

11 years ago

When I started my career journey, I failed to ask the right questions; I failed to take inventory of my skills, and I failed to take charge of my career. I left it in the hands of others to decide ...

WEBINAR PRESENTATION

BRIDGING THE GAP: FROM CLASSROOM TO CAREER IN POWER & ENERGY

Electrical Engineering Students,
University of Jaffna, Sri Lanka



Career highlight

- ❖ Senior Electrical Engineer
- ❖ Power Systems Engineer
- ❖ Electrical Engineer
- ❖ Shift Electrical Engineer
- ❖ Field Operator
- ❖ Assistant Electrical Engineer

Volunteer

- IEEE Senior Member
- IEEE YP Climate and Sustainability Task Force – Communication Lead
- CIGRE Working Group (WG) C3.25 Contributor (in progress)
- IEEE Standards Association (SA) – Contributor (in progress)



A global leader in 100% renewable energy: offering solutions for hydropower, wind, solar, biomass, battery storage and green hydrogen - Global Team.



A Leading Renewable Energy Engineering, Procurement & Construction (EPC) Firm - U.S.A.



A Multinational Offshore Thermal Power Generation Company - Ghana.



The Largest Power Distribution Company - Ghana.



A Leading Renewable Energy (SOLAR & BESS) Engineering Company - U.S.A.



A Multinational Onshore Thermal Power Generation Company - Ghana.



Education

Eastern Illinois University
(EIU)



MSc. Sustainable
Energy



Kwame Nkrumah University of
Science and Technology
(KNUST)

BSc. Electrical/Electronic
Engineering

5/24/2025

License & Certifications



EIT License, New Jersey
PE license approved in May 2025



PMP



Shaibu Ibrahim, PE, PMP, NABCEP PVIP

The Student Life

- Endless assignments
- Research and publications
- Meet new people and make friends
- Interviews – internships or full-time



Assignments



Research



Friendship



Interviews

The Excitement

- Happy to step out of school
- No more assignments
- Happy to start making a decent amount of money – who doesn't like this?
- Immediate sense of freedom – how long will that last?

The joy

The hope

The believe

The promise

of the future: ...



Responses

What is your biggest worry about life after graduation?



