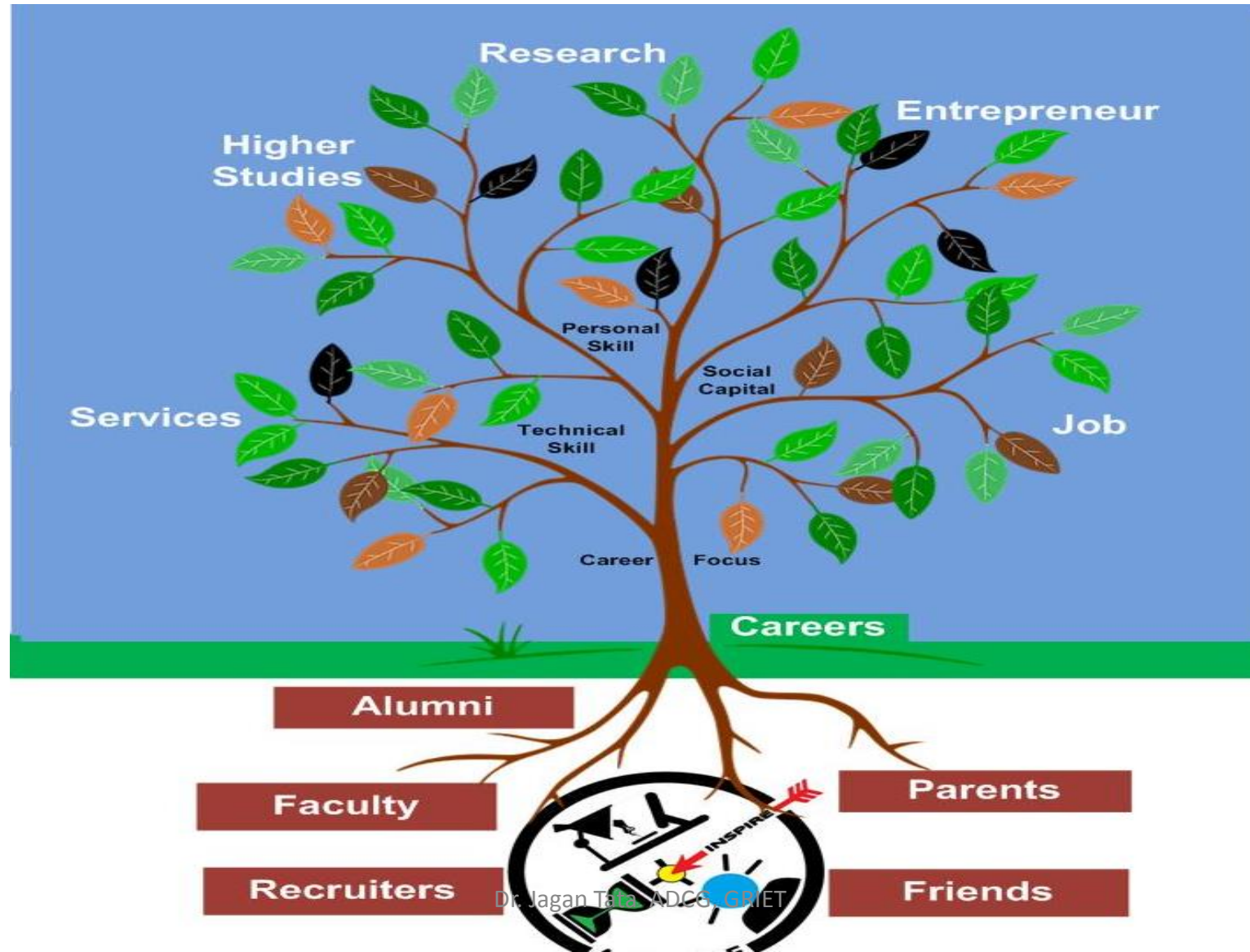


Drive &
determination

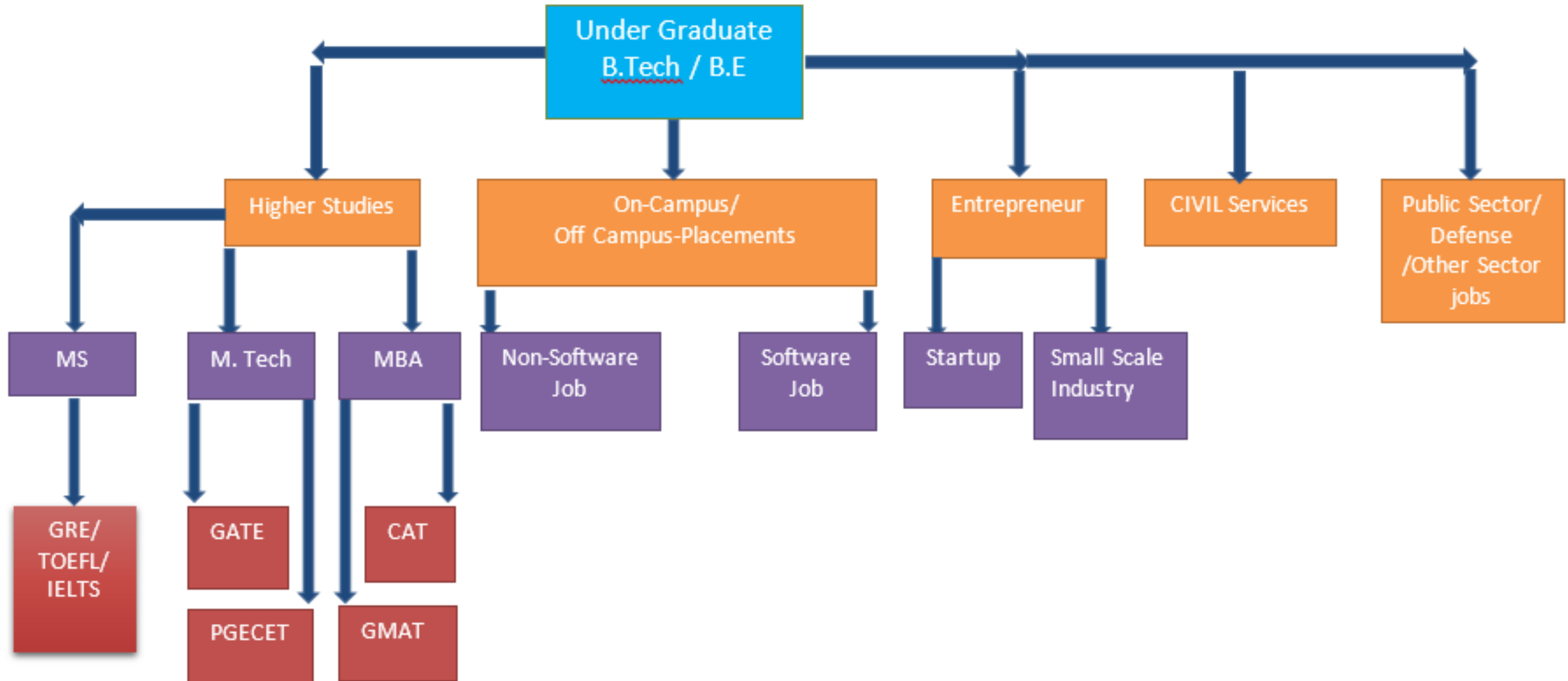
Are you at the Cross Roads?



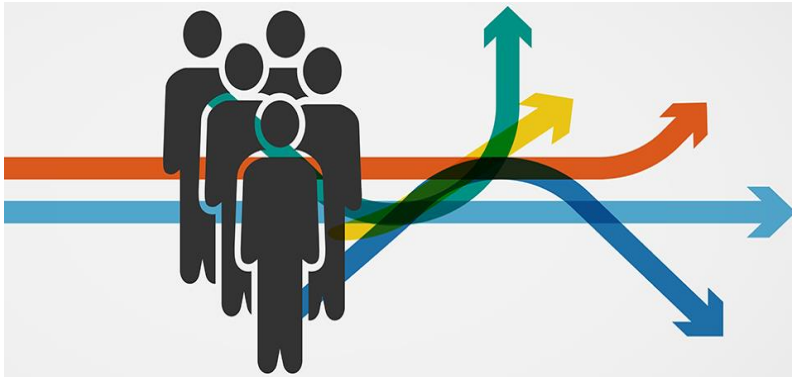
Career Tree after B.Tech/B.E



Detailed Career Path after B.Tech/B.E

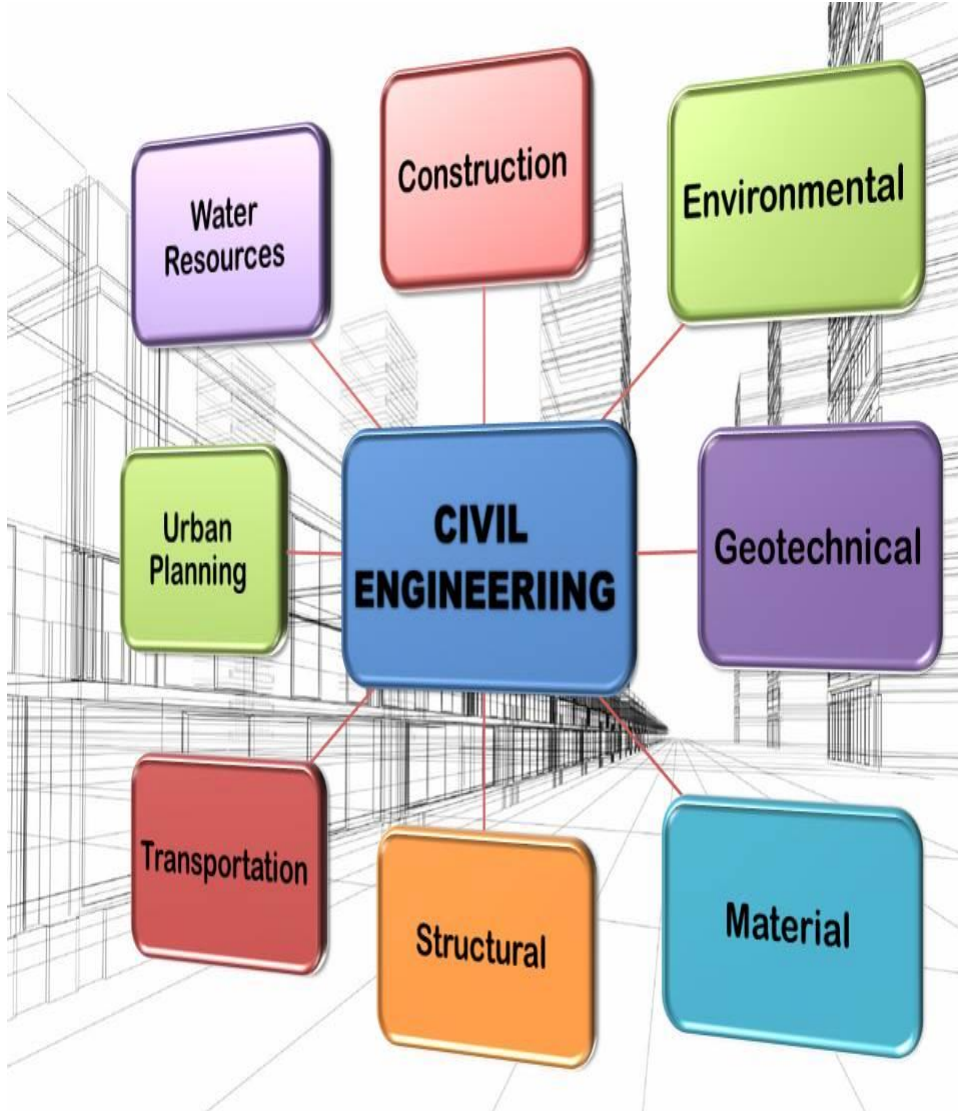


Higher Studies/Best Options



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	Rivet
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