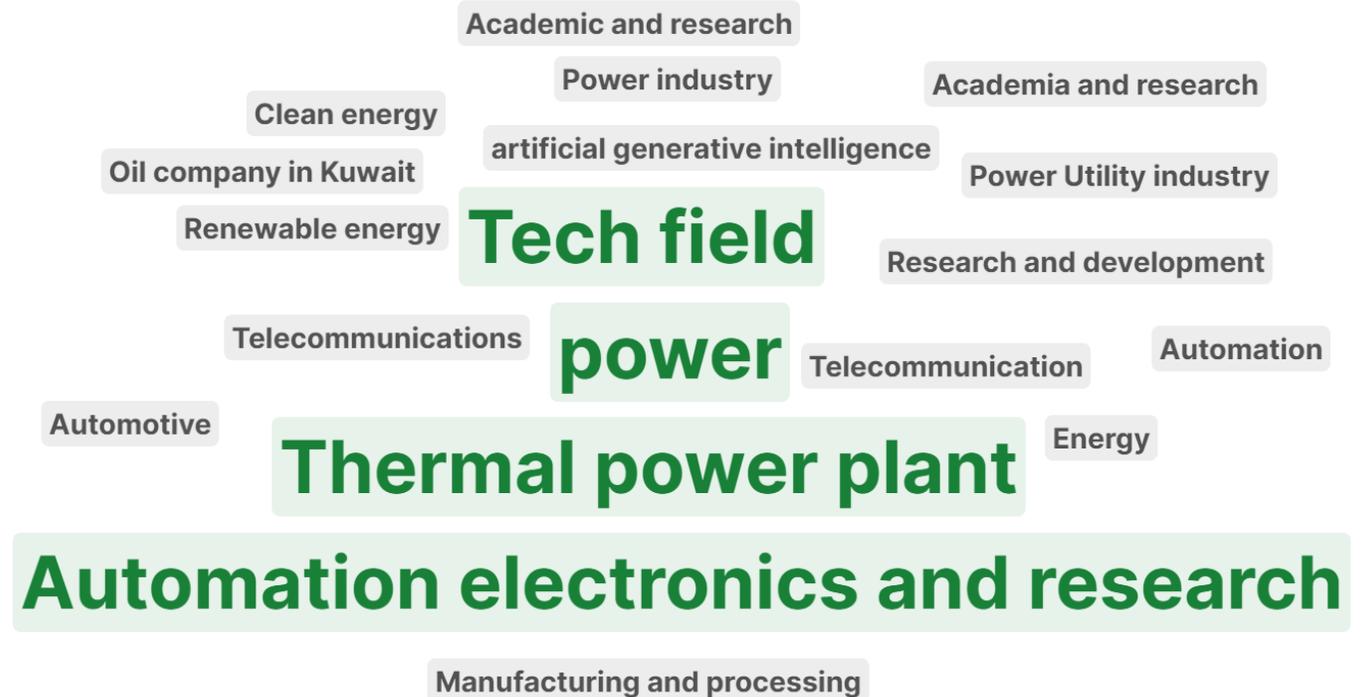
Responses

What skills do you think you need to improve the most before entering the workforce?

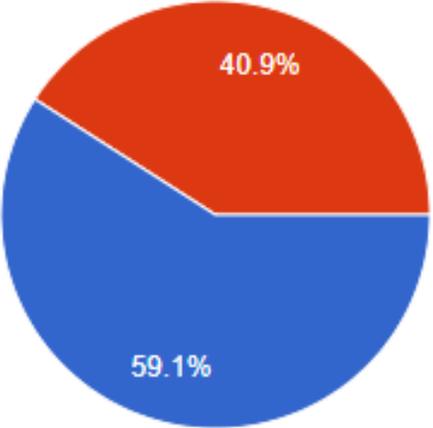


Responses

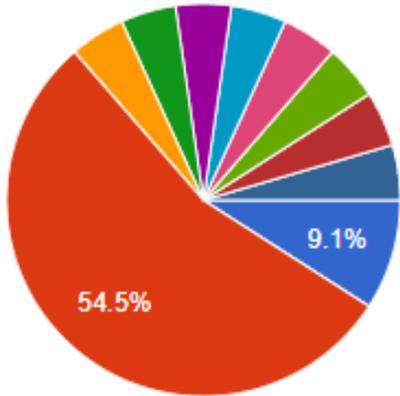
Which industry do you intend to work in after graduating?



A survey from people I helped

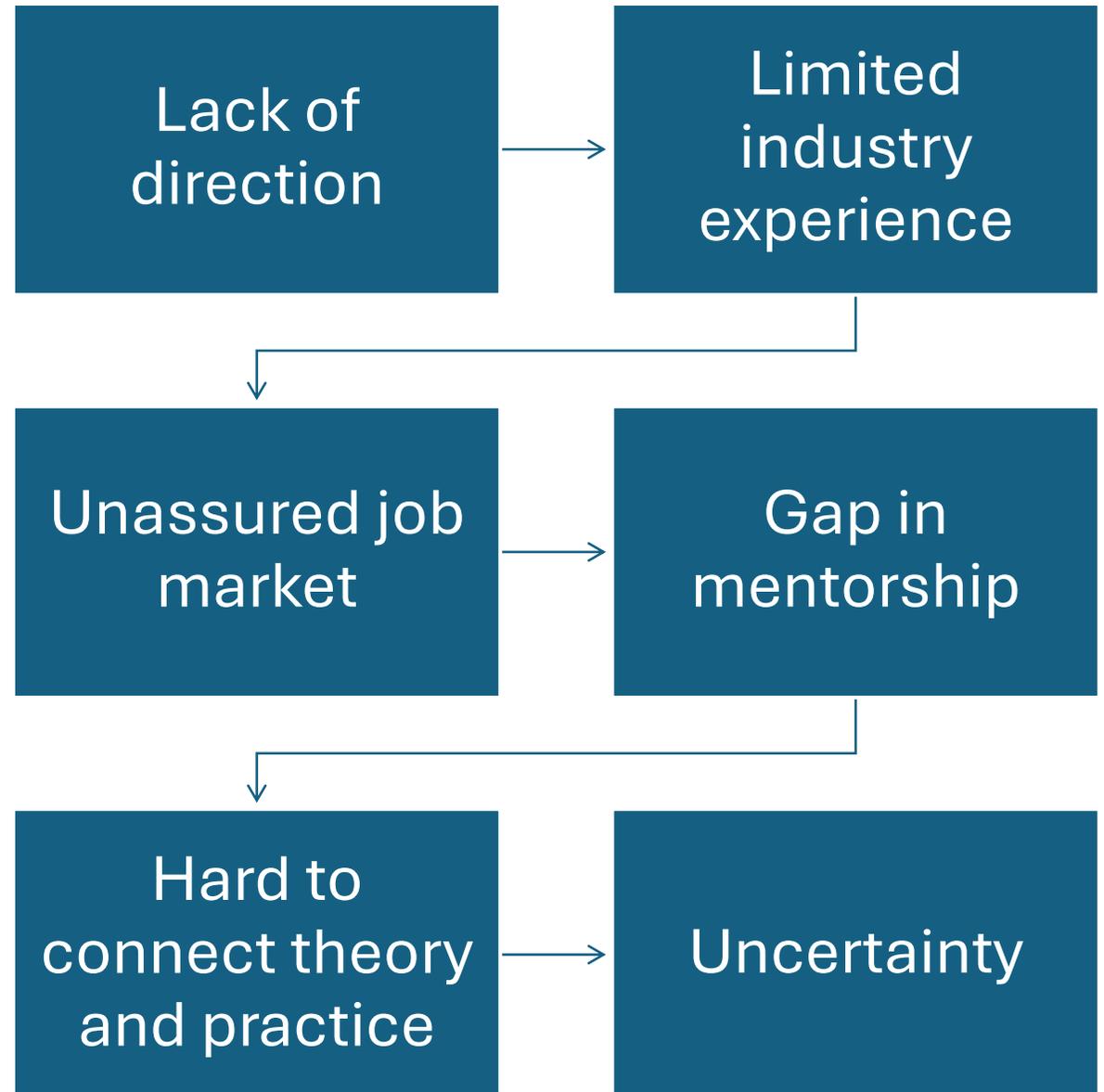


- Student
- Professional



- Mentorship
 - Career Guidance
 - Research Collaboration
 - I have multiple issues in mind:(I want...
 - As far as i concern, at the certain poin...
 - Internship
 - To have intentional growth and develo...
 - I want assistance with advices on how...
- ▲ 1/2 ▼

Common Challenges



Jobs in Sri Lanka



Securing a job may be difficult



This is common in most places around the world



However, we need the:



Right Mindset

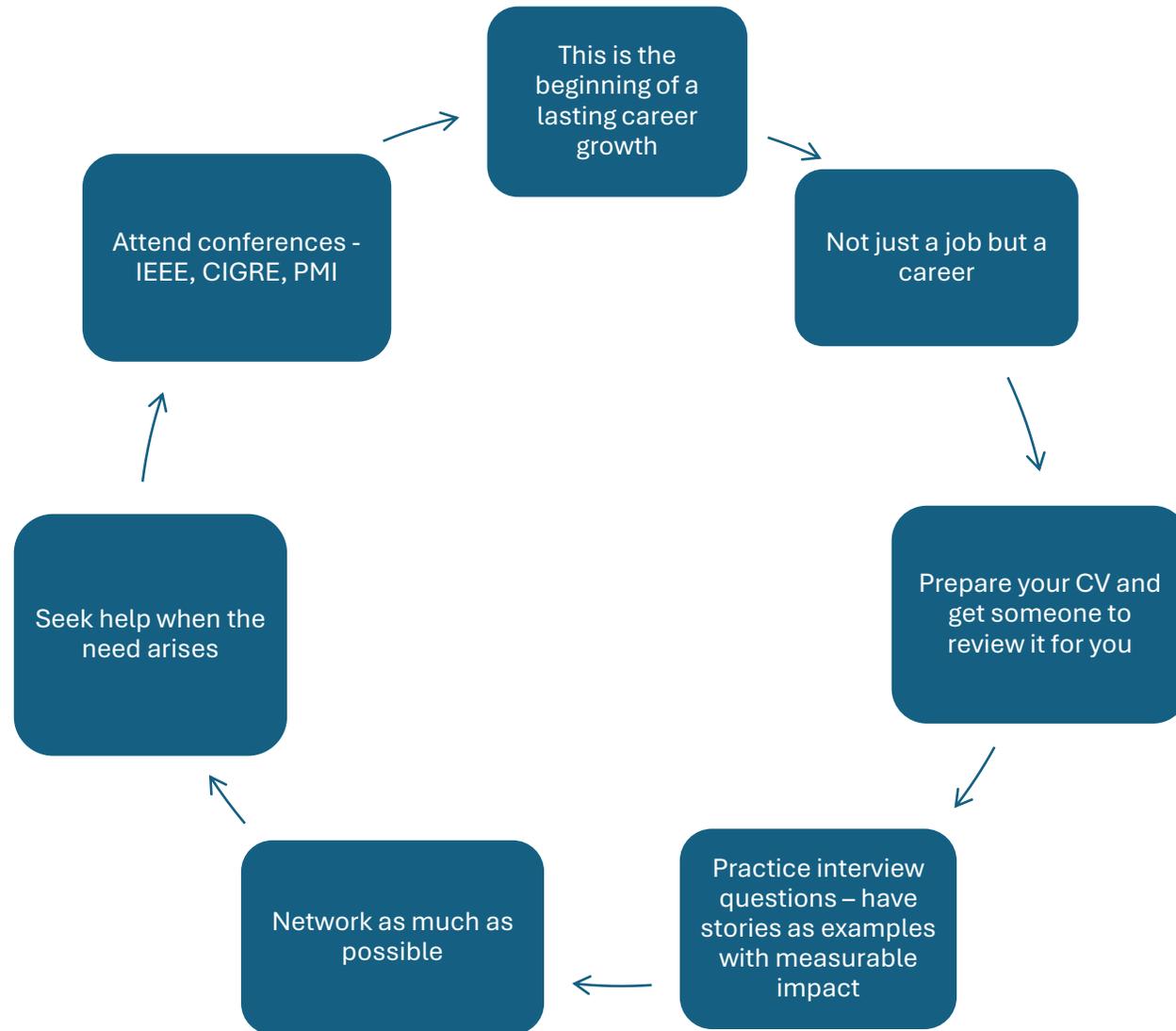


Right Approach



There will always be jobs for those who are always ready!

The Right Mindset and Tools



Opportunities and Industry

You may become ...

Electrical
Design Engineer

Protection and
Control
Engineer

Automation
Engineer

Substation
Engineer

Interconnection
Engineer

Studies
Engineer

Energy Planner

Field Service
Engineer

Consultant

Renewables & Storage

- Solar photovoltaic (PV)
- Wind
- Hydro
- Geothermal
- Biomass

Renewables and Battery Energy Storage Systems



Conventional Power Generation

Conventional/Traditional

- Natural gas fired
- Coal
- Nuclear



Communication

- Telecoms
- Data centers
- Energy infrastructures
- Power plants

Telecommunications industry



Manufacturing industry

Manufacturing

- Electrical equipment
- Automobiles
- Food processing
- Beverages
- Electronics & semiconductors
- Chemicals & pharmaceuticals
- Aerospace



Oil and Gas Sector

- Oil and gas exploration
- Drilling & production
- Gas processing
- Oil refineries