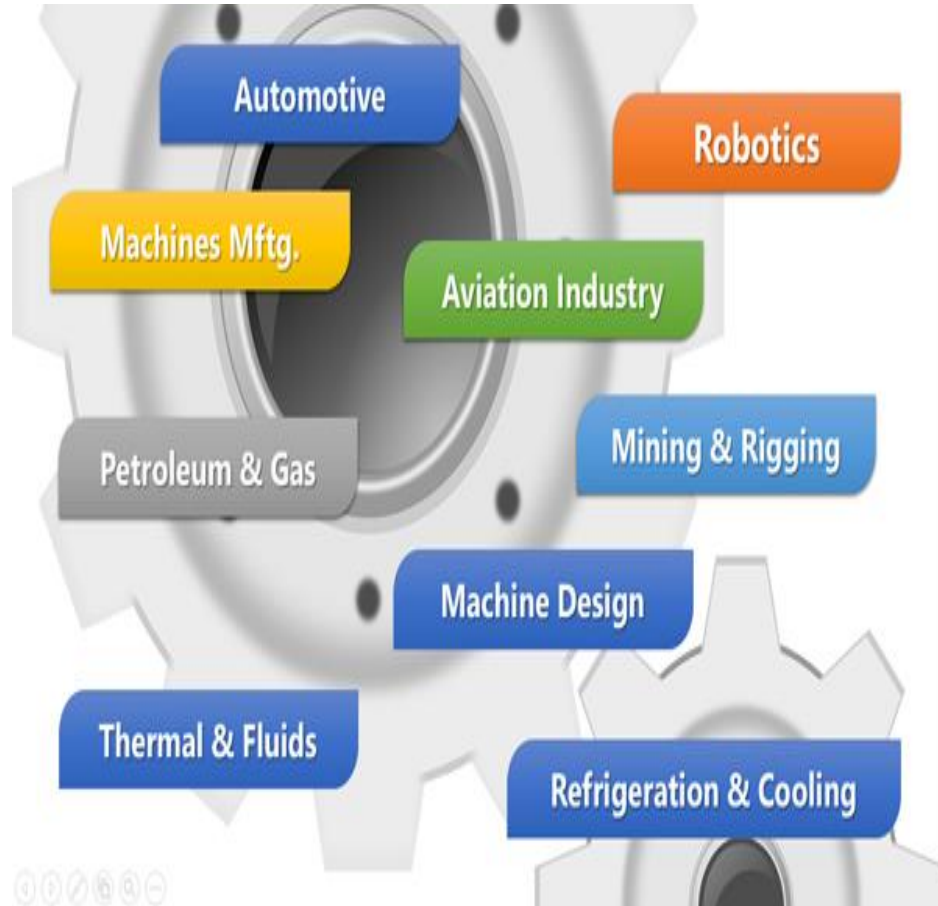
HCC

Hindustan Construction
Company

TOP 10 CONSTRUCTION COMPANIES IN INDIA

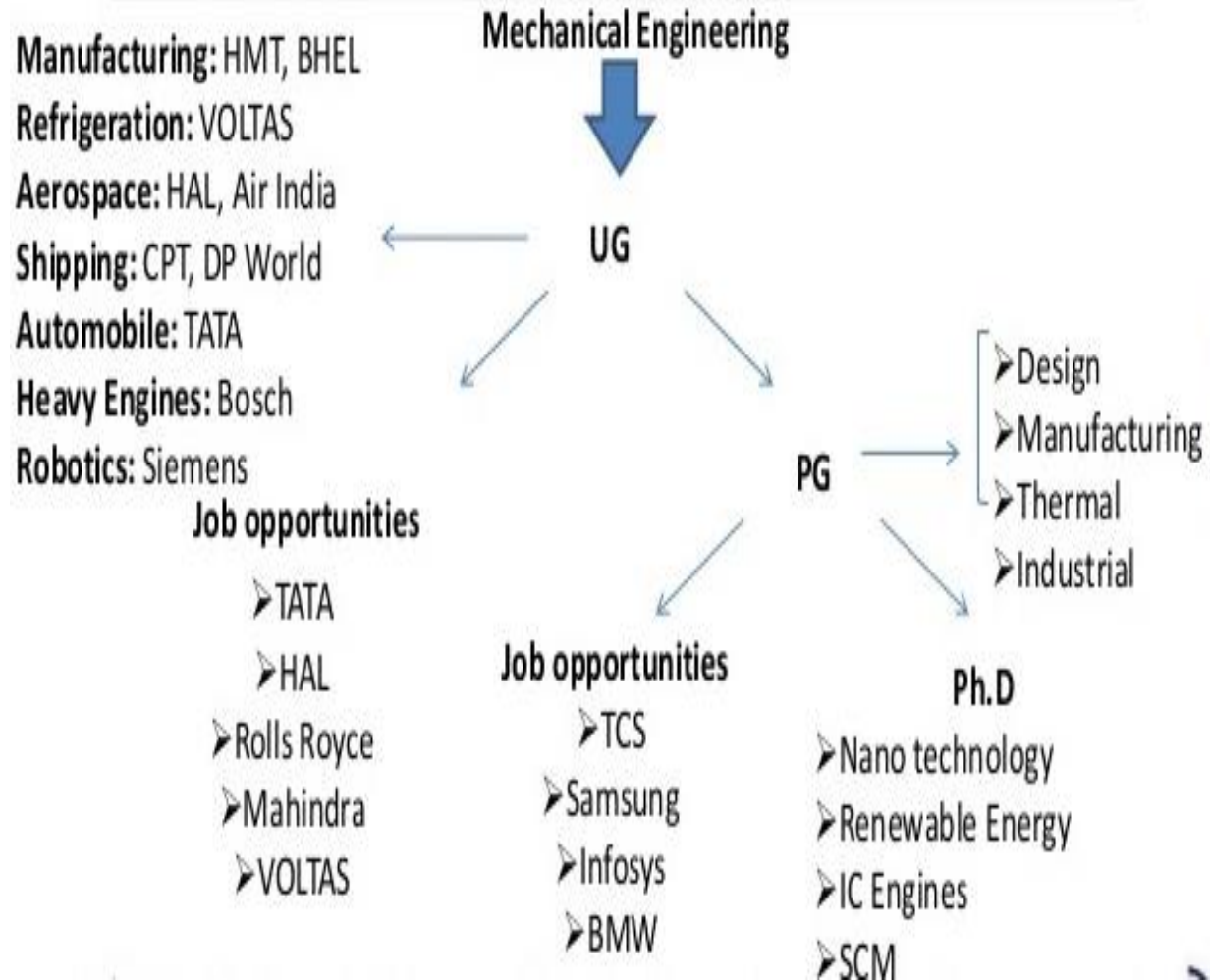


Mechanical Engineering



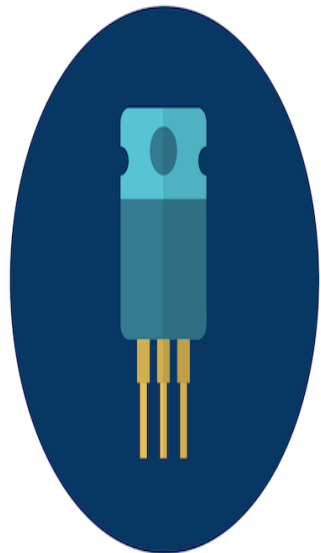
S.No	Software to Mechanical Engineers
1	Autodesk Product Design Suite.
2	Matlab
3	CATIA
4	ZW3D
5	Mech Designer
6	PTC Creo
7	Brics CAD
8	Solid Edge
9	Auto CAD
10	Inventor Professional
11	Autodesk CAM
12	Autodesk Simulation
13	Vault
14	Fusion Lifecycle
15	Tinkercad

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

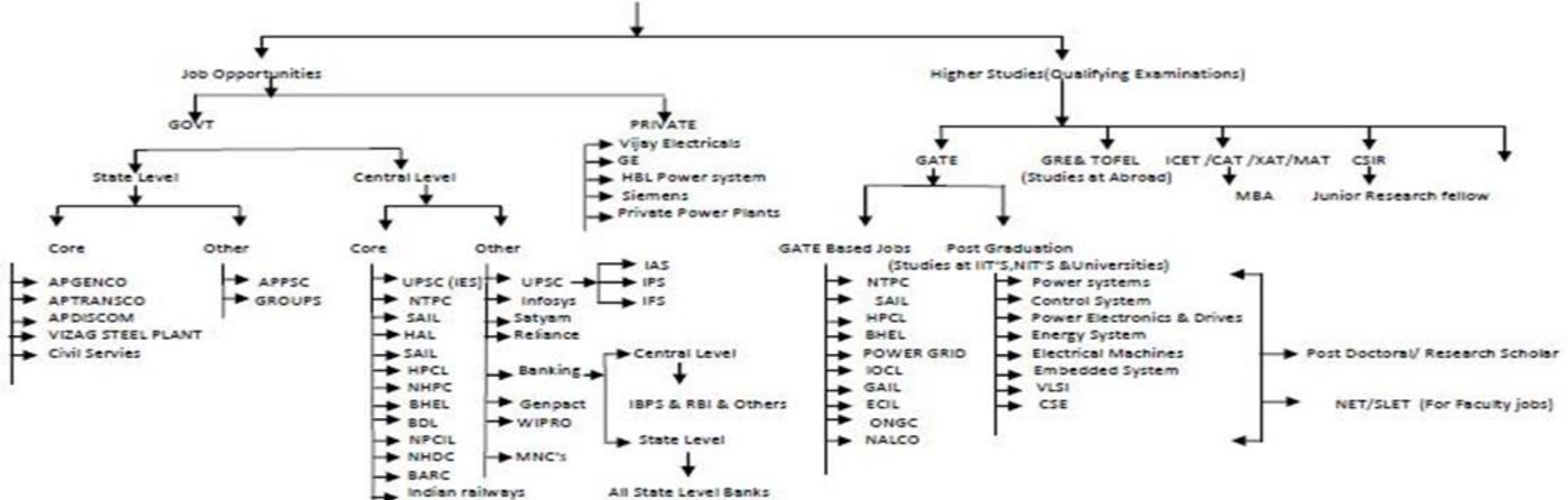
EMTP-RV

ARM

Orcad

JOB Category	Companies
Industrial Automation	ABB , Seimens , Schneider Electric , Rockwell Automation