Oil and Gas industry



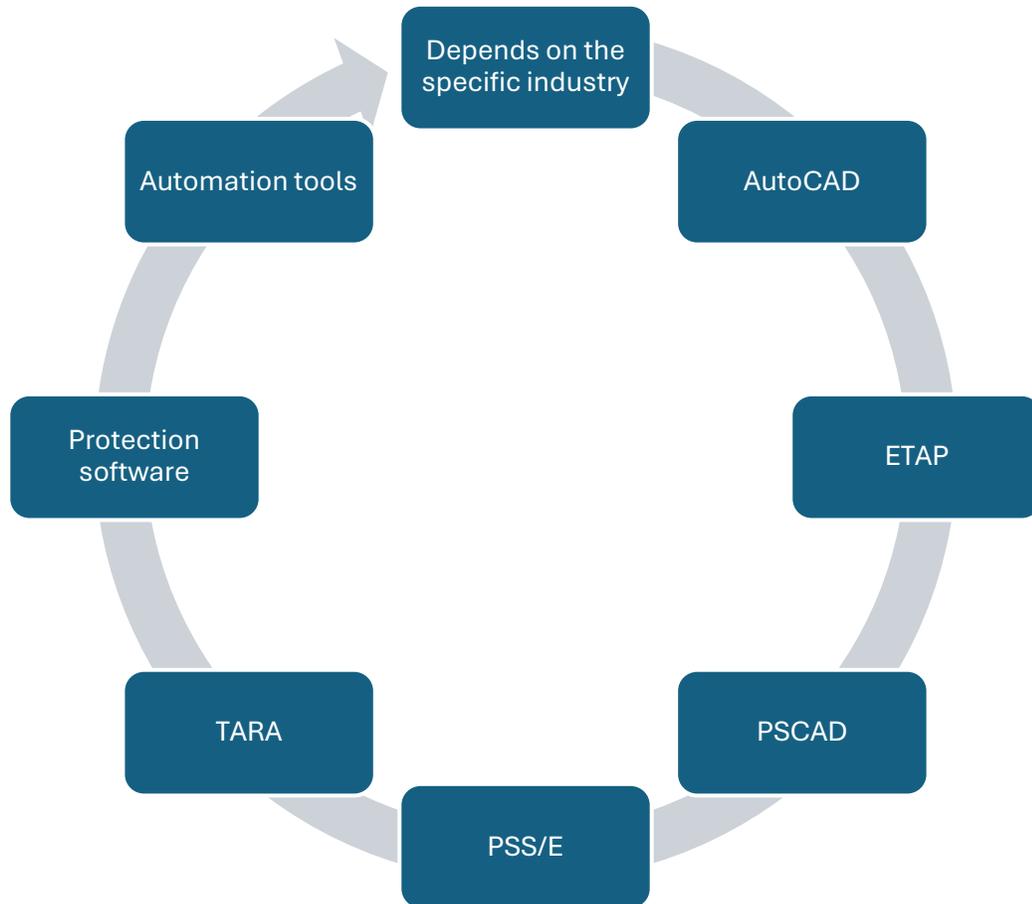
Substation and Utilities

- Transformers
- Circuit breakers
- Disconnect switches
- Surge Arresters
- Instrument transformers (CTs & VTs)
- Post insulators
- Busbars
- Cables/Lines
- Towers ...

Utilities

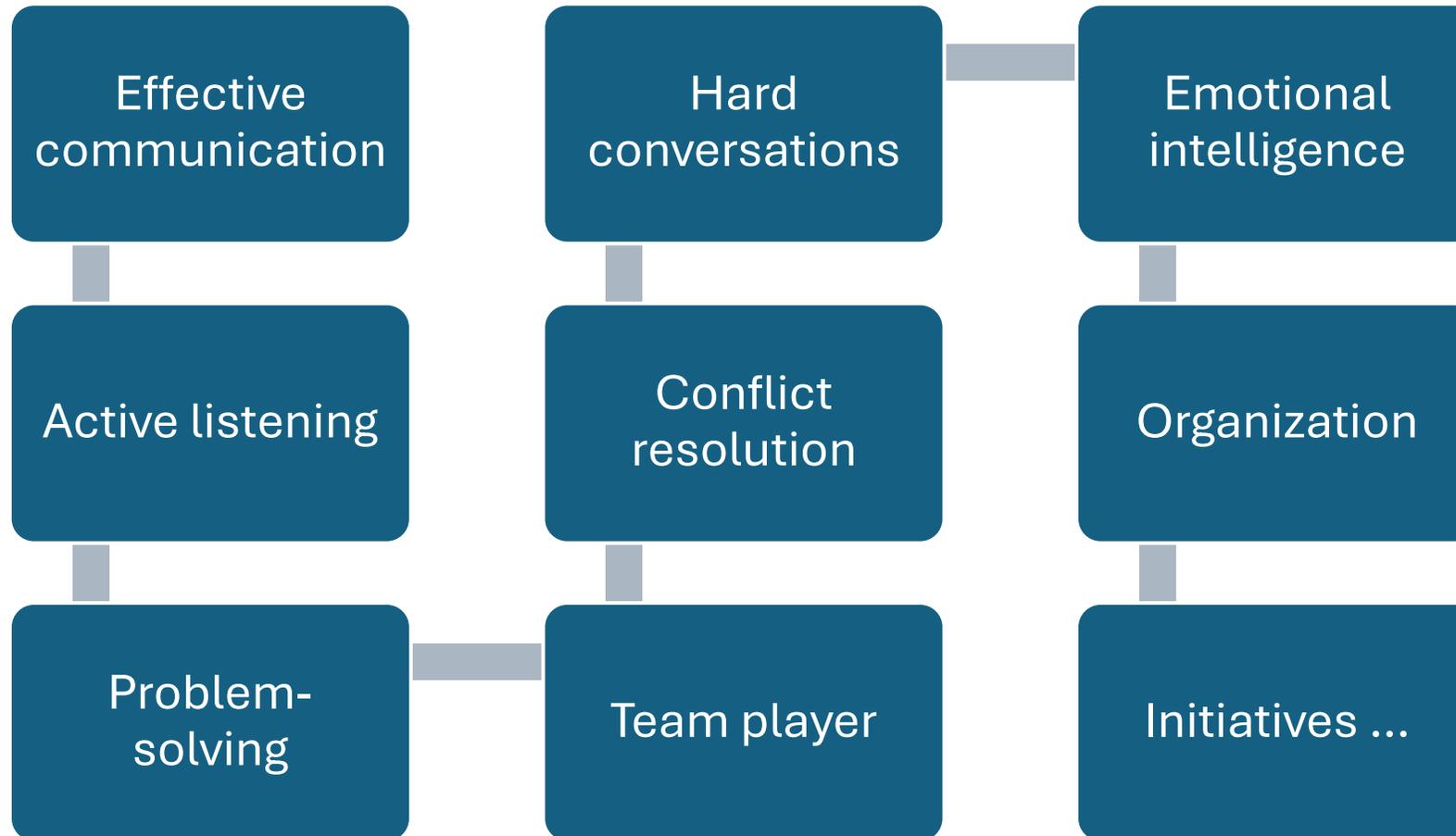


Relevant Technical Skills and Tools you need



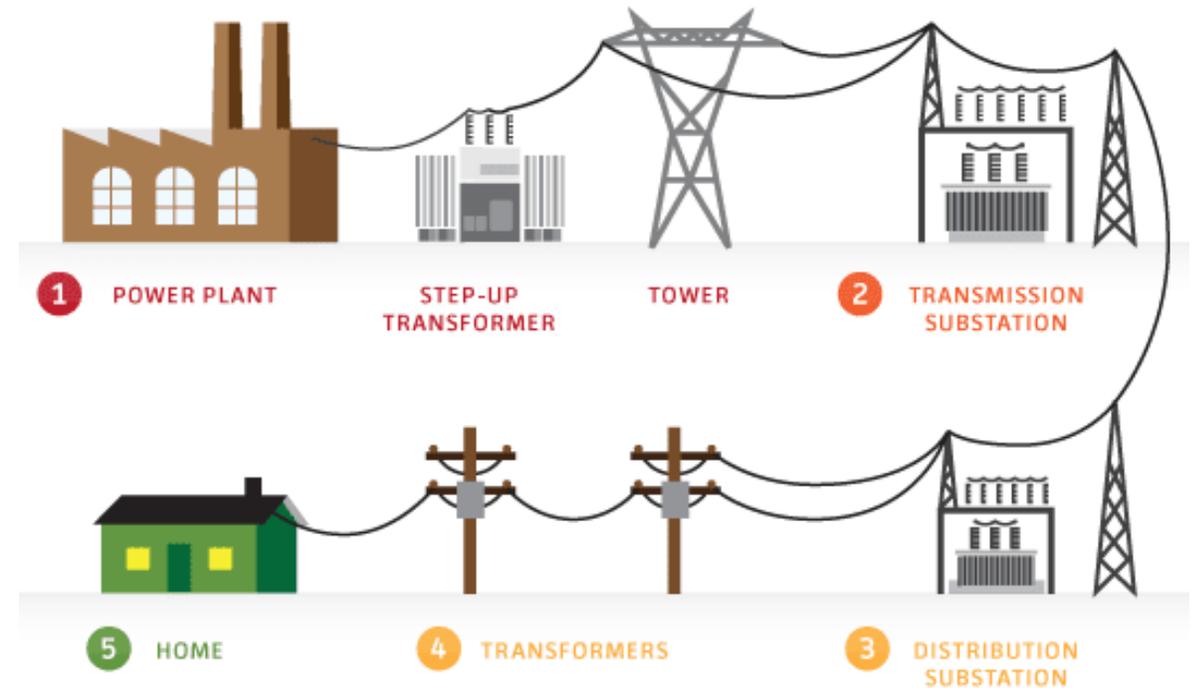
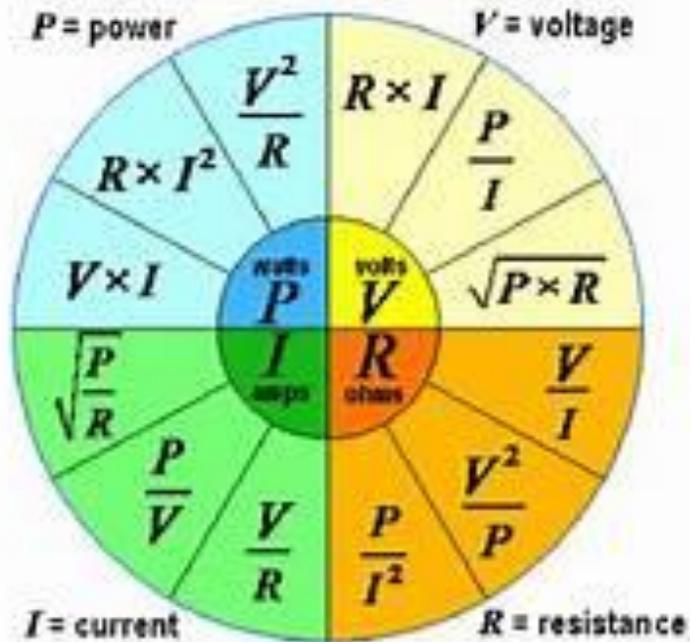
- NEPLAN
- MATLAB
- CYME
- PowerWorld
- ASPEN OneLiner
- DiGSILENT
- WinIGS
- SKM Power Tools
- IEEE/IEC Standards

Critical Non-Technical Skills



Relationship between Theory and Practice

Electricity Basic Formula



How do you Bridge the Gap Between School and Industry?



BE INTENTIONAL -
DESIGN YOUR CAREER



IDENTIFY YOUR CAREER
INTEREST



TAKE INVENTORY OF
YOUR SKILLS



DID YOU FIND GAPS?



INTERNSHIPS – GOOD TO
START



TAKE TRAINING OR
CERTIFICATIONS TO