Substation Automation	ABB, Seimens, Alstom , Areva , 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



Electronics and Communication Engineering



Electronics and Communication Engineering		
JOB Category	Required Skill Set	Job Openings
VLSI	Verilog and VHDL	VLSI Jobs
Circuit Design	Electronics Circuit Design Basics	Circuit Design Jobs
Chip Design	Transistor Process technology , Microprocessors	Embedded Jobs
Mobile Communications	Network Switching, Communication Basics, Voice over Internet protocols and interactive voice recognition	Telecom Jobs
Networking	CCNA or CCNP Certification.	CCNA CCNP Jobs
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.....



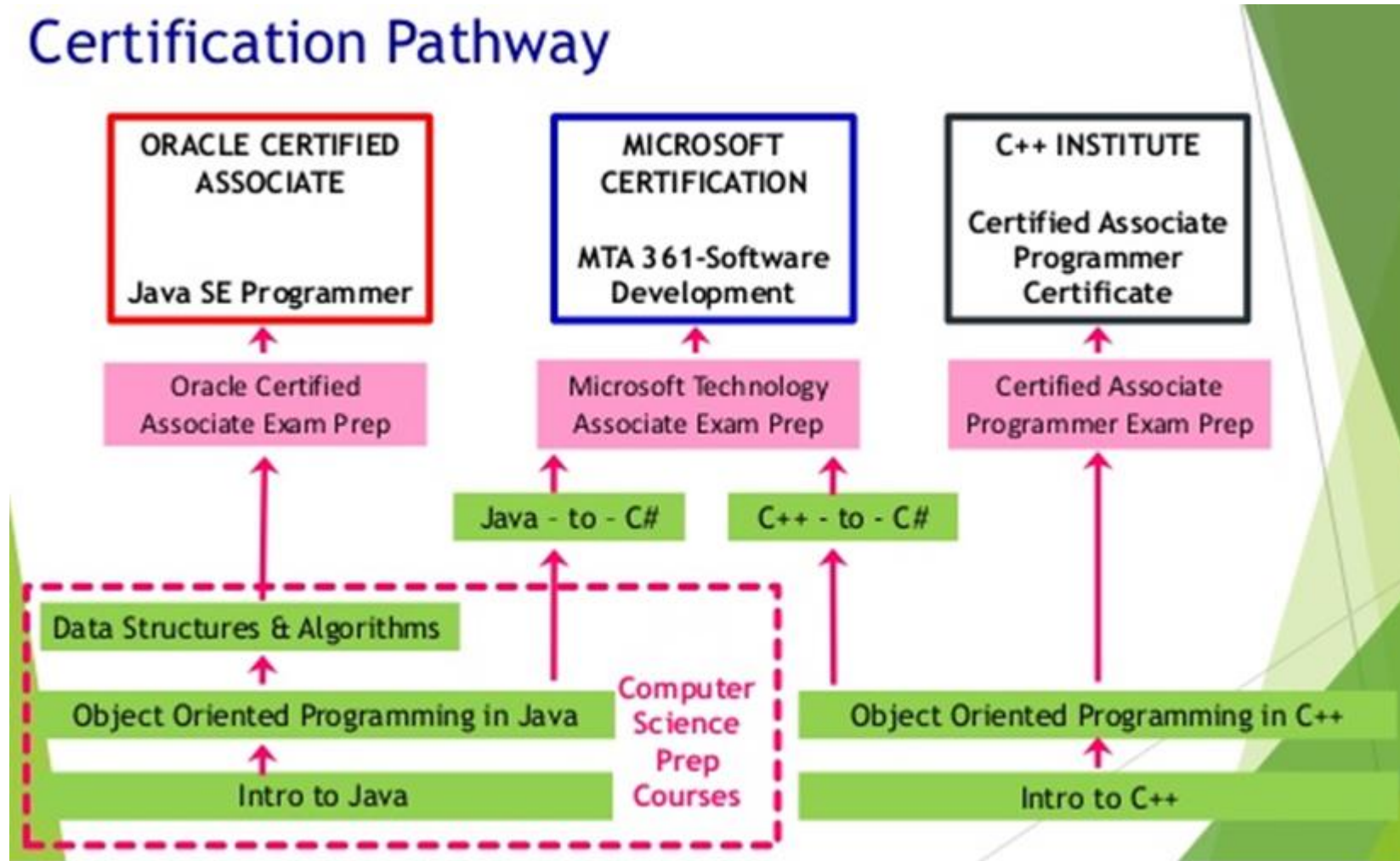
Computer Science and Information Technology