NARROW YOUR SKILLS
GAP



LOOK OUT FOR MENTORS
– A LONG-TERM CAREER
COACH



JOIN PROFESSIONAL
INDUSTRY
ORGANIZATIONS LIKE
IEEE, CIGRE

Summary



IT'S NOT TOO LATE
TO FIX ANYTHING



STAY CURIOUS AND
ASK QUESTIONS



DISCOVER
YOURSELF



AND WHATEVER YOU
DO, FIND YOUR TRUE
PURPOSE



BEST WISHES

Thank you
for attending

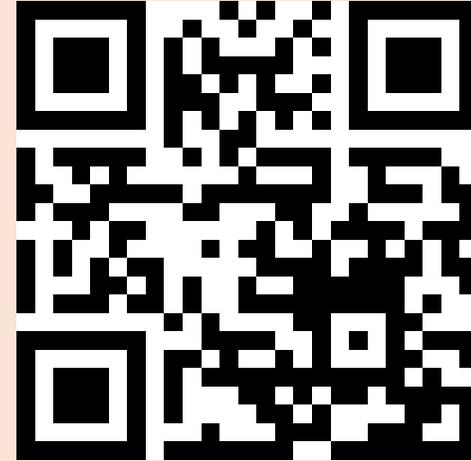
Special thanks to the
organizers

Himal Raveen and
the IEEE PES Branch,
University of Jaffna

Feel free to ask



What I do in my free time



- Volunteer
- Watch comedy
- Network with like-minded
- Content creator – shailearning.com
- Feel free to connect with me via my blog
 - Or on LinkedIn.