Computer Science and Information Technology

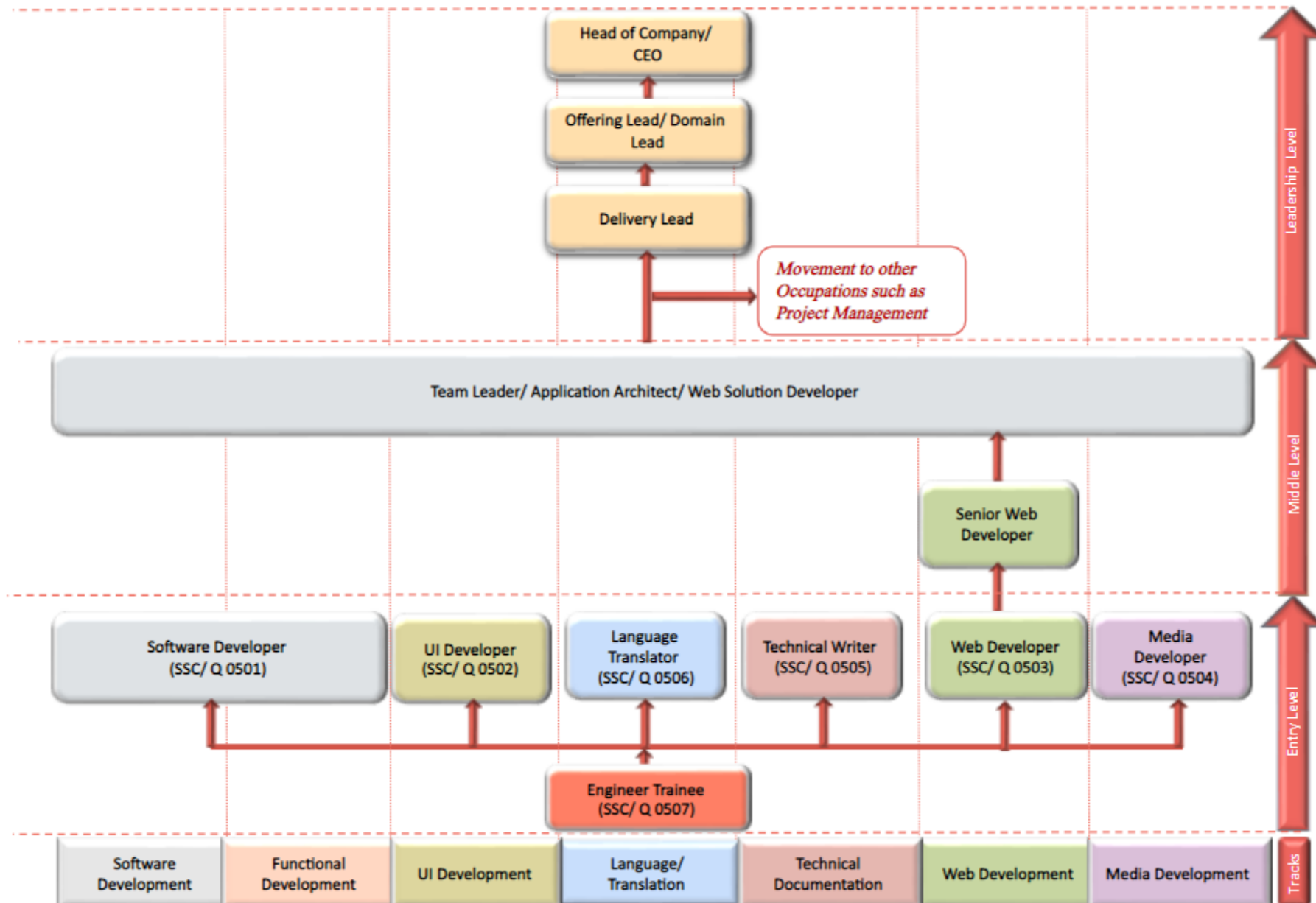


Certification Pathway

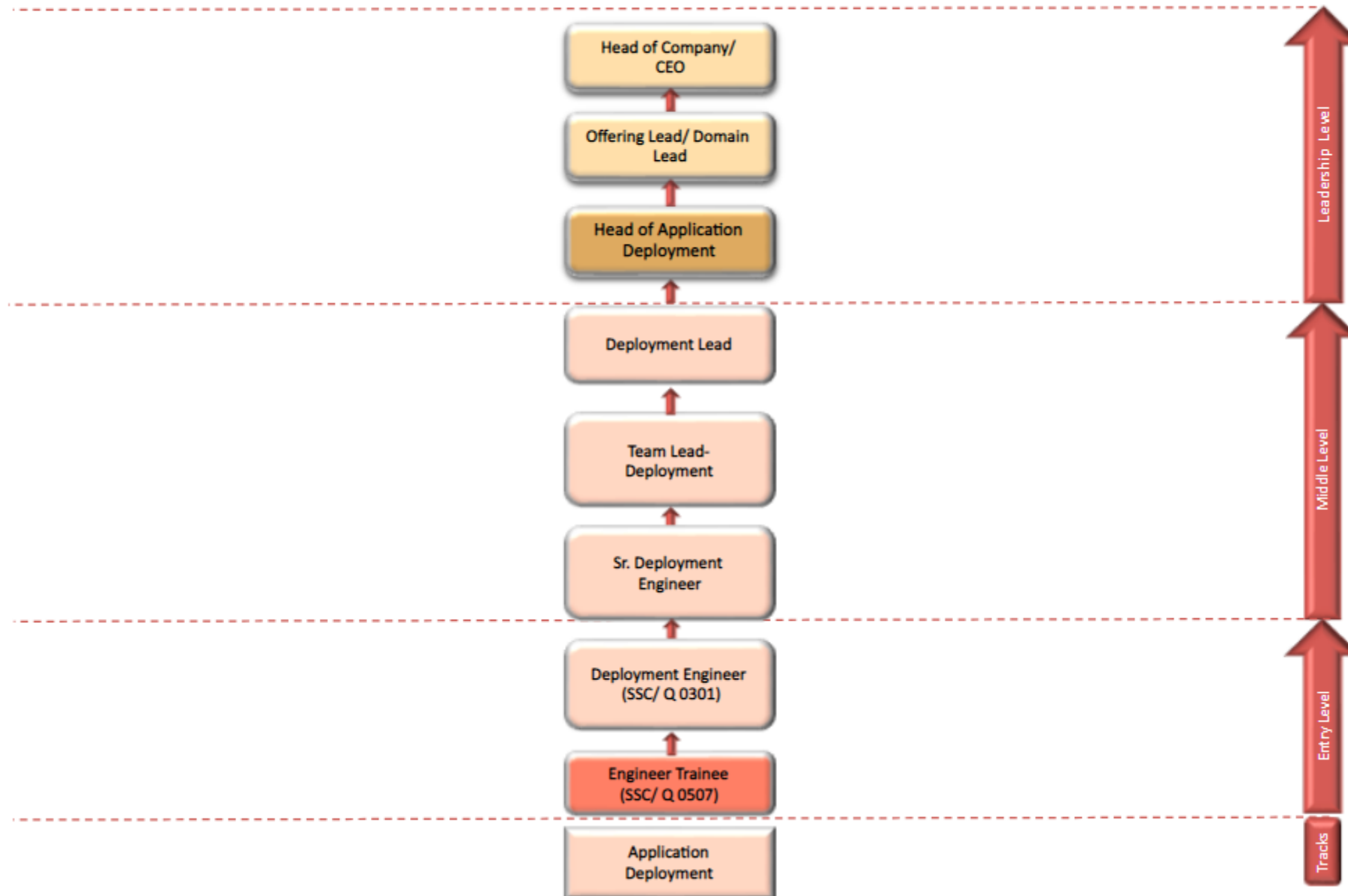


Steps in Information Technology Jobs

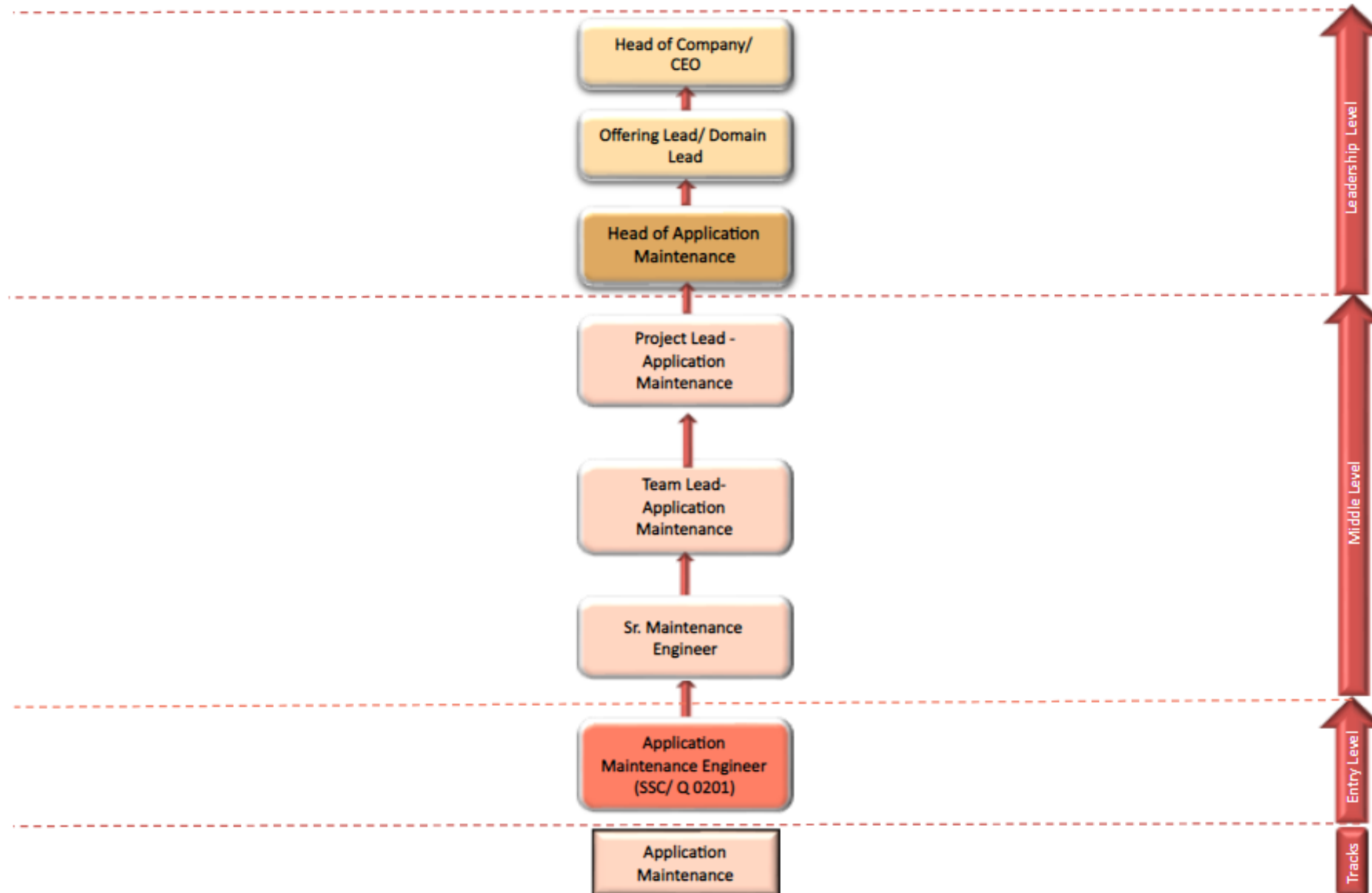
Career Map for Application Development



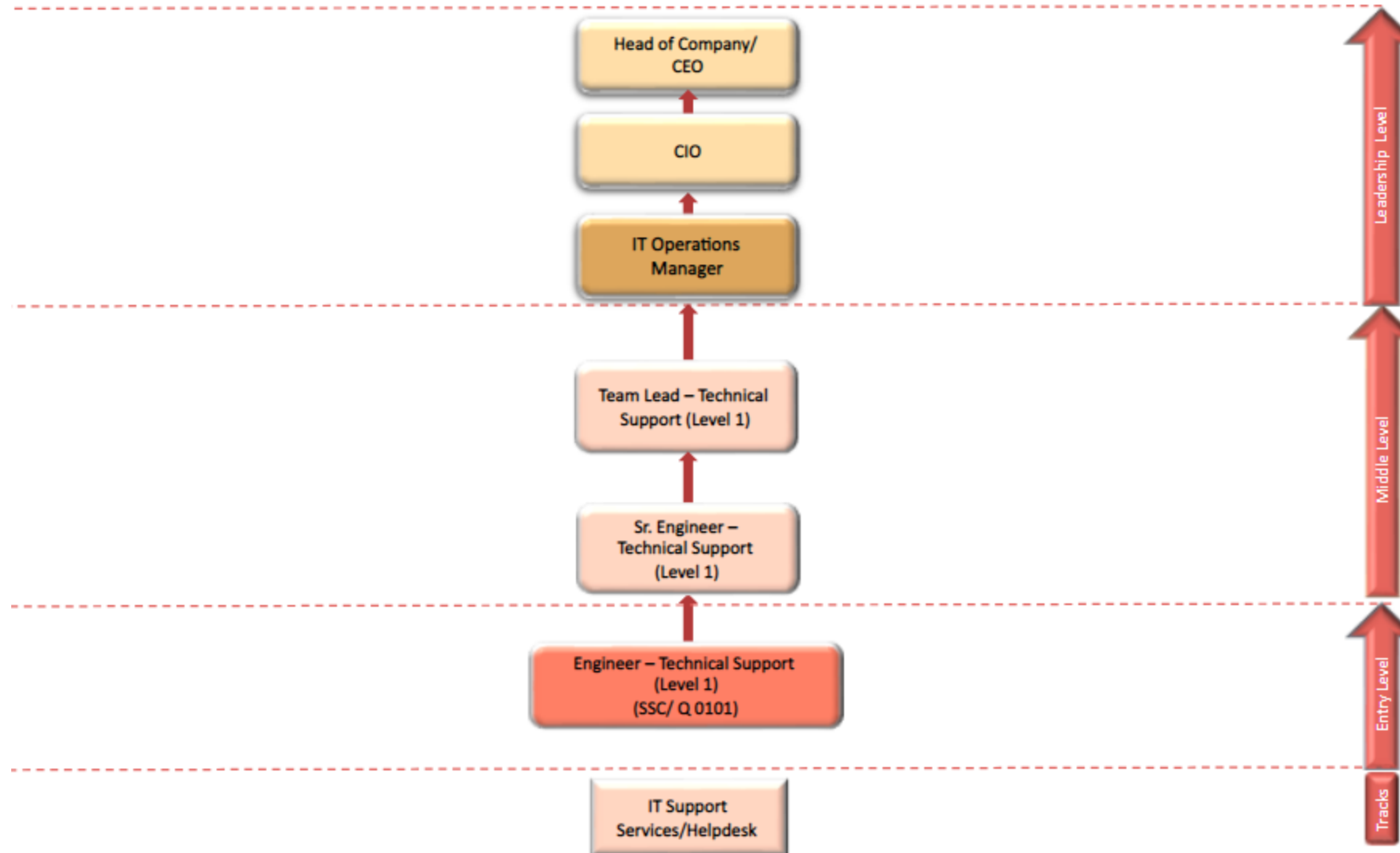
Career Map for Application Deployment



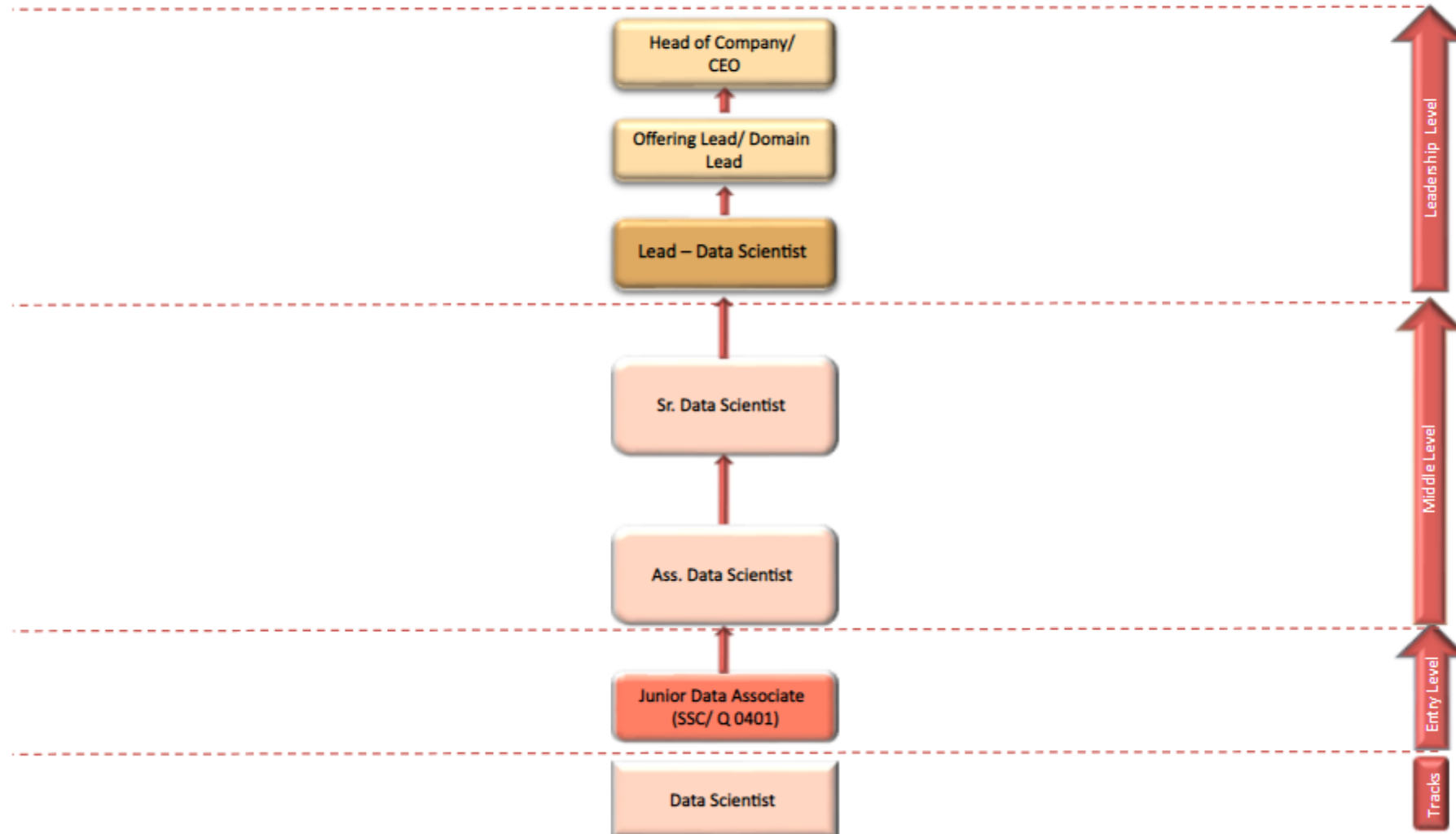
Career Map for Application Maintenance



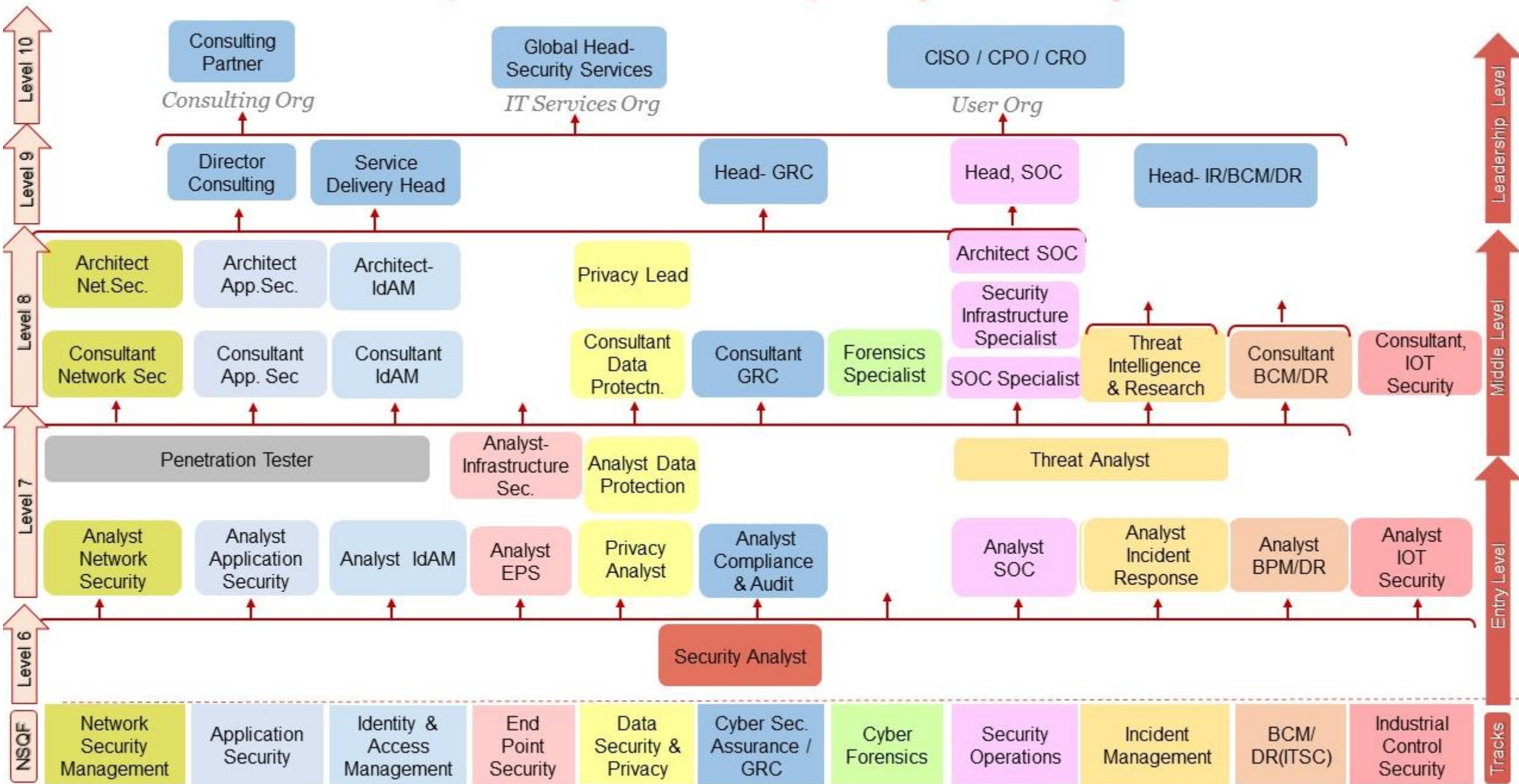
Career Map for IT Support Services/Helpdesk



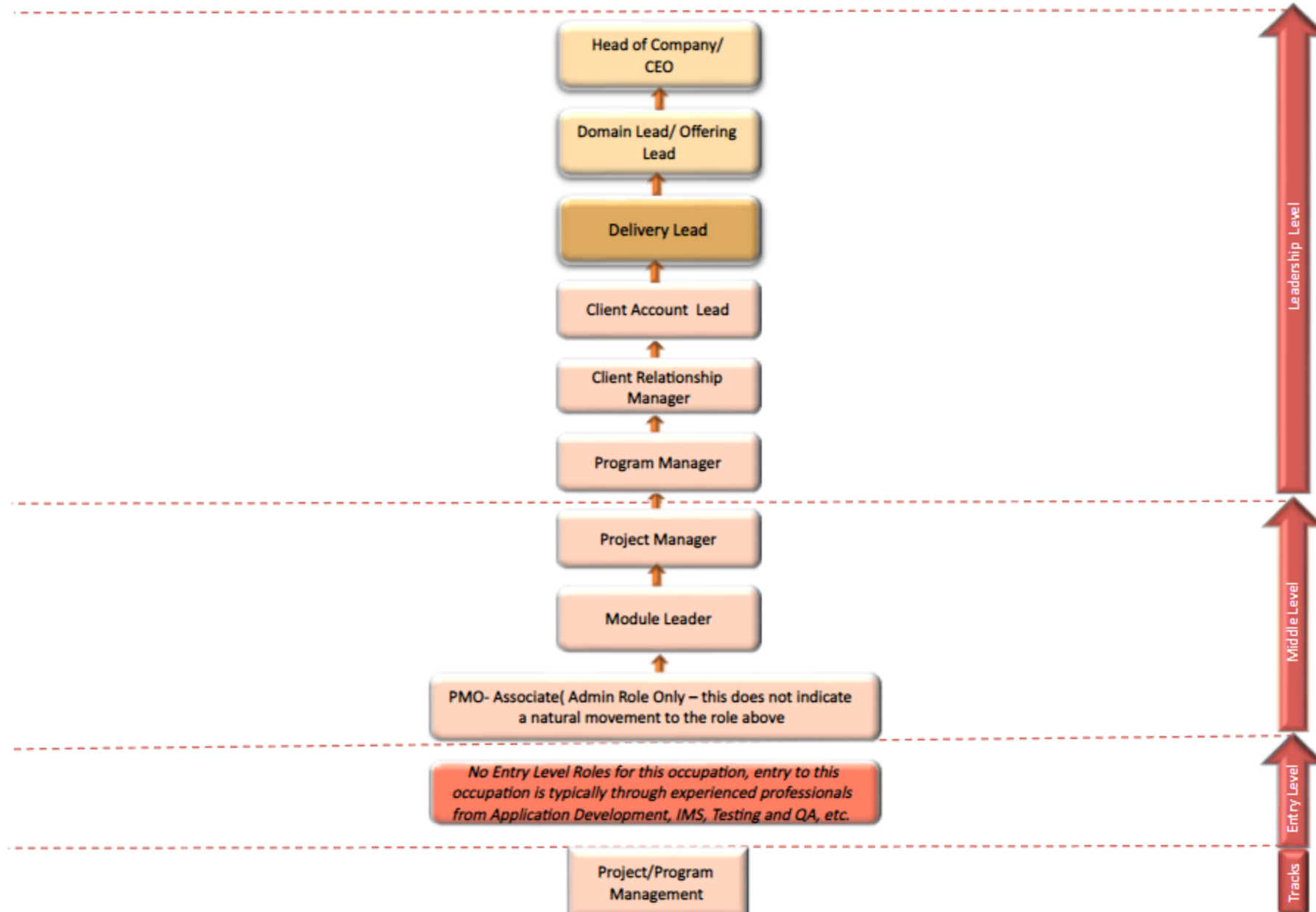
Career Map for Data Scientists



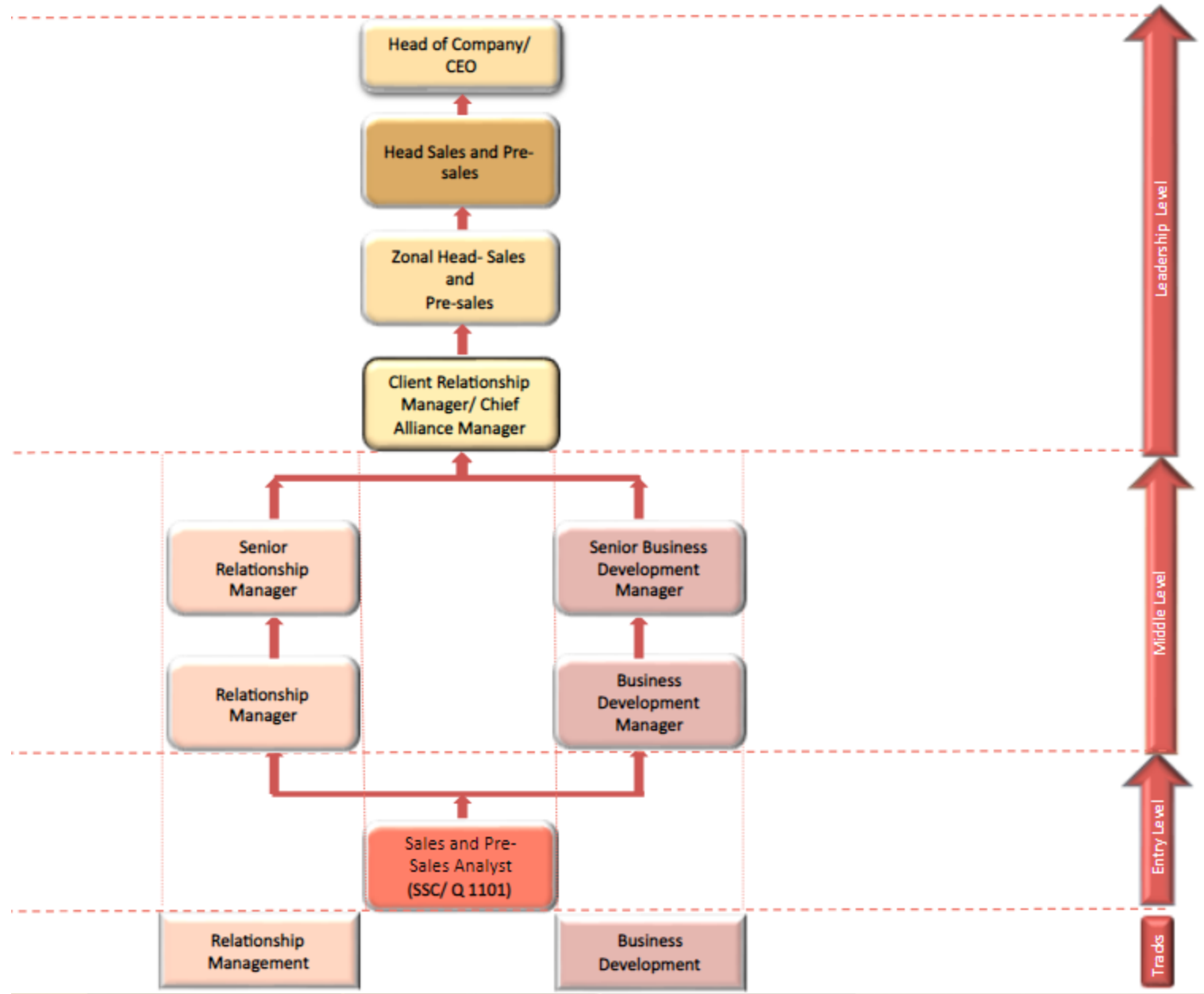
Occupation cum Career Map for Cyber Security



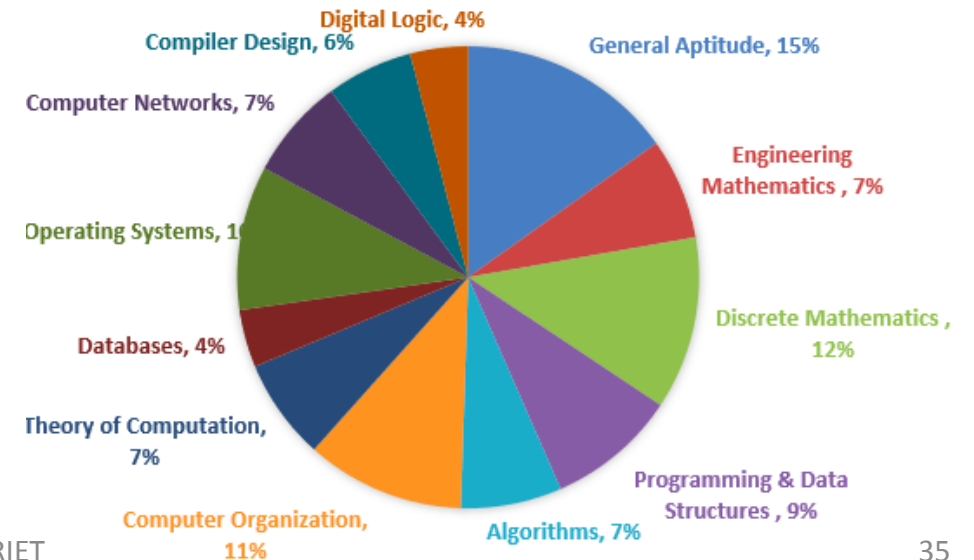
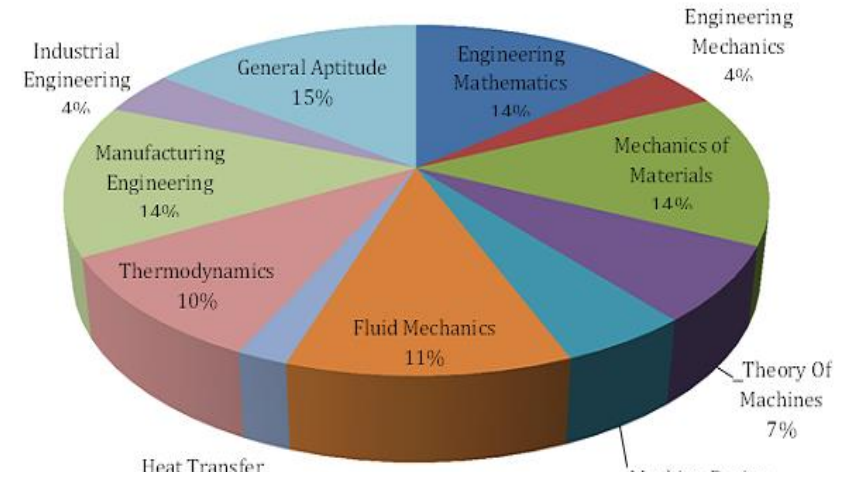
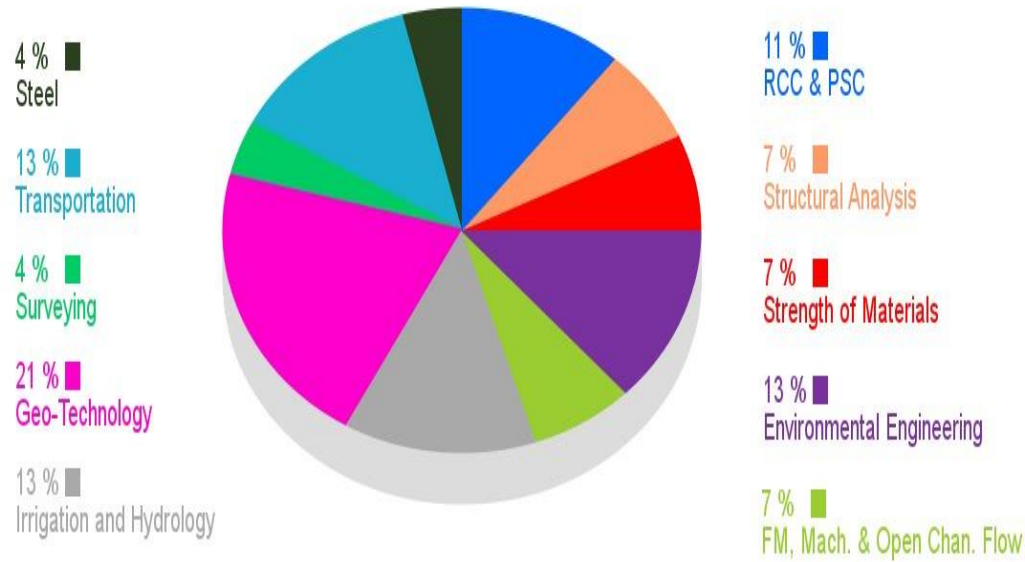
Career Map for Project/Program Management



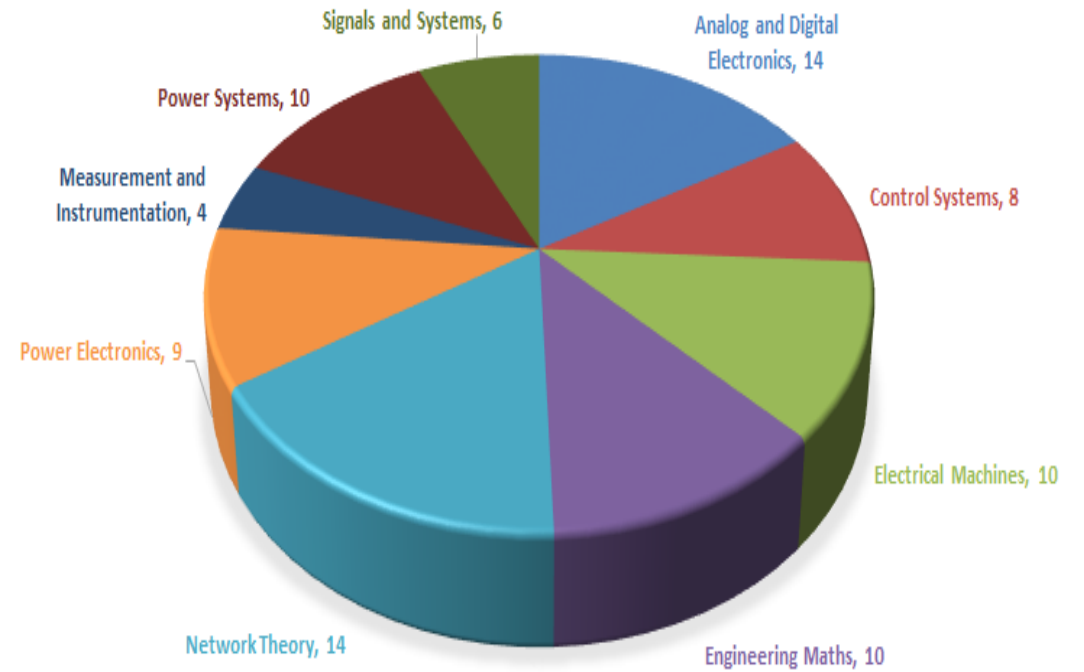
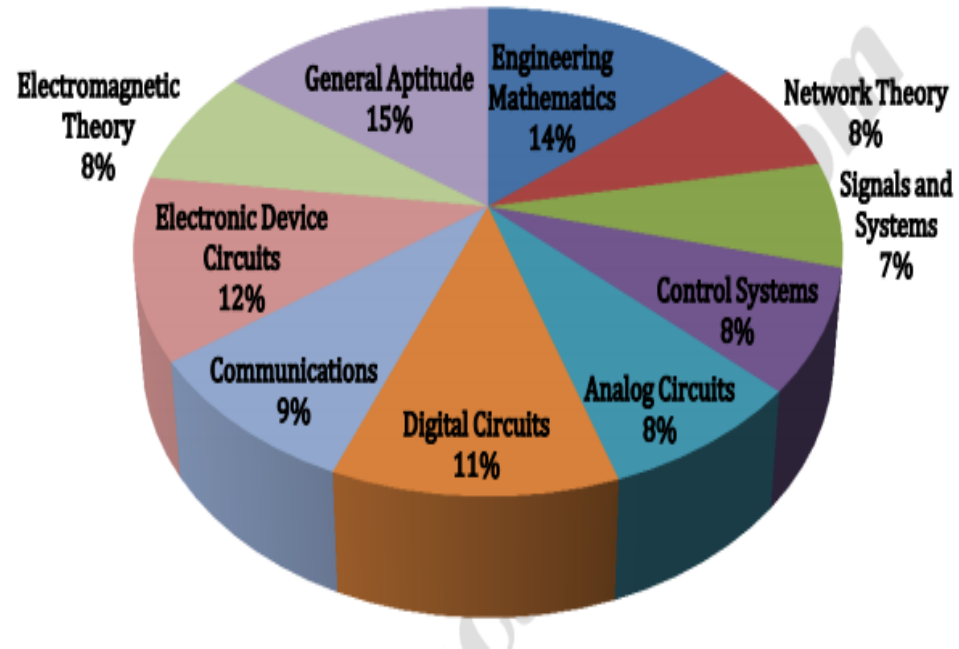
Career Map for Sales and Pre-sales



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



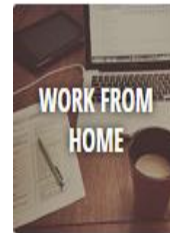
National
Digital Library
of India

Internships

<https://internshala.com>



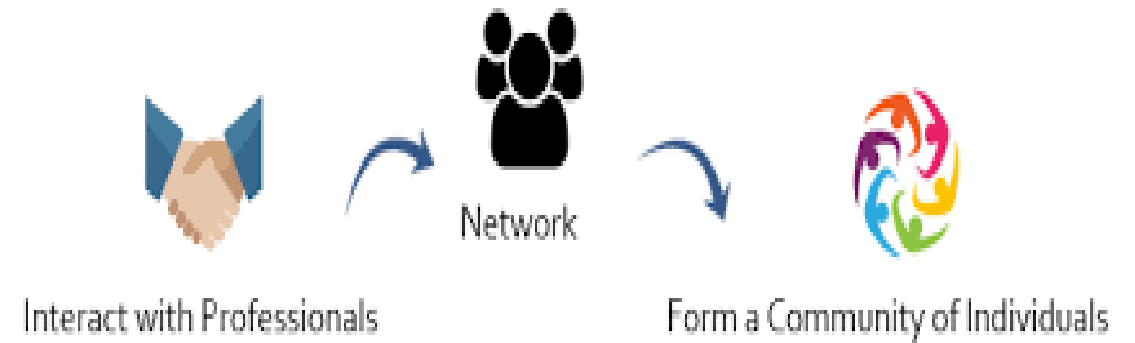
Internships in popular cities



Internships in popular categories



Skill Development



Sports and Games are Required?



Best Options?



Success Formulas?



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